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GOVERNMENT OF INDIA

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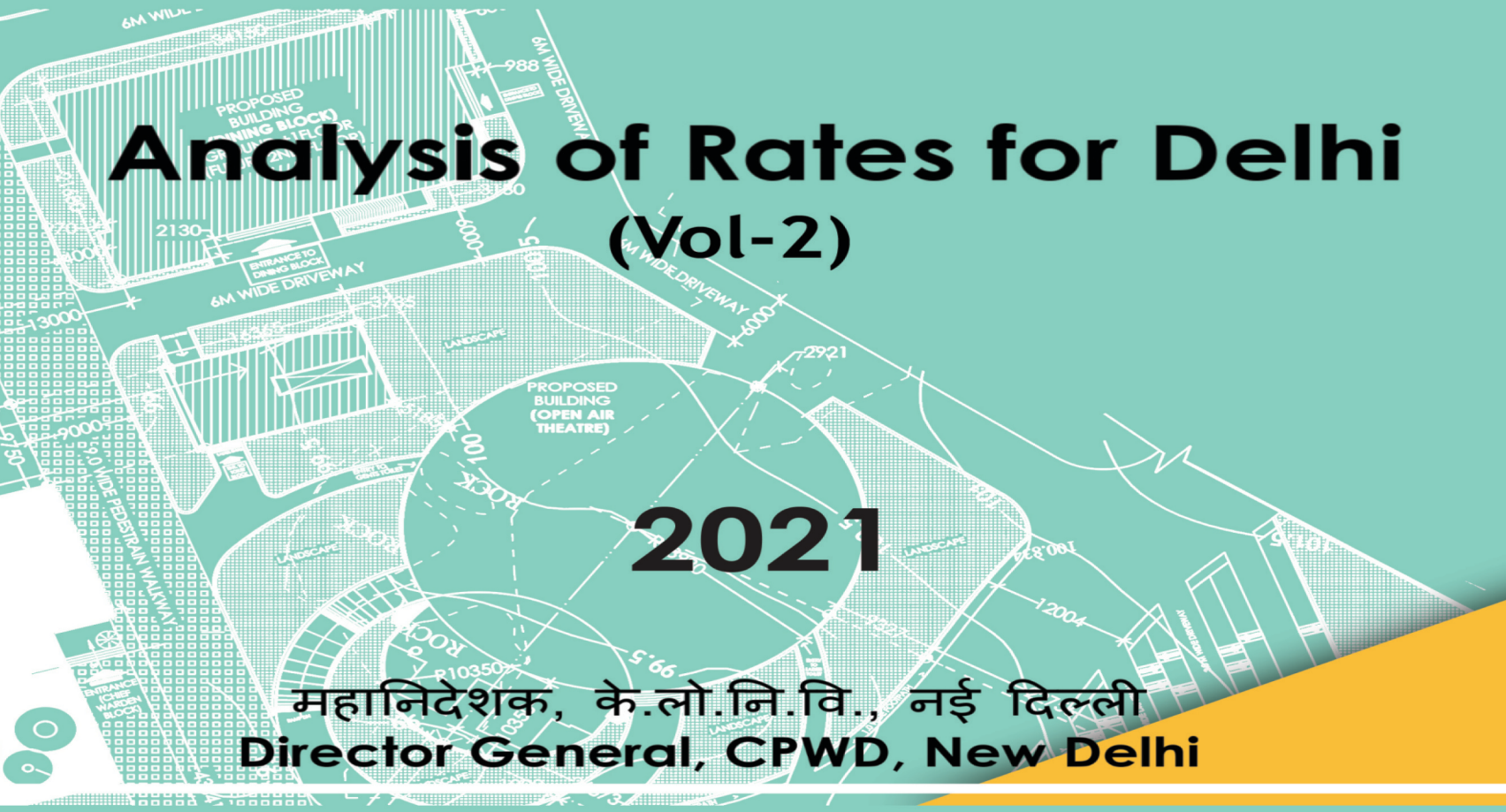
CPWD

CENTRAL PUBLIC WORKS DEPARTMENT



Analysis of Rates for Delhi

(Vol-2)

2021

महानिदेशक, के.लो.नि.वि., नई दिल्ली

Director General, CPWD, New Delhi

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(VOL. 2)

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CPWD

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For feedback and suggestions, please contact SE(TAS),CPWD, Room No. 418, "A" Wing, Nirman Bhawan, New Delhi- 110011. Tel No. 01123062339. Email: delsetascsq.cpwd@nic.in

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Vinit Kumar Jayaswal
Director General

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FOREWORD

Central Public Works Department Delhi Analysis of Rates 2021 is a comprehensive and useful document forming basis for the rates of various items of DSR 2021. It is based on scientific assessment of inputs of materials, labour and machinery in various items of work normally involved in civil works.

It was first compiled in the year 1950, followed by subsequent publications or revisions in the years 1955, 1962, 1972, 1977, 1985, 1997, 2007, 2012, 2013, 2014, 2016 and 2019.

Last edition of Delhi Analysis of Rates was published in the year 2019. Revision of this DAR has become necessary due to changes in wages of labour and prices of materials, adoption of new construction technologies & materials as well as implementation of GST. This has necessitated revision of existing Delhi Analysis of Rates 2019.

I wish to place on record the technical input and effective coordination on the part of Shri D.C.Goel ADG (Tech.), Shri Vinayak Rai CE (CSQ) (Civil) and the sincere efforts put in by Shri Divakar Agrawal SE (TAS), Shri S.N.Jaiswal EE(TAS), Shri Mukesh Varma Chief Estimator, Shri Naveenkumar P JE (TAS), Shri Chalapaka Ramaraju JE (TAS) and team of officers in CSQ unit in preparation and finalizing the DAR 2021 in a short time.

I am sure that Delhi Analysis of Rates 2021 will be useful to all the engineers and architects in Building Construction Industry in general and CPWD in particular.

(Vinit Kumar Jayaswal)
Director General

Place : New Delhi
Date : July 12, 2021

Dharmesh Chandra Goel
Addl. Director General (Tech)

भारत सरकार
Government of India

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PREFACE

1. CPWD Delhi Analysis of Rates 2021 is the revised edition of CPWD Delhi Analysis of Rates for Delhi 2019.

2. Delhi Analysis of Rates 2021 incorporates all the analysis of items of Delhi Schedule of Rates 2019 with updated correction slips, including analysis of existing items and also corresponding new items introduced in DSR 2021.

3. Delhi Analysis of Rates 2021 is published in two volumes as under:

Volume Number	Sub-head No.	Content/ Sub-head
One	00	Basic Rates
	01	Carriage of Materials
	02	Earth Work
	03	Mortars
	04	Concrete Work
	05	Reinforced Cement Concrete
	06	Masonry Work
	07	Stone Work
	08	Cladding Work
	09	Wood and PVC Work
	10	Steel Work
	11	Flooring
	12	Roofing
Two	13	Finishing
	14	Repairs to Buildings
	15	Dismantling and Demolishing
	16	Road Work
	17	Sanitary Installations
	18	Water Supply
	19	Drainage
	20	Pile work
	21	Aluminium Work

Volume Number	Sub-head No.	Content/ Sub-head
	22	Water Proofing
	23	Rain Water Harvesting & Tubewells
	24	Conservation of Heritage Buildings.
	25	Structural Glazing Aluminium Composite Panel
	26	New Technologies and Materials

4. Delhi Analysis of Rates 2021 is based on the study of current market rates of materials at Delhi, prevailing as on or just before 01.04.2021. The basic rates of materials, incorporated in the analysis, pertain to materials conforming to BIS Standards/ CPWD Specifications/Materials of good quality generally available in the market. The effect of GST on works contracts has been incorporated in all items. Labour rates are taken from the minimum wages issued by the Government of Delhi and Govt. of India (whichever is higher) w.e.f. 01.04.2021.

5. The nomenclature of main items has been printed along with the analysis of first Sub item only to conserve the space and number of pages.

6. Sundries have been considered as 2.12 times based on Cost Index of Delhi as on 01.04.2021 which is 105 over Delhi Plinth Area Rates 2020 with base 100 as on 01.04.2020 and cost index as on 01.04.2020 which is 101 over CPWD Delhi Plinth Area Rates 2019 having base 100 as on 01.04.2019.

7. I wish to place on record the technical input and effective coordination on the part of Shri Vinayak Rai CE (CSQ) (Civil) and the sincere efforts put in by Shri Divakar Agrawal SE (TAS), Shri S.N.Jaiswal EE(TAS), Shri Mukesh Varma Chief Estimator, Shri Naveenkumar P JE (TAS), Shri Chalapaka Ramaraju JE (TAS) and team of officers in CSQ unit in finalizing the DAR 2021 in a short time.

8. I convey my gratitude to field offices at Delhi who rose to the occasion and provided sufficient data base of market rates to CSQ office and thus enabled them to come out with this edition of DAR in a short time.

9. Although due care has been taken in bringing out DAR 2021, there is possibility that some errors are still there inadvertently. Error or omission may be brought to the notice of Superintending Engineer (TAS), CPWD, Room No. 418A, A-wing, Nirman Bhawan, New Delhi -110011 (Tele fax. 011-23062339).

Suggestions for improvement are welcome.

Dharmesh Chandra Goel
ADG (Tech) CPWD

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Note: For remaining Sub Heads refer to Vol. 1

SUB HEAD : 13.0

FINISHING

13.1 12 mm cement plaster of mix :

13.1.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 fine sand)					
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3713.20	534.70	
	LABOUR					
0155	Mason (average)	day	0.67	749.00	501.83	
0115	Coolie	day	0.75	645.00	483.75	
0101	Bhisti	day	0.92	714.00	656.88	
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73	
	TOTAL				2203.89	W
	Add 1 % Water charges on "W"				22.04	
	TOTAL				2225.93	X
	Add GST on "X" (multiplying factor 0.1405)				312.74	
	TOTAL				2538.68	Y
	Add 15% CPOH on "Y"				380.80	
	TOTAL				2919.48	Z
	Add Cess @ 1% on "Z"				29.19	
	Cost of 10.00 sqm				2948.67	
	Cost of 1.00 sqm				294.87	
	Say				294.85	

13.1.2 1:6 (1 cement: 6 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 fine sand)					
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.144	3044.30	438.38	
	LABOUR					
0155	Mason (average)	day	0.67	749.00	501.83	
0115	Coolie	day	0.75	645.00	483.75	
0101	Bhisti	day	0.92	714.00	656.88	
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73	
	TOTAL				2107.57	W
	Add 1 % Water charges on "W"				21.08	
	TOTAL				2128.65	X
	Add GST on "X" (multiplying factor 0.1405)				299.08	
	TOTAL				2427.72	Y
	Add 15% CPOH on "Y"				364.16	
	TOTAL				2791.88	Z
	Add Cess @ 1% on "Z"				27.92	
	Cost of 10.00 sqm				2819.80	
	Cost of 1.00 sqm				281.98	
	Say				282.00	

13.2 15 mm cement plaster on the rough side of single or half brick wall of mix :

13.2.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.172	3713.20	638.67
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2539.06 W
	Add 1 % Water charges on "W"				25.39
	TOTAL				2564.45 X
	Add GST on "X" (multiplying factor 0.1405)				360.31
	TOTAL				2924.76 Y
	Add 15% CPOH on "Y"				438.71
	TOTAL				3363.47 Z
	Add Cess @ 1% on "Z"				33.63
	Cost of 10.00 sqm				3397.11
	Cost of 1.00 sqm				339.71
	Say				339.70

13.2.2 1:6 (1 cement: 6 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.172	3044.30	523.62
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2424.01 W
	Add 1 % Water charges on "W"				24.24
	TOTAL				2448.25 X
	Add GST on "X" (multiplying factor 0.1405)				343.98
	TOTAL				2792.23 Y
	Add 15% CPOH on "Y"				418.83
	TOTAL				3211.07 Z
	Add Cess @ 1% on "Z"				32.11
	Cost of 10.00 sqm				3243.18
	Cost of 1.00 sqm				324.32
	Say				324.30

13.3 20 mm cement plaster of mix :

13.3.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.224	3713.20	831.76
	LABOUR				
0155	Mason (average)	day	0.94	749.00	704.06
0115	Coolie	day	1.02	645.00	657.90
0101	Bhisti	day	1.10	714.00	785.40
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				3005.85 W
	Add 1 % Water charges on "W"				30.06
	TOTAL				3035.91 X
	Add GST on "X" (multiplying factor 0.1405)				426.55
	TOTAL				3462.45 Y
	Add 15% CPOH on "Y"				519.37
	TOTAL				3981.82 Z
	Add Cess @ 1% on "Z"				39.82
	Cost of 10.00 sqm				4021.64
	Cost of 1.00 sqm				402.16
	Say				402.15

13.3.2 1:6 (1 cement: 6 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.224	3044.30	681.92
	LABOUR				
0155	Mason (average)	day	0.94	749.00	704.06
0115	Coolie	day	1.02	645.00	657.90
0101	Bhisti	day	1.10	714.00	785.40
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2856.02 W
	Add 1 % Water charges on "W"				28.56
	TOTAL				2884.58 X
	Add GST on "X" (multiplying factor 0.1405)				405.28
	TOTAL				3289.86 Y
	Add 15% CPOH on "Y"				493.48
	TOTAL				3783.34 Z
	Add Cess @ 1% on "Z"				37.83
	Cost of 10.00 sqm				3821.17
	Cost of 1.00 sqm				382.12
	Say				382.10

13.4 12 mm cement plaster of mix :

13.4.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4355.20	627.15
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2296.34 W
	Add 1 % Water charges on "W"				22.96
	TOTAL				2319.31 X
	Add GST on "X" (multiplying factor 0.1405)				325.86
	TOTAL				2645.17 Y
	Add 15% CPOH on "Y"				396.78
	TOTAL				3041.94 Z
	Add Cess @ 1% on "Z"				30.42
	Cost of 10.00 sqm				3072.36
	Cost of 1.00 sqm				307.24
	Say				307.25

13.4.2 1:6 (1 cement: 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.144	3686.30	530.83
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2200.02 W
	Add 1 % Water charges on "W"				22.00
	TOTAL				2222.02 X
	Add GST on "X" (multiplying factor 0.1405)				312.19
	TOTAL				2534.21 Y
	Add 15% CPOH on "Y"				380.13
	TOTAL				2914.35 Z
	Add Cess @ 1% on "Z"				29.14
	Cost of 10.00 sqm				2943.49
	Cost of 1.00 sqm				294.35
	Say				294.35

13.5 15 mm cement plaster on rough side of single or half brick wall of mix:

13.5.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.172	4355.20	749.09
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2649.49 W
	Add 1 % Water charges on "W"				26.49
	TOTAL				2675.98 X
	Add GST on "X" (multiplying factor 0.1405)				375.98
	TOTAL				3051.96 Y
	Add 15% CPOH on "Y"				457.79
	TOTAL				3509.75 Z
	Add Cess @ 1% on "Z"				35.10
	Cost of 10.00 sqm				3544.85
	Cost of 1.00 sqm				354.48
	Say				354.50

13.5.2 1:6 (1 cement: 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.172	3686.30	634.04
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2534.44 W
	Add 1 % Water charges on "W"				25.34
	TOTAL				2559.78 X
	Add GST on "X" (multiplying factor 0.1405)				359.65
	TOTAL				2919.43 Y
	Add 15% CPOH on "Y"				437.91
	TOTAL				3357.34 Z
	Add Cess @ 1% on "Z"				33.57
	Cost of 10.00 sqm				3390.92
	Cost of 1.00 sqm				339.09
	Say				339.10

13.6 20 mm cement plaster of mix :

13.6.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.224	4355.20	975.56	
	LABOUR					
0155	Mason (average)	day	0.94	749.00	704.06	
0115	Coolie	day	1.02	645.00	657.90	
0101	Bhisti	day	1.10	714.00	785.40	
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73	
	TOTAL				3149.66	W
	Add 1 % Water charges on "W"				31.50	
	TOTAL				3181.15	X
	Add GST on "X" (multiplying factor 0.1405)				446.95	
	TOTAL				3628.11	Y
	Add 15% CPOH on "Y"				544.22	
	TOTAL				4172.32	Z
	Add Cess @ 1% on "Z"				41.72	
	Cost of 10.00 sqm				4214.05	
	Cost of 1.00 sqm				421.40	
	Say				421.40	

13.6.2 1:6 (1 cement: 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)					
3.11	Rate as per Item Number 3.11 of SH: Mortars	cum	0.224	3686.30	825.73	
	LABOUR					
0155	Mason (average)	day	0.94	749.00	704.06	
0115	Coolie	day	1.02	645.00	657.90	
0101	Bhisti	day	1.10	714.00	785.40	
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73	
	TOTAL				2999.82	W
	Add 1 % Water charges on "W"				30.00	
	TOTAL				3029.82	X
	Add GST on "X" (multiplying factor 0.1405)				425.69	
	TOTAL				3455.51	Y
	Add 15% CPOH on "Y"				518.33	
	TOTAL				3973.84	Z
	Add Cess @ 1% on "Z"				39.74	
	Cost of 10.00 sqm				4013.58	
	Cost of 1.00 sqm				401.36	
	Say				401.35	

13.7 12 mm cement plaster finished with a floating coat of neat cement of mix :

13.7.1 1:3 (1 cement: 3 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.144	4382.15	631.03	
	LABOUR					
0155	Mason (average)	day	0.67	749.00	501.83	
0115	Coolie	day	0.75	645.00	483.75	
0101	Bhisti	day	0.92	714.00	656.88	
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73	
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00	
2209	Carriage of Cement	tonne	0.02	145.72	2.91	
0155	Mason (average)	day	0.27	749.00	202.23	
0115	Coolie	day	0.27	645.00	174.15	
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09	
	TOTAL				2796.60	W
	Add 1 % Water charges on "W"				27.97	
	TOTAL				2824.57	X
	Add GST on "X" (multiplying factor 0.1405)				396.85	
	TOTAL				3221.42	Y
	Add 15% CPOH on "Y"				483.21	
	TOTAL				3704.64	Z
	Add Cess @ 1% on "Z"				37.05	
	Cost of 10.00 sqm				3741.68	
	Cost of 1.00 sqm				374.17	
	Say				374.15	

13.7.2 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3713.20	534.70
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				2700.28 W
	Add 1 % Water charges on "W"				27.00
	TOTAL				2727.28 X
	Add GST on "X" (multiplying factor 0.1405)				383.18
	TOTAL				3110.46 Y
	Add 15% CPOH on "Y"				466.57
	TOTAL				3577.03 Z
	Add Cess @ 1% on "Z"				35.77
	Cost of 10.00 sqm				3612.80
	Cost of 1.00 sqm				361.28
	Say				361.30

13.8 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :

13.8.1 1:3 (1 cement: 3 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.172	4382.15	753.73
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				3150.50 W
	Add 1 % Water charges on "W"				31.51
	TOTAL				3182.01 X
	Add GST on "X" (multiplying factor 0.1405)				447.07
	TOTAL				3629.08 Y
	Add 15% CPOH on "Y"				544.36
	TOTAL				4173.44 Z
	Add Cess @ 1% on "Z"				41.73
	Cost of 10.00 sqm				4215.18
	Cost of 1.00 sqm				421.52
	Say				421.50

13.8.2 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.172	3713.20	638.67
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				3035.45 W
	Add 1 % Water charges on "W"				30.35
	TOTAL				3065.80 X
	Add GST on "X" (multiplying factor 0.1405)				430.74
	TOTAL				3496.54 Y
	Add 15% CPOH on "Y"				524.48
	TOTAL				4021.03 Z
	Add Cess @ 1% on "Z"				40.21
	Cost of 10.00 sqm				4061.24
	Cost of 1.00 sqm				406.12
	Say				406.10

13.9 Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.

13.9.1 12 mm cement plaster

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.144	5024.15	723.48
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				2889.05 W
	Add 1 % Water charges on "W"				28.89
	TOTAL				2917.94 X
	Add GST on "X" (multiplying factor 0.1405)				409.97
	TOTAL				3327.91 Y
	Add 15% CPOH on "Y"				499.19
	TOTAL				3827.10 Z
	Add Cess @ 1% on "Z"				38.27
	Cost of 10.00 sqm				3865.37
	Cost of 1.00 sqm				386.54
	Say				386.55

13.9.2 20 mm cement plaster

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.224	5024.15	1125.41
	LABOUR				
0155	Mason (average)	day	0.94	749.00	704.06
0115	Coolie	day	1.02	645.00	657.90
0101	Bhisti	day	1.10	714.00	785.40
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				3795.88 W
	Add 1 % Water charges on "W"				37.96
	TOTAL				3833.84 X
	Add GST on "X" (multiplying factor 0.1405)				538.65
	TOTAL				4372.50 Y
	Add 15% CPOH on "Y"				655.87
	TOTAL				5028.37 Z
	Add Cess @ 1% on "Z"				50.28
	Cost of 10.00 sqm				5078.66
	Cost of 1.00 sqm				507.87
	Say				507.85

13.10 15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement on the rough side of single or half brick wall.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.172	5024.15	864.15
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				3260.93 W
	Add 1 % Water charges on "W"				32.61
	TOTAL				3293.54 X
	Add GST on "X" (multiplying factor 0.1405)				462.74
	TOTAL				3756.28 Y
	Add 15% CPOH on "Y"				563.44
	TOTAL				4319.72 Z
	Add Cess @ 1% on "Z"				43.20
	Cost of 10.00 sqm				4362.92
	Cost of 1.00 sqm				436.29
	Say				436.30

13.11 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer Cement mortar 1 : 5 (1 cement : 5 coarse sand)				
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.144	3995.00	575.28
	Top layer Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.072	3044.30	219.19
	LABOUR				
0155	Mason (average)	day	1.21	749.00	906.29
0115	Coolie	day	1.29	645.00	832.05
0101	Bhisti	day	1.05	714.00	749.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				3309.24 W
	Add 1 % Water charges on "W"				33.09
	TOTAL				3342.34 X
	Add GST on "X" (multiplying factor 0.1405)				469.60
	TOTAL				3811.93 Y
	Add 15% CPOH on "Y"				571.79
	TOTAL				4383.72 Z
	Add Cess @ 1% on "Z"				43.84
	Cost of 10.00 sqm				4427.56
	Cost of 1.00 sqm				442.76
	Say				442.75

13.12 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer Cement mortar 1 : 5 (1 cement : 5 coarse sand)				
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.144	3995.00	575.28
	Top layer Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.072	5024.15	361.74
	LABOUR				
0155	Mason (average)	day	1.21	749.00	906.29
0115	Coolie	day	1.29	645.00	832.05
0101	Bhisti	day	1.05	714.00	749.70
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				3451.79 W
	Add 1 % Water charges on “W”				34.52
	TOTAL				3486.31 X
	Add GST on “X” (multiplying factor 0.1405)				489.83
	TOTAL				3976.14 Y
	Add 15% CPOH on “Y”				596.42
	TOTAL				4572.56 Z
	Add Cess @ 1% on “Z”				45.73
	Cost of 10.00 sqm				4618.28
	Cost of 1.00 sqm				461.83
	Say				461.85

13.13 12 mm cement plaster 1:2 (1 cement : 2 stone dust).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:2 (1 Cement : 2 stone dust)				
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.144	5319.25	765.97
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2435.17 W
	Add 1 % Water charges on "W"				24.35
	TOTAL				2459.52 X
	Add GST on "X" (multiplying factor 0.1405)				345.56
	TOTAL				2805.08 Y
	Add 15% CPOH on "Y"				420.76
	TOTAL				3225.84 Z
	Add Cess @ 1% on "Z"				32.26
	Cost of 10.00 sqm				3258.10
	Cost of 1.00 sqm				325.81
	Say				325.80

13.14 15 mm cement plaster 1:2 (1 cement : 2 stone dust) on the rough side of single or half brick wall.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:2 (1 Cement : 2 stone dust)				
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.172	5319.25	914.91
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0115	Coolie	day	0.88	645.00	567.60
0101	Bhisti	day	0.99	714.00	706.86
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2815.30 W
	Add 1 % Water charges on "W"				28.15
	TOTAL				2843.46 X
	Add GST on "X" (multiplying factor 0.1405)				399.51
	TOTAL				3242.96 Y
	Add 15% CPOH on "Y"				486.44
	TOTAL				3729.41 Z
	Add Cess @ 1% on "Z"				37.29
	Cost of 10.00 sqm				3766.70
	Cost of 1.00 sqm				376.67
	Say				376.65

13.15 20 mm cement plaster 1:2 (1 cement : 2 stone dust).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:2 (1 Cement : 2 stone dust)				
3.12	Rate as per Item Number 3.12 of SH: Mortars	cum	0.224	5319.25	1191.51
	LABOUR				
0155	Mason (average)	day	0.94	749.00	704.06
0115	Coolie	day	1.02	645.00	657.90
0101	Bhisti	day	1.10	714.00	785.40
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				3365.61 W
	Add 1 % Water charges on “W”				33.66
	TOTAL				3399.26 X
	Add GST on “X” (multiplying factor 0.1405)				477.60
	TOTAL				3876.86 Y
	Add 15% CPOH on “Y”				581.53
	TOTAL				4458.39 Z
	Add Cess @ 1% on “Z”				44.58
	Cost of 10.00 sqm				4502.97
	Cost of 1.00 sqm				450.30
	Say				450.30

13.16 6 mm cement plaster of mix :
13.16.1 1:3 (1 cement : 3 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.072	4382.15	315.51
	LABOUR				
0155	Mason (average)	day	0.51	749.00	381.99
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete.	L.S.	13.39	2.12	28.39
9999	Scaffolding and sundries	L.S.	11.70	2.12	24.80
	TOTAL				1891.33 W
	Add 1 % Water charges on "W"				18.91
	TOTAL				1910.24 X
	Add GST on "X" (multiplying factor 0.1405)				268.39
	TOTAL				2178.63 Y
	Add 15% CPOH on "Y"				326.79
	TOTAL				2505.42 Z
	Add Cess @ 1% on "Z"				25.05
	Cost of 10.00 sqm				2530.48
	Cost of 1.00 sqm				253.05
	Say				253.05

13.17 6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.072	4382.15	315.51
	LABOUR				
0155	Mason (average)	day	0.51	749.00	381.99
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete.	L.S.	13.39	2.12	28.39
9999	Scaffolding and sundries	L.S.	11.7	2.12	24.80
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
0776	Satna lime	quintal	0.01	370.00	3.70
9999	Indigo gum etc	L.S.	2.08	2.12	4.41
9999	Sundries ladder etc.	L.S.	0.52	2.12	1.10
0141	White Washer	day	0.07	714.00	49.98
0115	Coolie	day	0.07	645.00	45.15
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				2497.84 W
	Add 1 % Water charges on “W”				24.98
	TOTAL				2522.82 X
	Add GST on “X” (multiplying factor 0.1405)				354.46
	TOTAL				2877.27 Y
	Add 15% CPOH on “Y”				431.59
	TOTAL				3308.86 Z
	Add Cess @ 1% on “Z”				33.09
	Cost of 10.00 sqm				3341.95
	Cost of 1.00 sqm				334.19
	Say				334.20

13.18 Neat cement punning.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0367	Portland Cement (OPC-43 grade)	tonne	0.022	5000.00	110.00
2209	Carriage of Cement	tonne	0.022	145.72	3.21
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				506.67 W
	Add 1 % Water charges on "W"				5.07
	TOTAL				511.74 X
	Add GST on "X" (multiplying factor 0.1405)				71.90
	TOTAL				583.64 Y
	Add 15% CPOH on "Y"				87.55
	TOTAL				671.19 Z
	Add Cess @ 1% on "Z"				6.71
	Cost of 10.00 sqm				677.90
	Cost of 1.00 sqm				67.79
	Say				67.80

13.19 Rough cast plaster upto 10 m height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size, dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.

13.19.1 Ordinary cement finish using ordinary cement

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer 12 mm thick cement plaster				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4355.20	627.15
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0114	Beldar	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	9.88	2.12	20.95
	Top layer 10 mm thick cement plaster				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.12	4382.15	525.86
0155	Mason (average)	day	0.61	749.00	456.89
0114	Beldar	day	0.69	645.00	445.05
0101	Bhisti	day	0.85	714.00	606.90
9999	Scaffolding and sundries	L.S.	9.88	2.12	20.95
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	0.10	900.00	90.00
0101	Bhisti	day	0.01	714.00	7.14
0777	Dry hydrated lime (factory made)	quintal	0.09	290.00	26.10
9977	Carriage of lime	L.S.	3.64	2.12	7.72
0155	Mason (average)	day	0.50	749.00	374.50
0114	Beldar	day	0.50	645.00	322.50
0101	Bhisti	day	0.10	714.00	71.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	9.88	2.12	20.95
	Labour for scooping				
0123	Mason (brick layer) 1st class	day	0.25	784.00	196.00
0114	Beldar	day	0.25	645.00	161.25
	TOTAL				5623.75 W
	Add 1 % Water charges on "W"				56.24
	TOTAL				5679.99 X
	Add GST on "X" (multiplying factor 0.1405)				798.04
	TOTAL				6478.03 Y
	Add 15% CPOH on "Y"				971.70
	TOTAL				7449.73 Z
	Add Cess @ 1% on "Z"				74.50
	Cost of 10.00 sqm				7524.23
	Cost of 1.00 sqm				752.42
	Say				752.40

13.20 Pebble dash plaster upto 10 m height above ground level with a mixture of washed pebble or crushed stone 6 mm to 12.5 mm nominal size, dashed over and including fresh plaster in two layers under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 10% finely grounded hydrated lime by volume of cement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer 12 mm thick cement plaster				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4355.20	627.15
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0114	Beldar	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	9.88	2.12	20.95
	Top layer 10 mm thick cement plaster				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.12	4382.15	525.86
0155	Mason (average)	day	0.61	749.00	456.89
0114	Beldar	day	0.69	645.00	445.05
0101	Bhisti	day	0.85	714.00	606.90
9999	Scaffolding and sundries	L.S.	9.88	2.12	20.95
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	0.10	900.00	90.00
0101	Bhisti	day	0.01	714.00	7.14
0777	Dry hydrated lime (factory made)	quintal	0.09	290.00	26.10
9977	Carriage of lime	L.S.	3.64	2.12	7.72
0155	Mason (average)	day	0.50	749.00	374.50
0114	Beldar	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.10	714.00	71.40
9999	Scaffolding and sundries	L.S.	9.88	2.12	20.95
9999	Scaffolding and sundries	L.S.	4.42	2.12	9.37
	TOTAL				5275.87 W
	Add 1 % Water charges on "W"				52.76
	TOTAL				5328.63 X
	Add GST on "X" (multiplying factor 0.1405)				748.67
	TOTAL				6077.30 Y
	Add 15% CPOH on "Y"				911.60
	TOTAL				6988.90 Z
	Add Cess @ 1% on "Z"				69.89
	Cost of 10.00 sqm				7058.79
	Cost of 1.00 sqm				705.88
	Say				705.90

13.21 Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 12mm cement plaster 1:3 (1 cement :3 sand) = 10 sqm or 1.48 bags of cement used in the mix. Cement required for 10 sqm = 73.89kg. Water proofing material required @ 1 kg per 50 kg of cement = 1.48 kg.				
1213	Water proofing materials	kilogram	1.48	35.00	51.80
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				66.96 W
	Add 1 % Water charges on "W"				0.67
	TOTAL				67.63 X
	Add GST on "X" (multiplying factor 0.1405)				9.50
	TOTAL				77.13 Y
	Add 15% CPOH on "Y"				11.57
	TOTAL				88.70 Z
	Add Cess @ 1% on "Z"				0.89
	Cost of 1.48 bags of cement used in the mix.				89.59
	Cost of 1.00 bag of 50 kg cement used in the mix.				60.53
	Say				60.55

13.22 Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
9999	Scaffolding and sundries	L.S.	53.82	2.12	114.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0155	Mason (average)	day	0.20	749.00	149.80
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.10	714.00	71.40
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				543.96 W
	Add 1 % Water charges on “W”				5.44
	TOTAL				549.40 X
	Add GST on “X” (multiplying factor 0.1405)				77.19
	TOTAL				626.59 Y
	Add 15% CPOH on “Y”				93.99
	TOTAL				720.57 Z
	Add Cess @ 1% on “Z”				7.21
	Cost of 10.00 sqm				727.78
	Cost of 1.00 sqm				72.78
	Say				72.80

13.23 Extra for plastering on circular work not exceeding 6 m in radius:

13.23.1 In one coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.20	645.00	129.00
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				293.96 W
	Add 1 % Water charges on “W”				2.94
	TOTAL				296.90 X
	Add GST on “X” (multiplying factor 0.1405)				41.71
	TOTAL				338.61 Y
	Add 15% CPOH on “Y”				50.79
	TOTAL				389.40 Z
	Add Cess @ 1% on “Z”				3.89
	Cost of 10.00 sqm				393.30
	Cost of 1.00 sqm				39.33
	Say				39.35

13.23.2 In two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.30	749.00	224.70
0114	Beldar	day	0.30	645.00	193.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				446.59 W
	Add 1 % Water charges on “W”				4.47
	TOTAL				451.05 X
	Add GST on “X” (multiplying factor 0.1405)				63.37
	TOTAL				514.43 Y
	Add 15% CPOH on “Y”				77.16
	TOTAL				591.59 Z
	Add Cess @ 1% on “Z”				5.92
	Cost of 10.00 sqm				597.51
	Cost of 1.00 sqm				59.75
	Say				59.75

13.24 Extra for plastering done on moulding, cornices or architraves including neat finish to line and level:

13.24.1 In one coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	3.00	749.00	2247.00
0114	Beldar	day	2.00	645.00	1290.00
0115	Coolie	day	1.00	645.00	645.00
0101	Bhisti	day	0.25	714.00	178.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				4388.89 W
	Add 1 % Water charges on "W"				43.89
	TOTAL				4432.78 X
	Add GST on "X" (multiplying factor 0.1405)				622.80
	TOTAL				5055.58 Y
	Add 15% CPOH on "Y"				758.34
	TOTAL				5813.92 Z
	Add Cess @ 1% on "Z"				58.14
	Cost of 10.00 sqm				5872.06
	Cost of 1.00 sqm				587.21
	Say				587.20

13.24.2 In two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	5.00	749.00	3745.00
0114	Beldar	day	3.00	645.00	1935.00
0115	Coolie	day	2.00	645.00	1290.00
0101	Bhisti	day	0.33	714.00	235.62

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				7234.01 W
	Add 1 % Water charges on "W"				72.34
	TOTAL				7306.35 X
	Add GST on "X" (multiplying factor 0.1405)				1026.54
	TOTAL				8332.89 Y
	Add 15% CPOH on "Y"				1249.93
	TOTAL				9582.82 Z
	Add Cess @ 1% on "Z"				95.83
	Cost of 10.00 sqm				9678.65
	Cost of 1.00 sqm				967.87
	Say				967.85

13.25 Extra for plastering:

13.25.1 Spherical ceiling

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.75	749.00	561.75
0114	Beldar	day	0.74	645.00	477.30
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				1096.10 W
	Add 1 % Water charges on "W"				10.96
	TOTAL				1107.06 X
	Add GST on "X" (multiplying factor 0.1405)				155.54
	TOTAL				1262.60 Y
	Add 15% CPOH on "Y"				189.39
	TOTAL				1451.99 Z
	Add Cess @ 1% on "Z"				14.52
	Cost of 10.00 sqm				1466.51
	Cost of 1.00 sqm				146.65
	Say				146.65

13.25.2 Groined ceiling

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.80	749.00	599.20
0114	Beldar	day	0.80	645.00	516.00
9999	Sundries	L.S.	34.06	2.12	72.21
	TOTAL				1187.41 W
	Add 1 % Water charges on "W"				11.87
	TOTAL				1199.28 X
	Add GST on "X" (multiplying factor 0.1405)				168.50
	TOTAL				1367.78 Y
	Add 15% CPOH on "Y"				205.17
	TOTAL				1572.95 Z
	Add Cess @ 1% on "Z"				15.73
	Cost of 10.00 sqm				1588.68
	Cost of 1.00 sqm				158.87
	Say				158.85

13.25.3 Flewing soffits

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.50	749.00	374.50
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				725.39 W
	Add 1 % Water charges on “W”				7.25
	TOTAL				732.64 X
	Add GST on “X” (multiplying factor 0.1405)				102.94
	TOTAL				835.58 Y
	Add 15% CPOH on “Y”				125.34
	TOTAL				960.91 Z
	Add Cess @ 1% on “Z”				9.61
	Cost of 10.00 sqm				970.52
	Cost of 1.00 sqm				97.05
	Say				97.05

13.26 Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Plaster of paris 10x0.002x1121 = 22.42kg				
	Add 2% wastage= 0.45kg				
	Total = 22.87kg. Say23kg				
0869	Plaster of Paris	kilogram	23.00	5.00	115.00
9977	Carriage of plaster of paris	L.S.	3.90	2.12	8.27
	LABOUR				
0122	Mason (for plaster of paris work) 1st class	day	0.91	784.00	713.44
0114	Beldar	day	0.91	645.00	586.95
9999	Scaffolding and sundries	L.S.	83.98	2.12	178.04
	TOTAL				1601.70 W
	Add 1 % Water charges on “W”				16.02
	TOTAL				1617.71 X
	Add GST on “X” (multiplying factor 0.1405)				227.29
	TOTAL				1845.00 Y
	Add 15% CPOH on “Y”				276.75
	TOTAL				2121.75 Z
	Add Cess @ 1% on “Z”				21.22
	Cost of 10.00 sqm				2142.97
	Cost of 1.00 sqm				214.30
	Say				214.30

13.27 Extra for lining out plaster to imitate stone or concrete blocks walling.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.50	749.00	374.50
0114	Beldar	day	0.50	645.00	322.50
9999	Solution of lime putty	L.S.	1.82	2.12	3.86
	TOTAL				700.86 W
	Add 1 % Water charges on “W”				7.01
	TOTAL				707.87 X
	Add GST on “X” (multiplying factor 0.1405)				99.46
	TOTAL				807.32 Y
	Add 15% CPOH on “Y”				121.10
	TOTAL				928.42 Z
	Add Cess @ 1% on “Z”				9.28
	Cost of 10.00 sqm				937.70
	Cost of 1.00 sqm				93.77
	Say				93.75

13.28 12 mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand):

13.28.1 Flush Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3713.20	51.98
	LABOUR				
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15
0101	Bhisti	day	0.05	714.00	35.70
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				467.10 W
	Add 1 % Water charges on "W"				4.67
	TOTAL				471.77 X
	Add GST on "X" (multiplying factor 0.1405)				66.28
	TOTAL				538.05 Y
	Add 15% CPOH on "Y"				80.71
	TOTAL				618.76 Z
	Add Cess @ 1% on "Z"				6.19
	Cost of 10.00 metre long and 10 cm wide band				624.95
	Cost of 1.00 metre long and 1 cm wide band				6.25
	Say				6.25

13.28.2 Sunk Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3713.20	51.98
	LABOUR				
0155	Mason (average)	day	0.30	749.00	224.70
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Sundries	L.S.	2.08	2.12	4.41
	TOTAL				510.29 W
	Add 1 % Water charges on “W”				5.10
	TOTAL				515.40 X
	Add GST on “X” (multiplying factor 0.1405)				72.41
	TOTAL				587.81 Y
	Add 15% CPOH on “Y”				88.17
	TOTAL				675.98 Z
	Add Cess @ 1% on “Z”				6.76
	Cost of 10.00 metre long and 10 cm wide band				682.74
	Cost of 1.00 metre long and 1 cm wide band				6.83
	Say				6.85

13.28.3 Raised Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3713.20	51.98
	LABOUR				
0155	Mason (average)	day	0.35	749.00	262.15
0115	Coolie	day	0.35	645.00	225.75
0101	Bhisti	day	0.05	714.00	35.70
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				581.37 W
	Add 1 % Water charges on “W”				5.81
	TOTAL				587.19 X
	Add GST on “X” (multiplying factor 0.1405)				82.50
	TOTAL				669.69 Y
	Add 15% CPOH on “Y”				100.45
	TOTAL				770.14 Z
	Add Cess @ 1% on “Z”				7.70
	Cost of 10.00 metre long and 10 cm wide band				777.84
	Cost of 1.00 metre long and 1 cm wide band				7.78
	Say				7.80

13.28.4 Moulded Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3713.20	51.98
	LABOUR				
0155	Mason (average)	day	0.65	749.00	486.85
0115	Coolie	day	0.65	645.00	419.25
0101	Bhisti	day	0.05	714.00	35.70
9999	Sundries	L.S.	1.56	2.12	3.31
	TOTAL				997.09 W
	Add 1 % Water charges on “W”				9.97
	TOTAL				1007.06 X
	Add GST on “X” (multiplying factor 0.1405)				141.49
	TOTAL				1148.56 Y
	Add 15% CPOH on “Y”				172.28
	TOTAL				1320.84 Z
	Add Cess @ 1% on “Z”				13.21
	Cost of 10.00 metre long and 10 cm wide band				1334.05
	Cost of 1.00 metre long and 1 cm wide band				13.34
	Say				13.35

13.29 18 mm thick plain cement mortar band in cement mortar 1:4 (1 cement : 4 fine sand):

13.29.1 Flush Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3713.20	74.26
	LABOUR				
0155	Mason (average)	day	0.32	749.00	239.68
0115	Coolie	day	0.32	645.00	206.40
0101	Bhisti	day	0.06	714.00	42.84

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.08	2.12	4.41
	TOTAL				567.59 W
	Add 1 % Water charges on "W"				5.68
	TOTAL				573.27 X
	Add GST on "X" (multiplying factor 0.1405)				80.54
	TOTAL				653.81 Y
	Add 15% CPOH on "Y"				98.07
	TOTAL				751.89 Z
	Add Cess @ 1% on "Z"				7.52
	Cost of 10.00 metre long and 10 cm wide band				759.40
	Cost of 1.00 metre long and 1 cm wide band				7.59
	Say				7.60

13.29.2 Sunk Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3713.20	74.26
	LABOUR				
0155	Mason (average)	day	0.36	749.00	269.64
0115	Coolie	day	0.36	645.00	232.20
0101	Bhisti	day	0.06	714.00	42.84
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				624.73 W
	Add 1 % Water charges on "W"				6.25
	TOTAL				630.98 X
	Add GST on "X" (multiplying factor 0.1405)				88.65
	TOTAL				719.63 Y
	Add 15% CPOH on "Y"				107.94
	TOTAL				827.58 Z
	Add Cess @ 1% on "Z"				8.28
	Cost of 10.00 metre long and 10 cm wide band				835.85
	Cost of 1.00 metre long and 1 cm wide band				8.36
	Say				8.35

13.29.3 Raised Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3713.20	74.26
	LABOUR				
0155	Mason (average)	day	0.42	749.00	314.58
0115	Coolie	day	0.42	645.00	270.90
0101	Bhisti	day	0.06	714.00	42.84
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				711.95 W
	Add 1 % Water charges on "W"				7.12
	TOTAL				719.07 X
	Add GST on "X" (multiplying factor 0.1405)				101.03
	TOTAL				820.10 Y
	Add 15% CPOH on "Y"				123.02
	TOTAL				943.12 Z
	Add Cess @ 1% on "Z"				9.43
	Cost of 10.00 metre long and 10 cm wide band				952.55
	Cost of 1.00 metre long and 1 cm wide band				9.53
	Say				9.55

13.29.4 Moulded Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.40	Rate as per Item Number 3.4 of SH: Mortars	cum	0.024	3713.20	89.12
	LABOUR				
0155	Mason (average)	day	0.86	749.00	644.14
0115	Coolie	day	0.86	645.00	554.70
0101	Bhisti	day	0.05	714.00	35.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				1329.44 W
	Add 1 % Water charges on "W"				13.29
	TOTAL				1342.74 X
	Add GST on "X" (multiplying factor 0.1405)				188.65
	TOTAL				1531.39 Y
	Add 15% CPOH on "Y"				229.71
	TOTAL				1761.10 Z
	Add Cess @ 1% on "Z"				17.61
	Cost of 10.00 metre long and 10 cm wide band				1778.71
	Cost of 1.00 metre long and 1 cm wide band				17.79
	Say				17.80

13.30 18 mm thick moulded cement mortar band in two coats under layer 12 mm thick with cement mortar 1:5 (1 cement : 5 coarse sand) top layer 6 mm thick with cement mortar 1:4 (1 cement : 4 fine sand).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				
	MATERIAL				
	Cement mortar 1 : 5 (1 cement : 5 coarse sand)				
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.014	3995.00	55.93
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.01	3713.20	37.13
	LABOUR				
0155	Mason (average)	day	0.86	749.00	644.14
0115	Coolie	day	0.86	645.00	554.70
0101	Bhisti	day	0.05	714.00	35.70
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				1333.39 W
	Add 1 % Water charges on "W"				13.33
	TOTAL				1346.72 X
	Add GST on "X" (multiplying factor 0.1405)				189.21
	TOTAL				1535.94 Y
	Add 15% CPOH on "Y"				230.39
	TOTAL				1766.33 Z
	Add Cess @ 1% on "Z"				17.66
	Cost of 10.00 metre long and 10 cm wide band				1783.99
	Cost of 1.00 metre long and 1 cm wide band				17.84
	Say				17.85

13.31 Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):

13.31.1 Flush / Ruled/ Struck or weathered pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.03	4382.15	131.46
	LABOUR				
0155	Mason (average)	day	0.50	749.00	374.50
0115	Coolie	day	0.60	645.00	387.00
0101	Bhisti	day	0.93	714.00	664.02
9999	Sundries	L.S.	7.15	2.12	15.16
9999	Scaffolding and racking out joints including sundries	L.S.	14.30	2.12	30.32
	TOTAL				1602.46 W
	Add 1 % Water charges on “W”				16.02
	TOTAL				1618.48 X
	Add GST on “X” (multiplying factor 0.1405)				227.40
	TOTAL				1845.88 Y
	Add 15% CPOH on “Y”				276.88
	TOTAL				2122.76 Z
	Add Cess @ 1% on “Z”				21.23
	Cost of 10.00 sqm				2143.99
	Cost of 1.00 sqm				214.40
	Say				214.40

13.31.2 Raised and cut pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.046	4382.15	201.58
	LABOUR				
0155	Mason (average)	day	1.07	749.00	801.43
0115	Coolie	day	1.31	645.00	844.95
0101	Bhisti	day	1.00	714.00	714.00
9999	Sundries	L.S.	7.15	2.12	15.16

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.12	34.17
	TOTAL				2611.29 W
	Add 1 % Water charges on "W"				26.11
	TOTAL				2637.40 X
	Add GST on "X" (multiplying factor 0.1405)				370.56
	TOTAL				3007.96 Y
	Add 15% CPOH on "Y"				451.19
	TOTAL				3459.15 Z
	Add Cess @ 1% on "Z"				34.59
	Cost of 10.00 sqm				3493.74
	Cost of 1.00 sqm				349.37
	Say				349.35

13.32 Pointing on tile brick work with cement mortar 1:3 (1 cement : 3 fine sand):
13.32.1 Flush/ Ruled/ Struck or weathered pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.046	4382.15	201.58
9999	Sundries	L.S.	7.15	2.12	15.16
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.80	645.00	516.00
0101	Bhisti	day	1.28	714.00	913.92
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.12	34.17
	TOTAL				2182.66 W
	Add 1 % Water charges on "W"				21.83
	TOTAL				2204.49 X
	Add GST on "X" (multiplying factor 0.1405)				309.73
	TOTAL				2514.22 Y
	Add 15% CPOH on "Y"				377.13
	TOTAL				2891.35 Z
	Add Cess @ 1% on "Z"				28.91
	Cost of 10.00 sqm				2920.26
	Cost of 1.00 sqm				292.03
	Say				292.05

13.33 Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) :
13.33.1 Flush/ Ruled pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.023	4382.15	100.79
9999	Sundries	L.S.	7.15	2.12	15.16
	LABOUR				
0155	Mason (average)	day	0.92	749.00	689.08
0115	Coolie	day	1.37	645.00	883.65
0101	Bhisti	day	0.93	714.00	664.02
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.12	34.17
	TOTAL				2386.87 W
	Add 1 % Water charges on “W”				23.87
	TOTAL				2410.74 X
	Add GST on “X” (multiplying factor 0.1405)				338.71
	TOTAL				2749.45 Y
	Add 15% CPOH on “Y”				412.42
	TOTAL				3161.87 Z
	Add Cess @ 1% on “Z”				31.62
	Cost of 10.00 sqm				3193.49
	Cost of 1.00 sqm				319.35
	Say				319.35

13.33.2 Raised and cut pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.038	4382.15	166.52
9999	Sundries	L.S.	7.15	2.12	15.16
	LABOUR				
0155	Mason (average)	day	2.00	749.00	1498.00
0115	Coolie	day	2.96	645.00	1909.20
0101	Bhisti	day	1.00	714.00	714.00
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.12	34.17
	TOTAL				4337.05 W
	Add 1 % Water charges on "W"				43.37
	TOTAL				4380.42 X
	Add GST on "X" (multiplying factor 0.1405)				615.45
	TOTAL				4995.87 Y
	Add 15% CPOH on "Y"				749.38
	TOTAL				5745.26 Z
	Add Cess @ 1% on "Z"				57.45
	Cost of 10.00 sqm				5802.71
	Cost of 1.00 sqm				580.27
	Say				580.25

13.34 Raised and cut pointing on stone work in white cement mortar 1:3 (1 white cement : 3 marble dust).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	White Cement mortar 1:3 (1 white cement : 3 marble dust)				
3.16	Rate as per Item Number 3.16 of SH: Mortars	cum	0.038	7790.25	296.03
9999	Sundries	L.S.	7.15	2.12	15.16
	LABOUR				
0155	Mason (average)	day	2.00	749.00	1498.00
0115	Coolie	day	2.96	645.00	1909.20
0101	Bhisti	day	1.00	714.00	714.00
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.12	34.17
	TOTAL				4466.56 W
	Add 1 % Water charges on “W”				44.67
	TOTAL				4511.23 X
	Add GST on “X” (multiplying factor 0.1405)				633.83
	TOTAL				5145.05 Y
	Add 15% CPOH on “Y”				771.76
	TOTAL				5916.81 Z
	Add Cess @ 1% on “Z”				59.17
	Cost of 10.00 sqm				5975.98
	Cost of 1.00 sqm				597.60
	Say				597.60

13.35 Pointing on stone slab ceiling with cement mortar 1:2 (1 cement : 2 fine sand):
13.35.1 Flush/ Ruled pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1:2 (1 cement : 2 fine sand)				
3.2	Rate as per Item Number 3.2 of SH: Mortars	cum	0.015	5129.25	76.94
	LABOUR				
0155	Mason (average)	day	0.47	749.00	352.03
0115	Coolie	day	0.69	645.00	445.05
0101	Bhisti	day	0.59	714.00	421.26
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.12	34.17
	TOTAL				1329.45 W
	Add 1 % Water charges on "W"				13.29
	TOTAL				1342.75 X
	Add GST on "X" (multiplying factor 0.1405)				188.66
	TOTAL				1531.40 Y
	Add 15% CPOH on "Y"				229.71
	TOTAL				1761.11 Z
	Add Cess @ 1% on "Z"				17.61
	Cost of 10.00 sqm				1778.73
	Cost of 1.00 sqm				177.87
	Say				177.85

13.36 Extra for pointing on walls on the outside at height more than 10 m from ground level for every additional height of 3 m or part there of.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
9999	Scaffolding	L.S.	13.39	2.12	28.39
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				56.77 W
	Add 1 % Water charges on "W"				0.57
	TOTAL				57.34 X
	Add GST on "X" (multiplying factor 0.1405)				8.06
	TOTAL				65.40 Y
	Add 15% CPOH on "Y"				9.81
	TOTAL				75.21 Z
	Add Cess @ 1% on "Z"				0.75
	Cost of 10.00 sqm				75.96
	Cost of 1.00 sqm				7.60
	Say				7.60

13.37 White washing with lime to give an even shade :

13.37.1 New work (three or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.03	600.00	18.00
9977	Carriage of lime	L.S.	0.91	2.12	1.93
	LABOUR				
0141	White Washer	day	0.20	714.00	142.80
0115	Coolie	day	0.10	645.00	64.50
9999	Indigo gum etc	L.S.	4.42	2.12	9.37
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				242.39 W
	Add 1 % Water charges on “W”				2.42
	TOTAL				244.81 X
	Add GST on “X” (multiplying factor 0.1405)				34.40
	TOTAL				279.21 Y
	Add 15% CPOH on “Y”				41.88
	TOTAL				321.09 Z
	Add Cess @ 1% on “Z”				3.21
	Cost of 10.00 sqm				324.30
	Cost of 1.00 sqm				32.43
	Say				32.45

13.38 Satna lime wash on walls with one coat.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0776	Satna lime	quintal	0.01	370.00	3.70
9977	Carriage of lime	L.S.	2.08	2.12	4.41
9999	Indigo gum etc	L.S.	0.52	2.12	1.10
	LABOUR				
0141	White Washer	day	0.08	714.00	57.12
0115	Coolie	day	0.04	645.00	25.80
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				97.92 W
	Add 1 % Water charges on “W”				0.98
	TOTAL				98.90 X
	Add GST on “X” (multiplying factor 0.1405)				13.90
	TOTAL				112.79 Y
	Add 15% CPOH on “Y”				16.92
	TOTAL				129.71 Z
	Add Cess @ 1% on “Z”				1.30
	Cost of 10.00 sqm				131.01
	Cost of 1.00 sqm				13.10
	Say				13.10

13.39 Colour washing such as green, blue or buff to give an even shade :

13.39.1 New work (two or more coats) with a base coat of white washing with lime

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.03	600.00	18.00
9977	Carriage of lime	L.S.	8.06	2.12	17.09
9999	Add for colouring stuff	L.S.	0.91	2.12	1.93
	LABOUR				
0141	White Washer	day	0.30	714.00	214.20
0115	Coolie	day	0.10	645.00	64.50
9999	Indigo gum etc	L.S.	4.42	2.12	9.37
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				330.87 W
	Add 1 % Water charges on "W"				3.31
	TOTAL				334.18 X
	Add GST on "X" (multiplying factor 0.1405)				46.95
	TOTAL				381.14 Y
	Add 15% CPOH on "Y"				57.17
	TOTAL				438.31 Z
	Add Cess @ 1% on "Z"				4.38
	Cost of 10.00 sqm				442.69
	Cost of 1.00 sqm				44.27
	Say				44.25

13.39.2 New work (two or more coats) with a base coat of whiting

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.03	600.00	18.00
9977	Carriage of lime	L.S.	8.06	2.12	17.09
9999	Add for colouring stuff	L.S.	0.91	2.12	1.93
	LABOUR				
0141	White Washer	day	0.30	714.00	214.20
0115	Coolie	day	0.10	645.00	64.50
9999	Indigo gum etc	L.S.	2.73	2.12	5.79
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				327.29 W
	Add 1 % Water charges on “W”				3.27
	TOTAL				330.56 X
	Add GST on “X” (multiplying factor 0.1405)				46.44
	TOTAL				377.01 Y
	Add 15% CPOH on “Y”				56.55
	TOTAL				433.56 Z
	Add Cess @ 1% on “Z”				4.34
	Cost of 10.00 sqm				437.90
	Cost of 1.00 sqm				43.79
	Say				43.80

13.41 Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :

13.41.1 New work (two or more coats) over and including water thinnable priming coat with cement primer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	50.00	35.00
9999	Brushes, putty etc	L.S.	7.15	2.12	15.16
9988	Sundries including Carriage	L.S.	8.06	2.12	17.09
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.50	40.00	60.00
9977	Carriage of material	L.S.	4.42	2.12	9.37
9999	Brushes, sand paper and putty for filling holes	L.S.	11.70	2.12	24.80
	LABOUR				
0131	Painter	day	1.00	714.00	714.00
0115	Coolie	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1215.01 W
	Add 1 % Water charges on "W"				12.15
	TOTAL				1227.16 X
	Add GST on "X" (multiplying factor 0.1405)				172.42
	TOTAL				1399.57 Y
	Add 15% CPOH on "Y"				209.94
	TOTAL				1609.51 Z
	Add Cess @ 1% on "Z"				16.10
	Cost of 10.00 sqm				1625.60
	Cost of 1.00 sqm				162.56
	Say				162.55

13.42 Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.

13.42.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.50	40.00	60.00
9977	Carriage of material	L.S.	4.42	2.12	9.37
9999	Brushes, sand paper and putty for filling holes	L.S.	11.57	2.12	24.53
	LABOUR				
0131	Painter	day	0.40	714.00	285.60
0114	Beldar	day	0.46	645.00	296.70
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				693.29 W
	Add 1 % Water charges on "W"				6.93
	TOTAL				700.22 X
	Add GST on "X" (multiplying factor 0.1405)				98.38
	TOTAL				798.60 Y
	Add 15% CPOH on "Y"				119.79
	TOTAL				918.39 Z
	Add Cess @ 1% on "Z"				9.18
	Cost of 10.00 sqm				927.57
	Cost of 1.00 sqm				92.76
	Say				92.75

13.43 Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :

13.43.1 Water thinnable cement primer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	50.00	35.00
9999	Brushes, putty etc	L.S.	7.15	2.12	15.16
	LABOUR				
0131	Painter	day	0.40	714.00	285.60
0115	Coolie	day	0.20	645.00	129.00
9988	Sundries including carriage	L.S.	8.06	2.12	17.09
	TOTAL				481.85 W
	Add 1 % Water charges on "W"				4.82
	TOTAL				486.66 X
	Add GST on "X" (multiplying factor 0.1405)				68.38
	TOTAL				555.04 Y
	Add 15% CPOH on "Y"				83.26
	TOTAL				638.30 Z
	Add Cess @ 1% on "Z"				6.38
	Cost of 10.00 sqm				644.68
	Cost of 1.00 sqm				64.47
	Say				64.45

13.44 Finishing walls with water proofing cement paint of required shade :

13.44.1 New work (Two or more coats applied @ 3.84 kg/10 sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0851	Water proofing cement paint	kilogram	3.84	38.00	145.92
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
0101	Bhisti	day	0.10	714.00	71.40
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				729.66 W
	Add 1 % Water charges on "W"				7.30
	TOTAL				736.96 X
	Add GST on "X" (multiplying factor 0.1405)				103.54
	TOTAL				840.50 Y
	Add 15% CPOH on "Y"				126.08
	TOTAL				966.58 Z
	Add Cess @ 1% on "Z"				9.67
	Cost of 10.00 sqm				976.24
	Cost of 1.00 sqm				97.62
	Say				97.60

13.45 Finishing walls with textured exterior paint of required shade :

13.45.1 New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8507	Textured exterior paint	litre	3.28	280.00	918.40	
0837	Acrylic Exterior Primer	kilogram	2.20	100.00	220.00	
9977	Carriage of material	L.S.	1.56	2.12	3.31	
	LABOUR					
0131	Painter	day	0.60	714.00	428.40	
0115	Coolie	day	0.30	645.00	193.50	
0101	Bhisti	day	0.05	714.00	35.70	
9999	Brushes, sand paper etc	L.S.	7.02	2.12	14.88	
9999	Sundries	L.S.	8.06	2.12	17.09	
	TOTAL				1831.28	W
	Add 1 % Water charges on “W”				18.31	
	TOTAL				1849.59	X
	Add GST on “X” (multiplying factor 0.1405)				259.87	
	TOTAL				2109.46	Y
	Add 15% CPOH on “Y”				316.42	
	TOTAL				2425.88	Z
	Add Cess @ 1% on “Z”				24.26	
	Cost of 10.00 sqm				2450.13	
	Cost of 1.00 sqm				245.01	
	Say				245.00	

13.46 Finishing walls with Acrylic Smooth exterior paint of required shade :

13.46.1 New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8505	Acrylic exterior paint	litre	1.67	200.00	334.00	
0837	Acrylic Exterior Primer	Kg	2.20	100.00	220.00	
9977	Carriage of material	L.S.	1.56	2.12	3.31	
	LABOUR					
0131	Painter	day	0.60	714.00	428.40	
0115	Coolie	day	0.30	645.00	193.50	
0101	Bhisti	day	0.05	714.00	35.70	
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16	
9999	Sundries	L.S.	8.06	2.12	17.09	
	TOTAL				1247.15	W
	Add 1 % Water charges on "W"				12.47	
	TOTAL				1259.62	X
	Add GST on "X" (multiplying factor 0.1405)				176.98	
	TOTAL				1436.60	Y
	Add 15% CPOH on "Y"				215.49	
	TOTAL				1652.09	Z
	Add Cess @ 1% on "Z"				16.52	
	Cost of 10.00 sqm				1668.61	
	Cost of 1.00 sqm				166.86	
	Say				166.85	

13.47 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:

13.47.1 New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8506	Premium Acrylic exterior paint	litre	1.43	210.00	300.30	
0837	Acrylic Exterior Primer	kilogram	2.20	100.00	220.00	
9977	Carriage of material	L.S.	1.56	2.12	3.31	
	LABOUR					
0131	Painter	day	0.60	714.00	428.40	
0115	Coolie	day	0.30	645.00	193.50	
0101	Bhisti	day	0.05	714.00	35.70	
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16	
9999	Sundries	L.S.	8.06	2.12	17.09	
	TOTAL				1213.45	W
	Add 1 % Water charges on "W"				12.13	
	TOTAL				1225.59	X
	Add GST on "X" (multiplying factor 0.1405)				172.19	
	TOTAL				1397.78	Y
	Add 15% CPOH on "Y"				209.67	
	TOTAL				1607.45	Z
	Add Cess @ 1% on "Z"				16.07	
	Cost of 10.00 sqm				1623.52	
	Cost of 1.00 sqm				162.35	
	Say				162.35	

13.48 Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :

13.48.1 Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
8504	Multi surface paint	litre	1.25	300.00	375.00	
8509	Special Primer (C.W.)	litre	0.75	160.00	120.00	
9977	Carriage of material	L.S.	1.56	2.12	3.31	
	LABOUR					
0131	Painter	day	0.60	714.00	428.40	
0115	Coolie	day	0.30	645.00	193.50	
0101	Bhisti	day	0.05	714.00	35.70	
9999	Brushes, sand paper etc	L.S.	7.02	2.12	14.88	
9999	Sundries	L.S.	8.06	2.12	17.09	
	TOTAL				1187.88	W
	Add 1 % Water charges on "W"				11.88	
	TOTAL				1199.76	X
	Add GST on "X" (multiplying factor 0.1405)				168.57	
	TOTAL				1368.32	Y
	Add 15% CPOH on "Y"				205.25	
	TOTAL				1573.57	Z
	Add Cess @ 1% on "Z"				15.74	
	Cost of 10.00 sqm				1589.31	
	Cost of 1.00 sqm				158.93	
	Say				158.95	

13.48.2 Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @0.75 ltr/10 sqm of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8504	Multi surface paint	litre	0.90	300.00	270.00
8509	Special Primer (C.W.)	litre	0.75	160.00	120.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				
0131	Painter	day	0.60	714.00	428.40
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.02	2.12	14.88
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1082.88 W
	Add 1 % Water charges on "W"				10.83
	TOTAL				1093.71 X
	Add GST on "X" (multiplying factor 0.1405)				153.67
	TOTAL				1247.37 Y
	Add 15% CPOH on "Y"				187.11
	TOTAL				1434.48 Z
	Add Cess @ 1% on "Z"				14.34
	Cost of 10.00 sqm				1448.82
	Cost of 1.00 sqm				144.88
	Say				144.90

13.48.3 Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8504	Multi surface paint	litre	0.90	300.00	270.00
8510	Metal Primer (U.G.)	litre	0.80	105.00	84.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				
0131	Painter	day	0.60	714.00	428.40
0115	Coolie	day	0.30	645.00	193.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.02	2.12	14.88
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1046.88 W
	Add 1 % Water charges on "W"				10.47
	TOTAL				1057.35 X
	Add GST on "X" (multiplying factor 0.1405)				148.56
	TOTAL				1205.90 Y
	Add 15% CPOH on "Y"				180.89
	TOTAL				1386.79 Z
	Add Cess @ 1% on "Z"				13.87
	Cost of 10.00 sqm				1400.66
	Cost of 1.00 sqm				140.07
	Say				140.05

13.48A Finishing walls with 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives.

13.48A.1 New work (Two or more coats applied @ 1.43 litre/ 10 sqm. Over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm (Based on item no 13.47)				
	Material				
0836	100% Premium acrylic dirt resistance, Silicone additives exterior paint	litre	1.43	270.00	386.10
0837	Acrylic Exterior Primer	litre	0.90	100.00	90.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	Labour				
0131	Painter	day	0.45	714.00	321.30
0101	Bhisti	day	0.45	714.00	321.30
9999	Brushes, sand paper etc.	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	Total				1154.25 W
	Add 1 % Water charges on "W"				11.54
	TOTAL				1165.79 X
	Add GST on "X" (multiplying factor 0.1405)				163.79
	TOTAL				1329.59 Y
	Add 15% CPOH on "Y"				199.44
	TOTAL				1529.03 Z
	Add Cess @ 1% on "Z"				15.29
	Cost of 10 sqm				1544.32
	Cost of 1 sqm				154.43
	Say				154.45

13.50 Applying priming coat:

13.50.1 With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	0.75	105.00	78.75
9999	Putty	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				459.29 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				463.88 X
	Add GST on "X" (multiplying factor 0.1405)				65.18
	TOTAL				529.06 Y
	Add 15% CPOH on "Y"				79.36
	TOTAL				608.42 Z
	Add Cess @ 1% on "Z"				6.08
	Cost of 10.00 sqm				614.50
	Cost of 1.00 sqm				61.45
	Say				61.45

13.50.2 With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
4201	Aluminium primer	litre	0.75	120.00	90.00
9999	Putty	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				470.54 W
	Add 1 % Water charges on "W"				4.71
	TOTAL				475.24 X
	Add GST on "X" (multiplying factor 0.1405)				66.77
	TOTAL				542.02 Y
	Add 15% CPOH on "Y"				81.30
	TOTAL				623.32 Z
	Add Cess @ 1% on "Z"				6.23
	Cost of 10.00 sqm				629.55
	Cost of 1.00 sqm				62.96
	Say				62.95

13.50.3 With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	64.80
9977	Carriage	L.S.	0.52	2.12	1.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.24	714.00	171.36
0115	Coolie	day	0.24	645.00	154.80
9999	Brushes,sand paper including sundries	L.S.	10.79	2.12	22.87
	TOTAL				414.94 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				419.09 X
	Add GST on "X" (multiplying factor 0.1405)				58.88
	TOTAL				477.97 Y
	Add 15% CPOH on "Y"				71.70
	TOTAL				549.66 Z
	Add Cess @ 1% on "Z"				5.50
	Cost of 10.00 sqm				555.16
	Cost of 1.00 sqm				55.52
	Say				55.50

13.50.4 With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.36	120.00	43.20
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.12	714.00	85.68
0115	Coolie	day	0.12	645.00	77.40
9999	Brushes,sand paper including	L.S.	7.15	2.12	15.16
	TOTAL				222.26 W
	Add 1 % Water charges on "W"				2.22
	TOTAL				224.49 X
	Add GST on "X" (multiplying factor 0.1405)				31.54
	TOTAL				256.03 Y
	Add 15% CPOH on "Y"				38.40
	TOTAL				294.43 Z
	Add Cess @ 1% on "Z"				2.94
	Cost of 10.00 sqm				297.38
	Cost of 1.00 sqm				29.74
	Say				29.75

13.51 Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces :

13.51.1 One coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0801	Silicon and acrylic emulsion	litre	1.80	120.00	216.00
9977	Carriage of material	L.S.	0.52	2.12	1.10
9999	Putty etc	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.27	714.00	192.78
0115	Coolie	day	0.27	645.00	174.15
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				623.99 W
	Add 1 % Water charges on "W"				6.24
	TOTAL				630.23 X
	Add GST on "X" (multiplying factor 0.1405)				88.55
	TOTAL				718.78 Y
	Add 15% CPOH on "Y"				107.82
	TOTAL				826.60 Z
	Add Cess @ 1% on "Z"				8.27
	Cost of 10.00 sqm				834.87
	Cost of 1.00 sqm				83.49
	Say				83.50

13.51.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0801	Silicon and acrylic emulsion	litre	2.88	120.00	345.60
9977	Carriage of material	L.S.	0.52	2.12	1.10
9999	Putty etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.43	714.00	307.02
0115	Coolie	day	0.43	645.00	277.35
9999	Brushes, sand paper etc	L.S.	8.53	2.12	18.08
9999	Sundries	L.S.	17.26	2.12	36.59
	TOTAL				991.53 W
	Add 1 % Water charges on "W"				9.92
	TOTAL				1001.45 X
	Add GST on "X" (multiplying factor 0.1405)				140.70
	TOTAL				1142.15 Y
	Add 15% CPOH on "Y"				171.32
	TOTAL				1313.48 Z
	Add Cess @ 1% on "Z"				13.13
	Cost of 10.00 sqm				1326.61
	Cost of 1.00 sqm				132.66
	Say				132.65

13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.

13.52.1 On steel work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	PRIMING COAT				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.75	120.00	90.00
9999	Putty	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc	L.S.	5.46	2.12	11.58
9999	Sundries	L.S.	10.66	2.12	22.60
	EPOXY PAINTING				
	MATERIAL				
7239	Epoxy paint	litre	1.25	215.00	268.75
9977	Carriage of material	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1507.60 W
	Add 1 % Water charges on "W"				15.08
	TOTAL				1522.67 X
	Add GST on "X" (multiplying factor 0.1405)				213.94
	TOTAL				1736.61 Y
	Add 15% CPOH on "Y"				260.49
	TOTAL				1997.10 Z
	Add Cess @ 1% on "Z"				19.97
	Cost of 10.00 sqm				2017.07
	Cost of 1.00 sqm				201.71
	Say				201.70

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	PRIMING COAT				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 grams/ litre	litre	0.84	50.00	42.00
9999	Putty	L.S.	13.52	2.12	28.66
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	8.06	2.12	17.09
	EPOXY PAINTING				
	MATERIAL				
7239	Epoxy paint	litre	1.21	215.00	260.15
9999	Materials for filling in holes and cracks	L.S.	6.76	2.12	14.33
9977	Carriage of material	L.S.	1.43	2.12	3.03

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Putty, brushes, sand paper etc	L.S.	10.79	2.12	22.87
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				1482.97 W
	Add 1 % Water charges on "W"				14.83
	TOTAL				1497.80 X
	Add GST on "X" (multiplying factor 0.1405)				210.44
	TOTAL				1708.24 Y
	Add 15% CPOH on "Y"				256.24
	TOTAL				1964.47 Z
	Add Cess @ 1% on "Z"				19.64
	Cost of 10.00 sqm				1984.12
	Cost of 1.00 sqm				198.41
	Say				198.40

13.53 Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.53.1 New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	PRIMING COAT				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.36	120.00	43.20
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.12	714.00	85.68
0114	Beldar	day	0.12	645.00	77.40
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
	Synthetic enamel painting				
	MATERIAL				
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.80	165.00	132.00
9977	Carriage	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1122.57 W
	Add 1 % Water charges on "W"				11.23
	TOTAL				1133.80 X
	Add GST on "X" (multiplying factor 0.1405)				159.30
	TOTAL				1293.10 Y
	Add 15% CPOH on "Y"				193.96
	TOTAL				1487.06 Z
	Add Cess @ 1% on "Z"				14.87
	Cost of 10.00 sqm				1501.94
	Cost of 1.00 sqm				150.19
	Say				150.20

13.54 Applying a coat of mordant solution on G.S. sheet:

13.54.1 With a solution of 38 gms of copper acetate in a litre of soft water

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 25 sqm					
	MATERIAL					
4203	Copper acetate	kilogram	0.038	300.00	11.40	
9999	Soft Water	L.S.	1.82	2.12	3.86	
9977	Carriage	L.S.	0.91	2.12	1.93	
	LABOUR					
0131	Painter	day	0.60	714.00	428.40	
0115	Coolie	day	0.60	645.00	387.00	
9999	Brushes, sand paper etc	L.S.	35.88	2.12	76.07	
9999	Sundries	L.S.	35.88	2.12	76.07	
	TOTAL				984.72	W
	Add 1 % Water charges on "W"				9.85	
	TOTAL				994.57	X
	Add GST on "X" (multiplying factor 0.1405)				139.74	
	TOTAL				1134.30	Y
	Add 15% CPOH on "Y"				170.15	
	TOTAL				1304.45	Z
	Add Cess @ 1% on "Z"				13.04	
	Cost of 25 sqm				1317.49	
	Cost of 1.00 sqm				52.70	
	Say				52.70	

13.54.2 With a solution made of 13 gms of hydrochloric acid in a solution of 13 gms each of copper chloride, copper nitrate and ammonium chloride dissolved in a litre of soft water

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 25 sqm					
	MATERIAL					
4204	Hydrochloric acid	kilogram	0.013	35.00	0.46	
4205	Copper chloride	kilogram	0.013	300.00	3.90	
4206	Copper nitrate	kilogram	0.013	210.00	2.73	
4207	Ammonium chloride	kilogram	0.013	22.00	0.29	
9999	Soft Water	L.S.	1.82	2.12	3.86	
9977	Carriage	L.S.	0.91	2.12	1.93	
	LABOUR					
0131	Painter	day	0.60	714.00	428.40	
0115	Coolie	day	0.60	645.00	387.00	
9999	Brushes, sand paper etc	L.S.	35.88	2.12	76.07	
9999	Sundries	L.S.	35.88	2.12	76.07	
	TOTAL				980.69	W
	Add 1 % Water charges on "W"				9.81	
	TOTAL				990.50	X
	Add GST on "X" (multiplying factor 0.1405)				139.16	
	TOTAL				1129.66	Y
	Add 15% CPOH on "Y"				169.45	
	TOTAL				1299.11	Z
	Add Cess @ 1% on "Z"				12.99	
	Cost of 25 sqm				1312.10	
	Cost of 1.00 sqm				52.48	
	Say				52.50	

13.55 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture, over and including a priming of ready mixed zinc chromate yellow primer on new work:

13.55.1 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 mtrs				
	Area=22/7 x106.4mm x30m =10.032sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	64.80
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.24	714.00	171.36
0115	Coolie	day	0.24	645.00	154.80
9999	Brushes, sand paper etc	L.S.	10.79	2.12	22.87
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.95	100.00	95.00
9977	Carriage	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Putty, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
9999	Wire brushes for cleaning	L.S.	5.33	2.12	11.30
9999	Extra for delays	L.S.	61.10	2.12	129.53
	TOTAL				1416.05 W
	Add 1 % Water charges on "W"				14.16
	TOTAL				1430.21 X
	Add GST on "X" (multiplying factor 0.1405)				200.94
	TOTAL				1631.15 Y
	Add 15% CPOH on "Y"				244.67
	TOTAL				1875.82 Z
	Add Cess @ 1% on "Z"				18.76
	Cost of 30.00 mtrs				1894.58
	Cost of 1.00 metre				63.15
	Say				63.15

13.55.2 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 mtrs				
	Area=22/7 x0.1572 m x30m =14.82sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.80	120.00	96.00
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	15.99	2.12	33.90
9977	Carriage	L.S.	0.91	2.12	1.93
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	1.41	100.00	141.00
9977	Carriage	L.S.	2.08	2.12	4.41
	LABOUR				
0131	Painter	day	0.80	714.00	571.20
0115	Coolie	day	0.80	645.00	516.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Putty, sand paper etc	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	11.96	2.12	25.36
9999	Wire brushes for cleaning	L.S.	7.15	2.12	15.16
9999	Extra for delays	L.S.	94.12	2.12	199.53
	TOTAL				2110.81 W
	Add 1 % Water charges on "W"				21.11
	TOTAL				2131.92 X
	Add GST on "X" (multiplying factor 0.1405)				299.53
	TOTAL				2431.46 Y
	Add 15% CPOH on "Y"				364.72
	TOTAL				2796.17 Z
	Add Cess @ 1% on "Z"				27.96
	Cost of 30.00 mtrs				2824.14
	Cost of 1.00 metre				94.14
	Say				94.15

13.56 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work.

13.56.1 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 mtrs Area=22/7x0.1064m x30m =10.032sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	64.80
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.24	714.00	171.36
0115	Coolie	day	0.24	645.00	154.80
9999	Sundries	L.S.	10.79	2.12	22.87
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	175.00	203.00
9977	Carriage	L.S.	1.43	2.12	3.03
9999	Putty, sand paper etc	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Sundries	L.S.	6.76	2.12	14.33
9999	Wire brushes for cleaning	L.S.	11.96	2.12	25.36
9999	Extra for delays	L.S.	66.43	2.12	140.83
	TOTAL				1546.65 W
	Add 1 % Water charges on "W"				15.47
	TOTAL				1562.11 X
	Add GST on "X" (multiplying factor 0.1405)				219.48
	TOTAL				1781.59 Y
	Add 15% CPOH on "Y"				267.24
	TOTAL				2048.83 Z
	Add Cess @ 1% on "Z"				20.49
	Cost of 30.00 mtrs				2069.32
	Cost of 1.00 metre				68.98
	Say				69.00

13.56.2 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 mtrs				
	Area=22/7 x157.2mm x30m =14.82sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.80	120.00	96.00
9977	Carriage	L.S.	0.65	2.12	1.38
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Sundries	L.S.	15.99	2.12	33.90
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.72	175.00	301.00
9977	Carriage	L.S.	2.08	2.12	4.41
9999	Putty, sand paper etc	L.S.	7.93	2.12	16.81
	LABOUR				
0131	Painter	day	0.80	714.00	571.20
0115	Coolie	day	0.80	645.00	516.00
9999	Sundries	L.S.	10.01	2.12	21.22
9999	Wire brushes for cleaning	L.S.	17.81	2.12	37.76
9999	Extra for delays	L.S.	101.40	2.12	214.97
	TOTAL				2303.88 W
	Add 1 % Water charges on "W"				23.04
	TOTAL				2326.92 X
	Add GST on "X" (multiplying factor 0.1405)				326.93
	TOTAL				2653.86 Y
	Add 15% CPOH on "Y"				398.08
	TOTAL				3051.93 Z
	Add Cess @ 1% on "Z"				30.52
	Cost of 30.00 mtrs				3082.45
	Cost of 1.00 metre				102.75
	Say				102.75

13.57 Painting with oil type wood preservative of approved brand and manufacture :
13.57.1 New work (two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0859	Oil type wood preservative	litre	1.00	130.00	130.00
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.15	714.00	107.10
0115	Coolie	day	0.15	645.00	96.75
9999	Brushes etc	L.S.	4.16	2.12	8.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	3.90	2.12	8.27
	TOTAL				352.04 W
	Add 1 % Water charges on "W"				3.52
	TOTAL				355.56 X
	Add GST on "X" (multiplying factor 0.1405)				49.96
	TOTAL				405.52 Y
	Add 15% CPOH on "Y"				60.83
	TOTAL				466.34 Z
	Add Cess @ 1% on "Z"				4.66
	Cost of 10.00 sqm				471.01
	Cost of 1.00 sqm				47.10
	Say				47.10

13.58 Providing and applying two coats of fire retardant paint on cleaned wood / ply surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
7240	Fire retardant paint	litre	5.70	240.00	1368.00
9977	Carriage of material	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0114	Beldar	day	0.54	645.00	348.30
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				2136.31 W
	Add 1 % Water charges on “W”				21.36
	TOTAL				2157.67 X
	Add GST on “X” (multiplying factor 0.1405)				303.15
	TOTAL				2460.83 Y
	Add 15% CPOH on “Y”				369.12
	TOTAL				2829.95 Z
	Add Cess @ 1% on “Z”				28.30
	Cost of 10.00 sqm				2858.25
	Cost of 1.00 sqm				285.82
	Say				285.80

13.59 Coal tarring two coats on new work using 0.16 Litre and 0.12 litre coal tar per sqm in the first coat and second coat respectively.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
9999	Lime	L.S.	1.43	2.12	3.03
0324	Coal Tar	litre	2.80	30.00	84.00
9977	Carriage of material	L.S.	1.43	2.12	3.03
0771	Kerosene oil	litre	0.50	50.00	25.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0114	Beldar	day	0.43	645.00	277.35
9999	Brushes etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				415.01 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				419.16 X
	Add GST on "X" (multiplying factor 0.1405)				58.89
	TOTAL				478.05 Y
	Add 15% CPOH on "Y"				71.71
	TOTAL				549.76 Z
	Add Cess @ 1% on "Z"				5.50
	Cost of 10.00 sqm				555.26
	Cost of 1.00 sqm				55.53
	Say				55.55

13.60 Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :

13.60.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0804	Premium plastic acrylic emulsion of interior grade, having VOC content less than 50 grams/ litre	litre	1.21	200.00	242.00
9999	For filling holes and cracks with putty etc	L.S.	6.76	2.12	14.33
9977	Carriage of material	L.S.	1.43	2.12	3.03
	LABOUR				0.00
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Brushes, sand paper etc	L.S.	10.79	2.12	22.87
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				1030.43 W
	Add 1 % Water charges on "W"				10.30
	TOTAL				1040.73 X
	Add GST on "X" (multiplying factor 0.1405)				146.22
	TOTAL				1186.96 Y
	Add 15% CPOH on "Y"				178.04
	TOTAL				1365.00 Z
	Add Cess @ 1% on "Z"				13.65
	Cost of 10.00 sqm				1378.65
	Cost of 1.00 sqm				137.86
	Say				137.85

13.61 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :

13.61.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	175.00	203.00
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.12	11.30
9977	Carriage	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				982.61 W
	Add 1 % Water charges on "W"				9.83
	TOTAL				992.44 X
	Add GST on "X" (multiplying factor 0.1405)				139.44
	TOTAL				1131.87 Y
	Add 15% CPOH on "Y"				169.78
	TOTAL				1301.65 Z
	Add Cess @ 1% on "Z"				13.02
	Cost of 10.00 sqm				1314.67
	Cost of 1.00 sqm				131.47
	Say				131.45

13.62 Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.62.1 Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	litre	0.75	105.00	78.75
9999	Putty	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	10.79	2.12	22.87
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	175.00	203.00
9977	Carriage of paint and material	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1430.60 W
	Add 1 % Water charges on "W"				14.31
	TOTAL				1444.90 X
	Add GST on "X" (multiplying factor 0.1405)				203.01
	TOTAL				1647.91 Y
	Add 15% CPOH on "Y"				247.19
	TOTAL				1895.10 Z
	Add Cess @ 1% on "Z"				18.95
	Cost of 10.00 sqm				1914.05
	Cost of 1.00 sqm				191.41
	Say				191.40

13.63 Painting with aluminium paint of approved brand and manufacture to give an even shade .

13.63.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.80	150.00	120.00
9977	Carriage of paint and material	L.S.	1.43	2.12	3.03
9999	Putty etc	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	11.96	2.12	25.36
	TOTAL				907.88 W
	Add 1 % Water charges on "W"				9.08
	TOTAL				916.96 X
	Add GST on "X" (multiplying factor 0.1405)				128.83
	TOTAL				1045.79 Y
	Add 15% CPOH on "Y"				156.87
	TOTAL				1202.66 Z
	Add Cess @ 1% on "Z"				12.03
	Cost of 10.00 sqm				1214.68
	Cost of 1.00 sqm				121.47
	Say				121.45

13.64 Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :

13.64.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0827	Acid proof paint (chocolate or black)	litre	1.16	225.00	261.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of paint	L.S.	1.43	2.12	3.03
9999	Putty etc	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1040.61 W
	Add 1 % Water charges on "W"				10.41
	TOTAL				1051.02 X
	Add GST on "X" (multiplying factor 0.1405)				147.67
	TOTAL				1198.68 Y
	Add 15% CPOH on "Y"				179.80
	TOTAL				1378.49 Z
	Add Cess @ 1% on "Z"				13.78
	Cost of 10.00 sqm				1392.27
	Cost of 1.00 sqm				139.23
	Say				139.25

13.65 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :

13.65.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.95	100.00	95.00
9977	Carriage	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				860.28 W
	Add 1 % Water charges on "W"				8.60
	TOTAL				868.88 X
	Add GST on "X" (multiplying factor 0.1405)				122.08
	TOTAL				990.96 Y
	Add 15% CPOH on "Y"				148.64
	TOTAL				1139.60 Z
	Add Cess @ 1% on "Z"				11.40
	Cost of 10.00 sqm				1151.00
	Cost of 1.00 sqm				115.10
	Say				115.10

13.67 Varnishing with varnish of approved brand and manufacture :

13.67.1 Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0856	Ordinary varnish	litre	0.70	100.00	70.00
0763	Glue	kilogram	0.07	75.00	5.25
0857	Superior copal varnish	litre	1.16	115.00	133.40
9977	Carriage	L.S.	1.43	2.12	3.03
9999	Putty for repair to holes etc	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.90	714.00	642.60
	(0.36+0.54=0.90)				
0115	Coolie	day	0.90	645.00	580.50
	(0.36+0.54=0.90)				
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				1475.57 W
	Add 1 % Water charges on "W"				14.76
	TOTAL				1490.33 X
	Add GST on "X" (multiplying				
	factor 0.1405)				209.39
	TOTAL				1699.72 Y
	Add 15% CPOH on "Y"				254.96
	TOTAL				1954.67 Z
	Add Cess @ 1% on "Z"				19.55
	Cost of 10.00 sqm				1974.22
	Cost of 1.00 sqm				197.42
	Say				197.40

13.67.2 Two or more coats glue sizing with spar varnish or an under coat of flatting varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0856	Ordinary varnish	litre	0.70	100.00	70.00
0763	Glue	kilogram	0.07	75.00	5.25
0858	Superior spar varnish	litre	1.26	115.00	144.90
9977	Carriage	L.S.	1.43	2.12	3.03
9999	Repair etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.90	714.00	642.60
	(0.36+0.54=0.90)				
0115	Coolie	day	0.90	645.00	580.50
	(0.36+0.54=0.90)				
9999	Brushes, sand paper etc	L.S.	6.76	2.12	14.33

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				1481.56 W
	Add 1 % Water charges on "W"				14.82
	TOTAL				1496.37 X
	Add GST on "X" (multiplying factor 0.1405)				210.24
	TOTAL				1706.61 Y
	Add 15% CPOH on "Y"				255.99
	TOTAL				1962.61 Z
	Add Cess @ 1% on "Z"				19.63
	Cost of 10.00 sqm				1982.23
	Cost of 1.00 sqm				198.22
	Say				198.20

13.68 French spirit polishing :

13.68.1 Two or more coats on new works including a coat of wood filler

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
1000	Spirit	litre	1.63	48.00	78.24
9999	Pigment	L.S.	7.15	2.12	15.16
0999	Shellac	kilogram	0.24	300.00	72.00
9977	Carriage of material	L.S.	2.73	2.12	5.79
9999	White woolen cloth, putty	L.S.	16.12	2.12	34.17
9999	Sand paper cotton etc	L.S.	13.39	2.12	28.39
9999	Lineseed oil	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	3.50	714.00	2499.00
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				2752.87 W
	Add 1 % Water charges on "W"				27.53
	TOTAL				2780.39 X
	Add GST on "X" (multiplying factor 0.1405)				390.65
	TOTAL				3171.04 Y
	Add 15% CPOH on "Y"				475.66
	TOTAL				3646.70 Z
	Add Cess @ 1% on "Z"				36.47
	Cost of 10.00 sqm				3683.16
	Cost of 1.00 sqm				368.32
	Say				368.30

13.69 Polishing on wood work with ready mixed wax polish of approved brand and manufacture :

13.69.1 New work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0855	Wax polish (ready made)	kilogram	0.50	230.00	115.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.80	714.00	571.20
0115	Coolie	day	0.80	645.00	516.00
9999	Soap, brushes, cloth etc	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				1227.00 W
	Add 1 % Water charges on "W"				12.27
	TOTAL				1239.27 X
	Add GST on "X" (multiplying factor 0.1405)				174.12
	TOTAL				1413.39 Y
	Add 15% CPOH on "Y"				212.01
	TOTAL				1625.40 Z
	Add Cess @ 1% on "Z"				16.25
	Cost of 10.00 sqm				1641.65
	Cost of 1.00 sqm				164.17
	Say				164.15

13.70 Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0855	Wax polish (ready made)	kilogram	0.10	230.00	23.00
	LABOUR				
0131	Painter	day	0.40	714.00	285.60
0115	Coolie	day	0.40	645.00	258.00
9999	Acetic acid soap, cloth etc	L.S.	5.33	2.12	11.30
9988	Sundries including Carriage	L.S.	8.06	2.12	17.09
	TOTAL				594.99 W
	Add 1 % Water charges on "W"				5.95
	TOTAL				600.94 X
	Add GST on "X" (multiplying factor 0.1405)				84.43
	TOTAL				685.37 Y
	Add 15% CPOH on "Y"				102.81
	TOTAL				788.17 Z
	Add Cess @ 1% on "Z"				7.88
	Cost of 10.00 sqm				796.06
	Cost of 1.00 sqm				79.61
	Say				79.60

13.71 Lettering with black Japan paint of approved brand and manufacture

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 letters of 15 cm height				
	MATERIAL				
0829	Black Japan paint	litre	0.56	90.00	50.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage	L.S.	0.91	2.12	1.93
	LABOUR				
0131	Painter	day	6.00	714.00	4284.00
0115	Coolie	day	2.00	645.00	1290.00
9999	Painting brushes, turpentine, stencil etc	L.S.	13.39	2.12	28.39
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				5671.80 W
	Add 1 % Water charges on "W"				56.72
	TOTAL				5728.52 X
	Add GST on "X" (multiplying factor 0.1405)				804.86
	TOTAL				6533.38 Y
	Add 15% CPOH on "Y"				980.01
	TOTAL				7513.39 Z
	Add Cess @ 1% on "Z"				75.13
	Cost of 100 letters of 15 cm height				7588.52
	Cost of 1 letters of 1 cm height				5.06
	Say				5.05

13.72 Washed stone grit plaster on exterior walls height upto 10 metre above ground level, in two layers, under layer 12 mm cement plaster 1:4 (1 cement : 4 coarse sand), furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 Kg of cement per square metre, top layer 15 mm cement plaster 1:1/ 2:2 (1 cement: 1/2 coarse sand : 2 stone chipping 10 mm nominal size), in panels with groove all around as per approved pattern, including scrubbing and washing the top layer with brushes and water to expose the stone chippings ,complete as per specification and direction of Engineer-in-charge (payment for providing grooves shall be made separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Under layer 12 mm cement plaster with Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4355.20	627.15
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0114	Beldar	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding	L.S.	8.97	2.12	19.02
	Applying cement slurry				
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
0114	Beldar	day	0.25	645.00	161.25
	Top layer 15 mm thick stone chipping plaster Quantity required = 0.172 cum including wastage				
	Preparation of cement concrete mix 1:1/2:2 (1 cement : 1/2 coarse sand : 2 stone chipping 10 mm nominal size)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2911	Stone chippings/ screenings				
	10/ 11.2 mm nominal size	cum	0.14	1200.00	168.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.14	163.93	22.95
0982	Coarse sand (zone III)	cum	0.04	1500.00	60.00
2203	Carriage of Coarse sand	cum	0.04	163.93	6.56
0367	Portland Cement (OPC-43 grade)	tonne	0.10	5000.00	500.00
2209	Carriage of Cement	tonne	0.10	145.72	14.57
0114	Beldar	day	0.10	645.00	64.50
0101	Bhisti	day	0.05	714.00	35.70
9999	Hire and running charges of				
	mechanical mixer	L.S.	4.29	2.12	9.09
9999	Sundries	L.S.	2.08	2.12	4.41
	LABOUR				
0123	Mason (brick layer) 1st class	Day	1.75	784.00	1372.00
0114	Beldar	Day	1.75	645.00	1128.75
0101	Bhisti	Day	0.30	714.00	214.20
9999	Scaffolding	L.S.	24.44	2.12	51.81
	Labour for washing				
0123	Mason (brick layer) 1st class	Day	1.00	784.00	784.00
0115	Coolie	Day	0.50	645.00	322.50
9999	Sundries soft brushes etc	L.S.	25.22	2.12	53.47
	TOTAL				7365.30 W
	Add 1 % Water charges on "W"				73.65
	TOTAL				7438.96 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1045.17
	TOTAL				8484.13 Y
	Add 15% CPOH on "Y"				1272.62
	TOTAL				9756.75 Z
	Add Cess @ 1% on "Z"				97.57
	Cost of 10.00 sqm				9854.32
	Cost of 1.00 sqm				985.43
	Say				985.45

13.73 Forming groove of uniform size in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer, including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charge :

13.73.1 15 mm wide and 15 mm deep groove

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 mtrs Second class kail wood in plank 30 x0.015 x0.015m =6.75cudm Wastage @ 10% = 0.68 Total = 7.43 cudm Assuming that the battens shall become unserviceable after using 5 times Cost for using once = 7.43 / 5 = 1.48 cudm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
1198	Second class kail wood in planks	10 cudm	0.148	260.00	38.48
9977	Carriage of wood	L.S.	0.39	2.12	0.83
	Labour for making battens				
0112	Carpenter 2nd class	day	0.15	714.00	107.10
0114	Beldar	day	0.15	645.00	96.75
9999	Sundries	L.S.	2.86	2.12	6.06
	Labour for nailing the battens to under layer and finishing and repairing grooves				
0123	Mason (brick layer) 1st class	day	0.70	784.00	548.80
0114	Beldar	day	0.70	645.00	451.50
9999	Nails and cement mortar	L.S.	71.76	2.12	152.13
	TOTAL				1401.65 W
	Add 1 % Water charges on "W"				14.02
	TOTAL				1415.67 X
	Add GST on "X" (multiplying factor 0.1405)				198.90
	TOTAL				1614.57 Y
	Add 15% CPOH on "Y"				242.19
	TOTAL				1856.75 Z
	Add Cess @ 1% on "Z"				18.57
	Cost of 30.00 mtrs				1875.32
	Cost of 1.00 metre				62.51
	Say				62.50

13.73.2 20 mm wide and 15 mm deep groove

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 mtrs Second class kail wood in plank 30 x0.02 x0.015m =9.00 cudm Wastage @ 10% = 0.90 Total = 9.90 cudm Assuming that the battens shall become unserviceable after using 5 times Cost for using once = 9.9 / 5 = 1.98 cudm				
	MATERIAL				
1198	Second class kail wood in planks	10 cudm	0.198	260.00	51.48
9977	Carriage of wood	L.S.	0.52	2.12	1.10
	Labour for making battens				
0112	Carpenter 2nd class	day	0.15	714.00	107.10
0114	Beldar	day	0.15	645.00	96.75
9999	Sundries	L.S.	2.86	2.12	6.06
	Labour for nailing the battens to under layer and finishing and repairing grooves				
0123	Mason (brick layer) 1st class	day	0.70	784.00	548.80
0114	Beldar	day	0.70	645.00	451.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Nails and cement mortar	L.S.	71.76	2.12	152.13
	TOTAL				1414.93 W
	Add 1 % Water charges on "W"				14.15
	TOTAL				1429.08 X
	Add GST on "X" (multiplying factor 0.1405)				200.79
	TOTAL				1629.86 Y
	Add 15% CPOH on "Y"				244.48
	TOTAL				1874.34 Z
	Add Cess @ 1% on "Z"				18.74
	Cost of 30.00 mtrs				1893.08
	Cost of 1.00 metre				63.10
	Say				63.10

13.74 Extra for washed grit plaster on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
9999	Scaffolding	L.S.	215.28	2.12	456.39
0123	Mason (brick layer) 1st class	day	0.30	784.00	235.20
0114	Beldar	day	0.30	645.00	193.50
0101	Bhisti	day	0.15	714.00	107.10
9999	Sundries	L.S.	28.60	2.12	60.63
	TOTAL				1052.83 W
	Add 1 % Water charges on “W”				10.53
	TOTAL				1063.35 X
	Add GST on “X” (multiplying factor 0.1405)				149.40
	TOTAL				1212.76 Y
	Add 15% CPOH on “Y”				181.91
	TOTAL				1394.67 Z
	Add Cess @ 1% on “Z”				13.95
	Cost of 10.00 sqm				1408.62
	Cost of 1.00 sqm				140.86
	Say				140.85

13.75 Extra for washed stone grit plaster on circular work not exceeding 6 m in radius (in two coats).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	53.82	2.12	114.10
	TOTAL				828.60 W
	Add 1 % Water charges on "W"				8.29
	TOTAL				836.88 X
	Add GST on "X" (multiplying factor 0.1405)				117.58
	TOTAL				954.47 Y
	Add 15% CPOH on "Y"				143.17
	TOTAL				1097.64 Z
	Add Cess @ 1% on "Z"				10.98
	Cost of 10.00 sqm				1108.61
	Cost of 1.00 sqm				110.86
	Say				110.85

13.76 Forming groove of uniform size from 12x12 mm and upto 25x15 mm in the top layer of washed stone grit plastered surface as per approved pattern, including providing and fixing aluminum channels of appropriate size and thickness (not less than 2 mm), nailed to the under layer with rust proof screws and nails and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 mtrs Aluminium channel section 15 x 15 x 2 mm (weight 0.221 kg/mtr) Qty = 30 + 5% wastage = 31.5 m @ 0.221 kg/m = 6.96 kg.				
7306	Aluminium T or L sections	kilogram	6.96	190.00	1322.40
9977	Carriage	L.S.	38.98	2.12	82.64
	Labour for fixing				
0117	Assistant Fitter or 2nd class Fitter	day	0.46	714.00	328.44
0114	Beldar	day	0.15	645.00	96.75
9999	Sundries	L.S.	2.86	2.12	6.06
9999	Nails and cement mortar	L.S.	71.76	2.12	152.13
	TOTAL				1988.42 W
	Add 1 % Water charges on "W"				19.88
	TOTAL				2008.31 X
	Add GST on "X" (multiplying factor 0.1405)				282.17
	TOTAL				2290.47 Y
	Add 15% CPOH on "Y"				343.57
	TOTAL				2634.04 Z
	Add Cess @ 1% on "Z"				26.34
	Cost of 30.00 mtrs				2660.38
	Cost of 1.00 metre				88.68
	Say				88.70

13.77 Extra for using white cement in place of ordinary cement in the top layer of the item of washed stone grit plaster.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Add for				
0368	White Cement	tonne	0.10	11200.00	1120.00
	Deduct for ordinary cement				
0367	Portland Cement (OPC-43 grade)	tonne	-0.10	5000.00	-500.00
	TOTAL				620.00 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.20 X
	Add GST on "X" (multiplying factor 0.1405)				87.98
	TOTAL				714.18 Y
	Add 15% CPOH on "Y"				107.13
	TOTAL				821.31 Z
	Add Cess @ 1% on "Z"				8.21
	Cost of 10.00 sqm				829.52
	Cost of 1.00 sqm				82.95
	Say				82.95

13.78 Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to IS: 2547 (Part - 1 & II) 1976, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Premixed super white gypsum plaster @ 16.14kg /sqm = 61.40 + 5% wastage = 161.40+8.07= 169.47 kg				
0868	Premixed super white gypsum plaster.	kg	169.47	6.00	1016.82
	LABOUR				
0155	Mason (average)	day	1.20	749.00	898.80
0115	Coolie	day	1.20	645.00	774.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2716.35 W
	Add 1 % Water charges on "W"				27.16
	TOTAL				2743.52 X
	Add GST on "X" (multiplying factor 0.1405)				385.46
	TOTAL				3128.98 Y
	Add 15% CPOH on "Y"				469.35
	TOTAL				3598.33 Z
	Add Cess @ 1% on "Z"				35.98
	Cost of 10.00 sqm				3634.31
	Cost of 1.00 sqm				363.43
	Say				363.45

13.79 Extra for addition of synthetic Polyester triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement plaster/ mortar by using 125 gms. of synthetic Polyester triangular fibre for 50 Kgs. cement used in cement mortar as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for per bag of 50 kg of cement used in mortar				
	MATERIAL				
8733	Synthetic ployster triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 including labour for mixing	kg	0.125	410.00	51.25
	TOTAL				51.25 W
	Add 1 % Water charges on "W"				0.51
	TOTAL				51.76 X
	Add GST on "X" (multiplying factor 0.1405)				7.27
	TOTAL				59.04 Y
	Add 15% CPOH on "Y"				8.86
	TOTAL				67.89 Z
	Add Cess @ 1% on "Z"				0.68
	Cost per bag of cement				68.57
	Say				68.55

13.80 Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0824	Cement base wall care putty	kg	14.58	13.00	189.54
	10x0.001x1429 = 14.29kg				
	Add 2% wastage= 0.29kg				
	Total = 14.58kg Say 14.58 kg				
9977	Carriage	L.S.	3.90	2.12	8.27
	LABOUR				
0122	Mason (for plaster of paris work)				
	1st class	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
9999	Scaffolding and sundries	L.S.	40.00	2.12	84.80
	TOTAL				925.66 W
	Add 1 % Water charges on "W"				9.26
	TOTAL				934.91 X
	Add GST on "X" (multiplying				
	factor 0.1405)				131.36
	TOTAL				1066.27 Y
	Add 15% CPOH on "Y"				159.94
	TOTAL				1226.21 Z
	Add Cess @ 1% on "Z"				12.26
	Cost of 10.00 sqm				1238.47
	Cost of 1.00 sqm				123.85
	Say				123.85

13.81 Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.

13.81.1 One coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0802	Acrylic distemper 1st quality , having				
	VOC content less than 50 gm/kg	Kg	0.62	40.00	24.80
9999	Brushes, putty etc.	L.S.	0.52	2.12	1.10
9988	Sundries including carriage	L.S.	10.79	2.12	22.87

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Scaffolding and sundries	L.S.	7.15	2.12	15.16
	TOTAL				409.21 W
	Add 1 % Water charges on "W"				4.09
	TOTAL				413.30 X
	Add GST on "X" (multiplying factor 0.1405)				58.07
	TOTAL				471.37 Y
	Add 15% CPOH on "Y"				70.70
	TOTAL				542.07 Z
	Add Cess @ 1% on "Z"				5.42
	Cost of 10.00 sqm				547.49
	Cost of 1.00 sqm				54.75
	Say				54.75

13.81.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0802	Acrylic distemper 1st quality, having VOC content less than 50 gm/kg	Kg	0.99	40.00	39.60
9999	Brushes, putty etc.	L.S.	11.57	2.12	24.53
9988	Sundries including carriage	L.S.	4.42	2.12	9.37
	LABOUR				
0131	Painter	day	0.40	714.00	285.60
0115	Coolie	day	0.46	645.00	296.70
9999	Scaffolding and sundries	L.S.	8.06	2.12	17.09
	TOTAL				672.89 W
	Add 1 % Water charges on "W"				6.73
	TOTAL				679.61 X
	Add GST on "X" (multiplying factor 0.1405)				95.49
	TOTAL				775.10 Y
	Add 15% CPOH on "Y"				116.27
	TOTAL				891.37 Z
	Add Cess @ 1% on "Z"				8.91
	Cost of 10.00 sqm				900.28
	Cost of 1.00 sqm				90.03
	Say				90.05

13.82 Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.

13.82.1 One coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0803	Acrylic emulsion , having VOC content				
	less than 50 gm/ltr	litre	0.53	94.00	49.82
9999	For filling holes and cracks with putty etc	L.S.	0.52	2.12	1.10
9977	Carriage of material	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc.	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				582.88 W
	Add 1 % Water charges on "W"				5.83
	TOTAL				588.71 X
	Add GST on "X" (multiplying				
	factor 0.1405)				82.71
	TOTAL				671.42 Y
	Add 15% CPOH on "Y"				100.71
	TOTAL				772.14 Z
	Add Cess @ 1% on "Z"				7.72
	Cost of 10.00 sqm				779.86
	Cost of 1.00 sqm				77.99
	Say				78.00

13.82.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0803	Acrylic emulsion , having VOC content				
	less than 50 gm/ltr	litre	0.84	94.00	78.96
9999	For filling holes and cracks with putty etc	L.S.	1.43	2.12	3.03
9977	Carriage of material	L.S.	6.76	2.12	14.33
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Brushes, sand paper etc.	L.S.	10.79	2.12	22.87
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				867.39 W
	Add 1 % Water charges on "W"				8.67
	TOTAL				876.06 X
	Add GST on "X" (multiplying				
	factor 0.1405)				123.09
	TOTAL				999.15 Y
	Add 15% CPOH on "Y"				149.87
	TOTAL				1149.02 Z
	Add Cess @ 1% on "Z"				11.49
	Cost of 10.00 sqm				1160.51
	Cost of 1.00 sqm				116.05
	Say				116.05

13.83 Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.

13.83.1 One coat

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	MATERIAL					
0804	Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/ltr.	litre	0.38	200.00	76.00	
9999	For filling holes and cracks with putty etc	L.S.	0.52	2.12	1.10	
9977	Carriage of material	L.S.	0.91	2.12	1.93	
	LABOUR					
0131	Painter	day	0.36	714.00	257.04	
0115	Coolie	day	0.36	645.00	232.20	
9999	Brushes, sand paper etc.	L.S.	8.06	2.12	17.09	
9999	Sundries	L.S.	6.76	2.12	14.33	
	TOTAL				599.69	W
	Add 1 % Water charges on "W"				6.00	
	TOTAL				605.69	X
	Add GST on "X" (multiplying factor 0.1405)				85.10	
	TOTAL				690.79	Y
	Add 15% CPOH on "Y"				103.62	
	TOTAL				794.40	Z
	Add Cess @ 1% on "Z"				7.94	
	Cost of 10.00 sqm				802.35	
	Cost of 1.00 sqm				80.23	
	Say				80.25	

13.83.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0804	Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/ltr.	litre	0.60	200.00	120.00
9999	For filling holes and cracks with putty etc	L.S.	1.43	2.12	3.03
9977	Carriage of material	L.S.	6.76	2.12	14.33
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0115	Coolie	day	0.54	645.00	348.30
9999	Brushes, sand paper etc.	L.S.	10.79	2.12	22.87

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				908.43 W
	Add 1 % Water charges on "W"				9.08
	TOTAL				917.51 X
	Add GST on "X" (multiplying factor 0.1405)				128.91
	TOTAL				1046.42 Y
	Add 15% CPOH on "Y"				156.96
	TOTAL				1203.39 Z
	Add Cess @ 1% on "Z"				12.03
	Cost of 10.00 sqm				1215.42
	Cost of 1.00 sqm				121.54
	Say				121.55

13.85 Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.

13.85.1 With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 gms/lit.	litre	0.75	105.00	78.75
9999	Putty	L.S.	2.73	2.12	5.79
9977	Carriage of material	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
9999	Brushes, sand paper etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				459.29 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				463.88 X
	Add GST on "X" (multiplying factor 0.1405)				65.18
	TOTAL				529.06 Y
	Add 15% CPOH on "Y"				79.36
	TOTAL				608.42 Z
	Add Cess @ 1% on "Z"				6.08
	Cost of 10.00 sqm				614.50
	Cost of 1.00 sqm				61.45
	Say				61.45

13.85.3 With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	50.00	35.00
9977	Carriage of material	L.S.	8.06	2.12	17.09
	LABOUR				
0131	Painter	day	0.40	714.00	285.60
0115	Coolie	day	0.20	645.00	129.00
9999	Brushes, sand paper etc.	L.S.	7.15	2.12	15.16
	TOTAL				481.85 W
	Add 1 % Water charges on "W"				4.82
	TOTAL				486.66 X
	Add GST on "X" (multiplying factor 0.1405)				68.38
	TOTAL				555.04 Y
	Add 15% CPOH on "Y"				83.26
	TOTAL				638.30 Z
	Add Cess @ 1% on "Z"				6.38
	Cost of 10.00 sqm				644.68
	Cost of 1.00 sqm				64.47
	Say				64.45

13.86 6 mm plaster on cement concrete or reinforced cement concrete work with white cement based polymer modified self curing mortar of approved make as per the direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0772	White cement based polymer modified self curing compound in powder form i/c 2% wastage	kg	46.00	15.00	690.00
9977	Carriage of white cement based polymer modified self curing compound in powder form	L.S.	7.80	2.12	16.54
	LABOUR				
0155	Mason (average)	day	0.51	749.00	381.99
0115	Coolie	day	0.75	645.00	483.75
9999	Extra for removing burrs, cleaning with wire brushes and pock making with pointed tools etc.	L.S.	13.39	2.12	28.39

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sunderies	L.S.	11.70	2.12	24.80
	TOTAL				1625.47 W
	Add 1 % Water charges on "W"				16.25
	TOTAL				1641.72 X
	Add GST on "X" (multiplying factor 0.1405)				230.66
	TOTAL				1872.38 Y
	Add 15% CPOH on "Y"				280.86
	TOTAL				2153.24 Z
	Add Cess @ 1% on "Z"				21.53
	Cost of 10 sqm				2174.77
	Cost of 1 sqm				217.48
	Say				217.50

13.87 White washing with lime to give an even shade :

13.87.1 Old work (two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.02	600.00	12.00
9977	Carriage of lime	L.S.	0.52	2.12	1.10
	LABOUR				
0141	White Washer	day	0.11	714.00	78.54
0115	Coolie	day	0.06	645.00	38.70
9999	Indigo gum etc	L.S.	2.73	2.12	5.79
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				141.92 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.34 X
	Add GST on "X" (multiplying factor 0.1405)				20.14
	TOTAL				163.48 Y
	Add 15% CPOH on "Y"				24.52
	TOTAL				188.00 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of 10.00 sqm				189.88
	Cost of 1.00 sqm				18.99
	Say				19.00

13.87.2 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0775	Dehradun white lime	quintal	0.01	600.00	6.00
9977	Carriage of lime	L.S.	0.52	2.12	1.10
	LABOUR				
0141	White Washer	day	0.07	714.00	49.98
0115	Coolie	day	0.03	645.00	19.35
9999	Indigo gum etc	L.S.	2.08	2.12	4.41

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries ladders etc	L.S.	2.73	2.12	5.79
	TOTAL				86.63 W
	Add 1 % Water charges on "W"				0.87
	TOTAL				87.50 X
	Add GST on "X" (multiplying factor 0.1405)				12.29
	TOTAL				99.79 Y
	Add 15% CPOH on "Y"				14.97
	TOTAL				114.76 Z
	Add Cess @ 1% on "Z"				1.15
	Cost of 10.00 sqm				115.91
	Cost of 1.00 sqm				11.59
	Say				11.60

13.88 Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.09	645.00	58.05
0115	Coolie	day	0.04	645.00	25.80
0101	Bhisti	day	0.04	714.00	28.56
9999	Sundries such as sand paper and scrapper	L.S.	2.73	2.12	5.79
9999	Repair to scraches	L.S.	1.82	2.12	3.86
	TOTAL				122.06 W
	Add 1 % Water charges on "W"				1.22
	TOTAL				123.28 X
	Add GST on "X" (multiplying factor 0.1405)				17.32
	TOTAL				140.60 Y
	Add 15% CPOH on "Y"				21.09
	TOTAL				161.69 Z
	Add Cess @ 1% on "Z"				1.62
	Cost of 10 sqm.				163.30
	Cost of 1 sqm.				16.33
	Say				16.35

13.90 Distempering with 1st quality acrylic distember (Ready mix) having VOC content less than 50 grams/ litre of approved brand and manufacture to give an even shade :

13.90.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.00	40.00	40.00
9999	Brushes, putty etc.	L.S.	0.52	2.12	1.10
9988	Sundries including carriage	L.S.	10.79	2.12	22.87

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				424.41 W
	Add 1 % Water charges on "W"				4.24
	TOTAL				428.65 X
	Add GST on "X" (multiplying factor 0.1405)				60.23
	TOTAL				488.87 Y
	Add 15% CPOH on "Y"				73.33
	TOTAL				562.21 Z
	Add Cess @ 1% on "Z"				5.62
	Cost of 10 sqm.				567.83
	Cost of 1 sqm.				56.78
	Say				56.80

13.91 Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.11	645.00	70.95
0115	Coolie	day	0.05	645.00	32.25
0101	Bhisti	day	0.05	714.00	35.70
9999	Scrapper, sand paper etc.	L.S.	6.24	2.12	13.23
9999	Sundries including mortar to repair the surface	L.S.	1.82	2.12	3.86
	TOTAL				155.99 W
	Add 1 % Water charges on "W"				1.56
	TOTAL				157.55 X
	Add GST on "X" (multiplying factor 0.1405)				22.14
	TOTAL				179.68 Y
	Add 15% CPOH on "Y"				26.95
	TOTAL				206.63 Z
	Add Cess @ 1% on "Z"				2.07
	Cost of 10 sqm.				208.70
	Cost of 1 sqm.				20.87
	Say				20.85

13.92 Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.92.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
0845	Roofing paint for iron sheets in red colour	litre	0.46	120.00	55.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty, brushes sand paper etc.	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				576.96 W
	Add 1 % Water charges on "W"				5.77
	TOTAL				582.73 X
	Add GST on "X" (multiplying factor 0.1405)				81.87
	TOTAL				664.60 Y
	Add 15% CPOH on "Y"				99.69
	TOTAL				764.29 Z
	Add Cess @ 1% on "Z"				7.64
	Cost of 10 sqm.				771.94
	Cost of 1 sqm.				77.19
	Say				77.20

13.93 Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming coat of ready mixed zinc chromate yellow primer on new work :

13.93.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 metres Area=22/7 x0.0814m x30m =7.67 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.41	120.00	49.20
9977	Carraige	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.18	714.00	128.52
0115	Coolie	day	0.18	645.00	116.10
9999	Brushes, sand paper etc	L.S.	8.19	2.12	17.36
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.73	100.00	73.00
9977	Carraige	L.S.	1.04	2.12	2.20
	LABOUR				
0131	Painter	day	0.41	714.00	292.74
0115	Coolie	day	0.41	645.00	264.45
9999	Putty, sand paper etc	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	6.24	2.12	13.23
9999	Wire brushes for cleaning	L.S.	4.42	2.12	9.37
9999	Extra for delays	L.S.	40.3	2.12	85.44
	TOTAL				1061.26 W
	Add 1 % Water charges on "W"				10.61
	TOTAL				1071.87 X
	Add GST on "X" (multiplying factor 0.1405)				150.60
	TOTAL				1222.47 Y
	Add 15% CPOH on "Y"				183.37
	TOTAL				1405.84 Z
	Add Cess @ 1% on "Z"				14.06
	Cost of 30.00 metres				1419.90
	Cost of 1.00 metre				47.33
	Say				47.35

13.94 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :

13.94.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 metres				
	Area=22/7 x0.0814m x30m =7.67 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.43	100.00	43.00
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.27	714.00	192.78
0115	Coolie	day	0.27	645.00	174.15
9999	Putty, sand paper etc	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	6.24	2.12	13.23
9999	Wire brushes for cleaning	L.S.	4.42	2.12	9.37
9999	Extra for delays	L.S.	26.91	2.12	57.05
	TOTAL				499.22 W
	Add 1 % Water charges on "W"				4.99
	TOTAL				504.22 X
	Add GST on "X" (multiplying				
	factor 0.1405)				70.84
	TOTAL				575.06 Y
	Add 15% CPOH on "Y"				86.26
	TOTAL				661.32 Z
	Add Cess @ 1% on "Z"				6.61
	Cost of 30.00 metres				667.93
	Cost of 1.00 metre				22.26
	Say				22.25

13.94.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres				
	Area = 22/7x106.4 mmx30 m				
	= 10.032 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	57.00
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
9999	Wire brushes for cleaning	L.S.	5.33	2.12	11.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Extra for delay	L.S.	34.06	2.12	72.21
	TOTAL				659.24 W
	Add 1 % Water charges on "W"				6.59
	TOTAL				665.83 X
	Add GST on "X" (multiplying factor 0.1405)				93.55
	TOTAL				759.38 Y
	Add 15% CPOH on "Y"				113.91
	TOTAL				873.28 Z
	Add Cess @ 1% on "Z"				8.73
	Cost of 30.00 metres				882.02
	Cost of 1.00 metre				29.40
	Say				29.40

13.94.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres Area = 22/7x157.2 mmx30 m = 14.82 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.85	100.00	85.00
9977	Carriage	L.S.	0.65	2.12	1.38
	LABOUR				
0131	Painter	day	0.53	714.00	378.42
0115	Coolie	day	0.53	645.00	341.85
9999	Putty, sand paper brushes etc.	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	11.96	2.12	25.36
9999	Wire brushes for cleaning	L.S.	7.14	2.12	15.14
9999	Extra for delay	L.S.	40.30	2.12	85.44
	TOTAL				949.66 W
	Add 1 % Water charges on "W"				9.50
	TOTAL				959.16 X
	Add GST on "X" (multiplying factor 0.1405)				134.76
	TOTAL				1093.92 Y
	Add 15% CPOH on "Y"				164.09
	TOTAL				1258.01 Z
	Add Cess @ 1% on "Z"				12.58
	Cost of 30.00 metres				1270.59
	Cost of 1.00 metre				42.35
	Say				42.35

13.95 Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with aluminium paint of approved brand and manufacture over a priming coat of ready mixed zinc chromate yellow primer on new work :

13.95.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 metres Area=22/7 x0.0814m x30m =7.67 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.41	120.00	49.20
9977	Carriage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.18	714.00	128.52
0115	Coolie	day	0.18	645.00	116.10
9999	Sundries	L.S.	8.19	2.12	17.36
	MATERIAL				
0826	Aluminium paint	litre	0.61	150.00	91.50
9977	Carriage	L.S.	1.04	2.12	2.20
9999	Putty, sand paper etc	L.S.	4.16	2.12	8.82
	LABOUR				
0131	Painter	day	0.41	714.00	292.74
0115	Coolie	day	0.41	645.00	264.45
9999	Sundries	L.S.	5.20	2.12	11.02
9999	Wire brushes for cleaning	L.S.	9.10	2.12	19.29
9999	Extra for delays	L.S.	44.85	2.12	95.08
	TOTAL				1097.12 W
	Add 1 % Water charges on "W"				10.97
	TOTAL				1108.09 X
	Add GST on "X" (multiplying factor 0.1405)				155.69
	TOTAL				1263.78 Y
	Add 15% CPOH on "Y"				189.57
	TOTAL				1453.35 Z
	Add Cess @ 1% on "Z"				14.53
	Cost of 30.00 metres				1467.88
	Cost of 1.00 metre				48.93
	Say				48.95

13.95.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 metres				
	Area=22/7 x106.4x30m =10.032sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.54	120.00	64.80
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.24	714.00	171.36
	0.18 x 10.032 / 7.67 = 0.24				
0115	Coolie	day	0.24	645.00	154.80
9999	Sundries	L.S.	10.79	2.12	22.87
	MATERIAL				
0826	Aluminium paint	litre	1.16	150.00	174.00
	0.61 x 10.032 / 7.67 = 0.80				
9977	Carriage	L.S.	1.43	2.12	3.03
9999	Putty, sand paper etc	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
	0.41 x 10.032 / 7.67 = 0.54				
0115	Coolie	day	0.54	645.00	348.30
9999	Sundries	L.S.	6.76	2.12	14.33

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Wire brushes for cleaning	L.S.	11.96	2.12	25.36
9999	Extra for delays	L.S.	66.43	2.12	140.83
	TOTAL				1517.65 W
	Add 1 % Water charges on "W"				15.18
	TOTAL				1532.82 X
	Add GST on "X" (multiplying factor 0.1405)				215.36
	TOTAL				1748.18 Y
	Add 15% CPOH on "Y"				262.23
	TOTAL				2010.41 Z
	Add Cess @ 1% on "Z"				20.10
	Cost of 30.00 metres				2030.52
	Cost of 1.00 metre				67.68
	Say				67.70

13.95.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 metres				
	Area=22/7 x157.12x30m =14.82 sqm				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.80	120.00	96.00
9977	Carriage	L.S.	0.65	2.12	1.38
	LABOUR				
0131	Painter	Day	0.36	714.00	257.04
	0.18 x 14.82 / 7.67 = 0.36				
0115	Coolie	Day	0.36	645.00	232.20
9999	Sundries	L.S.	15.99	2.12	33.90
	MATERIAL				
0826	Aluminium paint	litre	1.72	150.00	258.00
	0.61 x 14.82 / 7.67 = 1.72				
9977	Carriage	L.S.	2.08	2.12	4.41
9999	Putty, sand paper etc	L.S.	7.93	2.12	16.81
	LABOUR				
0131	Painter	day	0.80	714.00	571.20
	0.41 x 14.82 / 7.67 = 0.80				
0115	Coolie	day	0.80	645.00	516.00
9999	Sundries	L.S.	10.01	2.12	21.22
9999	Wire brushes for cleaning	L.S.	17.81	2.12	37.76
9999	Extra for delays	L.S.	101.4	2.12	214.97
	TOTAL				2260.88 W
	Add 1 % Water charges on "W"				22.61
	TOTAL				2283.49 X
	Add GST on "X" (multiplying factor 0.1405)				320.83
	TOTAL				2604.32 Y
	Add 15% CPOH on "Y"				390.65
	TOTAL				2994.97 Z
	Add Cess @ 1% on "Z"				29.95
	Cost of 30.00 metres				3024.92
	Cost of 1.00 metre				100.83
	Say				100.85

13.96 Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work :

13.96.1 75 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres Area = 22/7x0.0814 mmx30 m = 7.67 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.35	150.00	52.50
9999	Putty, sand paper etc.	L.S.	0.39	2.12	0.83
9977	Carriage	L.S.	2.08	2.12	4.41
	LABOUR				
0131	Painter	day	0.28	714.00	199.92
0115	Coolie	day	0.28	645.00	180.60
9999	Putty, sand paper brushes etc.	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	6.24	2.12	13.23
9999	Wire brushes for cleaning	L.S.	4.42	2.12	9.37
9999	Extra for delay	L.S.	26.91	2.12	57.05
	TOTAL				526.72 W
	Add 1 % Water charges on "W"				5.27
	TOTAL				531.99 X
	Add GST on "X" (multiplying factor 0.1405)				74.74
	TOTAL				606.74 Y
	Add 15% CPOH on "Y"				91.01
	TOTAL				697.75 Z
	Add Cess @ 1% on "Z"				6.98
	Cost of 30.00 metres				704.72
	Cost of 1.00 metre				23.49
	Say				23.50

13.96.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres Area = 22/7x106.4 mmx30 m = 10.032 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.46	150.00	69.00
9999	Putty, sand paper etc.	L.S.	0.52	2.12	1.10
9977	Carriage	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
9999	Wire brushes for cleaning	L.S.	5.33	2.12	11.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Extra for delay	L.S.	34.06	2.12	72.21
	TOTAL				677.02 W
	Add 1 % Water charges on "W"				6.77
	TOTAL				683.79 X
	Add GST on "X" (multiplying factor 0.1405)				96.07
	TOTAL				779.87 Y
	Add 15% CPOH on "Y"				116.98
	TOTAL				896.85 Z
	Add Cess @ 1% on "Z"				8.97
	Cost of 30.00 metres				905.82
	Cost of 1.00 metre				30.19
	Say				30.20

13.96.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres Area = 22/7x157.2 mmx30 m = 14.82 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.68	150.00	102.00
9999	Putty, sand paper etc.	L.S.	0.65	2.12	1.38
9977	Carriage	L.S.	3.90	2.12	8.27
	LABOUR				
0131	Painter	day	0.53	714.00	378.42
0115	Coolie	day	0.53	645.00	341.85
9999	Putty, sand paper brushes etc.	L.S.	7.93	2.12	16.81
9999	Sundries	L.S.	11.96	2.12	25.36
9999	Wire brushes for cleaning	L.S.	7.15	2.12	15.16
9999	Extra for delay	L.S.	40.30	2.12	85.44
	TOTAL				974.68 W
	Add 1 % Water charges on "W"				9.75
	TOTAL				984.42 X
	Add GST on "X" (multiplying factor 0.1405)				138.31
	TOTAL				1122.74 Y
	Add 15% CPOH on "Y"				168.41
	TOTAL				1291.15 Z
	Add Cess @ 1% on "Z"				12.91
	Cost of 30.00 metres				1304.06
	Cost of 1.00 metre				43.47
	Say				43.45

13.97 Painting with oil type wood preservative of approved brand and manufacture:

13.97.1 Old work (one or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0859	Oil type wood preservative	litre	0.81	130.00	105.30
9977	Carriage of material	L.S.	0.52	2.12	1.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.11	714.00	78.54
0115	Coolie	day	0.11	645.00	70.95
9999	Brushes etc	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				267.47 W
	Add 1 % Water charges on "W"				2.67
	TOTAL				270.14 X
	Add GST on "X" (multiplying factor 0.1405)				37.95
	TOTAL				308.10 Y
	Add 15% CPOH on "Y"				46.21
	TOTAL				354.31 Z
	Add Cess @ 1% on "Z"				3.54
	Cost of 10.00 sqm				357.85
	Cost of 1.00 sqm				35.79
	Say				35.80

13.98 Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:

13.98.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0804	Premium plastic acrylic emulsion of interior grade, having VOC content less than 50 grams/ litre	litre	0.73	200.00	146.00
9999	Material for filling holes and cracks (putty etc.)	L.S.	0.52	2.12	1.10
9977	Carriage of material	L.S.	5.33	2.12	11.30
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				679.06 W
	Add 1 % Water charges on "W"				6.79
	TOTAL				685.85 X
	Add GST on "X" (multiplying factor 0.1405)				96.36
	TOTAL				782.21 Y
	Add 15% CPOH on "Y"				117.33
	TOTAL				899.55 Z
	Add Cess @ 1% on "Z"				9.00
	Cost of 10.00 sqm				908.54
	Cost of 1.00 sqm				90.85
	Say				90.85

13.99 Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :

13.99.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	0.70	175.00	122.50
9977	Carriage of paint and materials	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty	L.S.	2.73	2.12	5.79
9999	Brushes sand paper etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				647.02 W
	Add 1 % Water charges on "W"				6.47
	TOTAL				653.49 X
	Add GST on "X" (multiplying factor 0.1405)				91.81
	TOTAL				745.30 Y
	Add 15% CPOH on "Y"				111.80
	TOTAL				857.10 Z
	Add Cess @ 1% on "Z"				8.57
	Cost of 10.00 sqm				865.67
	Cost of 1.00 sqm				86.57
	Say				86.55

13.100 Painting with aluminium paint of approved brand and manufacture to give an even shade:

13.100.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0826	Aluminium paint	litre	0.46	150.00	69.00
9977	Carriage of paint and material	L.S.	0.52	2.12	1.10
9999	Putty etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				593.52 W
	Add 1 % Water charges on "W"				5.94
	TOTAL				599.45 X
	Add GST on "X" (multiplying factor 0.1405)				84.22
	TOTAL				683.67 Y
	Add 15% CPOH on "Y"				102.55
	TOTAL				786.23 Z
	Add Cess @ 1% on "Z"				7.86
	Cost of 10.00 sqm				794.09
	Cost of 1.00 sqm				79.41
	Say				79.40

13.101 Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :

13.101.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0827	Acid proof paint (chocolate or black)	litre	0.70	225.00	157.50
9977	Carriage of paint	L.S.	0.52	2.12	1.10
9999	Putty etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				682.02 W
	Add 1 % Water charges on "W"				6.82
	TOTAL				688.84 X
	Add GST on "X" (multiplying factor 0.1405)				96.78
	TOTAL				785.62 Y
	Add 15% CPOH on "Y"				117.84
	TOTAL				903.46 Z
	Add Cess @ 1% on "Z"				9.03
	Cost of 10.00 sqm				912.50
	Cost of 1.00 sqm				91.25
	Say				91.25

13.102 Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :

13.102.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	57.00
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				575.73 W
	Add 1 % Water charges on "W"				5.76
	TOTAL				581.49 X
	Add GST on "X" (multiplying factor 0.1405)				81.70
	TOTAL				663.19 Y
	Add 15% CPOH on "Y"				99.48
	TOTAL				762.66 Z
	Add Cess @ 1% on "Z"				7.63
	Cost of 10.00 sqm				770.29
	Cost of 1.00 sqm				77.03
	Say				77.05

13.103 French spirit polishing :

13.103.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
1000	Spirit	litre	0.98	48.00	47.04
0999	Shellac	kilogram	0.13	300.00	39.00
9977	Carriage of materials	L.S.	0.91	2.12	1.93
9999	Turpentine oil sand paper cotton/woolen cloth putty etc.	L.S.	10.79	2.12	22.87
9999	Linseed oil	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	1.76	714.00	1256.64
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1385.67 W
	Add 1 % Water charges on "W"				13.86
	TOTAL				1399.53 X
	Add GST on "X" (multiplying factor 0.1405)				196.63
	TOTAL				1596.16 Y
	Add 15% CPOH on "Y"				239.42
	TOTAL				1835.59 Z
	Add Cess @ 1% on "Z"				18.36
	Cost of 10.00 sqm				1853.94
	Cost of 1.00 sqm				185.39
	Say				185.40

13.104 Polishing on wood work with ready made wax polish of approved brand and manufacture :

13.104.1 Old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0855	Wax polish (ready made)	kilogram	0.25	230.00	57.50
9977	Caariage	L.S.	0.39	2.12	0.83
	LABOUR				
0131	Painter	day	0.40	714.00	285.60
0115	Coolie	day	0.40	645.00	258.00
9999	Soap, brushes, cloth etc	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				620.12 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.32 X
	Add GST on "X" (multiplying factor 0.1405)				88.00
	TOTAL				714.32 Y
	Add 15% CPOH on "Y"				107.15
	TOTAL				821.46 Z
	Add Cess @ 1% on "Z"				8.21
	Cost of 10.00 sqm				829.68
	Cost of 1.00 sqm				82.97
	Say				82.95

13.105 Re-lettering with black Japan paint of approved brand and manufacture.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 letters of 15 cm height				
	MATERIAL				
0829	Black Japan paint	litre	0.37	90.00	33.30
9977	Carriage	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	4.00	714.00	2856.00
0115	Coolie	day	1.00	645.00	645.00
9999	Painting brushes, turpentine, stencil etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				3567.65 W
	Add 1 % Water charges on "W"				35.68
	TOTAL				3603.32 X
	Add GST on "X" (multiplying factor 0.1405)				506.27
	TOTAL				4109.59 Y
	Add 15% CPOH on "Y"				616.44
	TOTAL				4726.03 Z
	Add Cess @ 1% on "Z"				47.26
	Cost of 100 letters of 15 cm height				4773.29
	Cost per letter per cm height				3.18
	Say				3.20

13.106 Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0829	Black Japan paint	litre	0.70	90.00	63.00
9977	Carriage	L.S.	0.52	2.12	1.10
9999	Putty etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc.	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				587.52 W
	Add 1 % Water charges on "W"				5.88
	TOTAL				593.39 X
	Add GST on "X" (multiplying factor 0.1405)				83.37
	TOTAL				676.76 Y
	Add 15% CPOH on "Y"				101.51
	TOTAL				778.28 Z
	Add Cess @ 1% on "Z"				7.78
	Cost of 10.00 sqm				786.06
	Cost of 1sqm				78.61
	Say				78.60

13.107 Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:

13.107.1 32 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 no.				
	MATERIAL				
1314	C.P.brass chain with 32 mm dia rubber plug	each	1.00	40.00	40.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				57.09 W
	Add 1 % Water charges on "W"				0.57
	TOTAL				57.66 X
	Add GST on "X" (multiplying factor 0.1405)				8.10
	TOTAL				65.76 Y
	Add 15% CPOH on "Y"				9.86
	TOTAL				75.62 Z
	Add Cess @ 1% on "Z"				0.76
	Cost of each				76.38
	Say				76.40

13.107.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 no.				
	MATERIAL				
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	40.00	40.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				57.09 W
	Add 1 % Water charges on "W"				0.57
	TOTAL				57.66 X
	Add GST on "X" (multiplying factor 0.1405)				8.10
	TOTAL				65.76 Y
	Add 15% CPOH on "Y"				9.86
	TOTAL				75.62 Z
	Add Cess @ 1% on "Z"				0.76
	Cost of each				76.38
	Say				76.40

13.108 Distempering with 1st quality acrylic distemper (ready made) having VOC content less than 50 gm per ltr. of approved manufacturer and of required shade and colour complete. as per manufacturer's specification.

13.108.1 One or more coats on old work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0802	Acrylic distemper 1st quality , having VOC content less than 50 grams/ litre	kilogram	1.00	40.00	40.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Brushes, putty etc	L.S.	0.52	2.12	1.10
9988	Sundries including carriage of material	L.S.	10.76	2.12	22.81
	LABOUR				
0131	Painter	day	0.22	714.00	157.08
0114	Beldar	day	0.22	645.00	141.90
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				378.05 W
	Add 1 % Water charges on "W"				3.78
	TOTAL				381.83 X
	Add GST on "X" (multiplying factor 0.1405)				53.65
	TOTAL				435.48 Y
	Add 15% CPOH on "Y"				65.32
	TOTAL				500.80 Z
	Add Cess @ 1% on "Z"				5.01
	Cost of 10.00 sqm				505.81
	Cost of 1.00 sqm				50.58
	Say				50.60

13.109 Finishing walls with water proofing cement paint of required shade :

13.109.1 Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 litrs/10 sqm complete including cost of Priming coat.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0851	Water proofing cement paint	kilogram	2.20	38.00	83.60
8508	Primer for cement paint	litre	0.80	90.00	72.00
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				703.64 W
	Add 1 % Water charges on "W"				7.04
	TOTAL				710.68 X
	Add GST on "X" (multiplying factor 0.1405)				99.85
	TOTAL				810.53 Y
	Add 15% CPOH on "Y"				121.58
	TOTAL				932.11 Z
	Add Cess @ 1% on "Z"				9.32
	Cost of 10.00 sqm				941.43
	Cost of 1.00 sqm				94.14
	Say				94.15

13.109.2 Old work (one or more coats @ 2.20 kg/10 sqm) complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0851	Water proofing cement paint	kilogram	2.20	38.00	83.60
9977	Carriage of material	L.S.	1.10	2.12	2.33
	LABOUR				
0131	Painter	day	0.35	714.00	249.90
0115	Coolie	day	0.12	645.00	77.40
0101	Bhisti	day	0.05	714.00	35.70
9999	Brushes, sand paper etc	L.S.	3.15	2.12	6.68
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				472.70 W
	Add 1 % Water charges on "W"				4.73
	TOTAL				477.42 X
	Add GST on "X" (multiplying factor 0.1405)				67.08
	TOTAL				544.50 Y
	Add 15% CPOH on "Y"				81.68
	TOTAL				626.18 Z
	Add Cess @ 1% on "Z"				6.26
	Cost of 10.00 sqm				632.44
	Cost of 1.00 sqm				63.24
	Say				63.25

13.110 Finishing walls with textured exterior paint of required shade :

13.110.1 Old work (Two or more coats on existing cement paint surface applied @ 3.28 ltr/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8507	Textured exterior paint	litre	3.28	280.00	918.40
9977	Carriage of material	L.S.	1.56	2.12	3.31
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1430.74 W
	Add 1 % Water charges on "W"				14.31
	TOTAL				1445.05 X
	Add GST on "X" (multiplying factor 0.1405)				203.03
	TOTAL				1648.08 Y
	Add 15% CPOH on "Y"				247.21
	TOTAL				1895.29 Z
	Add Cess @ 1% on "Z"				18.95
	Cost of 10.00 sqm				1914.24
	Cost of 1.00 sqm				191.42
	Say				191.40

13.110.2 Old work (One or more coats) applied @ 1.82 ltr/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8507	Textured exterior paint	litre	1.82	280.00	509.60
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				888.22 W
	Add 1 % Water charges on "W"				8.88
	TOTAL				897.10 X
	Add GST on "X" (multiplying factor 0.1405)				126.04
	TOTAL				1023.14 Y
	Add 15% CPOH on "Y"				153.47
	TOTAL				1176.61 Z
	Add Cess @ 1% on "Z"				11.77
	Cost of 10.00 sqm				1188.38
	Cost of 1.00 sqm				118.84
	Say				118.85

13.111 Finishing walls with Acrylic Smooth exterior paint of required shade :

13.111.1 Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8505	Acrylic exterior paint	litre	1.67	200.00	334.00
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
9999	Brushes, sand paper etc	L.S.	4.81	2.12	10.20
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				834.22 W
	Add 1 % Water charges on "W"				8.34
	TOTAL				842.56 X
	Add GST on "X" (multiplying factor 0.1405)				118.38
	TOTAL				960.94 Y
	Add 15% CPOH on "Y"				144.14
	TOTAL				1105.08 Z
	Add Cess @ 1% on "Z"				11.05
	Cost of 10.00 sqm				1116.13
	Cost of 1.00 sqm				111.61
	Say				111.60

13.111.2 Old work (One or more coat applied @ 0.90 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8505	Acrylic exterior paint	litre	0.90	200.00	180.00
9977	Carriage of material	L.S.	0.52	2.12	1.10
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				558.62 W
	Add 1 % Water charges on "W"				5.59
	TOTAL				564.20 X
	Add GST on "X" (multiplying factor 0.1405)				79.27
	TOTAL				643.47 Y
	Add 15% CPOH on "Y"				96.52
	TOTAL				740.00 Z
	Add Cess @ 1% on "Z"				7.40
	Cost of 10.00 sqm				747.40
	Cost of 1.00 sqm				74.74
	Say				74.75

13.112 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade

13.112.1 Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8506	Premium Acrylic exterior paint	litre	1.43	210.00	300.30
9977	Carriage of material	L.S.	1.04	2.12	2.20
	LABOUR				
0131	Painter	day	0.46	714.00	328.44
0115	Coolie	day	0.23	645.00	148.35
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				811.54 W
	Add 1 % Water charges on “W”				8.12
	TOTAL				819.66 X
	Add GST on “X” (multiplying factor 0.1405)				115.16
	TOTAL				934.82 Y
	Add 15% CPOH on “Y”				140.22
	TOTAL				1075.04 Z
	Add Cess @ 1% on “Z”				10.75
	Cost of 10.00 sqm				1085.79
	Cost of 1.00 sqm				108.58
	Say				108.60

13.112.2 Old work (one or more coats applied @ 0.83 ltr/10 sqm).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
8506	Premium Acrylic exterior paint	litre	0.83	210.00	174.30
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0131	Painter	day	0.33	714.00	235.62
0115	Coolie	day	0.17	645.00	109.65
9999	Brushes, sand paper etc	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				553.74 W
	Add 1 % Water charges on "W"				5.54
	TOTAL				559.28 X
	Add GST on "X" (multiplying factor 0.1405)				78.58
	TOTAL				637.86 Y
	Add 15% CPOH on "Y"				95.68
	TOTAL				733.54 Z
	Add Cess @ 1% on "Z"				7.34
	Cost of 10.00 sqm				740.88
	Cost of 1.00 sqm				74.09
	Say				74.10

13.113 Varnishing with varnish of approved brand and manufacture:
13.113.1 One or more coats with copal varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0857	Superior copal varnish	litre	0.70	115.00	80.50
9977	Carriage	L.S.	0.52	2.12	1.10
9999	Repair to the surface	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				593.72 W
	Add 1 % Water charges on "W"				5.94
	TOTAL				599.65 X
	Add GST on "X" (multiplying factor 0.1405)				84.25
	TOTAL				683.91 Y
	Add 15% CPOH on "Y"				102.59
	TOTAL				786.49 Z
	Add Cess @ 1% on "Z"				7.86
	Cost of 10.00 sqm				794.36
	Cost of 1.00 sqm				79.44
	Say				79.45

13.113.2 One or more coats with spar varnish

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0858	Superior spar varnish	litre	0.75	115.00	86.25
9977	Carriage	L.S.	0.52	2.12	1.10
9999	Repair etc	L.S.	2.73	2.12	5.79
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
9999	Brushes, sand paper etc	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				596.99 W
	Add 1 % Water charges on "W"				5.97
	TOTAL				602.96 X
	Add GST on "X" (multiplying factor 0.1405)				84.72
	TOTAL				687.67 Y
	Add 15% CPOH on "Y"				103.15
	TOTAL				790.82 Z
	Add Cess @ 1% on "Z"				7.91
	Cost of 10.00 sqm				798.73
	Cost of 1.00 sqm				79.87
	Say				79.85

13.114 Melamine polishing on wood work (one or more coat).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
7241	Melamine polish	litre	0.65	300.00	195.00
0006	Hire charges of Spraying machine including				
	electric charges	day	0.78	250.00	195.00
9988	Carriage charge of Machine & Marerial	L.S.	4.42	2.12	9.37
	LABOUR				
0131	Painter	day	0.35	714.00	249.90
0114	Beldar	day	0.35	645.00	225.75
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				884.39 W
	Add 1 % Water charges on "W"				8.84
	TOTAL				893.23 X
	Add GST on "X" (multiplying factor 0.1405)				125.50
	TOTAL				1018.73 Y
	Add 15% CPOH on "Y"				152.81
	TOTAL				1171.54 Z
	Add Cess @ 1% on "Z"				11.72
	Cost of 10.00 sqm				1183.26
	Cost of 1.00 sqm				118.33
	Say				118.35

13.115 Varnishing with flatting varnish of approved brand and manufacture one or more coats on old work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0856	Ordinary varnish	litre	0.70	100.00	70.00
9999	Glue, putty etc	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	1.82	2.12	3.86
9999	Painting brushes, turpentine, stencil etc	L.S.	24.18	2.12	51.26
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0115	Coolie	day	0.36	645.00	232.20
	TOTAL				620.15 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.35 X
	Add GST on "X" (multiplying				
	factor 0.1405)				88.00
	TOTAL				714.35 Y
	Add 15% CPOH on "Y"				107.15
	TOTAL				821.50 Z
	Add Cess @ 1% on "Z"				8.22
	Cost of 10.00 sqm				829.72
	Cost of 1.00 sqm				82.97
	Say				82.95

13.116 Polishing in high gloss/matt finish melamine clear polish on wood work in required color/wooden shade texture with following process in the sequence as detailed below:

1. **The surface to be polished is rubbed with sand paper 80/120 no. and then with sand paper of 160/180 nos.**
2. **Applying two coats of sealer with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs.**
3. **On drying of sealer coat, wet rubbing with emery cloth of finer grading with ample water to remove excess sealer layer and make the surface further smooth after this wet rubbing, then surface is applied with special grade melamine fillers to fill all the small and big holes/grooves etc. Filler coat to be allowed to dry for 4 to 6 hrs on which again a light wet rubbing is done this surface is further allowed to dry for 12 hrs.**
4. **On this, 1st coat of melamine polish is applied with spray gun using melamine clear polish and melamine thinner in required proportion. This 1st coat is allowed to dry for 24 hrs then this dry surface is again fine wet rubbed smooth, which is further allowed to dry for 12 hrs. The final melamine polish is applied with compressor pressure spray gun using melamine clear polish and melamine thinner mixed in required proportion complete as per direction of Engineer-in-Charge. (Final coat to be done in 1 or 2 layers without gap of time.)**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
7241	Melamine Matt clear polish	litre	1.56	300.00	468.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5766	Melamine wood sealer	litre	2.80	190.00	532.00	
5767	Melamine solvent/thinner	litre	2.85	120.00	342.00	
5768	Sanding cloth 150 mm wide	metre	6.00	60.00	360.00	
5769	Sand papers of assorted gratings	Nos	16.00	22.00	352.00	
5770	Melamine wood filler putty	Kg	1.50	120.00	180.00	
5771	Dhoti (worm out soft cotton cloth)	Nos	2.00	25.00	50.00	
	LABOUR					
0167	Polisher 1st class	day	1.66	784.00	1301.44	
0168	Polisher 2nd class	day	3.25	714.00	2320.50	
0114	Beldrs/Coolies	day	2.00	645.00	1290.00	
0006	Hire charges of compressor machine spare gun etc., with electric charges	day	1.25	250.00	312.50	
9999	Sundries including scaffolding & T&P etc.	L.S.	300.00	2.12	636.00	
5779	Grinding buffers	day	2.00	250.00	500.00	
	TOTAL				8644.44	W
	Add 1 % Water charges on "W"				86.44	
	TOTAL				8730.88	X
	Add GST on "X" (multiplying factor 0.1405)				1226.69	
	TOTAL				9957.57	Y
	Add 15% CPOH on "Y"				1493.64	
	TOTAL				11451.21	Z
	Add Cess @ 1% on "Z"				114.51	
	Cost of 10.00 sqm				11565.72	
	Cost of 1.00 sqm				1156.57	
	Say				1156.55	

SUB HEAD : 14.0

REPAIRS TO BUILDING

14.1 Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.1.1 With cement mortar 1:4 (1 cement : 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 fine sand)				
3.4	Rate as per Item Number 3.4 of SH: Mortars	cum	0.183	3713.20	679.52
	LABOUR				
0155	Mason (average)	day	1.21	749.00	906.29
0115	Coolie	day	1.29	645.00	832.05
0114	Beldar	day	0.54	645.00	348.30
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	15.21	2.12	32.25
	TOTAL				3455.28 W
	Add 1 % Water charges on "W"				34.55
	TOTAL				3489.83 X
	Add GST on "X" (multiplying factor 0.1405)				490.32
	TOTAL				3980.16 Y
	Add 15% CPOH on "Y"				597.02
	TOTAL				4577.18 Z
	Add Cess @ 1% on "Z"				45.77
	Cost of 10.00 sqm				4622.95
	Cost of 1.00 sqm				462.30
	Say				462.30

14.1.2 With cement mortar 1:4 (1cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.183	4355.20	797.00
	LABOUR				
0155	Mason (average)	day	1.21	749.00	906.29
0115	Coolie	day	1.29	645.00	832.05
0114	Beldar	day	0.54	645.00	348.30
0101	Bhisti	day	0.92	714.00	656.88

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	15.21	2.12	32.25
	TOTAL				3572.77 W
	Add 1 % Water charges on "W"				35.73
	TOTAL				3608.49 X
	Add GST on "X" (multiplying factor 0.1405)				506.99
	TOTAL				4115.49 Y
	Add 15% CPOH on "Y"				617.32
	TOTAL				4732.81 Z
	Add Cess @ 1% on "Z"				47.33
	Cost of 10.00 sqm				4780.14
	Cost of 1.00 sqm				478.01
	Say				478.00

14.2 Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.2.1 Door chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.021	1400.00	29.40
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0072	1350.00	9.72
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0282	163.93	4.62
0982	Coarse sand (zone III)	cum	0.0141	1500.00	21.15
2203	Carriage of Coarse sand	cum	0.0141	163.93	2.31
0367	Portland Cement (OPC-43 grade)	tonne	0.0066	5000.00	33.00
2209	Carriage of Cement	tonne	0.0066	145.72	0.96
0114	Beldar	day	0.027	645.00	17.42
0115	Coolie	day	0.0195	645.00	12.58
0130	Mistry	day	0.0084	784.00	6.59
0123	Mason (brick layer) 1st class	day	0.0018	784.00	1.41
0124	Mason (brick layer) 2nd class	day	0.0018	714.00	1.29
0128	Mate	day	0.0012	714.00	0.86
9999	Scaffolding	L.S.	1.43	2.12	3.03
9999	Hire and running charges of mechanical mixer	L.S.	0.78	2.12	1.65
9999	Sundries	L.S.	0.39	2.12	0.83
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.01	3044.30	30.44
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.18	2.12	51.26

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Painting two coats of coaltar	L.S.	13.52	2.12	28.66
9999	Disposal of mulba	L.S.	1.82	2.12	3.86
0155	Mason (average)	day	0.50	749.00	374.50
0114	Beldar	day	0.75	645.00	483.75
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				1125.07 W
	Add 1 % Water charges on "W"				11.25
	TOTAL				1136.32 X
	Add GST on "X" (multiplying factor 0.1405)				159.65
	TOTAL				1295.98 Y
	Add 15% CPOH on "Y"				194.40
	TOTAL				1490.37 Z
	Add Cess @ 1% on "Z"				14.90
	Cost of each				1505.28
	Say				1505.30

14.2.2 Window chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.014	1400.00	19.60
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0048	1350.00	6.48
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0188	163.93	3.08
0982	Coarse sand (zone III)	cum	0.0094	1500.00	14.10
2203	Carriage of Coarse sand	cum	0.0094	163.93	1.54
0367	Portland Cement (OPC-43 grade)	tonne	0.0044	5000.00	22.00
2209	Carriage of Cement	tonne	0.0044	145.72	0.64
0114	Beldar	day	0.018	645.00	11.61
0115	Coolie	day	0.013	645.00	8.39
0130	Mistry	day	0.0056	784.00	4.39
0123	Mason (brick layer) 1st class	day	0.0012	784.00	0.94
0124	Mason (brick layer) 2nd class	day	0.0012	714.00	0.86
0128	Mate	day	0.0008	714.00	0.57
9999	Scaffolding and sundries	L.S.	0.91	2.12	1.93
9999	Hire and running charges of mechanical mixer	L.S.	0.52	2.12	1.10
9999	Sundries	L.S.	0.26	2.12	0.55
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.006	3044.30	18.27
9999	Cement concrete 1:2:4	L.S.	9.88	2.12	20.95
9999	Painting two coats of coaltar	L.S.	0.91	2.12	1.93
0155	Mason (average)	day	0.33	749.00	247.17

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				708.59 W
	Add 1 % Water charges on "W"				7.09
	TOTAL				715.68 X
	Add GST on "X" (multiplying factor 0.1405)				100.55
	TOTAL				816.23 Y
	Add 15% CPOH on "Y"				122.43
	TOTAL				938.66 Z
	Add Cess @ 1% on "Z"				9.39
	Cost of each				948.05
	Say				948.05

14.2.3 Clerestory window chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.007	1400.00	9.80
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0024	1350.00	3.24
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0094	163.93	1.54
0982	Coarse sand (zone III)	cum	0.0047	1500.00	7.05
2203	Carriage of Coarse sand	cum	0.0047	163.93	0.77
0367	Portland Cement (OPC-43 grade)	tonne	0.0022	5000.00	11.00
2209	Carriage of Cement	tonne	0.0022	145.72	0.32
0114	Beldar	day	0.009	645.00	5.81
0115	Coolie	day	0.0065	645.00	4.19
0130	Mistry	day	0.0028	784.00	2.20
0123	Mason (brick layer) 1st class	day	0.0006	784.00	0.47
0124	Mason (brick layer) 2nd class	day	0.0006	714.00	0.43
0128	Mate	day	0.0004	714.00	0.29
9999	Scaffolding and sundries	L.S.	0.52	2.12	1.10
9999	Hire and running charges of mechanical mixer	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.003	3044.30	9.13
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	8.06	2.12	17.09
9999	Painting two coats of coaltar	L.S.	0.91	2.12	1.93
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				532.80 W
	Add 1 % Water charges on "W"				5.33
	TOTAL				538.12 X
	Add GST on "X" (multiplying factor 0.1405)				75.61
	TOTAL				613.73 Y
	Add 15% CPOH on "Y"				92.06
	TOTAL				705.79 Z
	Add Cess @ 1% on "Z"				7.06
	Cost of each				712.85
	Say				712.85

14.3 Fixing chowkhat in existing opening in brick/ RCC wall with dash fasteners/ Chemical fasteners of appropriate size (3 nos on each vertical member of door chowkhat and 2 nos on each vertical member of window chowkhats), including Cost of dash fasteners/ chemical fastener.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 chowkhat.				
0114	Beldar	day	0.027	645.00	17.42
0115	Coolie	day	0.0195	645.00	12.58
0130	Mistry	day	0.0084	784.00	6.59
0128	Mate	day	0.0012	714.00	0.86
9999	Disposal of mulba	L.S.	1.82	2.12	3.86
7019	Dash fastner/ chemical fastener	each	6.00	12.50	75.00
9999	Hire charges of drill machine hire charges, Scaffolding and Sundries	L.S.	12.22	2.12	25.91
	TOTAL				142.20 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.62 X
	Add GST on "X" (multiplying factor 0.1405)				20.18
	TOTAL				163.80 Y
	Add 15% CPOH on "Y"				24.57
	TOTAL				188.37 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of each				190.25
	Say				190.25

14.4 Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.

14.4.1 For door/ window/ clerestory window

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one opening of size 0.90x2.10m = 1.89 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cement mortar 1:6 (1 cement: 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.01	3044.30	30.44
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.57	2.12	52.09
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.20	645.00	774.00
0115	Coolie	day	0.40	645.00	258.00
9999	Scaffolding and Sundries	L.S.	3.50	2.12	7.42
	TOTAL				1478.95 W
	Add 1 % Water charges on "W"				14.79
	TOTAL				1493.74 X
	Add GST on "X" (multiplying factor 0.1405)				209.87
	TOTAL				1703.61 Y
	Add 15% CPOH on "Y"				255.54
	TOTAL				1959.15 Z
	Add Cess @ 1% on "Z"				19.59
	Cost of 1.89sqm.				1978.74
	Cost of 1.00 sqm.				1046.95
	Say				1046.95

14.5 Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:

14.5.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 glasses area each 0.1sqm.				
	MATERIAL				
2406	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm). 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	309.00	339.90
9988	Carriage including sundries	L.S.	1.82	2.12	3.86
0863	Putty for wood work	kilogram	0.68	28.00	19.04
9999	Painting or varnishing or beewaxing	L.S.	5.33	2.12	11.30
9999	Sundries Nails etc.	L.S.	6.76	2.12	14.33
0119	Glazier	day	0.23	714.00	164.22
0114	Beldar	day	0.23	645.00	148.35
9999	Sundries such as Rag, cotton etc	L.S.	1.43	2.12	3.03
	TOTAL				704.03 W
	Add 1 % Water charges on "W"				7.04
	TOTAL				711.07 X
	Add GST on "X" (multiplying factor 0.1405)				99.91
	TOTAL				810.98 Y
	Add 15% CPOH on "Y"				121.65
	TOTAL				932.62 Z
	Add Cess @ 1% on "Z"				9.33
	Cost of 1.00 sqm				941.95
	Say				941.95

14.5.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 glasses area each 0.1sqm.				
	MATERIAL				
2407	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	515.00	566.50
9988	Carriage including sundries	L.S.	1.82	2.12	3.86
0863	Putty for wood work	kilogram	0.68	28.00	19.04
9999	Painting or varnishing or beewaxing	L.S.	5.33	2.12	11.30
9999	Sundries Nails etc.	L.S.	6.76	2.12	14.33
0119	Glazier	day	0.23	714.00	164.22
0114	Beldar	day	0.23	645.00	148.35
9999	Sundries such as Rag, cotton etc	L.S.	1.43	2.12	3.03
	TOTAL				930.63 W
	Add 1 % Water charges on "W"				9.31
	TOTAL				939.94 X
	Add GST on "X" (multiplying factor 0.1405)				132.06
	TOTAL				1072.00 Y
	Add 15% CPOH on "Y"				160.80
	TOTAL				1232.80 Z
	Add Cess @ 1% on "Z"				12.33
	Cost of 1.00 sqm				1245.13
	Say				1245.15

14.6 Renewing glass panes, with wooden fillets wherever necessary:
14.6.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 glasses area each 0.1sqm.				
	MATERIAL				
2406	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm). 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	309.00	339.90
1189	Second class teak wood in scantling	10 cudm	0.025	776.00	19.40
1194	Second class deodar wood in planks	10 cudm	0.025	500.00	12.50
1196	First class kail wood in planks	10 cudm	0.025	300.00	7.50
9999	Painting or varnishing or beewaxing	L.S.	4.42	2.12	9.37
9999	Sundries Nails etc.	L.S.	2.73	2.12	5.79
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0119	Glazier	day	0.25	714.00	178.50
0114	Beldar	day	0.45	645.00	290.25
9999	Sundries such as Rag, cotton etc	L.S.	1.82	2.12	3.86
	TOTAL				1009.87 W
	Add 1 % Water charges on "W"				10.10
	TOTAL				1019.97 X
	Add GST on "X" (multiplying factor 0.1405)				143.31
	TOTAL				1163.27 Y
	Add 15% CPOH on "Y"				174.49
	TOTAL				1337.76 Z
	Add Cess @ 1% on "Z"				13.38
	Cost of 1.00 sqm				1351.14
	Say				1351.15

14.6.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 glasses area each 0.1sqm.				
	MATERIAL				
2407	Float glass sheet of nominal thickness Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	515.00	566.50
1189	Second class teak wood in scantling	10 cudm	0.025	776.00	19.40
1194	Second class deodar wood in planks	10 cudm	0.025	500.00	12.50
1196	First class kail wood in planks	10 cudm	0.025	300.00	7.50
9999	Painting or varnishing or beewaxing	L.S.	4.42	2.12	9.37
9999	Sundries Nails etc.	L.S.	2.73	2.12	5.79
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0119	Glazier	day	0.25	714.00	178.50
0114	Beldar	day	0.45	645.00	290.25
9999	Sundries such as Rag, cotton etc	L.S.	1.82	2.12	3.86
	TOTAL				1236.47 W
	Add 1 % Water charges on "W"				12.36
	TOTAL				1248.83 X
	Add GST on "X" (multiplying factor 0.1405)				175.46
	TOTAL				1424.29 Y
	Add 15% CPOH on "Y"				213.64
	TOTAL				1637.94 Z
	Add Cess @ 1% on "Z"				16.38
	Cost of 1.00 sqm				1654.31
	Say				1654.30

14.7 Renewing glass panes and refixing existing wooden fillets:

14.7.1 Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 glasses area each 0.1sqm.				
	MATERIAL				
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm). 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	309.00	339.90
9977	Carriage of glasspanes and other materials	L.S.	2.73	2.12	5.79
9999	Sundries Nails etc.	L.S.	9.88	2.12	20.95
9999	Methylated spirit	L.S.	5.33	2.12	11.30
0119	Glazier	day	0.30	714.00	214.20
0114	Beldar	day	0.30	645.00	193.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				788.66 W
	Add 1 % Water charges on "W"				7.89
	TOTAL				796.55 X
	Add GST on "X" (multiplying factor 0.1405)				111.92
	TOTAL				908.47 Y
	Add 15% CPOH on "Y"				136.27
	TOTAL				1044.74 Z
	Add Cess @ 1% on "Z"				10.45
	Cost of 1.00 sqm				1055.18
	Say				1055.20

14.7.2 Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 glasses area each 0.1sqm.				
	MATERIAL				
2407	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm) 1.00 sqm + 10% wastage= 1.10 Sqm	sqm	1.10	515.00	566.50
9977	Carriage of glasspanes and other materials	L.S.	2.73	2.12	5.79
9999	Sundries Nails etc.	L.S.	9.88	2.12	20.95
9999	Methylated spirit	L.S.	5.33	2.12	11.30
0119	Glazier	day	0.30	714.00	214.20
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				1015.26 W
	Add 1 % Water charges on "W"				10.15
	TOTAL				1025.42 X
	Add GST on "X" (multiplying factor 0.1405)				144.07
	TOTAL				1169.49 Y
	Add 15% CPOH on "Y"				175.42
	TOTAL				1344.91 Z
	Add Cess @ 1% on "Z"				13.45
	Cost of 1.00 sqm				1358.36
	Say				1358.35

14.8 Supplying and fixing new wooden fillets wherever necessary:

14.8.1 2nd class teak wood fillets

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres length				
	MATERIAL				
1190	Second class teak wood in planks 10.00x0.01x0.01 = 1.00 cudm Add 15% wastage = 0.15 cudm Total = 1.15 cudm	10 cudm	0.115	791.00	90.97
9999	Nails	L.S.	26.91	2.12	57.05

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0112	Carpenter 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				493.55 W
	Add 1 % Water charges on "W"				4.94
	TOTAL				498.49 X
	Add GST on "X" (multiplying factor 0.1405)				70.04
	TOTAL				568.52 Y
	Add 15% CPOH on "Y"				85.28
	TOTAL				653.80 Z
	Add Cess @ 1% on "Z"				6.54
	Cost of 10.00 metre				660.34
	Cost of 1.00 metre				66.03
	Say				66.05

14.8.2 Hollock wood fillets

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres length				
	MATERIAL				
2466	Hollock wood in scantling 10.00x0.01x0.01 = 1.00 cudm Add 15% wastage = 0.15 cudm Total = 1.15 cudm	10 cudm	0.115	357.00	41.06
9999	Nails	L.S.	26.91	2.12	57.05
	LABOUR				
0112	Carpenter 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				443.64 W
	Add 1 % Water charges on "W"				4.44
	TOTAL				448.08 X
	Add GST on "X" (multiplying factor 0.1405)				62.95
	TOTAL				511.03 Y
	Add 15% CPOH on "Y"				76.65
	TOTAL				587.69 Z
	Add Cess @ 1% on "Z"				5.88
	Cost of 10.00 metre				593.57
	Cost of 1.00 metre				59.36
	Say				59.35

14.9 Renewal of old putty of glass panes (length)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 13 metres length				
	MATERIAL				
0863	Putty for wood work	kilogram	0.68	28.00	19.04
9999	Nails	L.S.	7.15	2.12	15.16
9999	Spirit	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0112	Carpenter 2nd class	day	0.30	714.00	214.20
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				450.72 W
	Add 1 % Water charges on "W"				4.51
	TOTAL				455.22 X
	Add GST on "X" (multiplying factor 0.1405)				63.96
	TOTAL				519.18 Y
	Add 15% CPOH on "Y"				77.88
	TOTAL				597.06 Z
	Add Cess @ 1% on "Z"				5.97
	Cost of 13.00 metres				603.03
	Cost of 1.00 metre				46.39
	Say				46.40

14.10 Refixing old glass panes with putty and nails

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 sqm				
0863	Putty for wood work	kilogram	0.68	28.00	19.04
9999	Spirit	L.S.	2.73	2.12	5.79
9999	Nails	L.S.	7.15	2.12	15.16
	LABOUR				
0119	Glazier	day	0.30	714.00	214.20
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				450.72 W
	Add 1 % Water charges on "W"				4.51
	TOTAL				455.22 X
	Add GST on "X" (multiplying factor 0.1405)				63.96
	TOTAL				519.18 Y
	Add 15% CPOH on "Y"				77.88
	TOTAL				597.06 Z
	Add Cess @ 1% on "Z"				5.97
	Add 15 % Contractor's profit and overheads				603.03
	Cost of 1.00 sqm				603.03
	Say				603.05

14.11 Fixing old glass panes with wooden fillets (excluding cost of fillets)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 sqm				
	LABOUR				
0119	Glazier	day	0.30	714.00	214.20
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	1.43	2.12	3.03

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Nails	L.S.	3.90	2.12	8.27
	TOTAL				419.00 W
	Add 1 % Water charges on "W"				4.19
	TOTAL				423.19 X
	Add GST on "X" (multiplying factor 0.1405)				59.46
	TOTAL				482.65 Y
	Add 15% CPOH on "Y"				72.40
	TOTAL				555.04 Z
	Add Cess @ 1% on "Z"				5.55
	Cost of 1.00 sqm				560.60
	Say				560.60

14.12 Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for each fan clamp.				
	MATERIAL				
	M.S.bar 16mm dia = 40cm (including wastage) @ 1.58 kg/m = 0.632 kg				
1003	Mild steel round bar above 12 mm dia	quintal	0.00632	4750.00	30.02
9999	Cement concrete 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone aggregate 20mm nominal size) mortar for rendering or plastering	L.S.	13.52	2.12	28.66
9999	Painting two or more coats to exposed portion of the clamp including priming coat	L.S.	7.15	2.12	15.16
	Labour for fixing				
0102	Blacksmith 1st class	day	0.03	784.00	23.52
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				350.08 W
	Add 1 % Water charges on "W"				3.50
	TOTAL				353.58 X
	Add GST on "X" (multiplying factor 0.1405)				49.68
	TOTAL				403.26 Y
	Add 15% CPOH on "Y"				60.49
	TOTAL				463.75 Z
	Add Cess @ 1% on "Z"				4.64
	Cost of each				468.38
	Say				468.40

14.13 Regrading terracing of mud phaska covered with tiles or brick, in cement mortar by dismantling tiles or bricks, removing mud plaster, preparing the surface of mud phaska to proper slope, relaying mud plaster gobri leaping and tiles or bricks, grouted in cement mortar 1:3 (1 cement : 3 fine sand), including replacing unserviceable tiles or bricks with new ones and disposal of unserviceable material to the dumping ground (the cost of the new tiles or brick excluded), all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	(i) Dismantling tiles/bricks in cement mortar including removing mud plaster and cleaning the tiles/bricks				
	LABOUR				
0155	Mason (average)	day	0.54	749.00	404.46
0114	Beldar	day	0.54	645.00	348.30
	(ii) Preparing the surface, for mud phuska to proper slope, relaying mud plaster gobri leeping.				
0155	Mason (average)	day	0.27	749.00	202.23
	25mm thick mud plaster including gobri leaping				
	MATERIAL				
	Mud mortar				
3.18	Rate as per Item Number 3.18 of SH: Mortars	cum	0.24	823.15	197.56
0308	Bhusa	quintal	0.084	500.00	42.00
	Gobri mortar				
3.18	Rate as per Item Number 3.18 of SH: Mortars	cum	0.12	823.15	98.78
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25
	(iii) relaying tiles/bricks including Cement mortar 1:3 (1 Cement : 3 fine sand) for grouting				
3.3	Rate as per item No 3.3 of SH: Mortars	cum	0.061	4382.15	267.31
	LABOUR				
0155	Mason (average)	day	1.20	749.00	898.80
0114	Beldar	day	1.50	645.00	967.50
0101	Bhisti	day	1.00	714.00	714.00
9999	Disposal of mulba	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				4319.27 W
	Add 1 % Water charges on "W"				43.19
	TOTAL				4362.47 X
	Add GST on "X" (multiplying factor 0.1405)				612.93
	TOTAL				4975.39 Y
	Add 15% CPOH on "Y"				746.31
	TOTAL				5721.70 Z
	Add Cess @ 1% on "Z"				57.22
	Cost of 10.00 sqm				5778.92
	Cost of 1.00 sqm				577.89
	Say				577.90

14.14 Replacing sand stone slabs in roofing, laid in cement mortar 1:4 (1 cement : 4 coarse sand), including necessary repairs and cement pointing with same mortar complete, including disposal of rubbish to dumping ground, all complete as per direction of Engineer-in-Charge.

14.14.1 Red/ white sand stone slabs 30 to 50 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	Dismantling existing stone, slabs roofing 1x10 sqmx0.05m = 0.50 cum.					
0114	Beldar	day	0.885	645.00	570.83	
0115	Coolie	day	0.375	645.00	241.88	
9999	Sundries	L.S.	4.03	2.12	8.54	
9999	Cleaning the surface including necessary repairs	L.S.	40.43	2.12	85.71	
1174	Red sand stone slab 45 mm and 50 mm thick (un-dressed)	sqm	11.00	260.00	2860.00	
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	1.41	145.72	205.47	
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)					
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.0105	4355.20	45.73	
	Cement mortar 1 : 3 (1 cement : 3 fine sand)					
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.0075	4382.15	32.87	
0155	Mason (average)	day	1.69	749.00	1265.81	
0100	Bandhani	day	2.03	714.00	1449.42	
0115	Coolie	day	1.69	645.00	1090.05	
0101	Bhisti	day	0.34	714.00	242.76	
9999	Sundries	L.S.	16.12	2.12	34.17	
2264	Carriage of Rubbish	cum	0.50	163.93	81.97	
	TOTAL				8215.20	W
	Add 1 % Water charges on "W"				82.15	
	TOTAL				8297.35	X
	Add GST on "X" (multiplying factor 0.1405)				1165.78	
	TOTAL				9463.12	Y
	Add 15% CPOH on "Y"				1419.47	
	TOTAL				10882.59	Z
	Add Cess @ 1% on "Z"				108.83	
	Cost of 10.00 sqm				10991.42	
	Cost of 1.00 sqm				1099.14	
	Say				1099.15	

14.15 Renewing wooden battens in roofs, including making good the holes in wall and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.15.1 Sal wood battens

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 battens i.e. 300 cudm 3 metres long of 100x100mm 10x3x0.1x0.1 = 0.3cum =300cudm Add wastage @ 2%= 6 cudm, Total = 306 cudm MATERIAL				
1199	Sal wood in scantling	10 cudm	30.60	600.00	18360.00
2204	Carriage of Timber LABOUR	cum	0.306	187.35	57.33
	Taking out the existing battens and refixing new one including supporting the roof				
0112	Carpenter 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	2.00	645.00	1290.00
9999	Disposal of mulba	L.S.	5.33	2.12	11.30
9999	Making good the holes including sundries	L.S.	80.73	2.12	171.15
0859	Oil type wood preservative	litre	1.22	130.00	158.60
0131	Painter	day	0.183	714.00	130.66
0115	Coolie	day	0.183	645.00	118.04
9977	Carriage	L.S.	0.78	2.12	1.65
9999	Brushes	L.S.	5.07	2.12	10.75
9999	Sundries	L.S.	4.81	2.12	10.20
	TOTAL				20676.67 W
	Add 1 % Water charges on "W"				206.77
	TOTAL				20883.44 X
	Add GST on "X" (multiplying factor 0.1405)				2934.12
	TOTAL				23817.56 Y
	Add 15% CPOH on "Y"				3572.63
	TOTAL				27390.20 Z
	Add Cess @ 1% on "Z"				273.90
	Cost of 300 Cudm				27664.10
	Cost of 1.00 cum				92213.67
	Say				92213.65

14.16 Renewing wooden beams in roofs including making good the holes in walls and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

14.16.1 Not exceeding 4.00 metres in length.

14.16.1.1 Sal wood beams

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 300 cudm or 0.3 cum Consider one beam i.e. 300 cudm. 0.25 x 0.30m x 4.0m (long) = 0.30 cum Add wastage @ 2% (0.006 cum) = 0.306 cum =306 cudm (i) Propping the roof				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL 100mm diameter ballies 4m long 10 nos. 100x100mm salwood battens 1.0 metre long 5 nos.x1.0x0.1x0.1 =0.05cum = 50 cudm. These materials can be used for 16 times Hence qty for one operation 1/16 = 3.125 cudm					
1199	Sal wood in scantling	10 cudm	0.3125	600.00	187.50	
2204	Carriage of Timber	cum	0.003125	187.35	0.59	
	LABOUR					
0112	Carpenter 2nd class	day	0.25	714.00	178.50	
0114	Beldar	day	0.25	645.00	161.25	
	(ii) Taking out the existing beams etc.					
	LABOUR					
0155	Mason (average)	day	0.13	749.00	97.37	
0100	Bandhani	day	0.50	714.00	357.00	
0114	Beldar	day	0.33	645.00	212.85	
	(iii) Renewal					
	Materials and Labour					
1199	Sal wood in scantling	10 cudm	30.60	600.00	18360.00	
2204	Carriage of Timber	cum	0.306	187.35	57.33	
0112	Carpenter 2nd class	day	1.00	714.00	714.00	
0100	Bandhani	day	0.50	714.00	357.00	
0114	Beldar	day	1.00	645.00	645.00	
	Painting with oil preservative (4x1.1) +(2.0x0.25x0.30) =4.4 + 0.15= 4.55 sqm @ 1 litre/10sqm = 0.455 litre					
0859	Oil type wood preservative	litre	0.455	130.00	59.15	
0131	Painter	day	0.07	714.00	49.98	
0115	Coolie	day	0.07	645.00	45.15	
9999	Sundries	L.S.	0.13	2.12	0.28	
9977	Carriage	L.S.	1.82	2.12	3.86	
9999	Brushes	L.S.	1.82	2.12	3.86	
9999	Making good the holes	L.S.	20.67	2.12	43.82	
9999	Sundries	L.S.	26.91	2.12	57.05	
0302	Safeda ballies 125 mm diameter	metre	2.50	40.00	100.00	
	TOTAL				21691.53	W
	Add 1 % Water charges on "W"				216.92	
	TOTAL				21908.44	X
	Add GST on "X" (multiplying factor 0.1405)				3078.14	
	TOTAL				24986.58	Y
	Add 15% CPOH on "Y"				3747.99	
	TOTAL				28734.56	Z
	Add Cess @ 1% on "Z"				287.35	
	Cost of 300 Cudm				29021.91	
	Cost of 1.00 cum				96739.70	
	Say				96739.70	

14.16.1.2 Hollock wood beams

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 300 cudm or 0.3 cum Consider one beam 0.25 x 0.30m x 4.0m (long) = 0.30 cum = 300 cudm Add wastage @ 2% (0.006 cum) = 0.306 cum =306cudm (I) Propping the roof MATERIAL 100mm diameter ballies 4m long 10 nos. 100x100mm hollock wood battens 1.0metre long 5 nos.x1.0x0.1x0.1 =0.05cum = 50 cudm. These materials can be used for 16 times hence qty for one operation 1/16 = 3.125 cudm					
2466	Hollock wood in scantling	10 cudm	0.3125	357.00	111.56	
2204	Carriage of Timber	cum	0.003125	187.35	0.59	
	LABOUR					
0112	Carpenter 2nd class	day	0.25	714.00	178.50	
0114	Beldar	day	0.25	645.00	161.25	
	(ii) Taking out the existing beams etc.					
	LABOUR					
0155	Mason (average)	day	0.13	749.00	97.37	
0100	Bandhani	day	0.50	714.00	357.00	
0114	Beldar	day	0.33	645.00	212.85	
	(iii) Renewal					
	Materials and Labour					
2466	Hollock wood in scantling	10 cudm	30.60	357.00	10924.20	
2204	Carriage of Timber	cum	0.306	187.35	57.33	
0112	Carpenter 2nd class	day	1.00	714.00	714.00	
0100	Bandhani	day	0.50	714.00	357.00	
0114	Beldar	day	1.00	645.00	645.00	
	Painting with oil preservative (4x1.1) + (2.0x0.25x0.30) =4.4 + 0.15= 4.55 sqm @ 1 litre/10sqm = 0.455 litre					
0859	Oil type wood preservative	litre	0.455	130.00	59.15	
0131	Painter	day	0.07	714.00	49.98	
0115	Coolie	day	0.07	645.00	45.15	
9999	Sundries	L.S.	0.13	2.12	0.28	
9977	Carriage	L.S.	1.82	2.12	3.86	
9999	Brushes	L.S.	1.82	2.12	3.86	
9999	Making good the holes	L.S.	20.67	2.12	43.82	
9999	Sundries	L.S.	26.91	2.12	57.05	
0302	Safeda ballies 125 mm diameter	metre	2.50	40.00	100.00	
	TOTAL				14179.79	W
	Add 1 % Water charges on "W"				141.80	
	TOTAL				14321.59	X
	Add GST on "X" (multiplying factor 0.1405)				2012.18	
	TOTAL				16333.77	Y
	Add 15% CPOH on "Y"				2450.07	
	TOTAL				18783.84	Z
	Add Cess @ 1% on "Z"				187.84	
	Cost of 300 Cudm				18971.67	
	Cost of 1.00 cum				63238.90	
	Say				63238.90	

14.16.2 Above 4.00 metres and upto 5.00 metres length.

14.16.2.1 Sal wood beams

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 375 cudm or 0.375 cum Consider one beam i.e. 375 cudm. 0.25 x 0.30m x 5.0m (long) = 0.375 cum Add wastage @ 2% (0.008 cum) = 0.383 cum = 383cudm (i) Propping the roof MATERIAL 125mm diameter ballies 5m long 12 nos 100x100mm salwood battens 1.0 metre long 6 nos. x1.0x0.1x0.1 = 60 cudm. These materials can be used for 16 times hence qty for one operation 1/16 = 3.75 cudm					
1199	Sal wood in scantling	10 cudm	0.375	600.00	225.00	
2204	Carriage of Timber	cum	0.00375	187.35	0.70	
	LABOUR					
0112	Carpenter 2nd class	day	0.25	714.00	178.50	
0114	Beldar	day	0.25	645.00	161.25	
	(ii) Taking out the existing beams etc. LABOUR					
0155	Mason (average)	day	0.25	749.00	187.25	
0100	Bandhani	day	0.63	714.00	449.82	
0114	Beldar	day	0.50	645.00	322.50	
	(iii) Renewal Materials and Labour					
1199	Sal wood in scantling	10 cudm	38.30	600.00	22980.00	
2204	Carriage of Timber	cum	0.383	187.35	71.76	
0112	Carpenter 2nd class	day	1.00	714.00	714.00	
0100	Bandhani	day	1.00	714.00	714.00	
0114	Beldar	day	2.00	645.00	1290.00	
	Painting with oil preservative (2x5x0.25)+3.0 + 2.0x0.25x0.30 = 5.5 + 0.15 = 5.65 sqm @ 1 litre/ 10sqm = 0.565 litre					
0859	Oil type wood preservative	litre	0.565	130.00	73.45	
0131	Painter	day	0.08	714.00	57.12	
0115	Coolie	day	0.08	645.00	51.60	
9999	Sundries	L.S.	0.26	2.12	0.55	
9977	Carriage	L.S.	2.34	2.12	4.96	
9999	Brushes	L.S.	2.21	2.12	4.69	
9999	Making good the holes	L.S.	20.67	2.12	43.82	
9999	Sundries	L.S.	33.15	2.12	70.28	
0302	Safeda ballies 125 mm diameter	metre	3.75	40.00	150.00	
	TOTAL				27751.24	W
	Add 1 % Water charges on “W”				277.51	
	TOTAL				28028.76	X
	Add GST on “X” (multiplying factor 0.1405)				3938.04	
	TOTAL				31966.80	Y
	Add 15% CPOH on “Y”				4795.02	
	TOTAL				36761.82	Z
	Add Cess @ 1% on “Z”				367.62	
	Cost of 375 Cudm				37129.43	
	Cost of 1.00 cum				99011.81	
	Say				99011.80	

14.16.2.2 Hollock wood beams

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 375 cudm or 0.375 cum Consider one beam i.e. 375 cudm. 0.25 x 0.30m x 5.0m (long) = 0.375 cum Add wastage @ 2% (0.008 cum) = 0.383 cum = 383cudm (i) Propping the roof MATERIAL 125mm diameter ballies 5m long 12 nos 100x100mm hollock wood battens 1.0 metre long 6 nos. x1.0x0.1x0.1 = 60 cudm. These materials can be used for 16 times hence qty for one operation 1/16 = 3.75 cudm				
2466	Hollock wood in scantling	10 cudm	0.375	357.00	133.88
2204	Carriage of Timber	cum	0.0375	187.35	7.03
	LABOUR				
0112	Carpenter 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25
	(ii) Taking out the existing beams etc.				
	LABOUR				
0155	Mason (average)	day	0.25	749.00	187.25
0100	Bandhani	day	0.63	714.00	449.82
0114	Beldar	day	0.50	645.00	322.50
	(iii) Renewal				
	Materials and Labour				
2466	Hollock wood in scantling	10 cudm	38.30	357.00	13673.10
2204	Carriage of Timber	cum	0.383	187.35	71.76
0112	Carpenter 2nd class	day	1.00	714.00	714.00
0100	Bandhani	day	1.00	714.00	714.00
0114	Beldar	day	2.00	645.00	1290.00
	Painting with oil preservative (2x5x0.25)+3.0 + 2.0x0.25x0.30 = 5.5 + 0.15 = 5.65 sqm @ 1 litre/ 10sqm = 0.565 litre				
0859	Oil type wood preservative	litre	0.565	130.00	73.45
0131	Painter	day	0.08	714.00	57.12
0115	Coolie	day	0.08	645.00	51.60
9999	Sundries	L.S.	0.26	2.12	0.55
9977	Carriage	L.S.	2.34	2.12	4.96
9999	Brushes	L.S.	2.21	2.12	4.69
9999	Making good the holes	L.S.	20.67	2.12	43.82
9999	Sundries	L.S.	33.15	2.12	70.28
0302	Safeda ballies 125 mm diameter	metre	3.75	40.00	150.00
	TOTAL				18359.54 W
	Add 1 % Water charges on "W"				183.60
	TOTAL				18543.14 X
	Add GST on "X" (multiplying factor 0.1405)				2605.31
	TOTAL				21148.45 Y
	Add 15% CPOH on "Y"				3172.27
	TOTAL				24320.71 Z
	Add Cess @ 1% on "Z"				243.21
	Cost of 375 Cudm				24563.92
	Cost of 1.00 cum				65503.79
	Say				65503.80

14.17 Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	0.53	645.00	341.85
0115	Coolie	day	0.08	645.00	51.60
0101	Bhisti	day	0.07	714.00	49.98
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				446.46 W
	Add 1 % Water charges on "W"				4.46
	TOTAL				450.93 X
	Add GST on "X" (multiplying factor 0.1405)				63.36
	TOTAL				514.28 Y
	Add 15% CPOH on "Y"				77.14
	TOTAL				591.42 Z
	Add Cess @ 1% on "Z"				5.91
	Cost of 10.00 sqm				597.34
	Cost of 1.00 sqm				59.73
	Say				59.75

14.18 Flush pointing with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement for flat tile bricks on top of mud phaska :

14.18.1 With F.P.S. brick tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.015	4382.15	65.73
1213	Water proofing materials 2% of wt. of cement	kilogram	0.153	35.00	5.36
	LABOUR				
0115	Coolie	day	0.36	645.00	232.20
0124	Mason (brick layer) 2nd class	day	0.36	714.00	257.04
0101	Bhisti	day	0.36	714.00	257.04
9999	Sundries	L.S.	18.85	2.12	39.96
	TOTAL				857.33 W
	Add 1 % Water charges on "W"				8.57
	TOTAL				865.90 X
	Add GST on "X" (multiplying factor 0.1405)				121.66
	TOTAL				987.56 Y
	Add 15% CPOH on "Y"				148.13
	TOTAL				1135.70 Z
	Add Cess @ 1% on "Z"				11.36
	Cost of 10.00 sqm				1147.05
	Cost of 1.00 sqm				114.71
	Say				114.70

14.18.2 With modular brick tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.017	4382.15	74.50
1213	Water proofing materials 2% of wt. of cement	kilogram	0.173	35.00	6.06
	LABOUR				
0115	Coolie	day	0.36	645.00	232.20
0124	Mason (brick layer) 2nd class	day	0.36	714.00	257.04
0101	Bhisti	day	0.36	714.00	257.04
9999	Sundries	L.S.	18.85	2.12	39.96
	TOTAL				866.79 W
	Add 1 % Water charges on “W”				8.67
	TOTAL				875.46 X
	Add GST on “X” (multiplying factor 0.1405)				123.00
	TOTAL				998.46 Y
	Add 15% CPOH on “Y”				149.77
	TOTAL				1148.23 Z
	Add Cess @ 1% on “Z”				11.48
	Cost of 10.00 sqm				1159.72
	Cost of 1.00 sqm				115.97
	Say				115.95

14.19 Taking out wind ties from roof including cutting out rusted bolts, nuts etc. and removing materials to any distance within compound and stacking.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 mtrs of weight 63 kgs				
	M.S. Flats 40x6mm @ 1.9kg./m = 30x1.9 = 57 kg. (A)				
	J' hook bolts @ 30cm centre to centre = 101 Nos. x 0.15 m = 15.15 m @ 0.40kg./ m = 6.06kg (B)				
	Total (A+B) = 63.06 kg Say 63 kg				
	LABOUR				
0103	Blacksmith 2nd class	day	0.09	714.00	64.26
0100	Bandhani	day	0.06	714.00	42.84
0114	Beldar	day	0.16	645.00	103.20
	TOTAL				210.30 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.40 X
	Add GST on "X" (multiplying factor 0.1405)				29.84
	TOTAL				242.25 Y
	Add 15% CPOH on "Y"				36.34
	TOTAL				278.58 Z
	Add Cess @ 1% on "Z"				2.79
	Cost for 63 kg.				281.37
	Cost of 1.00 kg				4.47
	Say				4.45

14.20 Fixing of old wind tie with new fittings including painting two or more coats with anticorrosive bitumastic paint of approved brand & manufacturer over and including priming coat of ready mixed zinc chromate yellow primer of approved brand.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 20.2 m wind tie				
	MATERIAL				
1023	Galvanised steel J or L hooks 8 mm dia @ 30 cm center to center = 68 Nos	10 Nos	6.80	120.00	816.00
1208	Bitumen washer	100 Nos	0.68	30.00	20.40
1209	G.I. plain washer thick	100 Nos	0.68	35.00	23.80
9977	Carriage of bolts, nuts and washers etc.	L.S.	1.17	2.12	2.48
	LABOUR				
0102	Blacksmith 1st class	day	0.34	784.00	266.56
0114	Beldar	day	0.34	645.00	219.30
9999	Sundries	L.S.	13.91	2.12	29.49
	Applying priming coat with ready mixed zink chromate yellow primer 20.2x2x(0.04+0.006) = 1.86 sqm				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	1.86	55.50	103.23 A
	Painting with ready mixed black antcorrosive bitumastic paint				
13.65.1	Rate as per item No.13.65.1 SH: Finishing	sqm	1.86	115.10	214.09 A
	TOTAL				1695.35 W
	Add 1 % Water charges on “W-A”				13.78
	TOTAL				1709.13 X
	Add GST on “X-A” (multiplying factor 0.1405)				195.55
	TOTAL				1904.68 Y
	Add 15% CPOH on “Y-A”				238.10
	TOTAL				2142.78 Z
	Add Cess @ 1% on “Z-A”				18.25
	Cost of 20.2 metres				2161.03
	Cost of 1.00 metre				106.98
	Say				107.00

14.21 Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for gate of size 1.52x2.4 m (weight 11.55 kg) MATERIAL M.S. Tee 40x40x6 mm Top rail = 1.725 m Bottom rail = 1.570 m Total = 3.295 m say 3.30 m @ 3.5 kg/m = 11.55 kg Add 10% wastage = 1.155 kg Total = 12.705 kg = 0.1270 q say 0.13 q				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.13	4950.00	643.50
2205	Carriage of Steel	tonne	0.013	145.72	1.89
	Taking out collapsible gate including frame				
15.12.2	(Rate as per item no 15.12.2 of SH Dismantling and Demolishing)	each	1.00	414.55	414.55 A
	Refixing of collapsible gate including mending good the demaged floor, wall etc.frame				
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.03	8843.45	265.30 A
3.6	Cement mortar 1 : 6 (1 cement : 6 fine sand) (Rate as per item No 3.6)	cum	0.01	3044.30	30.44
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.18	2.12	51.26
9999	Disposal of mulba	L.S.	1.82	2.12	3.86
	Priming coat on Tees 0.16x3.3 = 0.53 sqm				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.53	55.50	29.42 A
	LABOUR				
	Labour for fixing the gate				
0155	Mason (average)	day	0.50	749.00	374.50
0114	Beldar	day	0.75	645.00	483.75
9999	Sundries	L.S.	2.60	2.12	5.51
	TOTAL				2303.99 W
	Add 1 % Water charges on "W-A"				15.95
	TOTAL				2319.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				226.30
	TOTAL				2546.23 Y
	Add 15% CPOH on "Y-A"				275.54
	TOTAL				2821.78 Z
	Add Cess @ 1% on "Z-A"				21.13
	Cost of 11.55 kg				2842.90
	Cost of 1.00 kg				246.14
	Say				246.15

14.22 Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.

14.22.1 Wheel 50 mm dia and below

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos wheels of 40 mm dia.				
	MATERIAL				
	Weight of 10 nos wheels				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	10x[3.14x{(4/2)x(4/2)}x4]x7.850/1000 = 3.94 kg Weight of 10 nos clamps 6 mm thick =10x lenth of clamp =10x0.17m @ 1.90kg/m =3.23 kg Weight of 10 nos 10 mm dia. Bolts, 10 cm long 10x0.10m = 1m @ 0.60 kg/m = 0.60 kg. Total = 7.70 kg say 8 kg Labour for dismantling :				
0103	Blacksmith 2nd class	day	0.01	714.00	7.14
0100	Bandhani	day	0.01	714.00	7.14
0114	Beldar	day	0.02	645.00	12.90
9999	Sundries	L.S.	0.39	2.12	0.83
	Renewing the wheels with clamps :- MATERIAL				
7442	Wheel 75 mm dia. 40 mm wide 10 nos clamps out of M.S. flat 40x6 mm, 170 mm long = 10x0.17m = 1.70m @ 1.9 kg/m = 3.23 kg Add 5% wastage = 0.16 kg Total = 3.39 kg say 3.50 kg	each	10.00	62.00	620.00
1008	Flats upto 10 mm in thickness M.S. bolt/pin 10 mm dia 10 cm long 10 Nos 10x0.06 = 0.6 kg = 0.006 q	quintal	0.035	4850.00	169.75
1034	Bolts and nuts upto 300 mm in length	quintal	0.006	5200.00	31.20
1215	Welding by electric plant length = 10x(2x4) = 80cm LABOUR	cm	80.00	2.00	160.00
	Labour for cutting, assembling and errection charges				
0102	Blacksmith 1st class	day	0.03	784.00	23.52
0100	Bandhani	day	0.02	714.00	14.28
0114	Beldar	day	0.11	645.00	70.95
	Priming coat : = 10x2(0.06+0.008)x0.25m = 0.34 sqm on Tees 0.16x3.3 = 0.53 sqm				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.165	55.50	9.16 A
9999	Sundries	L.S.	1.69	2.12	3.58
	TOTAL				1130.45 W
	Add 1 % Water charges on "W-A"				11.21
	TOTAL				1141.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				159.12
	TOTAL				1300.78 Y
	Add 15% CPOH on "Y-A"				193.74
	TOTAL				1494.52 Z
	Add Cess @ 1% on "Z-A"				14.85
	Cost of 10 nos wheels				1509.37
	Cost per wheel				150.94
	Say				150.95

14.22.2 Wheel above 50 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos wheels Considering average wheel dia =75 mm Width of wheel = 40 mm M.S. flat for clamp = 60x8 mm Bolt size 16 mm dia. Lenth of one clamp : 2x(0.04+0.0375+0.02)+0.05 =0.195+ 0.05=0.245m say 0.25m MATERIAL Weight of 10 nos wheels 10x[3.14x{(7.5/2)x(7.5/2)}x4]x7.850/ 1000= 13.87 kg Weight of 10 nos clamps 8 mm thick =10x0.25 m @ 3.8kg/m = 9.50 kg Weight of 10 nos 16 mm dia. Bolts, 10 cm long 10x0.10 m @ 1.60 kg/m = 1.60 kg Total = 24.97 kg say 25 kg Labour for dismantling :				
0103	Blacksmith 2nd class	day	0.04	714.00	28.56
0100	Bandhani	day	0.03	714.00	21.42
0114	Beldar	day	0.06	645.00	38.70
9999	Sundries	L.S.	1.04	2.12	2.20
	Renewing the wheels with clamps :- MATERIAL				
7442	Wheel 75 mm dia. 40 mm wide 10 nos clamps out of M.S. flat 60x8 mm = 10x0.25 m @ 3.8 kg/m = 9.5 kg Add 5% wastage = 0.48 kg Total = 9.98 kg say 10 kg	each	10.00	62.00	620.00
1008	Flats upto 10 mm in thickness M.S. bolt/pin 16 mm dia 10 cm long 10 Nos 10x0.16= 1.6 kg = 0.016 q	quintal	0.10	4850.00	485.00
1034	Bolts and nuts upto 300 mm in length	quintal	0.016	5200.00	83.20
1215	Welding by electric plant length = 10x(2x6) LABOUR Labour for cutting, assembling and errection charges	cm	120.00	2.00	240.00
0102	Blacksmith 1st class	day	0.10	784.00	78.40
0100	Bandhani	day	0.05	714.00	35.70
0114	Beldar	day	0.36	645.00	232.20
	Priming coat : = 10x2(0.06+0.008)x 0.25m = 0.34 sqm on Tees 0.16x 3.3 = 0.53 sqm				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.34	55.50	18.87 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				1895.55 W
	Add 1 % Water charges on "W-A"				18.77
	TOTAL				1914.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				266.31
	TOTAL				2180.63 Y
	Add 15% CPOH on "Y-A"				324.26
	TOTAL				2504.90 Z
	Add Cess @ 1% on "Z-A"				24.86
	Cost of 10 nos wheels				2529.76
	Cost per wheel				252.98
	Say				253.00

14.23 Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details for 10.91 kilolitre				
	Pumping hours 3 hrs. or 0.375 days				
0011	Hire charges of Pumpset of capacity 4000 litres/hour.	day	0.375	700.00	262.50
0114	Beldar for clearing slush	day	2.00	645.00	1290.00
	TOTAL				1552.50 W
	Add 1 % Water charges on "W"				15.53
	TOTAL				1568.03 X
	Add GST on "X" (multiplying factor 0.1405)				220.31
	TOTAL				1788.33 Y
	Add 15% CPOH on "Y"				268.25
	TOTAL				2056.58 Z
	Add Cess @ 1% on "Z"				20.57
	Cost of 10.91 kilolitre				2077.15
	Cost of 1 kilolitre				190.39
	Say				190.40

14.24 Mud mortar made with local clay good earth.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	MATERIAL				
0811	Mud (dry)	cum	1.08	165.00	178.20
	LABOUR				
0114	Beldar	day	0.63	645.00	406.35
0101	Bhisti	day	0.315	714.00	224.91
9999	Sundries	L.S.	6.45	2.12	13.67
	TOTAL				823.13
	Cost of 1 cum				823.13
	Say				823.15

14.25 Brick work with common burnt clay bricks of class designation 7.5 in mud mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 Mud mortar	1000 Nos	0.494	4590.00	2267.46
3.18	Rate as per Item Number 3.18 of SH: Mortars	cum	0.25	823.15	205.79
2201	Carriage of Bricks	1000 Nos	0.494	437.15	215.95
9999	Sundries	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.36	784.00	282.24
0124	Mason (brick layer) 2nd class	day	0.36	714.00	257.04
0115	Coolie	day	1.37	645.00	883.65
0101	Bhisti	day	0.2	714.00	142.80
	TOTAL				4260.72 W
	Add 1 % Water charges on "W"				42.61
	TOTAL				4303.32 X
	Add GST on "X" (multiplying factor 0.1405)				604.62
	TOTAL				4907.94 Y
	Add 15% CPOH on "Y"				736.19
	TOTAL				5644.13 Z
	Add Cess @ 1% on "Z"				56.44
	Cost of 1 Cum.				5700.57
	Say				5700.55

14.26 Providing and fixing 25 mm thick shutters for cup board etc. :

14.26.1 Panelled or panelled & glazed shutters :

14.26.1.1 Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm. MATERIAL Styles 4x200x8.0x2.5cm = 0.016 cum+ Rails Top rail 1x110.5x8.0x2.5cm = 0.0022cum+ Lock and bottom rails 2x110.5x8.0x2.5 cm = 0.0044 cum Panels 2x48x41x1.6cm = 0.006cum+ Sash bars 2x114x3.8x2.5cm = 0.0022cum+ 6x48x3.8x2.5cm = 0.003 cum+ Beading 16x92x1.4x1.2cm = 0.002cum Total = 0.0358 cum Add for wastage @ 10% = 0.00336 cum. Grand Total = 0.0394 cum = 39.40 cudm say 39 cudm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1186	Superior class teak wood such as Dandeli, Balarshah or Malabar in planks	10 cudm	3.90	1100.00	4290.00
2204	Carriage of Timber	cum	0.04	187.35	7.49
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	0.99	309.00	305.91
	Fittings-				
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide	metre	4.00	39.00	156.00
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	40.00	48.00
	LABOUR				
0111	Carpenter 1st class	day	2.40	784.00	1881.60
0119	Glazier	day	0.18	714.00	128.52
0114	Beldar	day	0.77	645.00	496.65
9999	Sundries	L.S.	40.43	2.12	85.71
	TOTAL				7399.89 W
	Add 1 % Water charges on "W"				74.00
	TOTAL				7473.88 X
	Add GST on "X" (multiplying factor 0.1405)				1050.08
	TOTAL				8523.97 Y
	Add 15% CPOH on "Y"				1278.59
	TOTAL				9802.56 Z
	Add Cess @ 1% on "Z"				98.03
	Cost of 2.16 sqm.				9900.59
	Cost of 1 sqm.				4583.60
	Say				4583.60

14.26.1.2 Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for shutters of a cup-board (half glazed and half panelled) 200x108cm= 2.16 sqm. MATERIAL Styles 4x200x8.0x2.5cm = 0.016 cum+ Rails Top rail 1x110.5x8.0x2.5cm = 0.0022cum+ Lock and bottom rail 2x110.5x8.0x2.5cm = 0.0044 cum. Panels 2x48x41x1.6cm = 0.006cum+ Sash bars 2x114x3.8x2.5cm = 0.0022 cum+ 6x48x3.8x2.5cm = 0.003 cum+ Beading 16x92x1.4x1.2cm = 0.002cum Total = 0.0358				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add for wastage @ 10% = 0.0036 cum. Grand Total = 0.0394 cum = 39.40 cudm say 39 cudm				
1188	First class teak wood in planks	10 cudm	3.90	850.00	3315.00
2204	Carriage of Timber	cum	0.04	187.35	7.49
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	0.99	309.00	305.91
	Fittings				
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide	metre	4.00	39.00	156.00
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	40.00	48.00
	LABOUR				
0111	Carpenter 1st class	day	2.40	784.00	1881.60
0119	Glazier	day	0.18	714.00	128.52
0114	Beldar	day	0.77	645.00	496.65
9999	Sundries	L.S.	40.43	2.12	85.71
	TOTAL				6424.89 W
	Add 1 % Water charges on "W"				64.25
	TOTAL				6489.13 X
	Add GST on "X" (multiplying factor 0.1405)				911.72
	TOTAL				7400.86 Y
	Add 15% CPOH on "Y"				1110.13
	TOTAL				8510.99 Z
	Add Cess @ 1% on "Z"				85.11
	Cost of 2.16 sqm.				8596.10
	Cost of 1 sqm.				3979.67
	Say				3979.65

14.26.2 Glazed shutters :

14.26.2.1 Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm. MATERIAL (i) Superior class teak wood Styles : 4x200x9.5x2.5 cm = 0.019 cum Rails Top & intermediate rails 2x110.5x9.5x2.5 cm = 0.005 cum Lock and bottom rails 2x110.5x19.7x2.5 cm = 0.011 cum Beadings- 2x186.1x1.9x1.2cm = 0.001cum+ 4x171.70x1.9x1.2cm = 0.002cum. Total = 0.038 cum. Add for wastage @ 10% = 0.0038 cum. Grand Total = 0.0418 cum = 42 cudm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1186	Superior class teak wood such as Dandeli,Balarshah or Malabar in planks	10 cudm	4.20	1100.00	4620.00
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.27	309.00	392.43
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide 75x45x3.2 mm	metre	4.00	39.00	156.00
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	40.00	48.00
0597	Bright finished or black enamelled mild steel butt hinges50x37x1.50 mm	10 Nos	0.20	49.00	9.80
0640	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	35.00	2.80
2204	Carriage of Timber	cum	0.042	187.35	7.87
	LABOUR				
0156	Carpenter (average)	day	1.83	749.00	1370.67
0119	Glazier	day	0.23	714.00	164.22
0114	Beldar	day	0.77	645.00	496.65
9999	Sundries	L.S.	40.43	2.12	85.71
	TOTAL				7354.15 W
	Add 1 % Water charges on "W"				73.54
	TOTAL				7427.69 X
	Add GST on "X" (multiplying factor 0.1405)				1043.59
	TOTAL				8471.28 Y
	Add 15% CPOH on "Y"				1270.69
	TOTAL				9741.97 Z
	Add Cess @ 1% on "Z"				97.42
	Cost of 2.16 sqm.				9839.39
	Cost of 1 sqm.				4555.28
	Say				4555.30

14.26.2.2 Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for shutter of cup-board 200x108cm = 2.16 sqm. MATERIAL (i) Teak wood first class Styles : 4x200x9.5x2.5 cm = 0.019 cum Rails Top & intermediate rails 2x110.5x9.5x2.5 cm = 0.005 cum Lock and bottom rails 2x110.5x19.7x2.5 cm = 0.011 cum Beadings- 2x186.1x1.9x1.2cm = 0.001cum+ 4x171.70x1.9x1.2cm = 0.002cum. Total = 0.038 cum. Add for wastage @ 10% = 0.0038 cum. Grand Total = 0.0418 cum = 42 cudm				
1188	First class teak wood in planks	10 cudm	4.20	850.00	3570.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.27	309.00	392.43
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide 75x45x3.2 mm	metre	4.00	39.00	156.00
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	40.00	48.00
0597	Bright finished or black enamelled mild steel butt hinges50x37x1.50 mm	10 Nos	0.20	49.00	9.80
0640	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	35.00	2.80
2204	Carriage of Timber	cum	0.042	187.35	7.87
	LABOUR				
0156	Carpenter (average)	day	1.83	749.00	1370.67
0119	Glazier	day	0.23	714.00	164.22
0114	Beldar	day	0.77	645.00	496.65
9999	Sundries	L.S.	40.43	2.12	85.71
	TOTAL				6304.15 W
	Add 1 % Water charges on “W”				63.04
	TOTAL				6367.19 X
	Add GST on “X” (multiplying factor 0.1405)				894.59
	TOTAL				7261.78 Y
	Add 15% CPOH on “Y”				1089.27
	TOTAL				8351.05 Z
	Add Cess @ 1% on “Z”				83.51
	Cost of 2.16 sqm.				8434.56
	Cost of 1 sqm.				3904.89
	Say				3904.90

14.27 Providing and fixing plain jaffri door and window shutters including bright or/ and black enamelled M.S. butt hinges with necessary screws 35x10 mm laths placed 35 mm apart (frames to be paid separately), including fixing 50x12 mm beading complete with :

14.27.1 Second class teak wood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of a jaffri shutter 176x86 cm = 1.51 sqm				
	MATERIAL				
	Teak wood 2nd class				
	Styles 2x176x7.5x3.5 cm = 0.0092 cum				
	Rails 3x86x7.5x3.5 = 0.0068 cum				
	Total 0.0160 cum				
	Add wastage @ 10 % =0.0016 cum				
	Total = 0.0176 cum Say 18 cudm				
1190	Second class teak wood in planks	10 cudm	1.80	791.00	1423.80
2204	Carriage of Timber	cum	0.018	187.35	3.37
	Palain Jaffri work				
9.41.1	Rate as per Item Number 9.41.1 of SH:Wood and PVC work	sqm	1.51	2622.20	3959.52 A
0595	Bright finished or black enamelled mild steel butt hinges 100x58x1.90 mm	10 Nos	0.60	80.00	48.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0597	Bright finished or black enamelled mild steel butt hinges50x37x1.50 mm	10 Nos	0.20	49.00	9.80
0637	Bright finished or black enamelled mild steel screws 40 mm	100 Nos	0.48	60.00	28.80
0640	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	35.00	2.80
	LABOUR				
	For making frame and fixing fitting				
0112	Carpenter 2nd class	day	0.30	714.00	214.20
	TOTAL				5690.29 W
	Add 1 % Water charges on "W-A"				17.31
	TOTAL				5707.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				245.61
	TOTAL				5953.21 Y
	Add 15% CPOH on "Y-A"				299.05
	TOTAL				6252.26 Z
	Add Cess @ 1% on "Z-A"				22.93
	Cost of 1.51 sqm.				6275.19
	Cost of 1 sqm.				4155.75
	Say				4155.75

14.28 Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete.

14.28.1 20 mm diameter.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 2 metre long				
	MATERIAL				
0444	Brass curtain rod 20 mm dia 1.25 mm thick	metre	2.00	140.00	280.00
0446	Brass brackets (curtain rods) 20 mm	each	2.00	45.00	90.00
9999	Screws	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	1.56	2.12	3.31
	Wooden plugs including cutting brick work and fixing in cement mortar				
8.23	Rate as per item no 9.32 of SH : Wood work	each	2.00	35.50	71.00 A
9999	LABOUR	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	1.56	2.12	3.31
	TOTAL				459.19 W
	Add 1 % Water charges on “W-A”				3.88
	TOTAL				463.07 X
	Add GST on “X-A” (multiplying factor 0.1405)				55.09
	TOTAL				518.16 Y
	Add 15% CPOH on “Y-A”				67.07
	TOTAL				585.23 Z
	Add Cess @ 1% on “Z-A”				5.14
	Cost of 2 metres				590.37
	Cost of 1 metre				295.19
	Say				295.20

14.28.2 25 mm diameter.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 2 metre long				
	MATERIAL				
0445	Brass curtain rod 25 mm dia				
	1.25 mm thick	metre	2.00	190.00	380.00
0446	Brass brackets (curtain rods) 20 mm	each	2.00	45.00	90.00
9999	Screws	L.S.	2.73	2.12	5.79
9977	Carriage	L.S.	1.56	2.12	3.31
	Wooden plugs including cutting brick work and fixing in cement mortar				
8.23	Rate as per item no 9.32 of				
	SH : Wood work	each	2.00	35.50	71.00 A
9999	LABOUR	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	1.56	2.12	3.31
	TOTAL				559.19 W
	Add 1 % Water charges on "W-A"				4.88
	TOTAL				564.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				69.28
	TOTAL				633.35 Y
	Add 15% CPOH on "Y-A"				84.35
	TOTAL				717.70 Z
	Add Cess @ 1% on "Z-A"				6.47
	Cost of 2 metres				724.17
	Cost of 1 metre				362.08
	Say				362.10

14.29 Providing and fixing M.S. round or square bars with M.S. flats at required spacing in wooden frames of windows and clerestory windows.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 33.67 kg				
	Details of cost for window -140x110cm				
	MATERIAL				
	M.S. bar 16 mm dia 13x136 cm				
	= 17.68 m @ 1.58 kg/m = 27.93 kg				
	Add for wastage @ 10% =2.79 kg				
	Total = 30.72 kg or 0.307 q				
1003	Mild steel round bar above 12 mm dia	quintal	0.307	4750.00	1458.25
	M.S. flat 40x6mm 2x96cm = 192cm+				
	1x110cm = 110cm				
	= 302cm+				
	Add wastage @ 10% = 30cm				
	Total = 332cm.@ 1.90 kg/m = 6.31 kg				
	Say 0.063 q				
1008	Flats upto 10 mm in thickness	quintal	0.063	4850.00	305.55
2205	Carriage of Steel	tonne	0.037	145.72	5.39
	(0.307+0.063 = 0.37 q = 0.037 t)				
9999	Sundries	L.S.	26.91	2.12	57.05
	LABOUR				
0103	Blacksmith 2nd class	day	0.35	714.00	249.90
0112	Carpenter 2nd class	day	0.20	714.00	142.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				2509.19 W
	Add 1 % Water charges on "W"				25.09
	TOTAL				2534.28 X
	Add GST on "X" (multiplying factor 0.1405)				356.07
	TOTAL				2890.35 Y
	Add 15% CPOH on "Y"				433.55
	TOTAL				3323.90 Z
	Add Cess @ 1% on "Z"				33.24
	Cost of 33.67 kg.(5.74+27.93=33.67kg)				3357.14
	Cost of 1 kg.				99.71
	Say				99.70

14.30 Providing joists (karries) including hoisting, fixing in position and applying wood preservative on unexposed surface etc. complete with :

14.30.1 Sal wood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 300cudm.				
	MATERIAL				
	Sal wood				
	10x0.1mx0.1mx3.0m = 0.30 cum. Or = 300 cudm				
	Add wastage @ 2% = 6.00 cudm.				
	Total = 306 cudm.				
1199	Sal wood in scantling	10 cudm	30.60	600.00	18360.00
2204	Carriage of Timber	cum	0.306	187.35	57.33
	LABOUR				
0112	Carpenter 2nd class	day	0.70	714.00	499.80
0114	Beldar	day	1.45	645.00	935.25
0100	Bandhani	day	0.70	714.00	499.80
	Priming coat (Wood preservative)				
13.57.1	Rate as per item no 13.57.1				
	SH : Finishing	sqm	0.80	47.10	37.68 A
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				20446.91 W
	Add 1 % Water charges on "W-A"				204.09
	TOTAL				20651.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				2896.17
	TOTAL				23547.17 Y
	Add 15% CPOH on "Y-A"				3526.42
	TOTAL				27073.60 Z
	Add Cess @ 1% on "Z-A"				270.36
	Cost of 300 cudm.				27343.96
	Cost of 1 cum.				91146.53
	Say				91146.55

14.30.2 Hollock wood

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 300cudm.				
	MATERIAL				
	Hollock wood in scantling 10x0.1mx0.1mx3.0m = 0.30 cum. Or = 300 cudm				
	Add wastage @ 2% = 6.00 cudm.				
	Total = 306 cudm.				
2466	Hollock wood in scantling	10 cudm	30.60	357.00	10924.20
2204	Carriage of Timber	cum	0.306	187.35	57.33
	LABOUR				
0112	Carpenter 2nd class	day	0.70	714.00	499.80
0114	Beldar	day	1.45	645.00	935.25
0100	Bandhani	day	0.70	714.00	499.80
	Priming coat (Wood preservative)				
13.57.1	Rate as per item no 13.57.1				
	SH : Finishing	sqm	0.80	47.10	37.68 A
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				13011.11 W
	Add 1 % Water charges on "W-A"				129.73
	TOTAL				13140.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				1840.99
	TOTAL				14981.84 Y
	Add 15% CPOH on "Y-A"				2241.62
	TOTAL				17223.46 Z
	Add Cess @ 1% on "Z-A"				171.86
	Cost of 300 cudm.				17395.32
	Cost of 1 cum.				57984.40
	Say				57984.40

14.31 Providing and fixing bright finished brass single acting spring hinges with necessary brass screws etc. complete :

14.31.1 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0389	Brass single acting spring hinges 150 mm	each	10.00	425.00	4250.00
0449	Brass screws 50 mm	100 Nos	0.80	220.00	176.00
9977	Carriage of materials	L.S.	3.64	2.12	7.72
	LABOUR				
0111	Carpenter 1st class	day	0.40	784.00	313.60
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				4876.32 W
	Add 1 % Water charges on "W"				48.76
	TOTAL				4925.08 X
	Add GST on "X" (multiplying factor 0.1405)				691.97
	TOTAL				5617.05 Y
	Add 15% CPOH on "Y"				842.56
	TOTAL				6459.61 Z
	Add Cess @ 1% on "Z"				64.60
	Cost of 10 hinges				6524.21
	Cost of each				652.42
	Say				652.40

14.31.2 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0390	Brass single acting spring hinges 125 mm	each	10.00	285.00	2850.00
0449	Brass screws 50 mm	100 Nos	0.80	220.00	176.00
9977	Carriage of materials	L.S.	3.64	2.12	7.72
	LABOUR				
0111	Carpenter 1st class	day	0.40	784.00	313.60
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				3476.32 W
	Add 1 % Water charges on "W"				34.76
	TOTAL				3511.08 X
	Add GST on "X" (multiplying factor 0.1405)				493.31
	TOTAL				4004.39 Y
	Add 15% CPOH on "Y"				600.66
	TOTAL				4605.04 Z
	Add Cess @ 1% on "Z"				46.05
	Cost of 10 hinges				4651.10
	Cost of each				465.11
	Say				465.10

14.31.3 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0391	Brass single acting spring hinges 100 mm	each	10.00	250.00	2500.00
0450	Brass screws 40 mm	100 Nos	0.80	170.00	136.00
9977	Carriage of materials	L.S.	3.64	2.12	7.72
	LABOUR				
0111	Carpenter 1st class	day	0.40	784.00	313.60
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				3086.32 W
	Add 1 % Water charges on "W"				30.86
	TOTAL				3117.18 X
	Add GST on "X" (multiplying factor 0.1405)				437.96
	TOTAL				3555.14 Y
	Add 15% CPOH on "Y"				533.27
	TOTAL				4088.42 Z
	Add Cess @ 1% on "Z"				40.88
	Cost of 10 hinges				4129.30
	Cost of each				412.93
	Say				412.95

14.32 Providing and fixing bright finished brass double acting spring hinges with necessary brass screws etc. complete :

14.32.1 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0392	Brass double acting spring hinges 150 mm	each	10.00	480.00	4800.00	
0449	Brass screws 50 mm	100 Nos	0.80	220.00	176.00	
9977	Carriage of materials	L.S.	3.64	2.12	7.72	
	LABOUR					
0111	Carpenter 1st class	day	0.40	784.00	313.60	
0114	Beldar	day	0.20	645.00	129.00	
	TOTAL				5426.32	W
	Add 1 % Water charges on “W”				54.26	
	TOTAL				5480.58	X
	Add GST on “X” (multiplying factor 0.1405)				770.02	
	TOTAL				6250.60	Y
	Add 15% CPOH on “Y”				937.59	
	TOTAL				7188.19	Z
	Add Cess @ 1% on “Z”				71.88	
	Cost of 10 hinges				7260.07	
	Cost of each				726.01	
	Say				726.00	

14.32.2 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 nos.					
	MATERIAL					
0393	Brass double acting spring hinges 125 mm	each	10.00	400.00	4000.00	
0449	Brass screws 50 mm	100 Nos	0.80	220.00	176.00	
9977	Carriage of materials	L.S.	3.64	2.12	7.72	
	LABOUR					
0111	Carpenter 1st class	day	0.40	784.00	313.60	
0114	Beldar	day	0.20	645.00	129.00	
	TOTAL				4626.32	W
	Add 1 % Water charges on "W"				46.26	
	TOTAL				4672.58	X
	Add GST on "X" (multiplying factor 0.1405)				656.50	
	TOTAL				5329.08	Y
	Add 15% CPOH on "Y"				799.36	
	TOTAL				6128.44	Z
	Add Cess @ 1% on "Z"				61.28	
	Cost of 10 hinges				6189.72	
	Cost of each				618.97	
	Say				618.95	

14.32.3 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0394	Brass double acting spring hinges 100 mm	each	10.00	390.00	3900.00
0450	Brass screws 40 mm	100 Nos	0.80	170.00	136.00
9977	Carriage of materials	L.S.	3.64	2.12	7.72
	LABOUR				
0111	Carpenter 1st class	day	0.40	784.00	313.60
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				4486.32 W
	Add 1 % Water charges on "W"				44.86
	TOTAL				4531.18 X
	Add GST on "X" (multiplying factor 0.1405)				636.63
	TOTAL				5167.81 Y
	Add 15% CPOH on "Y"				775.17
	TOTAL				5942.98 Z
	Add Cess @ 1% on "Z"				59.43
	Cost of 10 hinges				6002.41
	Cost of each				600.24
	Say				600.25

14.33 Providing and fixing bright finished brass flush bolts with necessary brass screws etc. complete :

14.33.1 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0404	Brass flush bolt 250 mm	each	10.00	150.00	1500.00
0452	Brass screws 25 mm	100 Nos	0.60	100.00	60.00
9977	Carriage of materials	L.S.	3.64	2.12	7.72
	LABOUR				
0111	Carpenter 1st class	Day	0.20	784.00	156.80
	TOTAL				1724.52 W
	Add 1 % Water charges on "W"				17.25
	TOTAL				1741.76 X
	Add GST on "X" (multiplying factor 0.1405)				244.72
	TOTAL				1986.48 Y
	Add 15% CPOH on "Y"				297.97
	TOTAL				2284.45 Z
	Add Cess @ 1% on "Z"				22.84
	Cost of 10 hinges				2307.30
	Cost of each				230.73
	Say				230.75

14.33.2 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0405	Brass flush bolt 150 mm	each	10.00	130.00	1300.00
0452	Brass screws 25 mm	100 Nos	0.60	100.00	60.00
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0111	Carpenter 1st class	day	0.17	784.00	133.28
	TOTAL				1499.07 W
	Add 1 % Water charges on "W"				14.99
	TOTAL				1514.06 X
	Add GST on "X" (multiplying factor 0.1405)				212.73
	TOTAL				1726.78 Y
	Add 15% CPOH on "Y"				259.02
	TOTAL				1985.80 Z
	Add Cess @ 1% on "Z"				19.86
	Cost of 10 hinges				2005.66
	Cost of each				200.57
	Say				200.55

14.33.3 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0406	Brass flush bolt 100 mm	each	10.00	90.00	900.00
0452	Brass screws 25 mm	100 Nos	0.60	100.00	60.00
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0111	Carpenter 1st class	day	0.17	784.00	133.28
	TOTAL				1099.07 W
	Add 1 % Water charges on "W"				10.99
	TOTAL				1110.06 X
	Add GST on "X" (multiplying factor 0.1405)				155.96
	TOTAL				1266.02 Y
	Add 15% CPOH on "Y"				189.90
	TOTAL				1455.92 Z
	Add Cess @ 1% on "Z"				14.56
	Cost of 10 hinges				1470.48
	Cost of each				147.05
	Say				147.05

14.34 Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, necessary brass screws etc. to suit shutter thickness complete

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0417	Brass 150 mm floor door stopper (0.357kg)	each	10.00	160.00	1600.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0450	Brass screws 40 mm	100 Nos	0.40	170.00	68.00
9977	Carriage of material	L.S.	2.73	2.12	5.79
	LABOUR				
0111	Carpenter 1st class	day	0.07	784.00	54.88
9999	Sundries (wooden plugs including fixing in the floor)	L.S.	6.37	2.12	13.50
	TOTAL				1742.17 W
	Add 1 % Water charges on "W"				17.42
	TOTAL				1759.59 X
	Add GST on "X" (multiplying factor 0.1405)				247.22
	TOTAL				2006.82 Y
	Add 15% CPOH on "Y"				301.02
	TOTAL				2307.84 Z
	Add Cess @ 1% on "Z"				23.08
	Cost of 10 Nos				2330.92
	Cost of each				233.09
	Say				233.10

14.35 Providing and fixing bright finished brass hard drawn hooks and eyes :

14.35.1 300 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0418	Brass hard drawn hooks and eyes 300 mm	10 Nos	1.00	600.00	600.00
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
	TOTAL				648.97 W
	Add 1 % Water charges on “W”				6.49
	TOTAL				655.46 X
	Add GST on “X” (multiplying factor 0.1405)				92.09
	TOTAL				747.55 Y
	Add 15% CPOH on “Y”				112.13
	TOTAL				859.68 Z
	Add Cess @ 1% on “Z”				8.60
	Cost of 10 Nos				868.28
	Cost of each				86.83
	Say				86.85

14.35.2 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0419	Brass hard drawn hooks and eyes 250 mm	10 Nos	1.00	574.00	574.00
9977	Carriage of material	L.S.	0.91	2.12	1.93

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
	TOTAL				622.97 W
	Add 1 % Water charges on “W”				6.23
	TOTAL				629.20 X
	Add GST on “X” (multiplying factor 0.1405)				88.40
	TOTAL				717.60 Y
	Add 15% CPOH on “Y”				107.64
	TOTAL				825.24 Z
	Add Cess @ 1% on “Z”				8.25
	Cost of 10 hooks and eyes				833.49
	Cost of 1 hook and eye				83.35
	Say				83.35

14.35.3 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0420	Brass hard drawn hooks and eyes 200 mm	10 Nos	1.00	510.00	510.00
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
	TOTAL				558.97 W
	Add 1 % Water charges on "W"				5.59
	TOTAL				564.56 X
	Add GST on "X" (multiplying factor 0.1405)				79.32
	TOTAL				643.88 Y
	Add 15% CPOH on "Y"				96.58
	TOTAL				740.46 Z
	Add Cess @ 1% on "Z"				7.40
	Cost of 10 Nos				747.87
	Cost of each				74.79
	Say				74.80

14.35.4 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0421	Brass hard drawn hooks and eyes 150 mm	10 Nos	1.00	400.00	400.00
9977	Carriage of material	L.S.	0.91	2.12	1.93

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
	TOTAL				448.97 W
	Add 1 % Water charges on "W"				4.49
	TOTAL				453.46 X
	Add GST on "X" (multiplying factor 0.1405)				63.71
	TOTAL				517.17 Y
	Add 15% CPOH on "Y"				77.58
	TOTAL				594.75 Z
	Add Cess @ 1% on "Z"				5.95
	Cost of 10 Nos				600.69
	Cost of each				60.07
	Say				60.05

14.35.5 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0422	Brass hard drawn hooks and eyes 100 mm	10 Nos	1.00	345.00	345.00
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
	TOTAL				393.97 W
	Add 1 % Water charges on "W"				3.94
	TOTAL				397.91 X
	Add GST on "X" (multiplying factor 0.1405)				55.91
	TOTAL				453.82 Y
	Add 15% CPOH on "Y"				68.07
	TOTAL				521.89 Z
	Add Cess @ 1% on "Z"				5.22
	Cost of 10 Nos				527.11
	Cost of each				52.71
	Say				52.70

14.36 Providing and fixing bright finished brass fan light pivot with necessary brass screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0429	Brass fanlight pivot	10 Nos	1.00	168.00	168.00
0450	Brass screws 40 mm	100 Nos	0.40	170.00	68.00
9977	Carriage of material	L.S.	0.91	2.12	1.93

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.08	784.00	62.72
	TOTAL				300.65 W
	Add 1 % Water charges on “W”				3.01
	TOTAL				303.66 X
	Add GST on “X” (multiplying factor 0.1405)				42.66
	TOTAL				346.32 Y
	Add 15% CPOH on “Y”				51.95
	TOTAL				398.27 Z
	Add Cess @ 1% on “Z”				3.98
	Cost of 10 Nos				402.25
	Cost of each				40.22
	Say				40.20

14.37 Providing and fixing 300 mm long bright finished brass chain with hook for fan light including necessary brass screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0430	Brass chain with hook for fan light catch	each	10.00	36.00	360.00
0452	Brass screws 25 mm	100 Nos	0.40	100.00	40.00
9977	Carriage of material	L.S.	0.91	2.12	1.93
	LABOUR				
0111	Carpenter 1st class	day	0.10	784.00	78.40
	TOTAL				480.33 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				485.13 X
	Add GST on "X" (multiplying factor 0.1405)				68.16
	TOTAL				553.29 Y
	Add 15% CPOH on "Y"				82.99
	TOTAL				636.29 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 10 Nos				642.65
	Cost of each				64.27
	Say				64.25

14.38 Providing and fixing bright finished brass quadrant stay 300 mm long with necessary brass screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0427	Brass quadrant stays 300 mm	each	10.00	110.00	1100.00
0452	Brass screws 25 mm	100 Nos	0.40	100.00	40.00
9977	Carriage of material	L.S.	0.91	2.12	1.93

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.10	784.00	78.40
	TOTAL				1220.33 W
	Add 1 % Water charges on "W"				12.20
	TOTAL				1232.53 X
	Add GST on "X" (multiplying factor 0.1405)				173.17
	TOTAL				1405.70 Y
	Add 15% CPOH on "Y"				210.86
	TOTAL				1616.56 Z
	Add Cess @ 1% on "Z"				16.17
	Cost of 10 quadrant stayes				1632.72
	Cost of each				163.27
	Say				163.25

14.39 Providing and fixing bright finished brass helical door spring (superior quality).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0442	Brass helical spring 150 mm	each	10.00	290.00	2900.00
0449	Brass screws 50 mm	100 Nos	0.40	220.00	88.00
0452	Brass screws 25 mm	100 Nos	0.20	100.00	20.00
9977	Carriage of material	L.S.	3.84	2.12	8.14
	LABOUR				
0111	Carpenter 1st class	day	0.40	784.00	313.60
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				3458.74 W
	Add 1 % Water charges on “W”				34.59
	TOTAL				3493.33 X
	Add GST on “X” (multiplying factor 0.1405)				490.81
	TOTAL				3984.14 Y
	Add 15% CPOH on “Y”				597.62
	TOTAL				4581.76 Z
	Add Cess @ 1% on “Z”				45.82
	Cost of 10 Nos				4627.58
	Cost of each				462.76
	Say				462.75

14.40 Providing and fixing chromium plated brass butt hinges with necessary chromium plated brass screws etc. complete.

14.40.1 125x70x4 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0525	Chromium plated Brass butt hinges (light/ordinary) type 125x70x4 mm	10 Nos	1.00	805.00	805.00
0585	Chromium plated Brass screws 50 mm	100 Nos	1.00	300.00	300.00
9977	Carriage of material	L.S.	3.64	2.12	7.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.14	784.00	109.76
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				1286.98 W
	Add 1 % Water charges on "W"				12.87
	TOTAL				1299.85 X
	Add GST on "X" (multiplying factor 0.1405)				182.63
	TOTAL				1482.48 Y
	Add 15% CPOH on "Y"				222.37
	TOTAL				1704.85 Z
	Add Cess @ 1% on "Z"				17.05
	Cost of 10 nos.				1721.89
	Cost of each				172.19
	Say				172.20

14.40.2 100x70x4 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0526	Chromium plated Brass butt hinges (light/ordinary) type 100x70x4 mm	10 Nos	1.00	690.00	690.00
0586	Chromium plated Brass screws 40 mm	100 Nos	0.80	290.00	232.00
9977	Carriage of material	L.S.	3.64	2.12	7.72
	LABOUR				
0111	Carpenter 1st class	day	0.14	784.00	109.76
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				1103.98 W
	Add 1 % Water charges on “W”				11.04
	TOTAL				1115.02 X
	Add GST on “X” (multiplying factor 0.1405)				156.66
	TOTAL				1271.68 Y
	Add 15% CPOH on “Y”				190.75
	TOTAL				1462.43 Z
	Add Cess @ 1% on “Z”				14.62
	Cost of 10 nos.				1477.05
	Cost of each				147.71
	Say				147.70

14.40.3 75x65x4 mm (heavy type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0524	Chromium plated Brass butt hinges (heavy) type 75x65x4 .0 mm (200gms)	10 Nos	1.00	905.00	905.00
0587	Chromium plated Brass screws 30 mm	100 Nos	0.60	240.00	144.00
9977	Carriage of material	L.S.	1.82	2.12	3.86

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.14	784.00	109.76
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				1227.12 W
	Add 1 % Water charges on "W"				12.27
	TOTAL				1239.39 X
	Add GST on "X" (multiplying factor 0.1405)				174.13
	TOTAL				1413.52 Y
	Add 15% CPOH on "Y"				212.03
	TOTAL				1625.55 Z
	Add Cess @ 1% on "Z"				16.26
	Cost of 10 nos.				1641.81
	Cost of each				164.18
	Say				164.20

14.40.4 75x40x2.5 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0527	Chromium plated Brass butt hinges (light/ordinary) type 75x40x2.5 mm	10 Nos	1.00	421.00	421.00
0587	Chromium plated Brass screws 30 mm	100 Nos	0.60	240.00	144.00
9977	Carriage of material	L.S.	1.82	2.12	3.86
	LABOUR				
0111	Carpenter 1st class	day	0.14	784.00	109.76
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				743.12 W
	Add 1 % Water charges on "W"				7.43
	TOTAL				750.55 X
	Add GST on "X" (multiplying factor 0.1405)				105.45
	TOTAL				856.00 Y
	Add 15% CPOH on "Y"				128.40
	TOTAL				984.40 Z
	Add Cess @ 1% on "Z"				9.84
	Cost of 10 nos.				994.25
	Cost of each				99.42
	Say				99.40

14.40.5 50x40x2.5 mm (ordinary type)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
0528	Chromium plated Brass butt hinges (light/ordinary) type 50x40x2.5 mm	10 Nos	1.00	180.00	180.00
0589	Chromium plated Brass screws 20 mm	100 Nos	0.40	160.00	64.00
9977	Carriage of material	L.S.	0.91	2.12	1.93

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.08	784.00	62.72
	TOTAL				308.65 W
	Add 1 % Water charges on "W"				3.09
	TOTAL				311.74 X
	Add GST on "X" (multiplying factor 0.1405)				43.80
	TOTAL				355.53 Y
	Add 15% CPOH on "Y"				53.33
	TOTAL				408.86 Z
	Add Cess @ 1% on "Z"				4.09
	Cost of 10 nos.				412.95
	Cost of each				41.30
	Say				41.30

14.41 Providing and fixing 85x42 mm chromium plated brass pull bolt lock with necessary chromium plated brass screws, nuts, bolts and washers etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Nos				
	MATERIAL				
2467	Chromium plated Brass pull bolt lock (locking bolt) of size 85 mmx42 mm with screws,bolts,nuts and washers complete	each	10.00	172.00	1720.00
9988	Carriage of materials & sundries	L.S.	6.37	2.12	13.50
	LABOUR				
0112	Carpenter 2nd class	day	0.25	714.00	178.50
	TOTAL				1912.00 W
	Add 1 % Water charges on "W"				19.12
	TOTAL				1931.12 X
	Add GST on "X" (multiplying factor 0.1405)				271.32
	TOTAL				2202.45 Y
	Add 15% CPOH on "Y"				330.37
	TOTAL				2532.81 Z
	Add Cess @ 1% on "Z"				25.33
	Cost of 10 nos.				2558.14
	Cost of each				255.81
	Say				255.80

14.72 Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of

Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.
Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for area 22.5m x 9.0m =202.5 sqm				
14.72X	Rate as per Item No.14.72X of SH:Repairs to Buildings	each	1.00	7911.85	7911.85
2205	Carriage of Steel	tonne	6.054	145.72	882.19
	40mm dia MS pipe = 3765.42 kg				
	25mm spigot = 123.98 kg				
	Nuts & bolts = 37.80 kg				
	Clamp = 120 nos @ 1.00kg each = 120.00 kg				
	Challies = 90 nos @ 15.00kg each = 1350.00 kg				
	Cup locks = 1314 nos @ 0.50kg each = 657.00 kg				
	Total = 6054.20 kg = 6.054 tonne				
	LABOUR				
0116	Fitter (grade 1)	day	15.50	784.00	12152.00
0114	Beldar	day	31.00	645.00	19995.00
9999	Sundries	L.S.	1035	2.12	2194.20
	TOTAL				43135.24 W
	Add 1 % Water charges on "W"				431.35
	TOTAL				43566.59 X
	Add GST on "X" (multiplying factor 0.1405)				6121.11
	TOTAL				49687.70 Y
	Add 15% CPOH on "Y"				7453.15
	TOTAL				57140.85 Z
	Add Cess @ 1% on "Z"				571.41
	Cost of 202.50 sqm.				57712.26
	Cost of 1 sqm.				285.00
	Say				285.00

14.72X Scaffolding

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for area 22.5 x 9.0 = 202.50 sqm				
	MATERIAL				
	Assuming shuttering material will become unserviceable after use of 40 times				
7397	Base jack 7x2=14 nos	each	14.00	145.00	2030.00
4009	Mild steel tubes hot finished welded type 40mm dia M.S. Tube	kilogram	3765.42	60.00	225925.20
	Vertical standard 2.5m length = 7x2x9x2.5 = 315.00 m				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Bracing ledder 1.5m length = 7x2x9x 4.0873 = 513.00 m Side support 6.00m length = 3x2x6.00 = 36.00 m Horizontal support 3.00m length = 18x3x3.00 = 162.00 m Total = 1026.00m @ 3.67 kg/m = 3765.42 kg				
7387	Spigot for standard jointing 7x2x9 = 126 nos x 0.40m length = 50.40m 50.40m @ 2.46kg/m = 123.98kg	kg	123.98	40.00	4959.20
1034	Bolts and nuts upto 300 mm in length 2x7x2x9 = 252 nos @ 0.15 kg each = 37.80 kg = 0.378 q	quintal	0.378	5200.00	1965.60
7346	Double coupler 2x3x2 + 2x18x3 = 120 nos	each	120.00	46.00	5520.00
7398	Challies 3 nos x 18 lines = 54 nos Two level plate challies = 2x 18 lines = 36 nos, Total = 90 nos	each	90.00	765.00	68850.00
7399	Cup lock Vertical standards 5x7x2x9 = 630.00 Nos. 2x18x19 = 684 Nos. Total =1314 Nos.	each	1314.00	48.00	63072.00
	TOTAL				372322.00 P
	Add 10% for maintenance on P				37232.20 Q
	Less 25% salvage value on P				-93080.5 R
	TOTAL (P+Q+R)				316473.70
	Considering that scaffolding shall be unserviceable after using 40 times cost of using once				7911.84
	Say				7911.85

14.73 Providing and fixing bright finished brass casement window fasteners or peg stays to windows/ ventilators with necessary welding and machine screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos (10 x 0.20 = 2.00 kg) MATERIAL				
0423	Brass casement window fastener	each	10.00	45.00	450.00
9999	Fixing charges including welding and materials etc.	L.S.	125.58	2.12	266.23

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	3.64	2.12	7.72
	TOTAL				723.95 W
	Add 1 % Water charges on "W"				7.24
	TOTAL				731.19 X
	Add GST on "X" (multiplying factor 0.1405)				102.73
	TOTAL				833.92 Y
	Add 15% CPOH on "Y"				125.09
	TOTAL				959.01 Z
	Add Cess @ 1% on "Z"				9.59
	Cost of 2.00kg window fasteners				968.60
	Cost of 1 kg window fastener				484.30
	Say				484.30

14.74 Providing and fixing 14 mm bright finished brass spring catch to steel centre hung ventilators with necessary welding and machine screws etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos				
	MATERIAL				
0428	Brass fanlight catch	10 Nos	1.00	170.00	170.00
9999	Fixing charges including welding and materials etc.	L.S.	125.58	2.12	266.23
9977	Carriage of materials	L.S.	3.64	2.12	7.72
	TOTAL				443.95 W
	Add 1 % Water charges on "W"				4.44
	TOTAL				448.39 X
	Add GST on "X" (multiplying factor 0.1405)				63.00
	TOTAL				511.38 Y
	Add 15% CPOH on "Y"				76.71
	TOTAL				588.09 Z
	Add Cess @ 1% on "Z"				5.88
	Cost of 10 window fasteners				593.97
	Cost of each				59.40
	Say				59.40

14.75 Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL				
0772	White cement based polymer modified self curing compound in powder form i/c 2% wastage	kg	125.00	15.00	1875.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of white cement based polymer modified self curing compound in powder form	L.S.	21.10	2.12	44.73
	LABOUR				
0155	Mason (average)	day	1.21	749.00	906.29
0114	Beldar	day	0.54	645.00	348.30
0115	Coolie	day	1.29	645.00	832.05
9999	Scaffolding and sunderies	L.S.	15.21	2.12	32.25
	TOTAL				4038.62 W
	Add 1 % Water charges on "W"				40.39
	TOTAL				4079.00 X
	Add GST on "X" (multiplying factor 0.1405)				573.10
	TOTAL				4652.10 Y
	Add 15% CPOH on "Y"				697.82
	TOTAL				5349.92 Z
	Add Cess @ 1% on "Z"				53.50
	Cost of 10 sqm				5403.42
	Cost of 1 sqm				540.34
	Say				540.35

14.75A Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 tanks 1 tank is of 500 litres capacity i.e. 5000 litres				
	MATERIAL				
1301	Bleaching powder	quintal	0.025	1800.00	45.00
2264	Carriage of Rubbish (asuming 0.040m depth of silt)	cum	0.25	163.93	40.98
9999	Marking with paint i/c removal of existing markings	L.S.	30.00	2.12	63.60
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter for opening ball cock wheel valve and other fittings	day	1.00	714.00	714.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	645.00	645.00
	for cleaning disinfecting etc				
	TOTAL				1508.58 W
	Add 1 % Water charges on “W”				15.09
	TOTAL				1523.67 X
	Add GST on “X” (multiplying				
	factor 0.1405)				214.08
	TOTAL				1737.74 Y
	Add 15% CPOH on “Y”				260.66
	TOTAL				1998.41 Z
	Add Cess @ 1% on “Z”				19.98
	Cost of 5000 litres				2018.39
	Cost of 1 litre				0.40
	Say				0.40

14.76 Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Nos.				
	LABOUR				
0129	Sewerman	day	1.00	645.00	645.00
9999	T & P Bamboo, bucket, whell barrow etc.	L.S.	11.20	2.12	23.74
	TOTAL				668.74 W
	Add 1 % Water charges on "W"				6.69
	TOTAL				675.43 X
	Add GST on "X" (multiplying				
	factor 0.1405)				94.90
	TOTAL				770.33 Y
	Add 15% CPOH on "Y"				115.55
	TOTAL				885.88 Z
	Add Cess @ 1% on "Z"				8.86
	Cost of 10 nos				894.74
	Cost of each				89.47
	Say				89.45

14.77 Cleaning of chocked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 208 metres				
	MATERIAL				
9999	Soap, brush, cloths & sundries	L.S.	345.00	2.12	731.40
8500	Water for jetting / blowback	1000 litre	0.002	1500.00	3.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Machineries				
0087	Hire Charges of Suction Jeting machine 2200 PSI machine i/c POL and operator	day	1.00	40000.00	40000.00
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	4.00	714.00	2856.00
0160	Technician	day	1.00	853.00	853.00
	TOTAL				44443.40 W
	Add 1 % Water charges on "W"				444.43
	TOTAL				44887.83 X
	Add GST on "X" (multiplying factor 0.1405)				6306.74
	TOTAL				51194.57 Y
	Add 15% CPOH on "Y"				7679.19
	TOTAL				58873.76 Z
	Add Cess @ 1% on "Z"				588.74
	Cost of 208 metres				59462.50
	Cost of 1.00 metre				285.88
	Say				285.90

14.78 Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:-

(i) Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits.

(ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water.

(iii) Chlorination of RCC internal surface by liquid chlorine.

(iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface.

(v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Let a underground tank of capacity 272000 litre or 272 KL and area of tank is 570sqm				
	(a) Dewater and slit cleaning				
	Considering through pumping 20% of water to be lifted, water discharge =(272 x 20/100=54.40KL)				
	Cost of pumping water with pump of capacity 4000 litres per hours , = (54.4/ 4 =13.6 hours = @ 8 hours/ day = 1.7 day)				
0011	Hire charges of Pump set of capacity 4000 litres/hour	day	1.70	700.00	1190.00
0114	Beldar	day	10.88	645.00	7017.60
	(b) Scrabing the internal surface of tank				
0114	Beldar	day	5.13	645.00	3308.85
0115	Coolie	day	2.28	645.00	1470.60
0101	Bhisti	day	2.28	714.00	1627.92
9999	Sundries	L.S.	142.50	2.12	302.10
	(c) Bleaching				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Bleaching powder	quintal	0.57	1800.00	1026.00
0006	Hire charges of Spraying machine including electric charges	day	14.25	250.00	3562.50
0138	Sprayer (for bitumen, tar etc.)	day	14.25	714.00	10174.50
	(d) Air jetting				
0058	Air compressor	hour	2.00	200.00	400.00
0114	Beldar	day	0.25	645.00	161.25
	(e) Ultra Violet Radiation				
0085	Using cost of Ultra Violet Radiation tube	hour	0.50	190.00	95.00
0114	Beldar	day	0.0625	645.00	40.31
	TOTAL				30376.63 W
	Add 1 % Water charges on "W"				303.77
	TOTAL				30680.40 X
	Add GST on "X" (multiplying factor 0.1405)				4310.60
	TOTAL				34990.99 Y
	Add 15% CPOH on "Y"				5248.65
	TOTAL				40239.64 Z
	Add Cess @ 1% on "Z"				402.40
	Cost of 570 sqm				40642.04
	Cost of 1 sqm				71.30
	Say				71.30

14.79 Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	LABOUR				
	For disconnecting & dismantling of existing W/s line of water storage tanks on terrace of Qtrs.				
0117	Assistant Fitter or 2nd class Fitter	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50
	For Bringing the tank at Ground Level				
0114	Beldar	day	0.20	645.00	129.00
9999	Sundries	L.S.	1.10	2.12	2.33
	TOTAL				267.23 W
	Add 1 % Water charges on “W”				2.67
	TOTAL				269.90 X
	Add GST on “X” (multiplying factor 0.1405)				37.92
	TOTAL				307.83 Y
	Add 15% CPOH on “Y”				46.17
	TOTAL				354.00 Z
	Add Cess @ 1% on “Z”				3.54
	Cost for each				357.54
	Say				357.55

14.80 Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge.

14.80.1 Long pattern W.C Pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
1953	Vitreous china Indian type W.C. pan size 580 mm	each	1.00	475.00	475.00
1970	Vitreous china foot rests 250x125x25 mm	pair	1.00	103.00	103.00
1890	Centrifugally sand cast (spun) S&S "P" or "S" trap	each	1.00	325.00	325.00
9999	Cement sand & grit etc.	L.S.	13.36	2.12	28.32
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	Less for				
1880	Dismantled "P" or "S" trap scrap (app. Wt 2 kg.)	kg	-2.00	25.00	-50.00
	LABOUR				
	(a) For dismantling WC seat and P or S trap				
0129	Sewerman	day	0.05	645.00	32.25
0114	Beldar	day	0.20	645.00	129.00
	(b) For Fixing WC seat and "P" or "S" trap				
0126	Mason 1st class	day	0.80	784.00	627.20
0114	Beldar	day	0.80	645.00	516.00
	TOTAL				2214.44 W
	Add 1 % Water charges on "W"				22.14
	TOTAL				2236.58 X
	Add GST on "X" (multiplying factor 0.1405)				314.24
	TOTAL				2550.82 Y
	Add 15% CPOH on "Y"				382.62
	TOTAL				2933.44 Z
	Add Cess @ 1% on "Z"				29.33
	Cost of each				2962.78
	Say				2962.80

14.80.2 Orissa pattern W.C Pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
1954	Vitreous china orrisa type W.C. pan size 580 mm	each	1.00	1290.00	1290.00
1890	Centrifugally sand cast (spun) S&S "P" or "S" trap	each	1.00	325.00	325.00
9999	Cement sand & grit etc.	L.S.	13.36	2.12	28.32
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	Less for				
1880	Dismantled "P" or "S" trap scrap (app. Wt 2 kg.)	kg	-2.00	25.00	-50.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	(a) For dismantling WC seat and P or S trap				
0129	Sewerman	day	0.05	645.00	32.25
0114	Beldar	day	0.125	645.00	80.63
	(b) For Fixing WC seat and "P" or "S" trap				
0126	Mason 1st class	day	0.80	784.00	627.20
0114	Beldar	day	0.80	645.00	516.00
	TOTAL				2878.06 W
	Add 1 % Water charges on "W"				28.78
	TOTAL				2906.84 X
	Add GST on "X" (multiplying factor 0.1405)				408.41
	TOTAL				3315.25 Y
	Add 15% CPOH on "Y"				497.29
	TOTAL				3812.54 Z
	Add Cess @ 1% on "Z"				38.13
	Cost of each				3850.67
	Say				3850.65

14.81 Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of Cost for 10 holes				
	Size 0.30x0.30x0.23 m wall				
	MATERIAL				
	12 mm plaster 1:4 (1 Cement: 4 Coarse sand)				
	Actual Area (10x4x0.3x0.23) = 0.296 + 0.24				
	L.S. For corners/sides = 3.00 Sqm				
13.4.1	Rate as per Item No.13.4.1 of SH:FINISHING	sqm	3.00	307.25	921.75 A
7752	PVC slotted pipe 200 mm dia as per IS: 12818	metre	0.25	810.00	202.50
9999	Sundries	L.S.	8.06	2.12	17.09
	LABOUR				
	Proportionate labour taken as actually required at site				
0123	Mason (brick layer) 1st class (0.16/0.0306)= 0.11 Nos.	day	0.11	784.00	86.24
0124	Mason (brick layer) 2nd class (0.16/0.030)x0.207 = 0.11 Nos.	day	0.11	714.00	78.54
0114	Beldar (1.25x0.207)/0.0306 =1.10 Nos.	day	1.10	645.00	709.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add L.S. For Delay	L.S.	16.12	2.12	34.17
	TOTAL				2049.79 W
	Add 1 % Water charges on "W-A"				11.28
	TOTAL				2061.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				160.07
	TOTAL				2221.15 Y
	Add 15% CPOH on "Y-A"				194.91
	TOTAL				2416.06 Z
	Add Cess @ 1% on "Z-A"				14.94
	Cost of 10 nos				2431.00
	Cost of each				243.10
	Say				243.10

14.82 Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	LABOUR				
0114	Beldar	day	0.125	645.00	80.63
9999	Sundries	L.S.	1.00	2.12	2.12
	TOTAL				82.75 W
	Add 1 % Water charges on "W"				0.83
	TOTAL				83.57 X
	Add GST on "X" (multiplying factor 0.1405)				11.74
	TOTAL				95.31 Y
	Add 15% CPOH on "Y"				14.30
	TOTAL				109.61 Z
	Add Cess @ 1% on "Z"				1.10
	Cost of each				110.71
	Say				110.70

14.83 Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	0.03	645.00	19.35
9999	Sundries	L.S.	1.00	2.12	2.12
	TOTAL				21.47 W
	Add 1 % Water charges on "W"				0.21
	TOTAL				21.68 X
	Add GST on "X" (multiplying factor 0.1405)				3.05
	TOTAL				24.73 Y
	Add 15% CPOH on "Y"				3.71
	TOTAL				28.44 Z
	Add Cess @ 1% on "Z"				0.28
	Cost of 10 sqm				28.73
	Cost of 1 sqm				2.87
	Say				2.85

14.84 Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge.
(a) Internal Work- Exposed on wall

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
9999	Dismantling of G.I. Pipe and stacking etc.	L.S.	10.00	2.12	21.20
	TOTAL				21.20 W
	Add 1 % Water charges on "W"				0.21
	TOTAL				21.41 X
	Add GST on "X" (multiplying factor 0.1405)				3.01
	TOTAL				24.42 Y
	Add 15% CPOH on "Y"				3.66
	TOTAL				28.08 Z
	Add Cess @ 1% on "Z"				0.28
	Cost of 10 metres				28.36
	Cost of 1 metre				2.84
	Say				2.85

14.85 Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one shutter (2.2 sqm)				
	Normal exiting size of shutter 1.00x2.02m =2.02sqm				
	MATERIAL				
0637	Bright finished or black enameled mild steel screws 40 mm	100 Nos	0.24	60.00	14.40
	Assuming old hinges fixed in Tee iron frames				
	Half qty = 48/2=24 needs replacement				
	LABOUR				
0156	Carpenter (average)	day	0.18	749.00	134.82
0114	Beldar	day	0.18	645.00	116.10
	TOTAL				265.32 W
	Add 1 % Water charges on "W"				2.65
	TOTAL				267.97 X
	Add GST on "X" (multiplying factor 0.1405)				37.65
	TOTAL				305.62 Y
	Add 15% CPOH on "Y"				45.84
	TOTAL				351.47 Z
	Add Cess @ 1% on "Z"				3.51
	Cost for 2.2 sqm or each shutter				354.98
	Cost for 2.02 sqm or each shutter				325.94
	Say				325.95

14.86 Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5 mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 sqm					
	MATERIAL					
	APP modified polymeric felt (two layers) 1.5 mm thick = 2x30 = 60 sqm + Add 10% wastage = 6 sqm. Total = 66 sqm					
8200	A.P.P. modified polymeric felt (two layers) 1.5 mm thick	sqm	66.00	80.00	5280.00	
0316	Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	47.00	564.00	
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 3x36 =108 kg = 0.108 tonne	tonne	0.108	34790.00	3757.32	
2211	Carriage of Tar bitumen	tonne	0.12	163.93	19.67	
9977	Carriage of polymeric felt	L.S.	7.80	2.12	16.54	
0370	Coal (steam)	quintal	0.174	440.00	76.56	
2200	Carriage of steam coal	tonne	0.0174	187.35	3.26	
9999	Preparing roof surface, cutting grooves and making good the same	L.S.	134.55	2.12	285.25	
	LABOUR					
0131	Painter	day	2.16	714.00	1542.24	
0114	Beldar	day	3.24	645.00	2089.80	
0130	Mistry	day	0.18	784.00	141.12	
9999	Sundries, brushes etc	L.S.	6.76	2.12	14.33	
	TOTAL				13790.08	W
	Add 1 % Water charges on "W"				137.90	
	TOTAL				13927.99	X
	Add GST on "X" (multiplying factor 0.1405)				1956.88	
	TOTAL				15884.87	Y
	Add 15% CPOH on "Y"				2382.73	
	TOTAL				18267.60	Z
	Add Cess @ 1% on "Z"				182.68	
	Cost for 30 sqm				18450.27	
	Cost for 1 sqm				615.01	
	Say				615.00	

14.87 Providing and laying in situ five course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd & 4th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/ 25 conforming to IS : 702, 3rd layer of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/ sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 5th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 sqm				
	MATERIAL				
	APP modified polymeric felt (two layers) 2.0 mm thick = 30 sqm				
	Add 10% wastage = 3 sqm				
	Total = 33 sqm				
8201	A.P.P. modified polymeric felt (two layers) 2 mm thick	sqm	33.00	120.00	3960.00
0316	Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	47.00	564.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 1.20x30x2 =72 kg = 0.072 tonne	tonne	0.072	34790.00	2504.88
2211	Carriage of Tar bitumen	tonne	0.084	163.93	13.77
9977	Carriage of polymeric felt	L.S.	7.80	2.12	16.54
0370	Coal (steam)	quintal	0.174	440.00	76.56
2200	Carriage of steam coal	tonne	0.0174	187.35	3.26
9999	Preparing roof surface, cutting grooves and making good the same	L.S.	134.55	2.12	285.25
	LABOUR				
0131	Painter	day	1.58	714.00	1128.12
0114	Beldar	day	2.37	645.00	1528.65
0130	Mistry	day	0.13	784.00	101.92
9999	Sundries, brushes etc	L.S.	6.76	2.12	14.33
	TOTAL				10197.27 W
	Add 1 % Water charges on "W"				101.97
	TOTAL				10299.25 X
	Add GST on "X" (multiplying factor 0.1405)				1447.04
	TOTAL				11746.29 Y
	Add 15% CPOH on "Y"				1761.94
	TOTAL				13508.23 Z
	Add Cess @ 1% on "Z"				135.08
	Cost for 30 sqm				13643.32
	Cost for 1 sqm				454.78
	Say				454.80

14.88 Providing and laying in situ seven course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 sqm				
	MATERIAL				
	APP modified polymeric felt (two layers) 2.0 mm thick = 2x30 = 60 sqm				
	Add 10% wastage = 6 sqm				
	Total = 66 sqm				
8201	A.P.P. modified polymeric felt (two layers) 2 mm thick	sqm	66.00	120.00	7920.00
0316	Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	47.00	564.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 3course x 36 = 108 kg = 0.108 tonne	tonne	0.108	34790.00	3757.32
2211	Carriage of Tar bitumen	tonne	0.12	163.93	19.67
9977	Carriage of polymeric felt	L.S.	7.80	2.12	16.54
0370	Coal (steam)	quintal	0.174	440.00	76.56
2200	Carriage of steam coal	tonne	0.0174	187.35	3.26
9999	Preparing roof surface, cutting grooves and making good the same	L.S.	134.55	2.12	285.25
	LABOUR				
0131	Painter	day	2.16	714.00	1542.24
0114	Beldar	day	3.24	645.00	2089.80
0130	Mistry	day	0.18	784.00	141.12
9999	Sundries, brushes etc	L.S.	6.76	2.12	14.33
	TOTAL				16430.08 W
	Add 1 % Water charges on "W"				164.30
	TOTAL				16594.39 X
	Add GST on "X" (multiplying factor 0.1405)				2331.51
	TOTAL				18925.90 Y
	Add 15% CPOH on "Y"				2838.88
	TOTAL				21764.78 Z
	Add Cess @ 1% on "Z"				217.65
	Cost for 30 sqm				21982.43
	Cost for 1 sqm				732.75
	Say				732.75

14.89 Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer 2 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrance manufacture of density at 25°C, 0.87 - 0.89 kg/ litre and viscocity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/ 5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacture of membrane.

14.89.1 2mm (for corrugated roof sheets)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 sqm				
	MATERIAL				
	A.P.P. modified 2 mm thick = 30 sqm				
	Add 10% for wastage - 3 sqm				
	Total= 33 sqm				
8203	A.P.P. modified 2 mm thick membrance reinforced with glass fibre matt	sqm	33.00	130.00	4290.00
8206	Bitumen primer for bitumen membrance	litre	12.00	85.00	1020.00
2211	Carriage of Tar bitumen	tonne	0.012	163.93	1.97
9977	Carriage of bitumen membrance	L.S.	7.80	2.12	16.54
1241	Commercial LPG in cylinder	kg	7.00	84.00	588.00
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.12	105.00
	LABOUR				
0159	Skilled torch operator for laying tack	day	2.16	784.00	1693.44
0130	Mistry	day	0.18	784.00	141.12
0114	Beldar	day	3.24	645.00	2089.80
9999	Sundries, brushes, bitumen torch etc	L.S.	23.40	2.12	49.61
	TOTAL				9995.47 W
	Add 1 % Water charges on "W"				99.95
	TOTAL				10095.43 X
	Add GST on "X" (multiplying factor 0.1405)				1418.41
	TOTAL				11513.84 Y
	Add 15% CPOH on "Y"				1727.08
	TOTAL				13240.91 Z
	Add Cess @ 1% on "Z"				132.41
	Cost for 30 sqm				13373.32
	Cost for 1 sqm				445.78
	Say				445.80

14.90 Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/litre and viscocity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical

parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :

14.90.1 3 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 sqm				
	MATERIAL				
	A.P.P. modified 3 mm thick = 30 sqm				
	Add 10% for wastage - 3 sqm				
	Total = 33 sqm				
8204	A.P.P. modified 3 mm thick membrance reinforced with glass fibre matt	sqm	33.00	190.00	6270.00
8206	Bitumen primer for bitumen membrance	litre	12.00	85.00	1020.00
2211	Carriage of Tar bitumen	tonne	0.012	163.93	1.97
9977	Carriage of bitumen membrance	L.S.	7.80	2.12	16.54
1241	Commercial LPG in cylinder	kg	7.00	84.00	588.00
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.12	105.00
	LABOUR				
0159	Skilled torch operator for laying tack	day	2.16	784.00	1693.44
0130	Mistry	day	0.18	784.00	141.12
0114	Beldar	day	3.24	645.00	2089.80
9999	Sundries, brushes, bitumen torch etc	L.S.	23.40	2.12	49.61
	TOTAL				11975.47 W
	Add 1 % Water charges on "W"				119.75
	TOTAL				12095.23 X
	Add GST on "X" (multiplying factor 0.1405)				1699.38
	TOTAL				13794.61 Y
	Add 15% CPOH on "Y"				2069.19
	TOTAL				15863.80 Z
	Add Cess @ 1% on "Z"				158.64
	Cost for 30 sqm				16022.44
	Cost for 1 sqm				534.08
	Say				534.10

14.91 Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscocity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/ 5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :

14.91.1 3 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 sqm				
	MATERIAL				
	A.P.P. modified 3 mm thick - 30 sqm				
	Add 10% for wastage - 3 sqm				
	Total = 33 sqm				
8205	A.P.P. modified 3 mm thick membrance reinforced with polyster matt	sqm	33.00	210.00	6930.00
8206	Bitumen primer for bitumen membrance	litre	12.00	85.00	1020.00
2211	Carriage of Tar bitumen	tonne	0.012	163.93	1.97
9977	Carriage of bitumen membrance	L.S.	7.80	2.12	16.54
	Fuel				
1241	Commercial LPG in cylinder	kg	7.00	84.00	588.00
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.12	105.00
	LABOUR				
0159	Skilled torch operator for laying tack	day	2.16	784.00	1693.44
0130	Mistry	day	0.18	784.00	141.12
0114	Beldar	day	3.24	645.00	2089.80
9999	Sundries, brushes, bitumen torch etc	L.S.	23.4	2.12	49.61
	TOTAL				12635.47 W
	Add 1 % Water charges on "W"				126.35
	TOTAL				12761.83 X
	Add GST on "X" (multiplying factor 0.1405)				1793.04
	TOTAL				14554.87 Y
	Add 15% CPOH on "Y"				2183.23
	TOTAL				16738.10 Z
	Add Cess @ 1% on "Z"				167.38
	Cost for 30 sqm				16905.48
	Cost for 1 sqm				563.52
	Say				563.50

14.92 Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 sqm				
	MATERIAL				
	Geotextile 120 gsm membrance - 30 sqm				
	Add 5% for wastage - 1.50 sqm				
	Total= 31.50 sqm				
8207	Geotextile 120 gsm membrance	sqm	31.50	45.00	1417.50
9977	Carriage of Geotextile	L.S.	7.80	2.12	16.54
	LABOUR				
0159	Skilled torch operator for laying tack or fitter 2.16 / 5 = 0.43	day	0.43	784.00	337.12
0130	Mistry 0.18 / 5 = 0.04	day	0.04	784.00	31.36

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar 3.24-5 / 0.65	day	0.65	645.00	419.25
9999	Sundries, torch, LPG etc	L.S.	46.80	2.12	99.22
	TOTAL				2320.98 W
	Add 1 % Water charges on "W"				23.21
	TOTAL				2344.19 X
	Add GST on "X" (multiplying factor 0.1405)				329.36
	TOTAL				2673.55 Y
	Add 15% CPOH on "Y"				401.03
	TOTAL				3074.58 Z
	Add Cess @ 1% on "Z"				30.75
	Cost for 30 sqm				3105.33
	Cost for 1 sqm				103.51
	Say				103.50

14.93 Providing round the clock security guard without gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete,as per the direction of Engineer-in-charge. (One job means 8 hour's duty).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 job (8hour's duty)				
0164	Security guard (without gun)	day	1.00	784.00	784.00
9999	Lathi,torch,dress & other sundries	L.S.	10.00	2.12	21.20
	TOTAL				805.20 W
	Add 1 % Water charges on "W"				8.05
	TOTAL				813.25 X
	Add GST on "X" (multiplying factor 0.1405)				114.26
	TOTAL				927.51 Y
	Add 15% CPOH on "Y"				139.13
	TOTAL				1066.64 Z
	Add Cess @ 1% on "Z"				10.67
	Cost of 1 job				1077.31
	Say				1077.30

14.94 Providing round the clock security guard with gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete, as per the direction of Engineer-in-charge.(One job means 8 hour's duty).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 job (8hour's duty)				
0165	Security guard (with gun)	day	1.00	853.00	853.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Lathi,torch,uniform,wooden stick & other miscellaneous items	L.S.	10.00	2.12	21.20
	TOTAL				874.20 W
	Add 1 % Water charges on "W"				8.74
	TOTAL				882.94 X
	Add GST on "X" (multiplying factor 0.1405)				124.05
	TOTAL				1007.00 Y
	Add 15% CPOH on "Y"				151.05
	TOTAL				1158.04 Z
	Add Cess @ 1% on "Z"				11.58
	Cost of 1 job				1169.63
	Say				1169.65

SUB HEAD : 15.0

DISMANTLING AND DEMOLISHING

15.1 Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer- in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.44	645.00	283.80
0115	Coolie	day	0.37	645.00	238.65
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				524.65 W
	Add 1 % Water charges on “W”				5.25
	TOTAL				529.90 X
	Add GST on “X” (multiplying factor 0.1405)				74.45
	TOTAL				604.35 Y
	Add 15% CPOH on “Y”				90.65
	TOTAL				695.01 Z
	Add Cess @ 1% on “Z”				6.95
	Cost of 1.00 cum				701.96
	Say				701.95

15.2 Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.

15.2.1 Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.59	645.00	1025.55
0115	Coolie	day	0.72	645.00	464.40
9999	Sundries	L.S.	4.81	2.12	10.20
	TOTAL				1500.15 W
	Add 1 % Water charges on "W"				15.00
	TOTAL				1515.15 X
	Add GST on "X" (multiplying factor 0.1405)				212.88
	TOTAL				1728.03 Y
	Add 15% CPOH on "Y"				259.20
	TOTAL				1987.23 Z
	Add Cess @ 1% on "Z"				19.87
	Cost of 1.00 cum				2007.10
	Say				2007.10

15.2.2 Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.88	645.00	567.60
0115	Coolie	day	0.55	645.00	354.75

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.95	2.12	4.13
	TOTAL				926.48 W
	Add 1 % Water charges on "W"				9.26
	TOTAL				935.75 X
	Add GST on "X" (multiplying factor 0.1405)				131.47
	TOTAL				1067.22 Y
	Add 15% CPOH on "Y"				160.08
	TOTAL				1227.30 Z
	Add Cess @ 1% on "Z"				12.27
	Cost of 1.00 cum				1239.58
	Say				1239.60

15.3 Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	2.65	645.00	1709.25
0115	Coolie	day	0.72	645.00	464.40
9999	Sundries	L.S.	7.02	2.12	14.88
	TOTAL				2188.53 W
	Add 1 % Water charges on "W"				21.89
	TOTAL				2210.42 X
	Add GST on "X" (multiplying factor 0.1405)				310.56
	TOTAL				2520.98 Y
	Add 15% CPOH on "Y"				378.15
	TOTAL				2899.13 Z
	Add Cess @ 1% on "Z"				28.99
	Cost of 1.00 cum				2928.12
	Say				2928.10

15.4 Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	2.12	645.00	1367.40
0115	Coolie	day	0.90	645.00	580.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	4.68	2.12	9.92
	TOTAL				1957.82 W
	Add 1 % Water charges on "W"				19.58
	TOTAL				1977.40 X
	Add GST on "X" (multiplying factor 0.1405)				277.82
	TOTAL				2255.22 Y
	Add 15% CPOH on "Y"				338.28
	TOTAL				2593.51 Z
	Add Cess @ 1% on "Z"				25.94
	Cost of 1.00 cum				2619.44
	Say				2619.45

15.5 Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 sqm R.C.C. or R.B. workReinforced area considering 1% reinforcement = 0.01sqm				
	LABOUR				
	For cutting 0.01 sqm reinforcement				
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				707.89 W
	Add 1 % Water charges on "W"				7.08
	TOTAL				714.97 X
	Add GST on "X" (multiplying factor 0.1405)				100.45
	TOTAL				815.42 Y
	Add 15% CPOH on "Y"				122.31
	TOTAL				937.73 Z
	Add Cess @ 1% on "Z"				9.38
	Cost of 1.00 sqm				947.11
	Say				947.10

15.6 Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 Nos 6 metres long 16 mm dia bars @ 1.58 kg/metre				
	Total weight = 94.80 kg = 0.948 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				529.39 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				534.68 X
	Add GST on "X" (multiplying factor 0.1405)				75.12
	TOTAL				609.80 Y
	Add 15% CPOH on "Y"				91.47
	TOTAL				701.27 Z
	Add Cess @ 1% on "Z"				7.01
	Cost of 94.80 kg				708.29
	Cost of 1.00 kg				7.47
	Say				7.45

15.7 Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.

15.7.1 In mud mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.30	645.00	193.50
0115	Coolie	day	0.37	645.00	238.65
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				434.35 W
	Add 1 % Water charges on “W”				4.34
	TOTAL				438.70 X
	Add GST on “X” (multiplying factor 0.1405)				61.64
	TOTAL				500.34 Y
	Add 15% CPOH on “Y”				75.05
	TOTAL				575.39 Z
	Add Cess @ 1% on “Z”				5.75
	Cost of 1.00 cum				581.14
	Say				581.15

15.7.2 In lime mortar with old mughal bricks

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.24	645.00	799.80
0115	Coolie	day	0.46	645.00	296.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				1098.70 W
	Add 1 % Water charges on "W"				10.99
	TOTAL				1109.69 X
	Add GST on "X" (multiplying factor 0.1405)				155.91
	TOTAL				1265.60 Y
	Add 15% CPOH on "Y"				189.84
	TOTAL				1455.44 Z
	Add Cess @ 1% on "Z"				14.55
	Cost of 1.00 cum				1470.00
	Say				1470.00

15.7.3 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.44	645.00	283.80
0115	Coolie	day	0.37	645.00	238.65
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				524.65 W
	Add 1 % Water charges on "W"				5.25
	TOTAL				529.90 X
	Add GST on "X" (multiplying factor 0.1405)				74.45
	TOTAL				604.35 Y
	Add 15% CPOH on "Y"				90.65
	TOTAL				695.01 Z
	Add Cess @ 1% on "Z"				6.95
	Cost of 1.00 cum				701.96
	Say				701.95

15.7.4 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.06	645.00	683.70
0115	Coolie	day	0.90	645.00	580.50
9999	Sundries	L.S.	2.47	2.12	5.24
	TOTAL				1269.44 W
	Add 1 % Water charges on “W”				12.69
	TOTAL				1282.13 X
	Add GST on “X” (multiplying factor 0.1405)				180.14
	TOTAL				1462.27 Y
	Add 15% CPOH on “Y”				219.34
	TOTAL				1681.61 Z
	Add Cess @ 1% on “Z”				16.82
	Cost of 1.00 cum				1698.43
	Say				1698.45

15.8 Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):

15.8.1 From brick work in mud mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1000 Nos				
	LABOUR				
0114	Beldar	day	2.40	645.00	1548.00
0115	Coolie	day	1.60	645.00	1032.00
0124	Mason (brick layer) 2nd class	day	0.40	714.00	285.60
9999	Sundries	L.S.	1.82	2.12	3.86
	TOTAL				2869.46 W
	Add 1 % Water charges on "W"				28.69
	TOTAL				2898.15 X
	Add GST on "X" (multiplying factor 0.1405)				407.19
	TOTAL				3305.34 Y
	Add 15% CPOH on "Y"				495.80
	TOTAL				3801.14 Z
	Add Cess @ 1% on "Z"				38.01
	Cost of 1000 Nos				3839.16
	Say				3839.15

15.8.2 From brick work in lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1000 Nos				
	LABOUR				
0114	Beldar	day	2.80	645.00	1806.00
0115	Coolie	day	1.40	645.00	903.00
0124	Mason (brick layer) 2nd class	day	0.80	714.00	571.20
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				3299.22 W
	Add 1 % Water charges on "W"				32.99
	TOTAL				3332.21 X
	Add GST on "X" (multiplying factor 0.1405)				468.18
	TOTAL				3800.38 Y
	Add 15% CPOH on "Y"				570.06
	TOTAL				4370.44 Z
	Add Cess @ 1% on "Z"				43.70
	Cost of 1000 Nos				4414.15
	Say				4414.15

15.8.3 From brick work in cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1000 Nos				
	LABOUR				
0114	Beldar	day	3.50	645.00	2257.50
0115	Coolie	day	1.50	645.00	967.50
0124	Mason (brick layer) 2nd class	day	1.24	714.00	885.36

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				4127.45 W
	Add 1 % Water charges on "W"				41.27
	TOTAL				4168.72 X
	Add GST on "X" (multiplying factor 0.1405)				585.71
	TOTAL				4754.43 Y
	Add 15% CPOH on "Y"				713.16
	TOTAL				5467.59 Z
	Add Cess @ 1% on "Z"				54.68
	Cost of 1000 Nos				5522.27
	Say				5522.25

15.9 Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.9.1 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.61	645.00	393.45
0115	Coolie	day	0.49	645.00	316.05
9999	Sundries	L.S.	1.95	2.12	4.13
	TOTAL				713.63 W
	Add 1 % Water charges on "W"				7.14
	TOTAL				720.77 X
	Add GST on "X" (multiplying factor 0.1405)				101.27
	TOTAL				822.04 Y
	Add 15% CPOH on "Y"				123.31
	TOTAL				945.34 Z
	Add Cess @ 1% on "Z"				9.45
	Cost of 1.00 cum				954.80
	Say				954.80

15.9.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.30	645.00	838.50
0115	Coolie	day	1.04	645.00	670.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				1515.09 W
	Add 1 % Water charges on "W"				15.15
	TOTAL				1530.24 X
	Add GST on "X" (multiplying factor 0.1405)				215.00
	TOTAL				1745.24 Y
	Add 15% CPOH on "Y"				261.79
	TOTAL				2007.02 Z
	Add Cess @ 1% on "Z"				20.07
	Cost of 1.00 cum				2027.09
	Say				2027.10

15.10 Dismantling dressed stone work ashlar face stone work, marble work or precast concrete work manually/ by mechanical means including stacking of serviceable and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.10.1 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.78	645.00	503.10
0115	Coolie	day	0.61	645.00	393.45
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				902.34 W
	Add 1 % Water charges on "W"				9.02
	TOTAL				911.36 X
	Add GST on "X" (multiplying factor 0.1405)				128.05
	TOTAL				1039.41 Y
	Add 15% CPOH on "Y"				155.91
	TOTAL				1195.32 Z
	Add Cess @ 1% on "Z"				11.95
	Cost of 1.00 cum				1207.27
	Say				1207.25

15.10.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.55	645.00	999.75
0115	Coolie	day	1.19	645.00	767.55

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				1773.09 W
	Add 1 % Water charges on "W"				17.73
	TOTAL				1790.82 X
	Add GST on "X" (multiplying factor 0.1405)				251.61
	TOTAL				2042.43 Y
	Add 15% CPOH on "Y"				306.36
	TOTAL				2348.79 Z
	Add Cess @ 1% on "Z"				23.49
	Cost of 1.00 cum				2372.28
	Say				2372.30

15.11 Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured):

15.11.1 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.20	645.00	129.00
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	0.52	2.12	1.10
	TOTAL				294.80 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.75 X
	Add GST on "X" (multiplying factor 0.1405)				41.83
	TOTAL				339.58 Y
	Add 15% CPOH on "Y"				50.94
	TOTAL				390.52 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1.00 cum				394.43
	Say				394.45

15.11.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.40	645.00	258.00
0115	Coolie	day	0.20	645.00	129.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.91	2.12	1.93
	TOTAL				424.63 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				428.88 X
	Add GST on "X" (multiplying factor 0.1405)				60.26
	TOTAL				489.13 Y
	Add 15% CPOH on "Y"				73.37
	TOTAL				562.50 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1.00 cum				568.13
	Say				568.15

15.12 Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :

15.12.1 Of area 3 sq. metres and below

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.18	645.00	116.10
0103	Blacksmith 2nd class	day	0.05	714.00	35.70
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				226.23 W
	Add 1 % Water charges on "W"				2.26
	TOTAL				228.49 X
	Add GST on "X" (multiplying factor 0.1405)				32.10
	TOTAL				260.60 Y
	Add 15% CPOH on "Y"				39.09
	TOTAL				299.69 Z
	Add Cess @ 1% on "Z"				3.00
	Cost of each				302.68
	Say				302.70

15.12.2 Of area beyond 3 sq. metres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.13	714.00	92.82
0114	Beldar	day	0.25	645.00	161.25
0103	Blacksmith 2nd class	day	0.07	714.00	49.98

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				309.84 W
	Add 1 % Water charges on "W"				3.10
	TOTAL				312.94 X
	Add GST on "X" (multiplying factor 0.1405)				43.97
	TOTAL				356.90 Y
	Add 15% CPOH on "Y"				53.54
	TOTAL				410.44 Z
	Add Cess @ 1% on "Z"				4.10
	Cost of each				414.54
	Say				414.55

15.13 Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :

15.13.1 Of area 3 sq. metres and below

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
	LABOUR				
0112	Carpenter 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.08	645.00	51.60
9999	Sundries	L.S.	0.52	2.12	1.10
	TOTAL				88.40 W
	Add 1 % Water charges on "W"				0.88
	TOTAL				89.29 X
	Add GST on "X" (multiplying factor 0.1405)				12.54
	TOTAL				101.83 Y
	Add 15% CPOH on "Y"				15.27
	TOTAL				117.11 Z
	Add Cess @ 1% on "Z"				1.17
	Cost of each				118.28
	Say				118.30

15.13.2 Of area beyond 3 sq. metres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
	LABOUR				
0112	Carpenter 2nd class	day	0.07	714.00	49.98
0114	Beldar	day	0.10	645.00	64.50
9999	Sundries	L.S.	0.91	2.12	1.93
	TOTAL				116.41 W
	Add 1 % Water charges on "W"				1.16
	TOTAL				117.57 X
	Add GST on "X" (multiplying factor 0.1405)				16.52
	TOTAL				134.09 Y
	Add 15% CPOH on "Y"				20.11
	TOTAL				154.21 Z
	Add Cess @ 1% on "Z"				1.54
	Cost of each				155.75
	Say				155.75

15.14 Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead :

15.14.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0112	Carpenter 2nd class	day	2.00	714.00	1428.00
0114	Beldar	day	2.00	645.00	1290.00
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				2746.39 W
	Add 1 % Water charges on "W"				27.46
	TOTAL				2773.85 X
	Add GST on "X" (multiplying factor 0.1405)				389.73
	TOTAL				3163.58 Y
	Add 15% CPOH on "Y"				474.54
	TOTAL				3638.11 Z
	Add Cess @ 1% on "Z"				36.38
	Cost of 1.00 cum				3674.49
	Say				3674.50

15.14.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre				
	LABOUR				
0112	Carpenter 2nd class	day	0.08	714.00	57.12
0114	Beldar	day	0.08	645.00	51.60
9999	Sundries	L.S.	0.52	2.12	1.10
	TOTAL				109.82 W
	Add 1 % Water charges on "W"				1.10
	TOTAL				110.92 X
	Add GST on "X" (multiplying factor 0.1405)				15.58
	TOTAL				126.50 Y
	Add 15% CPOH on "Y"				18.98
	TOTAL				145.48 Z
	Add Cess @ 1% on "Z"				1.45
	Cost of 10.00 metre				146.94
	Cost of 1.00 metre				14.69
	Say				14.70

15.15 Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional span of one metre or part thereof beyond 10 metres :

15.15.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1cum for every additional span of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.30	645.00	193.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				364.69 W
	Add 1 % Water charges on "W"				3.65
	TOTAL				368.33 X
	Add GST on "X" (multiplying factor 0.1405)				51.75
	TOTAL				420.08 Y
	Add 15% CPOH on "Y"				63.01
	TOTAL				483.10 Z
	Add Cess @ 1% on "Z"				4.83
	Cost of 1.00 cum per metre span				487.93
	Say				487.95

15.15.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre for every additional span of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.006	714.00	4.28
0114	Beldar	day	0.008	645.00	5.16
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				10.27 W
	Add 1 % Water charges on "W"				0.10
	TOTAL				10.37 X
	Add GST on "X" (multiplying factor 0.1405)				1.46
	TOTAL				11.83 Y
	Add 15% CPOH on "Y"				1.77
	TOTAL				13.61 Z
	Add Cess @ 1% on "Z"				0.14
	Cost of 10.00 metre per metre span				13.74
	Cost of 1.00 metre per metre span				1.37
	Say				1.35

15.16 Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional height of one metre or part thereof beyond 5 metres :

15.16.1 Of sectional area 40 square centimetres and above

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum for every additional height of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				529.39 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				534.68 X
	Add GST on "X" (multiplying factor 0.1405)				75.12
	TOTAL				609.80 Y
	Add 15% CPOH on "Y"				91.47
	TOTAL				701.27 Z
	Add Cess @ 1% on "Z"				7.01
	Cost of 1.00 cum per metre height				708.29
	Say				708.30

15.16.2 Of sectional area below 40 square centimetres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre for every additional height of 1 metre				
	LABOUR				
0103	Blacksmith 2nd class	day	0.01	714.00	7.14
0114	Beldar	day	0.02	645.00	12.90
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				20.87 W
	Add 1 % Water charges on "W"				0.21
	TOTAL				21.08 X
	Add GST on "X" (multiplying factor 0.1405)				2.96
	TOTAL				24.04 Y
	Add 15% CPOH on "Y"				3.61
	TOTAL				27.64 Z
	Add Cess @ 1% on "Z"				0.28
	Cost of 10.00 metre per metre height				27.92
	Cost of 1.00 metre per metre height				2.79
	Say				2.80

15.17 Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in:

15.17.1 R.S. Joists

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.05	714.00	35.70
0100	Bandhani	day	0.10	714.00	71.40
0114	Beldar	day	0.15	645.00	96.75

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				209.64 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				211.73 X
	Add GST on "X" (multiplying factor 0.1405)				29.75
	TOTAL				241.48 Y
	Add 15% CPOH on "Y"				36.22
	TOTAL				277.70 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1.00 quintal				280.48
	Cost of 1.00 kg				2.80
	Say				2.80

15.17.2 Channels, angles, tees and flats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.05	714.00	35.70
0100	Bandhani	day	0.05	714.00	35.70
0114	Beldar	day	0.10	645.00	64.50
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				141.69 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.10 X
	Add GST on "X" (multiplying factor 0.1405)				20.11
	TOTAL				163.21 Y
	Add 15% CPOH on "Y"				24.48
	TOTAL				187.69 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of 1.00 quintal				189.57
	Cost of 1.00 kg				1.90
	Say				1.90

15.18 Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal				
	LABOUR				
0103	Blacksmith 2nd class	day	0.15	714.00	107.10
0100	Bandhani	day	0.10	714.00	71.40
0114	Beldar	day	0.25	645.00	161.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				348.57 W
	Add 1 % Water charges on "W"				3.49
	TOTAL				352.05 X
	Add GST on "X" (multiplying factor 0.1405)				49.46
	TOTAL				401.52 Y
	Add 15% CPOH on "Y"				60.23
	TOTAL				461.75 Z
	Add Cess @ 1% on "Z"				4.62
	Cost of 1.00 quintal				466.36
	Cost of 1.00 kg				4.66
	Say				4.65

15.19 Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal				
	LABOUR				
0100	Bandhani	day	0.10	714.00	71.40
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				238.44 W
	Add 1 % Water charges on "W"				2.38
	TOTAL				240.82 X
	Add GST on "X" (multiplying factor 0.1405)				33.84
	TOTAL				274.66 Y
	Add 15% CPOH on "Y"				41.20
	TOTAL				315.86 Z
	Add Cess @ 1% on "Z"				3.16
	Cost of 1.00 quintal				319.01
	Cost of 1.00 kg				3.19
	Say				3.20

15.20 Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional span of one metre or part thereof beyond 10 metres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal for every additional span of 1 metre beyond 10 metre				
	LABOUR				
0100	Bandhani	day	0.02	714.00	14.28
0114	Beldar	day	0.06	645.00	38.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				53.81 W
	Add 1 % Water charges on "W"				0.54
	TOTAL				54.34 X
	Add GST on "X" (multiplying factor 0.1405)				7.64
	TOTAL				61.98 Y
	Add 15% CPOH on "Y"				9.30
	TOTAL				71.28 Z
	Add Cess @ 1% on "Z"				0.71
	Cost of 1.00 quintal per metre span				71.99
	Cost of 1.00 kg per metre span				0.72
	Say				0.70

15.21 Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional height of one metre or part thereof beyond 5 metres.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal for every additional height of 1 metre beyond 5 metre				
	LABOUR				
0100	Bandhani	day	0.02	714.00	14.28
0114	Beldar	day	0.06	645.00	38.70
9999	Sundries	L.S.	0.39	2.12	0.83
	TOTAL				53.81 W
	Add 1 % Water charges on "W"				0.54
	TOTAL				54.34 X
	Add GST on "X" (multiplying factor 0.1405)				7.64
	TOTAL				61.98 Y
	Add 15% CPOH on "Y"				9.30
	TOTAL				71.28 Z
	Add Cess @ 1% on "Z"				0.71
	Cost of 1.00 quintal per metre height				71.99
	Cost of 1.00 kg per metre height				0.72
	Say				0.70

15.22 Extra for marking of structural steel work required to be re-erected.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal				
	LABOUR				
0130	Mistry	day	0.20	784.00	156.80
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				285.80 W
	Add 1 % Water charges on "W"				2.86
	TOTAL				288.66 X
	Add GST on "X" (multiplying factor 0.1405)				40.56
	TOTAL				329.21 Y
	Add 15% CPOH on "Y"				49.38
	TOTAL				378.60 Z
	Add Cess @ 1% on "Z"				3.79
	Cost of 1.00 quintal				382.38
	Cost of 1.00 kg				3.82
	Say				3.80

15.23 Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.

15.23.1 For thickness of tiles 10 mm to 25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason (brick layer) 2nd class	day	0.30	714.00	214.20	
0114	Beldar	day	0.12	645.00	77.40	
0115	Coolie	day	0.24	645.00	154.80	
9999	Sundries	L.S.	2.73	2.12	5.79	
	TOTAL				452.19	W
	Add 1 % Water charges on “W”				4.52	
	TOTAL				456.71	X
	Add GST on “X” (multiplying					
	factor 0.1405)				64.17	
	TOTAL				520.88	Y
	Add 15% CPOH on “Y”				78.13	
	TOTAL				599.01	Z
	Add Cess @ 1% on “Z”				5.99	
	Cost of 10.00 sqm				605.00	
	Cost of 1.00 sqm				60.50	
	Say				60.50	

15.23.2 For thickness of tiles above 25 mm and up to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0124	Mason (brick layer) 2nd class	day	0.59	714.00	421.26	
0114	Beldar	day	0.18	645.00	116.10	
0115	Coolie	day	0.24	645.00	154.80	
9999	Sundries	L.S.	2.73	2.12	5.79	
	TOTAL				697.95	W
	Add 1 % Water charges on "W"				6.98	
	TOTAL				704.93	X
	Add GST on "X" (multiplying					
	factor 0.1405)				99.04	
	TOTAL				803.97	Y
	Add 15% CPOH on "Y"				120.60	
	TOTAL				924.56	Z
	Add Cess @ 1% on "Z"				9.25	
	Cost of 10.00 sqm				933.81	
	Cost of 1.00 sqm				93.38	
	Say				93.40	

15.24 Demolishing dry brick pitching in floors, drains etc. including stacking of serviceable material and disposal of unserviceable material within 50 metres lead :

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	1.00	645.00	645.00
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				812.04 W
	Add 1 % Water charges on "W"				8.12
	TOTAL				820.16 X
	Add GST on "X" (multiplying factor 0.1405)				115.23
	TOTAL				935.39 Y
	Add 15% CPOH on "Y"				140.31
	TOTAL				1075.70 Z
	Add Cess @ 1% on "Z"				10.76
	Cost of 1.00 cum				1086.46
	Say				1086.45

15.25 Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	1.77	645.00	1141.65
0115	Coolie	day	0.75	645.00	483.75
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1642.49 W
	Add 1 % Water charges on "W"				16.42
	TOTAL				1658.91 X
	Add GST on "X" (multiplying factor 0.1405)				233.08
	TOTAL				1891.99 Y
	Add 15% CPOH on "Y"				283.80
	TOTAL				2175.79 Z
	Add Cess @ 1% on "Z"				21.76
	Cost of 10.00 sqm				2197.55
	Cost of 1.00 sqm				219.75
	Say				219.75

15.26 Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.54	714.00	385.56
0114	Beldar	day	0.16	645.00	103.20
0115	Coolie	day	0.24	645.00	154.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.47	2.12	5.24
	TOTAL				648.80 W
	Add 1 % Water charges on "W"				6.49
	TOTAL				655.28 X
	Add GST on "X" (multiplying factor 0.1405)				92.07
	TOTAL				747.35 Y
	Add 15% CPOH on "Y"				112.10
	TOTAL				859.45 Z
	Add Cess @ 1% on "Z"				8.59
	Cost of 10.00 sqm				868.05
	Cost of 1.00 sqm				86.80
	Say				86.80

15.27 Demolishing mud phaska in terracing and disposal of material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	0.62	645.00	399.90
9999	Sundries	L.S.	1.04	2.12	2.20
	TOTAL				563.35 W
	Add 1 % Water charges on “W”				5.63
	TOTAL				568.99 X
	Add GST on “X” (multiplying factor 0.1405)				79.94
	TOTAL				648.93 Y
	Add 15% CPOH on “Y”				97.34
	TOTAL				746.27 Z
	Add Cess @ 1% on “Z”				7.46
	Cost of 1.00 cum				753.73
	Say				753.75

15.28 Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:

15.28.1 G.S. Sheet

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				1016.33 W
	Add 1 % Water charges on "W"				10.16
	TOTAL				1026.49 X
	Add GST on "X" (multiplying factor 0.1405)				144.22
	TOTAL				1170.72 Y
	Add 15% CPOH on "Y"				175.61
	TOTAL				1346.32 Z
	Add Cess @ 1% on "Z"				13.46
	Cost of 10.00 sqm				1359.79
	Cost of 1.00 sqm				135.98
	Say				136.00

15.28.2 Asbestos Cement sheet

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				476.60 W
	Add 1 % Water charges on "W"				4.77
	TOTAL				481.37 X
	Add GST on "X" (multiplying factor 0.1405)				67.63
	TOTAL				549.00 Y
	Add 15% CPOH on "Y"				82.35
	TOTAL				631.35 Z
	Add Cess @ 1% on "Z"				6.31
	Cost of 10.00 sqm				637.66
	Cost of 1.00 sqm				63.77
	Say				63.75

15.29 Dismantling stone slab roofing over wooden karries or R.C.C. battens (dismantling karries and battens to be paid for separately), including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.77	645.00	1141.65
0115	Coolie	day	0.75	645.00	483.75

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1642.49 W
	Add 1 % Water charges on “W”				16.42
	TOTAL				1658.91 X
	Add GST on “X” (multiplying factor 0.1405)				233.08
	TOTAL				1891.99 Y
	Add 15% CPOH on “Y”				283.80
	TOTAL				2175.79 Z
	Add Cess @ 1% on “Z”				21.76
	Cost of 1.00 cum				2197.55
	Say				2197.55

15.30 Dismantling jack arch roofing and floors including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	1.19	645.00	767.55
0115	Coolie	day	1.21	645.00	780.45
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1565.09 W
	Add 1 % Water charges on "W"				15.65
	TOTAL				1580.74 X
	Add GST on "X" (multiplying factor 0.1405)				222.09
	TOTAL				1802.83 Y
	Add 15% CPOH on "Y"				270.42
	TOTAL				2073.26 Z
	Add Cess @ 1% on "Z"				20.73
	Cost of 10.00 sqm				2093.99
	Cost of 1.00 sqm				209.40
	Say				209.40

15.31 Dismantling tiled roofing with battens, boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	1.73	645.00	1115.85
0115	Coolie	day	0.25	645.00	161.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				1294.19 W
	Add 1 % Water charges on "W"				12.94
	TOTAL				1307.13 X
	Add GST on "X" (multiplying factor 0.1405)				183.65
	TOTAL				1490.78 Y
	Add 15% CPOH on "Y"				223.62
	TOTAL				1714.40 Z
	Add Cess @ 1% on "Z"				17.14
	Cost of 10.00 sqm				1731.54
	Cost of 1.00 sqm				173.15
	Say				173.15

15.32 Demolishing thatch roofing including mats, bamboo, jaffari etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	0.54	645.00	348.30
9999	Sundries	L.S.	3.64	2.12	7.72
	TOTAL				356.02 W
	Add 1 % Water charges on "W"				3.56
	TOTAL				359.58 X
	Add GST on "X" (multiplying factor 0.1405)				50.52
	TOTAL				410.10 Y
	Add 15% CPOH on "Y"				61.51
	TOTAL				471.61 Z
	Add Cess @ 1% on "Z"				4.72
	Cost of 10.00 sqm				476.33
	Cost of 1.00 sqm				47.63
	Say				47.65

15.33 Dismantling wooden ballies in posts and struts including stacking within 50metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 50 metre				
	LABOUR				
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.52	2.12	1.10
	TOTAL				646.10 W
	Add 1 % Water charges on "W"				6.46
	TOTAL				652.56 X
	Add GST on "X" (multiplying factor 0.1405)				91.69
	TOTAL				744.25 Y
	Add 15% CPOH on "Y"				111.64
	TOTAL				855.89 Z
	Add Cess @ 1% on "Z"				8.56
	Cost of 50.00 metre				864.44
	Cost of 1.00 metre				17.29
	Say				17.30

15.34 Dismantling and stacking within 50 metres lead, fencing posts or struts including all earth work and dismantling of concrete etc. in base of:

15.34.1 T' or 'L' iron or pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
	LABOUR				
0114	Beldar	day	0.107	645.00	69.02
0115	Coolie	day	0.067	645.00	43.22
9999	Excavation, transporting and stacking the posts to the required place within 50 metres lead, refilling the pit and dressing the same	L.S.	0.26	2.12	0.55
9999	Extra for lifting of R.C.C. posts being heavier than L iron and cleaning the posts of stacking concrete	L.S.	13.39	2.12	28.39
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				144.20 W
	Add 1 % Water charges on "W"				1.44
	TOTAL				145.64 X
	Add GST on "X" (multiplying factor 0.1405)				20.46
	TOTAL				166.10 Y
	Add 15% CPOH on "Y"				24.92
	TOTAL				191.02 Z
	Add Cess @ 1% on "Z"				1.91
	Cost of each				192.93
	Say				192.95

15.34.2 R.C.C.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
	LABOUR				
0114	Beldar	day	0.097	645.00	62.57
0115	Coolie	day	0.06	645.00	38.70
9999	Sundries	L.S.	0.26	2.12	0.55

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Excavation, transporting and stacking the posts to the required place within 50 metres lead, refilling the pit and dressing the same	L.S.	13.39	2.12	28.39
9999	Extra for lifting of R.C.C. posts being heavier than L iron and cleaning the posts of stacking concrete	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				153.08 W
	Add 1 % Water charges on "W"				1.53
	TOTAL				154.61 X
	Add GST on "X" (multiplying factor 0.1405)				21.72
	TOTAL				176.33 Y
	Add 15% CPOH on "Y"				26.45
	TOTAL				202.78 Z
	Add Cess @ 1% on "Z"				2.03
	Cost of each				204.81
	Say				204.80

15.35 Cutting ballies or wooden posts of fencing at the point of projection above the concrete or ground and stacking the same within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 ballie (post)				
9999	Cutting	L.S.	2.73	2.12	5.79
9999	Transporting and stacking	L.S.	1.43	2.12	3.03
	TOTAL				8.82 W
	Add 1 % Water charges on "W"				0.09
	TOTAL				8.91 X
	Add GST on "X" (multiplying factor 0.1405)				1.25
	TOTAL				10.16 Y
	Add 15% CPOH on "Y"				1.52
	TOTAL				11.68 Z
	Add Cess @ 1% on "Z"				0.12
	Cost of each				11.80
	Say				11.80

15.36 Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 quintal				
	LABOUR				
0114	Beldar	day	3.50	645.00	2257.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				2268.80 W
	Add 1 % Water charges on "W"				22.69
	TOTAL				2291.49 X
	Add GST on "X" (multiplying factor 0.1405)				321.95
	TOTAL				2613.44 Y
	Add 15% CPOH on "Y"				392.02
	TOTAL				3005.46 Z
	Add Cess @ 1% on "Z"				30.05
	Cost of 1.00 quintal				3035.51
	Cost of 1.00 kg				30.36
	Say				30.35

15.37 Dismantling wooden trellis work excluding frames but including stacking the serviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	0.25	645.00	161.25
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				399.69 W
	Add 1 % Water charges on “W”				4.00
	TOTAL				403.68 X
	Add GST on “X” (multiplying factor 0.1405)				56.72
	TOTAL				460.40 Y
	Add 15% CPOH on “Y”				69.06
	TOTAL				529.46 Z
	Add Cess @ 1% on “Z”				5.29
	Cost of 10.00 sqm				534.76
	Cost of 1.00 sqm				53.48
	Say				53.50

15.38 Dismantling expanded metal or I.R.C. fabrics with necessary battens and beading including stacking the serviceable material within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.40	645.00	258.00
0115	Coolie	day	0.20	645.00	129.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				467.22 W
	Add 1 % Water charges on "W"				4.67
	TOTAL				471.89 X
	Add GST on "X" (multiplying factor 0.1405)				66.30
	TOTAL				538.19 Y
	Add 15% CPOH on "Y"				80.73
	TOTAL				618.92 Z
	Add Cess @ 1% on "Z"				6.19
	Cost of 10.00 sqm				625.11
	Cost of 1.00 sqm				62.51
	Say				62.50

15.39 Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead :

15.39.1 Up to 10 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.15	714.00	107.10
0114	Beldar	day	0.20	645.00	129.00
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				376.40 W
	Add 1 % Water charges on "W"				3.76
	TOTAL				380.16 X
	Add GST on "X" (multiplying factor 0.1405)				53.41
	TOTAL				433.58 Y
	Add 15% CPOH on "Y"				65.04
	TOTAL				498.61 Z
	Add Cess @ 1% on "Z"				4.99
	Cost of 10.00 sqm				503.60
	Cost of 1.00 sqm				50.36
	Say				50.35

15.39.2 Thickness above 10 mm up to 25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	0.25	645.00	161.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				479.63 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.43 X
	Add GST on "X" (multiplying factor 0.1405)				68.06
	TOTAL				552.49 Y
	Add 15% CPOH on "Y"				82.87
	TOTAL				635.36 Z
	Add Cess @ 1% on "Z"				6.35
	Cost of 10.00 sqm				641.72
	Cost of 1.00 sqm				64.17
	Say				64.15

15.39.3 Thickness above 25 mm up to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.30	645.00	193.50
0115	Coolie	day	0.30	645.00	193.50
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				558.19 W
	Add 1 % Water charges on "W"				5.58
	TOTAL				563.77 X
	Add GST on "X" (multiplying factor 0.1405)				79.21
	TOTAL				642.98 Y
	Add 15% CPOH on "Y"				96.45
	TOTAL				739.42 Z
	Add Cess @ 1% on "Z"				7.39
	Cost of 10.00 sqm				746.82
	Cost of 1.00 sqm				74.68
	Say				74.70

15.40 Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead :

15.40.1 Thickness up to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	2.00	645.00	1290.00
0115	Coolie	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.12	28.39
	TOTAL				1783.69 W
	Add 1 % Water charges on "W"				17.84
	TOTAL				1801.52 X
	Add GST on "X" (multiplying factor 0.1405)				253.11
	TOTAL				2054.64 Y
	Add 15% CPOH on "Y"				308.20
	TOTAL				2362.83 Z
	Add Cess @ 1% on "Z"				23.63
	Cost of 10.00 sqm				2386.46
	Cost of 1.00 sqm				238.65
	Say				238.65

15.40.2 Thickness above 40 mm up to 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.30	714.00	214.20
0114	Beldar	day	3.00	645.00	1935.00
0115	Coolie	day	0.75	645.00	483.75
9999	Sundries	L.S.	18.85	2.12	39.96
	TOTAL				2672.91 W
	Add 1 % Water charges on "W"				26.73
	TOTAL				2699.64 X
	Add GST on "X" (multiplying factor 0.1405)				379.30
	TOTAL				3078.94 Y
	Add 15% CPOH on "Y"				461.84
	TOTAL				3540.78 Z
	Add Cess @ 1% on "Z"				35.41
	Cost of 10.00 sqm				3576.19
	Cost of 1.00 sqm				357.62
	Say				357.60

15.41 Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm.				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.30	645.00	193.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				347.60 W
	Add 1 % Water charges on "W"				3.48
	TOTAL				351.08 X
	Add GST on "X" (multiplying factor 0.1405)				49.33
	TOTAL				400.40 Y
	Add 15% CPOH on "Y"				60.06
	TOTAL				460.46 Z
	Add Cess @ 1% on "Z"				4.60
	Cost of 10.00 sqm.				465.07
	Cost of 1.00 sqm.				46.51
	Say				46.50

15.42 Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :

15.42.1 75 to 80 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.36	645.00	232.20
0115	Coolie	day	0.36	645.00	232.20
9999	Sundries	L.S.	0.91	2.12	1.93
	TOTAL				466.33 W
	Add 1 % Water charges on "W"				4.66
	TOTAL				470.99 X
	Add GST on "X" (multiplying factor 0.1405)				66.17
	TOTAL				537.17 Y
	Add 15% CPOH on "Y"				80.58
	TOTAL				617.74 Z
	Add Cess @ 1% on "Z"				6.18
	Cost of 10.00 metre				623.92
	Cost of 1.00 metre				62.39
	Say				62.40

15.42.2 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.36	645.00	232.20
0115	Coolie	day	0.38	645.00	245.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.56	2.12	3.31
	TOTAL				480.61 W
	Add 1 % Water charges on "W"				4.81
	TOTAL				485.41 X
	Add GST on "X" (multiplying factor 0.1405)				68.20
	TOTAL				553.61 Y
	Add 15% CPOH on "Y"				83.04
	TOTAL				636.66 Z
	Add Cess @ 1% on "Z"				6.37
	Cost of 10.00 metre				643.02
	Cost of 1.00 metre				64.30
	Say				64.30

15.42.3 150 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.36	645.00	232.20
0115	Coolie	day	0.40	645.00	258.00
9999	Sundries	L.S.	2.08	2.12	4.41
	TOTAL				494.61 W
	Add 1 % Water charges on "W"				4.95
	TOTAL				499.56 X
	Add GST on "X" (multiplying factor 0.1405)				70.19
	TOTAL				569.74 Y
	Add 15% CPOH on "Y"				85.46
	TOTAL				655.20 Z
	Add Cess @ 1% on "Z"				6.55
	Cost of 10.00 metre				661.76
	Cost of 1.00 metre				66.18
	Say				66.20

15.43 Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :

15.43.1 Water bound macadam road

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 36 sqm				
	Consider a road 6 metres wide and 6 metres length wise 25 cm average depth = 9.00 cubic metre				
	LABOUR				
	For cutting road taking out soiling and metalling including sorting and screening				
0114	Beldar	day	4.80	645.00	3096.00
0115	Coolie	day	2.40	645.00	1548.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Labour for stacking of serviceable material and disposal of unserviceable material within 50 metres lead	L.S.	89.70	2.12	190.16
	TOTAL				4834.16 W
	Add 1 % Water charges on "W"				48.34
	TOTAL				4882.51 X
	Add GST on "X" (multiplying factor 0.1405)				685.99
	TOTAL				5568.50 Y
	Add 15% CPOH on "Y"				835.27
	TOTAL				6403.77 Z
	Add Cess @ 1% on "Z"				64.04
	Cost of 36.00 sqm				6467.81
	Cost of 1.00 sqm				179.66
	Say				179.65

15.43.2 bituminous road

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 36 sqm Consider a road 6 metres wide and 6 metres length wise 30 cm average depth =10.80 cubic metre				
	LABOUR				
	For cutting road taking out soiling and metalling including sorting and screening				
0114	Beldar	day	9.60	645.00	6192.00
0115	Coolie	day	4.80	645.00	3096.00
9999	Labour for stacking of serviceable material and disposal of unserviceable material within 50 metres lead	L.S.	107.64	2.12	228.20
	TOTAL				9516.20 W
	Add 1 % Water charges on "W"				95.16
	TOTAL				9611.36 X
	Add GST on "X" (multiplying factor 0.1405)				1350.40
	TOTAL				10961.75 Y
	Add 15% CPOH on "Y"				1644.26
	TOTAL				12606.02 Z
	Add Cess @ 1% on "Z"				126.06
	Cost of 36.00 sqm				12732.08
	Cost of 1.00 sqm				353.67
	Say				353.65

15.44 Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :

15.44.1 15 mm to 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
	Trenching and refilling etc					
0114	Beldar	day	0.66	645.00	425.70	
0115	Coolie	day	0.66	645.00	425.70	
9999	Dismantling G.I. pipe and stacking etc	L.S.	35.88	2.12	76.07	
	TOTAL				927.47	W
	Add 1 % Water charges on "W"				9.27	
	TOTAL				936.74	X
	Add GST on "X" (multiplying factor 0.1405)				131.61	
	TOTAL				1068.35	Y
	Add 15% CPOH on "Y"				160.25	
	TOTAL				1228.61	Z
	Add Cess @ 1% on "Z"				12.29	
	Cost of 10.00 metre				1240.89	
	Cost of 1.00 metre				124.09	
	Say				124.10	

15.44.2 Above 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 metre					
	LABOUR					
	Trenching and refilling etc					
0114	Beldar	day	0.66	645.00	425.70	
0115	Coolie	day	0.66	645.00	425.70	
9999	Dismantling G.I. pipe and stacking etc	L.S.	71.76	2.12	152.13	
	TOTAL				1003.53	W
	Add 1 % Water charges on "W"				10.04	
	TOTAL				1013.57	X
	Add GST on "X" (multiplying factor 0.1405)				142.41	
	TOTAL				1155.97	Y
	Add 15% CPOH on "Y"				173.40	
	TOTAL				1329.37	Z
	Add Cess @ 1% on "Z"				13.29	
	Cost of 10.00 metre				1342.66	
	Cost of 1.00 metre				134.27	
	Say				134.25	

15.45 Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:

15.45.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40.26 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x0.55x0.75 m =16.61cum Deduct for pipes of average 100 mm dia =1x40.26x(22/7)/4x(0.118)x(0.118) =0.44cum Total =16.17cum					
	LABOUR					
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	16.17	286.85	4638.36	A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	16.17	253.95	4106.37	A
0761	Fuel wood	quintal	0.46	500.00	230.00	
0771	Kerosene oil	litre	0.38	50.00	19.00	
0117	Assistant Fitter or 2nd class Fitter	day	0.63	714.00	449.82	
0114	Beldar	day	4.50	645.00	2902.50	
9977	Carriage	L.S.	53.82	2.12	114.10	
	TOTAL				12460.15	W
	Add 1 % Water charges on "W-A"				37.15	
	TOTAL				12497.31	X
	Add GST on "X-A" (multiplying factor 0.1405)				527.24	
	TOTAL				13024.55	Y
	Add 15% CPOH on "Y-A"				641.97	
	TOTAL				13666.52	Z
	Add Cess @ 1% on "Z-A"				49.22	
	Cost of 40.26 metre				13715.73	
	Cost of 1.00 metre				340.68	
	Say				340.70	

15.45.2 Above 150 mm dia up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 40.26 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x0.65x0.75 m =19.63cum Deduct for pipes of average 250 mm dia =1x40.26x(22/7)/4x(0.274)x(0.274) =2.37cum Total =17.26cum					
	LABOUR					
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	17.26	286.85	4951.03	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	17.26	253.95	4383.18 A
0761	Fuel wood	quintal	1.03	500.00	515.00
0771	Kerosene oil	litre	1.14	50.00	57.00
0117	Assistant Fitter or 2nd class Fitter	day	1.30	714.00	928.20
0114	Beldar	day	7.50	645.00	4837.50
9977	Carriage	L.S.	80.73	2.12	171.15
	TOTAL				15843.06 W
	Add 1 % Water charges on "W-A"				65.09
	TOTAL				15908.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				923.64
	TOTAL				16831.78 Y
	Add 15% CPOH on "Y-A"				1124.64
	TOTAL				17956.42 Z
	Add Cess @ 1% on "Z-A"				86.22
	Cost of 40.26 metre				18042.64
	Cost of 1.00 metre				448.15
	Say				448.15

15.45.3 Above 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 40.26 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x0.85x0.75 m =25.67cum Deduct for pipes of average 450 mm dia =1x40.26x(22/7)/4x(0.48)x(0.48) =7.29cum Total =18.38cum LABOUR				
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	18.38	286.85	5272.30 A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	18.38	253.95	4667.60 A
0761	Fuel wood	quintal	1.40	500.00	700.00
0771	Kerosene oil	litre	2.27	50.00	113.50
0117	Assistant Fitter or 2nd class Fitter	day	2.25	714.00	1606.50
0114	Beldar	day	11.50	645.00	7417.50
9988	Carriage and sundries	L.S.	134.55	2.12	285.25
	TOTAL				20062.65 W
	Add 1 % Water charges on "W-A"				101.23
	TOTAL				20163.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				1436.47
	TOTAL				21600.35 Y
	Add 15% CPOH on "Y-A"				1749.07
	TOTAL				23349.41 Z
	Add Cess @ 1% on "Z-A"				134.10
	Cost of 40.26 metre				23483.51
	Cost of 1.00 metre				583.30
	Say				583.30

15.46 Dismantling steel cylinder R.C. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metres lead as per direction of Engineer-in-charge :

15.46.1 Up to 600 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 40.26 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x1.30x1.65 m =86.36cum Deduct for pipes of average 450 mm dia =1x40.26x(22/7)/4x(0.48)x(0.48) =7.29cum Total=79.07cum LABOUR				
0114	Beldar	day	5.32	645.00	3431.40
0115	Coolie	day	5.46	645.00	3521.70
0101	Bhisti	day	0.31	714.00	221.34
0761	Fuel wood	quintal	1.40	500.00	700.00
0771	Kerosene oil	litre	2.27	50.00	113.50
0117	Assistant Fitter or 2nd class Fitter	day	2.25	714.00	1606.50
0114	Beldar	day	11.50	645.00	7417.50
9988	Carriage and sundries	L.S.	134.55	2.12	285.25
	TOTAL				17297.19 W
	Add 1 % Water charges on "W"				172.97
	TOTAL				17470.16 X
	Add GST on "X" (multiplying factor 0.1405)				2454.56
	TOTAL				19924.72 Y
	Add 15% CPOH on "Y"				2988.71
	TOTAL				22913.42 Z
	Add Cess @ 1% on "Z"				229.13
	Cost of 40.26 metre				23142.56
	Cost of 1.00 metre				574.83
	Say				574.85

15.46.2 Above 600 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 40.26 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x1.30x1.65 m =86.36cum Deduct for pipes of average 900 mm dia =1x40.26x(22/7)/4x(1.00)x(1.00) =31.63cum Total=54.73cum LABOUR				
0114	Beldar	day	15.82	645.00	10203.90
0115	Coolie	day	16.25	645.00	10481.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.93	714.00	664.02
0761	Fuel wood	quintal	3.08	500.00	1540.00
0771	Kerosene oil	litre	5.00	50.00	250.00
0117	Assistant Fitter or 2nd class Fitter	day	10.00	714.00	7140.00
0114	Beldar	day	20.00	645.00	12900.00
9988	Carriage and sundries	L.S.	179.40	2.12	380.33
	TOTAL				43559.50 W
	Add 1 % Water charges on "W"				435.59
	TOTAL				43995.09 X
	Add GST on "X" (multiplying factor 0.1405)				6181.31
	TOTAL				50176.40 Y
	Add 15% CPOH on "Y"				7526.46
	TOTAL				57702.86 Z
	Add Cess @ 1% on "Z"				577.03
	Cost of 40.26 metre				58279.89
	Cost of 1.00 metre				1447.59
	Say				1447.60

15.47 Dismantling asbestos cement pressure pipes including excavation and refilling trenches after taking out the pipes manually/ by mechanical means and stacking the pipes within 50 metres lead as per direction of Engineer-in-charge :

15.47.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 10.00x0.55x0.75 m =4.125cum Deduct for pipes of average 100 mm dia =1x10x(22/7)/4x(0.118)x(0.118) =0.109cum Total=4.016cum LABOUR				
0114	Beldar	day	1.16	645.00	748.20
0115	Coolie	day	1.19	645.00	767.55
0101	Bhisti	day	0.07	714.00	49.98
0114	Beldar	day	0.36	645.00	232.20
0115	Coolie	day	0.38	645.00	245.10
9988	Carriage and sundries	L.S.	1.56	2.12	3.31
	TOTAL				2046.34 W
	Add 1 % Water charges on "W"				20.46
	TOTAL				2066.80 X
	Add GST on "X" (multiplying factor 0.1405)				290.39
	TOTAL				2357.19 Y
	Add 15% CPOH on "Y"				353.58
	TOTAL				2710.76 Z
	Add Cess @ 1% on "Z"				27.11
	Cost of 10.00 metre				2737.87
	Cost of 1.00 metre				273.79
	Say				273.80

15.47.2 Above 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre or 11 nos joints Earth work in excavation for dismantling pipes including refilling of excavated earth 10.00x0.65x0.75 m =4.88cum Deduct for pipes of average 250 mm dia =1x10x(22/7)/4x(0.274)x(0.274) =0.590cum Total=4.29cum				
	LABOUR				
0114	Beldar	day	1.24	645.00	799.80
0115	Coolie	day	1.28	645.00	825.60
0101	Bhisti	day	0.07	714.00	49.98
0114	Beldar	day	0.36	645.00	232.20
0115	Coolie	day	0.88	645.00	567.60
9988	Carriage and sundries	L.S.	3.77	2.12	7.99
	TOTAL				2483.17 W
	Add 1 % Water charges on "W"				24.83
	TOTAL				2508.00 X
	Add GST on "X" (multiplying factor 0.1405)				352.37
	TOTAL				2860.38 Y
	Add 15% CPOH on "Y"				429.06
	TOTAL				3289.44 Z
	Add Cess @ 1% on "Z"				32.89
	Cost of 10.00 metre				3322.33
	Cost of 1.00 metre				332.23
	Say				332.25

15.48 Taking out C.I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 man hole Demolition of R.C.C. slab 1.3x1.2x 0.15 m =0.234cum Less cover 0.61x0.455x0.15 m =0.042cum Net Quantity =0.192cum				
	LABOUR				
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.14	645.00	90.30
9999	Removel of C.I. Cover with frame including stacking	L.S.	1.30	2.12	2.76

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				430.71 W
	Add 1 % Water charges on "W"				4.31
	TOTAL				435.02 X
	Add GST on "X" (multiplying factor 0.1405)				61.12
	TOTAL				496.14 Y
	Add 15% CPOH on "Y"				74.42
	TOTAL				570.56 Z
	Add Cess @ 1% on "Z"				5.71
	Cost of each				576.27
	Say				576.25

15.49 Taking out C.I. cover with frame from R.C.C. top slab of inspection chambers of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 man hole Demolition of R.C.C. slab 1.1x0.9x0.15 m =0.148cum Less cover 0.61x0.455x0.15 m =0.042cum =0.106cum Say 0.11cum				
	LABOUR				
0114	Beldar	day	0.29	645.00	187.05
0115	Coolie	day	0.08	645.00	51.60
9999	Removel of C.I. Cover with frame including stacking	L.S.	0.65	2.12	1.38
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				251.33 W
	Add 1 % Water charges on "W"				2.51
	TOTAL				253.84 X
	Add GST on "X" (multiplying factor 0.1405)				35.66
	TOTAL				289.51 Y
	Add 15% CPOH on "Y"				43.43
	TOTAL				332.93 Z
	Add Cess @ 1% on "Z"				3.33
	Cost of each				336.26
	Say				336.25

15.50 Dismantling of R.C.C. spun vent shaft including excavating the cement concrete pit completely, taking out the shaft, refilling the excavated gap, stacking the useful materials near the site and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each Dismantling cement concrete 1:4:8 0.90x0.90x1.35m =1.094cum Less shaft 1/4x22/7x(0.450)x(0.450)x 1.10 m =0.175cum =0.919cum Say 0.92cum Dismantling cement concrete 1:2:4 0.90x0.90x0.15m =0.122cum Less shaft 1/4x22/7x0.15x0.45 m =0.024cum =0.098cum Say 0.10cum LABOUR				
0114	Beldar	day	0.81	645.00	522.45
0115	Coolie	day	0.51	645.00	328.95
9999	Sundries	L.S.	1.82	2.12	3.86
0114	Beldar	day	0.16	645.00	103.20
0115	Coolie	day	0.07	645.00	45.15
9999	Sundries	L.S.	0.52	2.12	1.10
0130	Mistry	day	0.25	784.00	196.00
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0100	Bandhani	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
9999	Sundries for scaffolding etc	L.S.	53.82	2.12	114.10
	TOTAL				2853.57 W
	Add 1 % Water charges on "W"				28.54
	TOTAL				2882.10 X
	Add GST on "X" (multiplying factor 0.1405)				404.94
	TOTAL				3287.04 Y
	Add 15% CPOH on "Y"				493.06
	TOTAL				3780.10 Z
	Add Cess @ 1% on "Z"				37.80
	Cost of each				3817.90
	Say				3817.90

15.51 Dismantling of road gully chamber of various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead including refilling the excavated gap.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one chamber Dismantling cement concrete a) 1:5:10 1.05x1.00x0.15m =0.16cum Dismantling brick work in cement mortar 2.70x0.20x0.45m =0.24cum Dismantling cement concrete b) 1:2:4 2.70x0.20x0.15m =0.08cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0114	Beldar	day	0.14	645.00	90.30
0115	Coolie	day	0.09	645.00	58.05
9999	Sundries	L.S.	0.26	2.12	0.55
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	0.22	645.00	141.90
9999	Sundries	L.S.	0.52	2.12	1.10
0114	Beldar	day	0.13	645.00	83.85
0115	Coolie	day	0.06	645.00	38.70
9999	Sundries for scaffolding etc	L.S.	0.39	2.12	0.83
9999	Dismantling C.I. Grating	L.S.	7.15	2.12	15.16
	TOTAL				591.69 W
	Add 1 % Water charges on "W"				5.92
	TOTAL				597.61 X
	Add GST on "X" (multiplying factor 0.1405)				83.96
	TOTAL				681.57 Y
	Add 15% CPOH on "Y"				102.24
	TOTAL				783.80 Z
	Add Cess @ 1% on "Z"				7.84
	Cost of each				791.64
	Say				791.65

15.52 Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	17.94	2.12	38.03
	TOTAL				556.53 W
	Add 1 % Water charges on "W"				5.57
	TOTAL				562.10 X
	Add GST on "X" (multiplying factor 0.1405)				78.97
	TOTAL				641.07 Y
	Add 15% CPOH on "Y"				96.16
	TOTAL				737.23 Z
	Add Cess @ 1% on "Z"				7.37
	Cost of each				744.61
	Say				744.60

15.53 Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres

15.53.1 Up to 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for dismantling 10 sluice valves (ave.) 100mm				
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0117	Assistant Fitter or 2nd class Fitter	day	0.40	714.00	285.60
0114	Beldar	day	1.60	645.00	1032.00
9999	Sundries for removing the R.C.C. cover etc for dismantling sluice valve	L.S.	89.70	2.12	190.16
	TOTAL				1978.16 W
	Add 1 % Water charges on "W"				19.78
	TOTAL				1997.95 X
	Add GST on "X" (multiplying factor 0.1405)				280.71
	TOTAL				2278.66 Y
	Add 15% CPOH on "Y"				341.80
	TOTAL				2620.46 Z
	Add Cess @ 1% on "Z"				26.20
	Cost of 10 Nos				2646.66
	Cost of each				264.67
	Say				264.65

15.53.2 Above 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for dismantling 10 sluice valves (ave.) 250mm				
	LABOUR				
0116	Fitter (grade 1)	day	2.40	784.00	1881.60
0117	Assistant Fitter or 2nd class Fitter	day	1.54	714.00	1099.56
0114	Beldar	day	6.40	645.00	4128.00
9999	Sundries for removing the R.C.C. cover etc for dismantling sluice valve	L.S.	89.70	2.12	190.16
	TOTAL				7299.32 W
	Add 1 % Water charges on "W"				72.99
	TOTAL				7372.32 X
	Add GST on "X" (multiplying factor 0.1405)				1035.81
	TOTAL				8408.13 Y
	Add 15% CPOH on "Y"				1261.22
	TOTAL				9669.35 Z
	Add Cess @ 1% on "Z"				96.69
	Cost of 10 Nos				9766.04
	Cost of each				976.60
	Say				976.60

15.54 Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 Nos				
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0117	Assistant Fitter or 2nd class Fitter	day	1.00	714.00	714.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				4470.00 W
	Add 1 % Water charges on "W"				44.70
	TOTAL				4514.70 X
	Add GST on "X" (multiplying factor 0.1405)				634.32
	TOTAL				5149.02 Y
	Add 15% CPOH on "Y"				772.35
	TOTAL				5921.37 Z
	Add Cess @ 1% on "Z"				59.21
	Cost of 10 Nos				5980.58
	Cost of each				598.06
	Say				598.05

15.55 Dismantling of cement concrete platform along with curtain walls and base concrete etc. including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead :

15.55.1 120 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one platform				
	Dismantling cement concrete 1:5:10				
	4.00x0.35x0.12m =0.168cum				
	0.80x0.80x0.075m =0.048cum				
	=0.216cum Say 0.22cum				
	Dismantling brick work in cement mortar				
	4.00x0.20x0.30m =0.24cum				
	4.00x0.10x0.20m =0.088cum				
	=0.328cum Say 0.33cum				
	Dismantling 40 mm C.C. flooring 1:2:4				
	1.00x1.00x0.04m =0.04cum				
	LABOUR				
0114	Beldar	day	0.19	645.00	122.55
0115	Coolie	day	0.12	645.00	77.40
9999	Sundries	L.S.	0.39	2.12	0.83
0114	Beldar	day	0.35	645.00	225.75
0115	Coolie	day	0.30	645.00	193.50
9999	Sundries	L.S.	0.91	2.12	1.93
0114	Beldar	day	0.06	645.00	38.70
0115	Coolie	day	0.03	645.00	19.35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries for scaffolding etc	L.S.	0.13	2.12	0.28
	TOTAL				680.28 W
	Add 1 % Water charges on "W"				6.80
	TOTAL				687.08 X
	Add GST on "X" (multiplying factor 0.1405)				96.54
	TOTAL				783.62 Y
	Add 15% CPOH on "Y"				117.54
	TOTAL				901.16 Z
	Add Cess @ 1% on "Z"				9.01
	Cost of each				910.17
	Say				910.15

15.55.2 210 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one platform				
	Dismantling cement concrete 1:5:10				
	5.80x0.35x0.12m =0.243cum				
	0.80x1.70x0.075m =0.102cum				
	=0.345cum Say 0.35cum				
	Dismantling brick work in cement mortar				
	5.80x0.20x0.30m =0.348cum				
	6.20x0.10x0.20m =0.124cum				
	=0.472cum Say 0.47cum				
	Dismantling 40 mm C.C. flooring 1:2:4				
	1.90x1.00x0.04m =0.08cum				
	LABOUR				
0114	Beldar	day	0.31	645.00	199.95
0115	Coolie	day	0.19	645.00	122.55
9999	Sundries	L.S.	0.65	2.12	1.38
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.42	645.00	270.90
9999	Sundries	L.S.	1.30	2.12	2.76
0114	Beldar	day	0.13	645.00	83.85
0115	Coolie	day	0.06	645.00	38.70
9999	Sundries for scaffolding etc	L.S.	0.39	2.12	0.83
	TOTAL				1043.41 W
	Add 1 % Water charges on "W"				10.43
	TOTAL				1053.84 X
	Add GST on "X" (multiplying factor 0.1405)				148.07
	TOTAL				1201.91 Y
	Add 15% CPOH on "Y"				180.29
	TOTAL				1382.20 Z
	Add Cess @ 1% on "Z"				13.82
	Cost of each				1396.02
	Say				1396.00

15.55.3 320 x 120 cm (outside to outside)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one platform				
	Dismantling cement concrete 1:5:10				
	8.00x0.35x0.12m =0.336cum				
	2.80x0.80x0.075m =0.168cum				
	=0.504cum Say 0.50cum				
	Dismantling brick work in cement mortar				
	8.00x0.20x0.30m =0.48cum				
	8.40x0.10x0.20m =0.168cum				
	=0.648cum Say 0.65cum				
	Dismantling 40 mm C.C. flooring 1:2:4				
	3.00x1.00x0.04m =0.12cum				
	LABOUR				
0114	Beldar	day	0.44	645.00	283.80
0115	Coolie	day	0.28	645.00	180.60
9999	Sundries	L.S.	0.91	2.12	1.93
0114	Beldar	day	0.69	645.00	445.05
0115	Coolie	day	0.59	645.00	380.55
9999	Sundries	L.S.	1.56	2.12	3.31
0114	Beldar	day	0.19	645.00	122.55
0115	Coolie	day	0.09	645.00	58.05
9999	Sundries for scaffolding etc	L.S.	0.52	2.12	1.10
	TOTAL				1476.94 W
	Add 1 % Water charges on "W"				14.77
	TOTAL				1491.71 X
	Add GST on "X" (multiplying				
	factor 0.1405)				209.59
	TOTAL				1701.29 Y
	Add 15% CPOH on "Y"				255.19
	TOTAL				1956.49 Z
	Add Cess @ 1% on "Z"				19.56
	Cost of each				1976.05
	Say				1976.05

15.56 Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	0.36	645.00	232.20
0115	Coolie	day	0.08	645.00	51.60
0101	Bhisti	day	0.07	714.00	49.98
9999	Sundries for scaffolding etc	L.S.	1.43	2.12	3.03
	TOTAL				336.81 W
	Add 1 % Water charges on "W"				3.37
	TOTAL				340.18 X
	Add GST on "X" (multiplying				
	factor 0.1405)				47.80
	TOTAL				387.97 Y
	Add 15% CPOH on "Y"				58.20
	TOTAL				446.17 Z
	Add Cess @ 1% on "Z"				4.46
	Cost of 10.00 sqm				450.63
	Cost of 1.00 sqm				45.06
	Say				45.05

15.57 Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	5.38	2.12	11.41
	TOTAL				347.71 W
	Add 1 % Water charges on "W"				3.48
	TOTAL				351.18 X
	Add GST on "X" (multiplying				
	factor 0.1405)				49.34
	TOTAL				400.52 Y
	Add 15% CPOH on "Y"				60.08
	TOTAL				460.60 Z
	Add Cess @ 1% on "Z"				4.61
	Cost of 10.00 sqm				465.21
	Cost of 1.00 sqm				46.52
	Say				46.50

15.58 Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum				
	LABOUR				
0128	Mate	day	0.03	714.00	21.42
	Labour for operating pneumatic tools				
0139	Skilled Beldar (for floor rubbing etc.)	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
	Labour for cutting reinforcement bars.				
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
	MACHINERY				
0040	Air compressor 250 cfm with two leads				
	for pneumatic cutters/ hammers.	day	0.125	1600.00	200.00
0039	Tractor with trolley .	day	0.05	1200.00	60.00
0041	Joint cutting machine with 2-3 blades	day	0.125	800.00	100.00
	TOTAL				1740.42 W
	Add 1 % Water charges on “W”				17.40
	TOTAL				1757.82 X
	Add GST on “X” (multiplying				
	factor 0.1405)				246.97
	TOTAL				2004.80 Y
	Add 15% CPOH on “Y”				300.72
	TOTAL				2305.52 Z
	Add Cess @ 1% on “Z”				23.06
	Cost of 1 cum				2328.57
	Say				2328.55

15.59 Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum				
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.30	645.00	193.50
	MACHINERY				
0039	Tractor with trolley .	day	0.0475	1200.00	57.00
0038	Tractor with ripper attachment.	day	0.002	1200.00	2.40
	TOTAL				260.04 W
	Add 1 % Water charges on "W"				2.60
	TOTAL				262.64 X
	Add GST on "X" (multiplying factor 0.1405)				36.90
	TOTAL				299.54 Y
	Add 15% CPOH on "Y"				44.93
	TOTAL				344.47 Z
	Add Cess @ 1% on "Z"				3.44
	Cost of 1 cum				347.92
	Say				347.90

15.60 Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum				
2264	Carriage of Rubbish	cum	1.00	163.93	163.93
	TOTAL				163.93 W
	Add 1 % Water charges on “W”				1.64
	TOTAL				165.57 X
	Add GST on “X” (multiplying factor 0.1405)				23.26
	TOTAL				188.83 Y
	Add 15% CPOH on “Y”				28.32
	TOTAL				217.16 Z
	Add Cess @ 1% on “Z”				2.17
	Cost of 1 cum				219.33
	Say				219.35

SUB HEAD : 16.0

ROAD WORK

16.1 Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	(A) preparation of subgrade.				
	Earth work in excavation including dressing etc. 100sqm.x22.5cm (average depth) = 22.5cum.				
	LABOUR				
0128	Mate	day	1.80	714.00	1285.20
0115	Coolie	day	18.00	645.00	11610.00
0114	Beldar	day	0.27	645.00	174.15
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	162.00
0113	Chowkidar	day	0.054	645.00	34.83
9999	Sundries	L.S.	6.76	2.12	14.33
	(B) Conslidation of subgrade				
	Roller charges (one roller does 1860 sqm. of conosolidation of sub - grade with road roller of 8 to 12 tonne capacity including making good the undulations etc. with earth or quarry spoils etc. and rerolling the subgrade				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	162.00
0113	Chowkidar	day	0.054	645.00	34.83
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				13491.67 W
	Add 1 % Water charges on “W”				134.92
	TOTAL				13626.59 X
	Add GST on “X” (multiplying factor 0.1405)				1914.54
	TOTAL				15541.12 Y
	Add 15% CPOH on “Y”				2331.17
	TOTAL				17872.29 Z
	Add Cess @ 1% on “Z”				178.72
	Cost for 100 sqm.				18051.02
	Cost per sqm.				180.51
	Say				180.50

16.2 Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	(Extra to item No.2.3 in Earth work)				
0101	Bhisti	day	0.17	714.00	121.38
	Roller charges (one roller does 1860 sqm. Of consolidation per day of 8 hours and uses 18 litres diesel)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.008	3000.00	24.00
0113	Chowkidar	day	0.008	645.00	5.16
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				153.57 W
	Add 1 % Water charges on "W"				1.54
	TOTAL				155.11 X
	Add GST on "X" (multiplying factor 0.1405)				21.79
	TOTAL				176.90 Y
	Add 15% CPOH on "Y"				26.53
	TOTAL				203.43 Z
	Add Cess @ 1% on "Z"				2.03
	Cost of 10 cum.				205.47
	Cost per cum.				20.55
	Say				20.55

16.3 Supplying and stacking at site.

16.3.1 90 mm to 45 mm size stone aggregate

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
2901	Stone Aggregate (Single size) : 100 mm nominal size	cum	0.10	1360.00	136.00
2902	Stone Aggregate (Single size) : 80 mm nominal size	cum	0.65	1360.00	884.00
0291	Stone Aggregate (Single size) : 63 mm nominal size	cum	0.25	1000.00	250.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	1.00	178.19	178.19
	TOTAL				1448.19 W
	Add 1 % Water charges on "W"				14.48
	TOTAL				1462.67 X
	Add GST on "X" (multiplying factor 0.1405)				205.51
	TOTAL				1668.18 Y
	Add 15% CPOH on "Y"				250.23
	TOTAL				1918.40 Z
	Add Cess @ 1% on "Z"				19.18
	Cost for 1 cum				1937.59
	Say				1937.60

16.3.2 63 mm to 45 mm size stone aggregate

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
2902	Stone Aggregate (Single size) : 80 mm nominal size	cum	0.10	1360.00	136.00
0291	Stone Aggregate (Single size) : 63 mm nominal size	cum	0.65	1000.00	650.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0292	Stone Aggregate (Single size) :				
	50 mm nominal size	cum	0.25	1000.00	250.00
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	1.00	178.19	178.19
	TOTAL				1214.19 W
	Add 1 % Water charges on "W"				12.14
	TOTAL				1226.33 X
	Add GST on "X" (multiplying				
	factor 0.1405)				172.30
	TOTAL				1398.63 Y
	Add 15% CPOH on "Y"				209.79
	TOTAL				1608.43 Z
	Add Cess @ 1% on "Z"				16.08
	Cost for 1 cum				1624.51
	Say				1624.50

16.3.3 53 mm to 22.4 mm size stone aggregate

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
0291	Stone Aggregate (Single size) :				
	63 mm nominal size	cum	0.05	1000.00	50.00
0292	Stone Aggregate (Single size) :				
	50 mm nominal size	cum	0.30	1000.00	300.00
0293	Stone Aggregate (Single size) :				
	40 mm nominal size	cum	0.65	1300.00	845.00
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	1.00	178.19	178.19
	TOTAL				1373.19 W
	Add 1 % Water charges on "W"				13.73
	TOTAL				1386.92 X
	Add GST on "X" (multiplying				
	factor 0.1405)				194.86
	TOTAL				1581.78 Y
	Add 15% CPOH on "Y"				237.27
	TOTAL				1819.05 Z
	Add Cess @ 1% on "Z"				18.19
	Cost for 1 cum				1837.24
	Say				1837.25

16.3.4 Over burnt (Jhama) brick aggregate 120 mm to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
2908	Over burnt (Jhama) Brick Aggregate:				
	120 mm to 40 mm size	cum	1.00	550.00	550.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2260	Carriage of Brick aggregate	cum	1.00	178.19	178.19
	TOTAL				728.19 W
	Add 1 % Water charges on "W"				7.28
	TOTAL				735.47 X
	Add GST on "X" (multiplying factor 0.1405)				103.33
	TOTAL				838.81 Y
	Add 15% CPOH on "Y"				125.82
	TOTAL				964.63 Z
	Add Cess @ 1% on "Z"				9.65
	Cost for 1 cum				974.27
	Say				974.25

16.3.5 Over burnt (Jhama) brick aggregate 90 mm to 45 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
2909	Over burnt (Jhama) Brick Aggregate: 90 mm to 40 mm size	cum	1.00	600.00	600.00
2260	Carriage of Brick aggregate	cum	1.00	178.19	178.19
	TOTAL				778.19 W
	Add 1 % Water charges on "W"				7.78
	TOTAL				785.97 X
	Add GST on "X" (multiplying factor 0.1405)				110.43
	TOTAL				896.40 Y
	Add 15% CPOH on "Y"				134.46
	TOTAL				1030.86 Z
	Add Cess @ 1% on "Z"				10.31
	Cost for 1 cum				1041.17
	Say				1041.15

16.3.6 Stone screening 13.2 mm nominal size (Type A)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
2910	Stone chippings/ screenings 12.5/13.2 mm nominal size	cum	0.05	1200.00	60.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.80	1200.00	960.00
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	0.15	1400.00	210.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.00	163.93	163.93
	TOTAL				1393.93 W
	Add 1 % Water charges on "W"				13.94
	TOTAL				1407.87 X
	Add GST on "X" (multiplying factor 0.1405)				197.81
	TOTAL				1605.67 Y
	Add 15% CPOH on "Y"				240.85
	TOTAL				1846.53 Z
	Add Cess @ 1% on "Z"				18.47
	Cost for one cum.				1864.99
	Say				1865.00

16.3.7 Stone screening 11.2 mm nominal size (Type B)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.10	1200.00	120.00
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	0.75	1400.00	1050.00
2904	Stone chippings/ screenings 150 micron nominal size	cum	0.15	1400.00	210.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	163.93	139.34
2267	Carriage of Stone dust	cum	0.15	163.93	24.59
	TOTAL				1543.93 W
	Add 1 % Water charges on "W"				15.44
	TOTAL				1559.37 X
	Add GST on "X" (multiplying factor 0.1405)				219.09
	TOTAL				1778.46 Y
	Add 15% CPOH on "Y"				266.77
	TOTAL				2045.23 Z
	Add Cess @ 1% on "Z"				20.45
	Cost for one cum.				2065.68
	Say				2065.70

16.3.8 Red bajri

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
0304	Bajri	cum	1.00	1000.00	1000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2311	Carriage of Red bajri	cum	1.00	163.93	163.93
	TOTAL				1163.93 W
	Add 1 % Water charges on "W"				11.64
	TOTAL				1175.57 X
	Add GST on "X" (multiplying factor 0.1405)				165.17
	TOTAL				1340.74 Y
	Add 15% CPOH on "Y"				201.11
	TOTAL				1541.85 Z
	Add Cess @ 1% on "Z"				15.42
	Cost for one cum.				1557.27
	Say				1557.25

16.3.9 Good earth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	Excavation :				
	LABOUR				
0114	Beldar	day	0.177	645.00	114.17
0115	Coolie	day	0.167	645.00	107.72
0979	Royalty for good earth	cum	1.00	40.00	40.00
2241	Carriage of Good earth by mechanical transport upto 5 km lead	cum	1.00	204.92	204.92
	TOTAL				466.80 W
	Add 1 % Water charges on "W"				4.67
	TOTAL				471.47 X
	Add GST on "X" (multiplying factor 0.1405)				66.24
	TOTAL				537.71 Y
	Add 15% CPOH on "Y"				80.66
	TOTAL				618.37 Z
	Add Cess @ 1% on "Z"				6.18
	Cost per cum.				624.55
	Say				624.55

16.3.10 Moorum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
0810	Moorum	cum	1.00	500.00	500.00
2265	Carriage of Moorum	cum	1.00	163.93	163.93
	TOTAL				663.93 W
	Add 1 % Water charges on "W"				6.64
	TOTAL				670.57 X
	Add GST on "X" (multiplying factor 0.1405)				94.21
	TOTAL				764.78 Y
	Add 15% CPOH on "Y"				114.72
	TOTAL				879.50 Z
	Add Cess @ 1% on "Z"				8.80
	Cost for one cum.				888.30
	Say				888.30

16.4 Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/ vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.26	645.00	167.70
0115	Coolie	day	0.26	645.00	167.70
0101	Bhisti	day	0.26	714.00	185.64
	Roller charges (one roller does 30 cum consolidation per day of 8 hours and uses 18 litres of diesel oil).				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.033	3000.00	99.00
0113	Chowkidar	day	0.033	645.00	21.29
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				647.11 W
	Add 1 % Water charges on "W"				6.47
	TOTAL				653.58 X
	Add GST on "X" (multiplying factor 0.1405)				91.83
	TOTAL				745.41 Y
	Add 15% CPOH on "Y"				111.81
	TOTAL				857.22 Z
	Add Cess @ 1% on "Z"				8.57
	Cost for 1 cum				865.80
	Say				865.80

16.5 Laying water bound macadam sub-base with brick aggregate and binding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc. complete.(payment for brick aggregate and moorum etc. to be made separately)

16.5.1 Over burnt (Jhama) brick aggregate 120 mm to 40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	LABOUR				
0114	Beldar	day	0.35	645.00	225.75
0115	Coolie	day	0.26	645.00	167.70
0101	Bhisti	Day	0.18	714.00	128.52
	Roller charges (one roller does 230cum. consolidation per day of 8 hours and uses 18 litres of diesel oil)				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.004	3000.00	12.00
0113	Chowkidar	day	0.004	645.00	2.58

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				542.34 W
	Add 1 % Water charges on "W"				5.42
	TOTAL				547.76 X
	Add GST on "X" (multiplying factor 0.1405)				76.96
	TOTAL				624.72 Y
	Add 15% CPOH on "Y"				93.71
	TOTAL				718.43 Z
	Add Cess @ 1% on "Z"				7.18
	Cost for one cum.				725.61
	Say				725.60

16.5.2 Over burnt (Jhama) brick aggregate 90 mm to 45 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	LABOUR				
0114	Beldar	day	0.35	645.00	225.75
0115	Coolie	day	0.26	645.00	167.70
0101	Bhisti	day	0.18	714.00	128.52
	Roller charges (one roller does 230cum. consolidation per day of 8 hours and uses 18 litres of diesel oil)				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.004	3000.00	12.00
0113	Chowkidar	day	0.004	645.00	2.58
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				542.34 W
	Add 1 % Water charges on "W"				5.42
	TOTAL				547.76 X
	Add GST on "X" (multiplying factor 0.1405)				76.96
	TOTAL				624.72 Y
	Add 15% CPOH on "Y"				93.71
	TOTAL				718.43 Z
	Add Cess @ 1% on "Z"				7.18
	Cost for one cum.				725.61
	Say				725.60

16.6 Supplying, stacking and Spreading 6 mm thick red bajri, watering and rolling complete including preparation of the surface and rolling.

16.6.1 With road roller/ hand roller

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6 mm thick and 100 sqm area				
	(A) Supplying and stacking of Red bajri at site.				
	MATERIAL				
0304	Bajri	cum	0.60	1000.00	600.00
2311	Carriage of Red bajri	cum	0.60	163.93	98.36

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	(B) Spreading of red bajri				
	LABOUR				
0114	Beldar	day	0.54	645.00	348.30
0101	Bhisti	day	0.54	714.00	385.56
	Roller charges (one roller does 1860sqm consolidation per day of 8 hours and uses 18 litres of diesel oil)				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	162.00
0113	Chowkidar	day	0.054	645.00	34.83
	TOTAL				1629.05 W
	Add 1 % Water charges on "W"				16.29
	TOTAL				1645.34 X
	Add GST on "X" (multiplying factor 0.1405)				231.17
	TOTAL				1876.51 Y
	Add 15% CPOH on "Y"				281.48
	TOTAL				2157.98 Z
	Add Cess @ 1% on "Z"				21.58
	Cost for 100 sqm.				2179.56
	Cost per sqm.				21.80
	Say				21.80

16.7 Brick edging in full brick width and half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres.

16.7.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 including 12% wastage	1000 Nos	0.16	4590.00	734.40
2201	Carriage of Bricks	1000 Nos	0.16	437.15	69.94
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.17	784.00	133.28
0124	Mason (brick layer) 2nd class	day	0.17	714.00	121.38
0115	Coolie	day	0.35	645.00	225.75
9999	Removal of rubbish	L.S.	17.94	2.12	38.03
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				1341.80 W
	Add 1 % Water charges on "W"				13.42
	TOTAL				1355.22 X
	Add GST on "X" (multiplying factor 0.1405)				190.41
	TOTAL				1545.63 Y
	Add 15% CPOH on "Y"				231.84
	TOTAL				1777.47 Z
	Add Cess @ 1% on "Z"				17.77
	Cost for 10 metres				1795.25
	Cost per metre				179.52
	Say				179.50

16.8 Brick edging laid lengthwise with half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres :

16.8.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 including 12% wastage	1000 Nos	0.049	4590.00	224.91
2201	Carriage of Bricks	1000 Nos	0.049	437.15	21.42
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.04	784.00	31.36
0124	Mason (brick layer) 2nd class	day	0.04	714.00	28.56
0115	Coolie	day	0.09	645.00	58.05
9999	Removal of rubbish	L.S.	4.16	2.12	8.82
	TOTAL				373.12 W
	Add 1 % Water charges on "W"				3.73
	TOTAL				376.85 X
	Add GST on "X" (multiplying factor 0.1405)				52.95
	TOTAL				429.80 Y
	Add 15% CPOH on "Y"				64.47
	TOTAL				494.27 Z
	Add Cess @ 1% on "Z"				4.94
	Cost for 10 metre				499.21
	Cost per metre				49.92
	Say				49.90

16.9 Scarifying metalled (water-bound) road surface including disposal of rubbish, lead upto 50 m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonne capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	LABOUR				
0114	Beldar	day	1.35	645.00	870.75
0115	Coolie	day	1.08	645.00	696.60
	Consolidation of scarified material 100sqm.x50mm = 5cum + Less 20% wastage = 1 cum. = 4 cum.				
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.132	3000.00	396.00
0113	Chowkidar	day	0.132	645.00	85.14
9999	Sundries	L.S.	5.46	2.12	11.58
	TOTAL				2060.07 W
	Add 1 % Water charges on "W"				20.60
	TOTAL				2080.67 X
	Add GST on "X" (multiplying factor 0.1405)				292.33
	TOTAL				2373.00 Y
	Add 15% CPOH on "Y"				355.95
	TOTAL				2728.95 Z
	Add Cess @ 1% on "Z"				27.29
	Cost for 100 sqm.				2756.24
	Cost per sqm.				27.56
	Say				27.55

16.10 Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50 mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm red bajri consolidated with road roller.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100sqm.					
	Earth work in excavation including dressing etc.					
	100x0.075=7.5cum.					
2.6.1	(Rate as per item no.2.6.1 of S.H. Earth work)	cum	7.50	205.45	1540.88	A
	Collection and stacking of brick aggregate 53mm nominal size					
	100x0.075 =7.50cum.					
0286	Brick Aggregate (Single size) : 50 mm nominal size	cum	7.50	650.00	4875.00	
2260	Carriage of Brick aggregate	cum	7.50	178.19	1336.43	
	Supply staking Red Bajri					
	100x0.012= 1.2 cum					
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	1.20	1557.25	1868.70	A
	Collection and stacking of moorum at site					
	100x0.012 = 1.20cum.					
16.3.10	Rate as per Item Number 16.3.10 of SH: Road Work	cum	1.20	888.30	1065.96	A
	Spreading and consolidation of brick aggregate and blinding material etc.					
	LABOUR					
0114	Beldar	day	1.95	645.00	1257.75	
0115	Coolie	day	2.63	645.00	1696.35	
0101	Bhisti	day	1.35	714.00	963.90	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.135	3000.00	405.00	
0113	Chowkidar	day	0.135	645.00	87.08	
9999	Sundries	L.S.	20.15	2.12	42.72	
	Spreading of red bajri, watering and rolling					
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	162.00	
0113	Chowkidar	day	0.054	645.00	34.83	
	TOTAL				15336.58	W
	Add 1 % Water charges on "W-A"				108.61	
	TOTAL				15445.19	X
	Add GST on "X-A" (multiplying factor 0.1405)				1541.24	
	TOTAL				16986.43	Y
	Add 15% CPOH on "Y-A"				1876.63	
	TOTAL				18863.06	Z
	Add Cess @ 1% on "Z-A"				143.88	
	Cost for 100 sqm.				19006.94	
	Cost per sqm.				190.07	
	Say				190.05	

16.11 Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
1158	Stone for pitching 15 cm x 22.5 cm	cum	2.25	600.00	1350.00
2216	Carriage of Stone blocks white & red sand stone & kota stone slab 2.25x2245/1000 = 5.05 t	tonne	5.05	145.72	735.89
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.08	784.00	846.72
0124	Mason (brick layer) 2nd class	day	1.08	714.00	771.12
0114	Beldar	day	2.15	645.00	1386.75
0115	Coolie	day	1.61	645.00	1038.45
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				6143.26 W
	Add 1 % Water charges on "W"				61.43
	TOTAL				6204.69 X
	Add GST on "X" (multiplying factor 0.1405)				871.76
	TOTAL				7076.45 Y
	Add 15% CPOH on "Y"				1061.47
	TOTAL				8137.92 Z
	Add Cess @ 1% on "Z"				81.38
	Cost for 10 sqm.				8219.30
	Cost per sqm.				821.93
	Say				821.95

16.12 Dry brick pitching half brick thick in drains including supply of bricks and preparing the surface complete :

16.12.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 Nos	0.645	4590.00	2960.55
2201	Carriage of Bricks	1000 Nos	0.645	437.15	281.96
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.40	784.00	313.60
0124	Mason (brick layer) 2nd class	day	0.40	714.00	285.60
0114	Beldar	day	1.08	645.00	696.60
	TOTAL				4538.31 W
	Add 1 % Water charges on "W"				45.38
	TOTAL				4583.69 X
	Add GST on "X" (multiplying factor 0.1405)				644.01
	TOTAL				5227.70 Y
	Add 15% CPOH on "Y"				784.16
	TOTAL				6011.86 Z
	Add Cess @ 1% on "Z"				60.12
	Cost for 10 sqm.				6071.98
	Cost per sqm.				607.20
	Say				607.20

16.13 Cutting road and making good the same including supply of extra quantities of materials i.e. aggregate, moorum screening, red bajri and labour required.

16.13.1 bituminous portion

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.08cum. (road 6 metres wide, 0.6 metre length wise and 0.30m (average depth) volume = 1.08 cum).					
	MATERIAL					
	Supplying and stacking stone aggregate 53mm to 24 mm nominal size at site.					
16.3.3	Rate as per Item Number 16.3.3 of SH: Road Work	cum	0.09	1837.25	165.35	A
	Supplying and stacking red bajri at site					
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.023	1557.25	35.82	A
	Supplying and stacking moorum at site					
16.3.10	Rate as per Item Number 16.3.10 of SH: Road Work	cum	0.022	888.30	19.54	A
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.092	1200.00	110.40	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.092	163.93	15.08	
0309	Paving bitumen VG-10 of approved quality	tonne	0.011	25614.00	281.75	
2211	Carriage of Tar bitumen	tonne	0.011	163.93	1.80	
	LABOUR					
	For cutting road and taking out soling and metalling including sorting and screening.					
0114	Beldar	day	0.96	645.00	619.20	
0115	Coolie	day	0.48	645.00	309.60	
	Relaying soling stone 3.6x0.15 =0.54cum.					
0114	Beldar	day	0.24	645.00	154.80	
0115	Coolie	day	0.24	645.00	154.80	
	Relaying road metal with extra quantity and consolidation to 0.10m, thickness 3.6x0.10=0.36cum.					
0114	Beldar	day	0.71	645.00	457.95	
0115	Coolie	day	0.48	645.00	309.60	
0101	Bhisti	day	0.10	714.00	71.40	
	Painting two coats, 3.6sqm. including labour for spreading grit					
0114	Beldar	day	0.48	645.00	309.60	
0115	Coolie	day	0.48	645.00	309.60	
9999	Barrier, chowkidar, sprayman, mate, etc.	L.S.	40.43	2.12	85.71	
	TOTAL				3412.01	W
	Add 1 % Water charges on “W-A”				31.91	
	TOTAL				3443.93	X
	Add GST on “X-A” (multiplying factor 0.1405)				452.86	
	TOTAL				3896.79	Y
	Add 15% CPOH on “Y-A”				551.41	
	TOTAL				4448.20	Z
	Add Cess @ 1% on “Z-A”				42.27	
	Cost for 1.08 cum.				4490.47	
	Cost per cum.				4157.85	
	Say				4157.85	

16.13.2 Water bound macadam

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 0.90cum.				
	Consider a road 6 metres wide and 0.6m. lengthwise and 0.25m cm average depth =0.90cum.				
	MATERIAL				
	Supplying and stacking stone aggregate 53mm to 24mm nominal size at site.				
16.3.3	Rate as per Item Number 16.3.3 of SH: Road Work	cum	0.09	1837.25	165.35 A
	Supplying and stacking red bajri at site				
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.023	1557.25	35.82 A
	Supplying and stacking moorum at site.				
16.3.10	Rate as per Item Number 16.3.10 of SH: Road Work	cum	0.022	888.30	19.54 A
	LABOUR				
	For cutting road and taking out soling and metalling including sorting and screening.				
0114	Beldar	day	0.48	645.00	309.60
0115	Coolie	day	0.24	645.00	154.80
	For relaying soling stone 3.6x0.15 =0.54cum.				
0114	Beldar	day	0.24	645.00	154.80
0115	Coolie	day	0.24	645.00	154.80
	For relaying road metal with extra quantity and consolidation to 0.10m thickness				
	3.6x0.10=0.36cum.				
0114	Beldar	day	0.48	645.00	309.60
0115	Coolie	day	0.48	645.00	309.60
0101	Bhisti	day	0.10	714.00	71.40
9999	Barrier and chowkidar etc.	L.S.	53.82	2.12	114.10
	TOTAL				1799.41 W
	Add 1 % Water charges on "W-A"				15.79
	TOTAL				1815.20 X
	Add GST on "X-A" (multiplying factor 0.1405)				224.03
	TOTAL				2039.22 Y
	Add 15% CPOH on "Y-A"				272.78
	TOTAL				2312.00 Z
	Add Cess @ 1% on "Z-A"				20.91
	Cost for 0.90 cum.				2332.91
	Cost per cum.				2592.12
	Say				2592.10

16.14 Cutting bajri paths and making good the same including supply of extra quantities of brick aggregate, moorum and red bajri required.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	10x0.075=0.75cum.				
	MATERIAL				
	Supplying and stacking 50mm brick aggregate at site(extra quantity)				
0286	Brick Aggregate (Single size) :				
	50 mm nominal size	cum	0.19	650.00	123.50
2260	Carriage of Brick aggregate	cum	0.19	178.19	33.86
	Supplying and stacking red bajri at site				
16.3.8	Rate as per Item Number 16.3.8 of				
	SH: Road Work	cum	0.06	1557.25	93.44 A
	Supplying and stacking moorum at site				
16.3.10	Rate as per Item Number 16.3.10 of				
	SH: Road	cum	0.06	888.30	53.30 A
	LABOUR				
	For cutting, sorting out, spreading and consolidation of aggregate				
0114	Beldar	day	1.60	645.00	1032.00
0115	Coolie	day	0.80	645.00	516.00
	TOTAL				1852.09 W
	Add 1 % Water charges on "W-A"				17.05
	TOTAL				1869.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				242.00
	TOTAL				2111.14 Y
	Add 15% CPOH on "Y-A"				294.66
	TOTAL				2405.80 Z
	Add Cess @ 1% on "Z-A"				22.59
	Cost for 10 sqm.				2428.39
	Cost per sqm.				242.84
	Say				242.85

16.15 Supplying at site :

16.15.1 R.C.C. Standards post/ struts/rails/ pales of mix 1:1.5:3 (1 cement : 1.5 coarsesand : 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in-charge (cost of earth works in excavation, concrete works in foundation to be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 posts = 0.336cum				
	Cubical contents of one post				
	Area bottom A1 = (15+12.5)/2 x8.75+ ½x3.14 x$(6.25)^2$				
	=120.31+61.38=181.69sqcm.				
	Area bottom A2 = (10+7.5)/2 x6.25+ ½x3.14 x$(3.75)^2$ sqm				
	= 54.68+22.08 = 76.76 sqcm.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	(A1A2)^½ = 118.10sqcm A1+A2+(A1A2))^½ = 0.03766 sqm Volume = (1.05)/3x0.03766 = 0.01316 cum =0.0132cum. Volume of lower and square portion (16.5x16.5x75) / 100^3 = 0.0204cum. Total volume = 0.0132+0.0204 cum = 0.0336 cum. Qty. for 10 post = 0.0336x10 = 0.336cum. Cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 12.5mm nominal size)				
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.336	7783.65	2615.31 A
	Extra labour for laying cement concrete in RCC work				
0114	Beldar	day	0.034	645.00	21.93
0101	Bhisti	day	0.067	714.00	47.84
0123	Mason (brick layer) 1st class	day	0.013	784.00	10.19
0124	Mason (brick layer) 2nd class	day	0.013	714.00	9.28
0128	Mate	day	0.013	714.00	9.28
	M.S. Reinforcement 6mm dia. bars 10x4x1.88m = 75.20m+ 10x9x0.50m =45.00m = 120.20m 120.20m@0.22kg/m =26.44kg.				
5.22.2	Rate as per Item No.5.22.2 of SH: Reinforced cement concrete work Centering and shuttering	kg	26.44	87.50	2313.50 A
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work 6mm C.Plaster 1:2 (1 Cement : 2 fine sand)	sqm	6.99	307.95	2152.57 A
	Details of cost for 9.88 sqm. (0.072)/10x9.88 = 0.071				
0367	Portland Cement (OPC-43 grade)	tonne	0.05	5000.00	250.00
2209	Carriage of Cement	tonne	0.05	145.72	7.29
0983	Fine sand (zone IV)	cum	0.07	900.00	63.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.07	163.93	11.48
	LABOUR				
0114	Beldar	day	0.05	645.00	32.25
0101	Bhisti	day	0.02	714.00	14.28
0155	Mason (average)	day	0.64	749.00	479.36
0115	Coolie	day	0.80	645.00	516.00
0101	Bhisti	day	0.27	714.00	192.78
9999	Hire and running charges of mixer	L.S.	1.95	2.12	4.13
9999	Extra for removing burr, cleaning with wire brushes, pock making with pointed tool etc. complete	L.S.	13.26	2.12	28.11
9999	Scaffolding and sundries	L.S.	11.57	2.12	24.53
9977	Carriage of RCC posts	L.S.	53.82	2.12	114.10
9999	Wooden plugs or 6mm bar nibs	L.S.	12.22	2.12	25.91

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				8971.77 W
	Add 1 % Water charges on “W-A”				18.90
	TOTAL				8990.68 X
	Add GST on “X-A” (multiplying factor 0.1405)				268.26
	TOTAL				9258.93 Y
	Add 15% CPOH on “Y-A”				326.63
	TOTAL				9585.57 Z
	Add Cess @ 1% on “Z-A”				25.04
	Cost for 0.336 cum				9610.61
	Cost for one cum				28603.00
	Say				28603.00

16.15.2 Welded steel wire fabric of required width having rectangular mesh painted with two or more coats of enamel paint of approved shade over a coat of primer (Priming & Painting to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 27 sqm (209.25 kg).				
	MATERIAL				
	Steel wire fabric 0.9m wide rectangular mesh 75x25mm size weight not less than 7.75kg/sqm. 30x0.9 = 27sqm				
1021	Hard drawn steel wire fabric	sqm	27.00	430.00	11610.00
2314	Carriage of Barbed wire 7.75x27=209.25kg=0.209tonne	tonne	0.209	145.72	30.46
	TOTAL				11640.46 W
	Add 1 % Water charges on "W"				116.40
	TOTAL				11756.86 X
	Add GST on "X" (multiplying factor 0.1405)				1651.84
	TOTAL				13408.70 Y
	Add 15% CPOH on "Y"				2011.30
	TOTAL				15420.00 Z
	Add Cess @ 1% on "Z"				154.20
	Cost for 209.25 kg				15574.20
	Cost per kg.				74.43
	Say				74.45

16.16 Supplying and fixing turn buckles and straining bolts for barbed wire fencing.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one set				
	MATERIAL				
1030	Galvanised steel turn buckles	each	1.00	25.00	25.00
1028	Straining bolts	each	1.00	80.00	80.00
9977	Carriage of turn buckles and straining bolts	L.S.	2.73	2.12	5.79
	Labour for fixing straining bolts and turn buckles				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
	TOTAL				182.19 W
	Add 1 % Water charges on “W”				1.82
	TOTAL				184.01 X
	Add GST on “X” (multiplying factor 0.1405)				25.85
	TOTAL				209.86 Y
	Add 15% CPOH on “Y”				31.48
	TOTAL				241.34 Z
	Add Cess @ 1% on “Z”				2.41
	Cost per set				243.76
	Say				243.75

16.17 Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.

16.17.1 With G.I. barbed wire

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30m				
	MATERIAL				
	G.I. barbed wire				
	30x9 = 270m +				
	10x6.32 = 63m				
	Total = 333m				
	333m @9.38kg/100m =31.24kg = 0.31q				
1029	Galvanised steel barbed wire	quintal	0.31	5500.00	1705.00
2314	Carriage of Barbed wire	tonne	0.03	145.72	4.37
9999	G.I. staples or binding wire	L.S.	49.40	2.12	104.73
	LABOUR				
	Labour for fixing costs in line, fixing and stretching wire				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.50	645.00	322.50
0102	Blacksmith 1st class	day	0.50	784.00	392.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				3094.02 W
	Add 1 % Water charges on "W"				30.94
	TOTAL				3124.96 X
	Add GST on "X" (multiplying factor 0.1405)				439.06
	TOTAL				3564.02 Y
	Add 15% CPOH on "Y"				534.60
	TOTAL				4098.62 Z
	Add Cess @ 1% on "Z"				40.99
	Cost for 333m				4139.61
	Cost per m				12.43
	Say				12.45

16.18 Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.

16.18.1 With G.I. barbed wire

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 333.24 metre MATERIAL G.I. barbed wire 30x9 = 270.00m 2x10x(12+32)1/2 = 63.24 = 333.24m 333.24m @ 9.38kg/100m =31.26 kg say 0.31 q				
1029	Galvanised steel barbed wire	quintal	0.31	5500.00	1705.00
2314	Carriage of Barbed wire	tonne	0.031	145.72	4.52
	Supplying and fixing Turn buckle & staple				
16.16	Rate as per Item Number 16.16 of SH: Road Work	each set	10.00	243.75	2437.50 A
9999	G.I. staples	L.S.	49.40	2.12	104.73
	Labour for fixing posts in line and fixing and stretching wire:				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.50	645.00	322.50
0102	Blacksmith 1st class	day	0.50	784.00	392.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
	TOTAL				5503.01 W
	Add 1 % Water charges on "W-A"				30.66
	TOTAL				5533.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				435.01
	TOTAL				5968.67 Y
	Add 15% CPOH on "Y-A"				529.68
	TOTAL				6498.35 Z
	Add Cess @ 1% on "Z-A"				40.61
	Cost for 333.24m				6538.96
	Cost per m				19.62
	Say				19.60

16.19 Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 qunital MATERIAL M.S. angle = 1.00 qtl. Add 5% wastage = 0.05 qtl. Total = =1.05 qtl				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1007	Structurals such as tees, angles channels and R.S. joists	quintal	1.05	4950.00	5197.50
2205	Carriage of Steel	tonne	0.105	145.72	15.30
	LABOUR				
0103	Blacksmith 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	0.50	645.00	322.50
	For spotting, bending of angle and drilling holes etc. :				
0103	Blacksmith 2nd class	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
9999	Sundries such as drilling bit etc.	L.S.	19.76	2.12	41.89
	TOTAL				7471.69 W
	Add 1 % Water charges on "W"				74.72
	TOTAL				7546.41 X
	Add GST on "X" (multiplying factor 0.1405)				1060.27
	TOTAL				8606.68 Y
	Add 15% CPOH on "Y"				1291.00
	TOTAL				9897.68 Z
	Add Cess @ 1% on "Z"				98.98
	Cost for 1 qunital				9996.66
	Cost of one kg				99.97
	Say				99.95

16.20 Welded steel wire fabric fencing with posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x 60 cm of mix 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size), every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and struts embedded in cement concrete blocks 70x45x50 cm of the same mix, provided with welded steel wire fabric fixed between the posts fitted and fixed with G.I. staples on wooden plugs or tied to 6 mm bar nibs with G.I. binding wire (cost of posts, welded steel wire fabric, painting, earth work in excavation and concrete to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres i.e. 30x1.20 =36.00sqm				
	Labour for fixing posts in line fixing and stretching - welded wire fabric :				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.50	645.00	322.50
0102	Blacksmith 1st class	day	0.50	784.00	392.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
9999	G.I. staple or binding wire	L.S.	53.82	2.12	114.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	53.82	2.12	114.10
	TOTAL				1479.46 W
	Add 1 % Water charges on "W"				14.79
	TOTAL				1494.25 X
	Add GST on "X" (multiplying factor 0.1405)				209.94
	TOTAL				1704.19 Y
	Add 15% CPOH on "Y"				255.63
	TOTAL				1959.82 Z
	Add Cess @ 1% on "Z"				19.60
	Cost for 36 sqm				1979.42
	Cost per sqm				54.98
	Say				55.00

16.21 Engraving letters in hard stone

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6 letters 8 cm height				
	LABOUR				
	For Engraving stone-				
0126	Mason (for ornamental stone work) 1st class	day	0.38	784.00	297.92
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				312.25 W
	Add 1 % Water charges on "W"				3.12
	TOTAL				315.37 X
	Add GST on "X" (multiplying factor 0.1405)				44.31
	TOTAL				359.68 Y
	Add 15% CPOH on "Y"				53.95
	TOTAL				413.64 Z
	Add Cess @ 1% on "Z"				4.14
	Cost of 6 letters of 8cm heights				417.77
	Cost per cm. height per letter				8.70
	Say				8.70

16.22 Providing and fixing 15x15x90 cm boundary stone of hard stone with top 30 cm chisel dressed on all four sides including top (cost of excavation, refilling and concrete etc. to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one stone				
1151	Boundry stone top chisel dressed 15x15x90 cm	each	1.00	80.00	80.00
	Labour for fixing				
0114	Beldar	day	0.12	645.00	77.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage to site	L.S.	4.16	2.12	8.82
	TOTAL				166.22 W
	Add 1 % Water charges on "W"				1.66
	TOTAL				167.88 X
	Add GST on "X" (multiplying factor 0.1405)				23.59
	TOTAL				191.47 Y
	Add 15% CPOH on "Y"				28.72
	TOTAL				220.19 Z
	Add Cess @ 1% on "Z"				2.20
	Cost of each.				222.39
	Say				222.40

16.23 Providing and fixing 15 cm dia at top, 20 cm at bottom and 90 cm high precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) boundary stone as per standard design, including finishing smooth with cement mortar 1:3 (1 cement : 3 fine sand) (cost of excavation, refilling and concreting to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one stone				
	(i) Cement concrete 1:1½:3 (1 cement : 1½ Coarse sand : 3 graded stone aggregate 20mm nominal size)				
	Volume of frustum of cone:				
	L/3 x [A1+A2+sqrt(A1A2)] = 0.825/3 x [0.095^2+0.075^2 + sqrt(0.095 x 0.075^2)]x 3.142=0.01882 (A)				
	Volume of hemi sphere:				
	½ x 4 /3 x PI x r^3 = ½x(4/ 3)x(22/7)x 0.075^3=0.00100 (B)				
	Total volume = A+B = 0.01982				
	Say 0.02cum				
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.02	7783.65	155.67 A
	(ii) Extra for laying cement concerte in RCC work				
	LABOUR				
0114	Beldar	day	0.002	645.00	1.29
0101	Bhisti	day	0.004	714.00	2.86
0123	Mason (brick layer) 1st class	day	0.0008	784.00	0.63
0124	Mason (brick layer) 2nd class	day	0.0008	714.00	0.57
0128	Mate	day	0.0008	714.00	0.57
	(iii) M.S. reinforcement- 6mm dia. Bar 5.99 metre =5.99x0.22 =1.32kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	1.32	88.95	117.41 A
	(iv) Centering and shuttering- 1/2x3.142 (0.19+0.15)x0.825 =0.441 + 3.142/4$(0.19)^2$ =0.028 + 1/2x4x3.142$(0.075)^2$ = 0.035 = 0.504				
	Say 0.50sqm.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work (v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)- 1/2x3.142 (0.19+0.15)x0.825 =0.44 + 3.142/4(0.19)² =0.028 + 1/2x4x3.142(0.075)² = 0.035 = 0.504 Say 0.50sqm.	sqm	0.50	307.95	153.98 A
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.0018	5000.00	9.00
2209	Carriage of Cement	tonne	0.0018	145.72	0.26
0983	Fine sand (zone IV)	cum	0.0385	900.00	34.65
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.0385	163.93	6.31
	Labour for mortar				
0114	Beldar	day	0.0027	645.00	1.74
0101	Bhisti	day	0.0002	714.00	0.14
9999	Hire and running charges of mixer	L.S.	0.10	2.12	0.21
9999	Sundries	L.S.	0.05	2.12	0.11
	Labour for plaster				
0155	Mason (average)	day	0.026	749.00	19.47
0115	Coolie	day	0.038	645.00	24.51
0101	Bhisti	day	0.046	714.00	32.84
9999	Extra for removing burr	L.S.	0.68	2.12	1.44
9999	Scaffolding, sundries etc.	L.S.	0.60	2.12	1.27
	(vi) Labour for fixing				
0114	Beldar	day	0.12	645.00	77.40
9977	Carriage to site	L.S.	4.16	2.12	8.82
	TOTAL				651.16 W
	Add 1 % Water charges on "W-A"				2.24
	TOTAL				653.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				31.80
	TOTAL				685.21 Y
	Add 15% CPOH on "Y-A"				38.72
	TOTAL				723.93 Z
	Add Cess @ 1% on "Z-A"				2.97
	Cost of each.				726.90
	Say				726.90

16.24 Providing and fixing precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) kilometre stone as per standard design, including finishing smooth in 1:3 cement mortar (1 cement : 3 fine sand) but excluding the cost of earth work, concrete in foundation, painting and lettering etc. which shall be paid for separately.

16.24.1 35x111x25 cm size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one stone (i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	aggregate 20mm nominal size) in Kilometre stone 0.35x0.25x0.835m = 0.073 0.37x0.27x0.10m = 0.010 1/2x22/7x(0.175)²x0.25m = 0.012 = 0.095cum Say 0.10cum.				
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work. (ii) Extra for laying cement concrete in RCC work	cum	0.10	7783.65	778.37 A
0114	Beldar	day	0.01	645.00	6.45
0101	Bhisti	day	0.02	714.00	14.28
0123	Mason (brick layer) 1st class	day	0.004	784.00	3.14
0124	Mason (brick layer) 2nd class	day	0.004	714.00	2.86
0128	Mate (iii) M.S. reinforcement- 0.10cum @ 48.06kg/cum. =4.806kg. Say 4.81kg.	day	0.004	714.00	2.86
5.22.1	Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work (iv) Centering and shuttering- (0.35+2x0.25)x0.835 = 0.710 sqm 0.35x0.25 = 0.088sqm (0.37+2x0.27)x0.10 = 0.091sqm 2x0.37x0.01 = 0.007 sqm 2x2x0.25x0.1 = 0.010sqm 1/2x3.142/4x(0.35)² = 0.048sqm 1/2x0.35x0.25x3.142 = 0.138sqm. = 1.092sqm. Say 1.09 sqm	kg	4.81	88.95	427.85 A
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work (v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)- Qty. as per centering and shuttering = 1.092sqm 0.35x0.835 = 0.292sqm 0.37x0.10 = 0.037sqm 1/2x3.142/4x(0.35)²= 0.048sqm 2x0.37x0.01 = 0.007 sqm = 1.476 sqm Say 1.48 sqm	sqm	1.09	307.95	335.67 A
0367	Portland Cement (OPC-43 grade)	tonne	0.054	5000.00	270.00
2209	Carriage of Cement	tonne	0.054	145.72	7.87
0983	Fine sand (zone IV)	cum	0.011	900.00	9.90
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.011	163.93	1.80
	Labour for mortar				
0114	Beldar	day	0.008	645.00	5.16
0101	Bhisti	day	0.0007	714.00	0.50
9999	Hire and running charges of mixer	L.S.	0.03	2.12	0.06
9999	Sundries	L.S.	0.13	2.12	0.28
	Labour for plaster				
0155	Mason (average)	day	0.075	749.00	56.18
0115	Coolie	day	0.111	645.00	71.60
0101	Bhisti	day	0.136	714.00	97.10
9999	Extra for removing burr	L.S.	1.95	2.12	4.13

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding, sundries etc. (vi) Labour for fixing	L.S.	1.82	2.12	3.86
0114	Beldar	day	0.20	645.00	129.00
9977	Carriage to site	L.S.	13.52	2.12	28.66
	TOTAL				2257.56 W
	Add 1 % Water charges on "W-A"				7.16
	TOTAL				2264.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				101.56
	TOTAL				2366.27 Y
	Add 15% CPOH on "Y-A"				123.66
	TOTAL				2489.93 Z
	Add Cess @ 1% on "Z-A"				9.48
	Cost per stone				2499.41
	Say				2499.40

16.24.2 50x152.5x25 cm size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one stone (i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size) 0.50x0.25x1.145m = 0.143cum. + 0.52x0.27x0.13m = 0.018cum. + 1/2x22/7x(0.25)²x0.25m = 0.025cum. = 0.186 cum. Say 0.19cum.				
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work. (ii) Extra for laying cement concrete in RCC work	cum	0.19	7783.65	1478.89 A
0114	Beldar	day	0.019	645.00	12.26
0101	Bhisti	day	0.038	714.00	27.13
0123	Mason (brick layer) 1st class	day	0.008	784.00	6.27
0124	Mason (brick layer) 2nd class	day	0.008	714.00	5.71
0128	Mate (iii) M.S. reinforcement- 0.19cum @48.06kg/cum. =9.131kg. Say 9.13 kg.	day	0.008	714.00	5.71
5.22.1	Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work (iv) Centering and shuttering- (0.50+2x0.25)x1.145 = 1.145 sqm 1/2x(0.25)²x3.142 = 0.098 3.142(0.25)x(0.25) =0.196 (0.52+2x0.27)x0.13 =0.138 2x0.52x0.01 =0.10 2x2x0.25x0.01 =0.010 1x0.50x0.25 =0.125 =1.722sqm. Say 1.72 sqm	kg	9.13	88.95	812.11 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work (v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)- Qty. as per centering and shuttering = 1.722sqm. + 0.50x1.145 = 0.572 + 0.52x0.13 = 0.068sqm. + 1/2x$(0.25)^2$x3.142 = 0.098 + 2x0.52x001 = 0.010 = 2.470sqm Sq. 2.47 sqm.	sqm	1.72	307.95	529.67 A
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.09	5000.00	450.00
2209	Carriage of Cement	tonne	0.09	145.72	13.11
0983	Fine sand (zone IV)	cum	0.20	900.00	180.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.20	163.93	32.79
	Labour for mortar				
0114	Beldar	day	0.013	645.00	8.39
0101	Bhisti	day	0.001	714.00	0.71
9999	Hire and running charges of mixer	L.S.	0.52	2.12	1.10
9999	Sundries	L.S.	0.26	2.12	0.55
	Labour for plaster				
0155	Mason (average)	day	0.126	749.00	94.37
0115	Coolie	day	0.185	645.00	119.33
0101	Bhisti	day	0.227	714.00	162.08
9999	Extra for removing burr	L.S.	3.38	2.12	7.17
9999	Scaffolding, sundries etc.	L.S.	2.86	2.12	6.06
	(vi) Labour for fixing				
0114	Beldar	day	0.20	645.00	129.00
9977	Carriage to site	L.S.	13.52	2.12	28.66
	TOTAL				4111.09 W
	Add 1 % Water charges on "W-A"				12.90
	TOTAL				4123.99 X
	Add GST on "X-A" (multiplying factor 0.1405)				183.11
	TOTAL				4307.10 Y
	Add 15% CPOH on "Y-A"				222.96
	TOTAL				4530.07 Z
	Add Cess @ 1% on "Z-A"				17.09
	Cost per stone				4547.16
	Say				4547.15

16.24.3 35x93.5x18 cm size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one stone (i) Cement concrete 1:1.5:3 (1 cement :1.5 Coarse sand :3 graded stone aggregate 20mm nominal size) 0.35x0.18x0.835m = 0.0526 cum. + 0.37x0.20x0.10m = 0.0074 cum. = 0.060 cum.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work. (ii) Extra for laying cement concrete in RCC work	cum	0.06	7783.65	467.02 A
0114	Beldar	day	0.006	645.00	3.87
0101	Bhisti	day	0.012	714.00	8.57
0123	Mason (brick layer) 1st class	day	0.0024	784.00	1.88
0124	Mason (brick layer) 2nd class	day	0.0024	714.00	1.71
0128	Mate	day	0.0024	714.00	1.71
	(iii) M.S. reinforcement-0.06cum @ 48.06kg/cum. =2.8836 kg. Say 2.88 kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work (iv) Centering and shuttering- (0.35+2x0.18)x0.835 = 0.593 sqm (0.37+2x0.20)x0.10 = 0.077 sqm 2x0.35x0.18 = 0.126 sqm 2x0.37x0.01 = 0.007sqm 2x2x0.18x0.01 = 0.007sqm = 0.810 sqm	kg	2.88	88.95	256.18 A
5.9.1	Rate as per item No.5.9.1 of SH : Reinforced cement concrete work (v) 6mm cement plaster 1:3 (1 Cement :3 fine sand)- Qty. as per centering and shuttering = 0.810sqm 0.35x0.835 = 0.292sqm 0.37x0.10 =0.037sqm 2x0.37x0.01 =0.007sqm = 1.146 sqm Say 1.15sqm	sqm	0.81	307.95	249.44 A
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.042	5000.00	210.00
2209	Carriage of Cement	tonne	0.042	145.72	6.12
0983	Fine sand (zone IV)	cum	0.009	900.00	8.10
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.009	163.93	1.48
	Labour for mortar				
0114	Beldar	day	0.006	645.00	3.87
0101	Bhisti	day	0.0006	714.00	0.43
9999	Hire and running charges of mixer	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28
	Labour for plaster				
0155	Mason (average)	day	0.058	749.00	43.44
0115	Coolie	day	0.086	645.00	55.47
0101	Bhisti	day	0.105	714.00	74.97
9999	Extra for removing burr	L.S.	1.56	2.12	3.31
9999	Scaffolding, sundries etc.	L.S.	1.30	2.12	2.76
	(vi) Labour for fixing				
0114	Beldar	day	0.10	645.00	64.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage to site	L.S.	13.52	2.12	28.66
	TOTAL				1494.31 W
	Add 1 % Water charges on "W-A"				5.22
	TOTAL				1499.53 X
	Add GST on "X-A" (multiplying factor 0.1405)				74.03
	TOTAL				1573.55 Y
	Add 15% CPOH on "Y-A"				90.14
	TOTAL				1663.69 Z
	Add Cess @ 1% on "Z-A"				6.91
	Cost of each				1670.60
	Say				1670.60

16.25 Surface dressing on new surface with paving bitumen of grade VG - 10 of approved quality using 2.25 kg of bitumen per sqm with 1.65 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete:

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
	Bitumen S-90@2.25kg per sqm. =225 kg = 0.225 tonne.				
0309	Paving bitumen VG-10 of approved quality	tonne	0.225	25614.00	5763.15
2211	Carriage of Tar bitumen	tonne	0.225	163.93	36.88
	Stone aggregate 13.2mm nominal size @ 1.65cum. per 100sqm.				
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.65	1200.00	1980.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	163.93	270.48
	Steam coal for heating bitumen @ 2 quintal per tonne of bitumen = 2x0.225=0.450q				
0370	Coal (steam)	quintal	0.45	440.00	198.00
2200	Carriage of steam coal	tonne	0.045	187.35	8.43
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate				
	(a) For cleaning :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.08	784.00	62.72
0138	Sprayer (for bitumen, tar etc.)	day	0.11	714.00	78.54
0114	Beldar	day	0.93	645.00	599.85
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	0.93	645.00	599.85

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	1.55	645.00	999.75
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.12	800.00	96.00
0007	Hire charges of Coaltar Sprayer	day	0.11	350.00	38.50
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				13315.19 W
	Add 1 % Water charges on "W"				133.15
	TOTAL				13448.34 X
	Add GST on "X" (multiplying factor 0.1405)				1889.49
	TOTAL				15337.84 Y
	Add 15% CPOH on "Y"				2300.68
	TOTAL				17638.51 Z
	Add Cess @ 1% on "Z"				176.39
	Cost for 100 Sqm.				17814.90
	Cost per Sqm.				178.15
	Say				178.15

16.26 Surface dressing on new surface in two coats with bitumen of grade VG -10 of approved quality using 1.8 kg of bitumen per sqm with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface for first coat and 1.1 kg. of bitumen per sqm with 1.00 cu. metre of stone chippings 11.2 mm nominal size per 100 sqm of road surface for second coat, including consolidation of each coat separately with road roller of 6 to 8 tonne capacity etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
	Bitumen S-90/A-90 @ 1.8kg/sqm. =180kg.=0.18 tonne				
0309	Paving bitumen VG-10 of approved quality	tonne	0.18	25614.00	4610.52
2211	Carriage of Tar bitumen	tonne	0.18	163.93	29.51
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.50	1200.00	1800.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	163.93	245.90
	Steam coal for heating bitumen @ 2 qunital per tonne				
0370	Coal (steam)	quintal	0.36	440.00	158.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate				
	(a) For cleaning :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.08	784.00	62.72
0138	Sprayer (for bitumen, tar etc.)	day	0.11	714.00	78.54
0114	Beldar	day	1.38	645.00	890.10
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.27	714.00	192.78
0114	Beldar	day	0.85	645.00	548.25
0115	Coolie	day	0.85	645.00	548.25
	(d) Consolidation Charges				
0113	Chowkidar	day	0.11	645.00	70.95
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.12	800.00	96.00
0007	Hire charges of Coaltar Sprayer	day	0.11	350.00	38.50
	(e) Misc:				
0364	Wire brush	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	16.38	2.12	34.73
	Second Coat				
	MATERIAL				
	Bitumen S-90/A-90 @ 1.10kg per sqm = 110kg.=0.11 tonne				
0309	Paving bitumen VG-10 of approved quality	tonne	0.11	25614.00	2817.54
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.00	1200.00	1200.00
2211	Carriage of Tar bitumen	tonne	0.11	163.93	18.03
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.00	163.93	163.93
	Steam coal for heating bitumen @ 2 qunital per tonne of bitumen				
0370	Coal (steam)	quintal	0.22	440.00	96.80
2200	Carriage of steam coal	tonne	0.022	187.35	4.12
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate				
	(a) For cleaning and brushing loose chips:				
0128	Mate	day	0.06	714.00	42.84
0115	Coolie	day	0.97	645.00	625.65
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.05	784.00	39.20
0138	Sprayer (for bitumen, tar etc.)	day	0.07	714.00	49.98

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.75	645.00	483.75
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.07	714.00	49.98
0114	Beldar	day	0.62	645.00	399.90
0115	Coolie	day	0.62	645.00	399.90
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.07	350.00	24.50
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.06	800.00	48.00
	(e) Misc:				
0364	Wire brush (with thick wire)	each	0.03	20.00	0.60
0365	Soft brush	each	0.09	20.00	1.80
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				18534.13 W
	Add 1 % Water charges on "W"				185.34
	TOTAL				18719.47 X
	Add GST on "X" (multiplying factor 0.1405)				2630.09
	TOTAL				21349.55 Y
	Add 15% CPOH on "Y"				3202.43
	TOTAL				24551.99 Z
	Add Cess @ 1% on "Z"				245.52
	Cost for per 100 sqm.				24797.51
	Cost per 1 Sqm.				247.98
	Say				248.00

16.27 Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity, etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
	Bitumen 1.95kg./sqm.= 195kg. or 0.195t				
0309	Paving bitumen VG-10 of approved quality	tonne	0.195	25614.00	4994.73
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @ 1.50cum. per 100 sqm.	cum	1.50	1200.00	1800.00
2211	Carriage of Tar bitumen	tonne	0.195	163.93	31.97
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	163.93	245.90
	Steam coal for heating bitumen @2 quintal per tonne of bitumen				
0370	Coal (steam)	quintal	0.39	440.00	171.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2200	Carriage of steam coal	tonne	0.039	187.35	7.31
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate etc.				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.97	645.00	625.65
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.05	784.00	39.20
0138	Sprayer (for bitumen, tar etc.)	day	0.06	714.00	42.84
0114	Beldar	day	0.69	645.00	445.05
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.66	714.00	471.24
0114	Beldar	day	0.51	645.00	328.95
0115	Coolie	day	0.51	645.00	328.95
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.06	350.00	21.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.06	800.00	48.00
	(e) Misc:				
	Brushes etc. for cleaning				
0364	Wire brush (with thick wire)	each	0.05	20.00	1.00
0365	Soft brush	each	0.12	20.00	2.40
9999	Brooms and gunny bags	L.S.	2.73	2.12	5.79
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				10301.35 W
	Add 1 % Water charges on "W"				103.01
	TOTAL				10404.36 X
	Add GST on "X" (multiplying factor 0.1405)				1461.81
	TOTAL				11866.17 Y
	Add 15% CPOH on "Y"				1779.93
	TOTAL				13646.10 Z
	Add Cess @ 1% on "Z"				136.46
	Cost for 100 sqm.				13782.56
	Cost per Sqm.				137.83
	Say				137.85

16.28 Surface dressing one coat on new surface with bitumen of specified grade at a rate of 1.95 kg/sqm of surface area with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity , etc. complete :

16.28.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
0310	Bitumen emulsion	tonne	0.195	30800.00	6006.00	
2211	Carriage of Tar bitumen	tonne	0.195	163.93	31.97	
2910	Stone chippings/ screenings					
	12.5/ 13.2 mm nominal size	cum	1.50	1200.00	1800.00	
	@1.50 cum. per 100 sqm. = 1.50cum					
2202	Carriage of Stone aggregate below					
	40 mm nominal size	cum	1.50	163.93	245.90	
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.11	714.00	78.54	
0114	Beldar	day	1.40	645.00	903.00	
0115	Coolie	day	1.40	645.00	903.00	
	(b) For Spraying bitumen emulsion :					
0130	Mistry	day	0.07	784.00	54.88	
0138	Sprayer (for bitumen, tar etc.)	day	0.10	714.00	71.40	
0114	Beldar	day	1.00	645.00	645.00	
	(c) For screening and spreading aggregate :					
0128	Mate	day	0.11	714.00	78.54	
0114	Beldar	day	0.85	645.00	548.25	
0115	Coolie	day	0.85	645.00	548.25	
	(d) Consolidation Charges					
0113	Chowkidar	day	0.27	645.00	174.15	
0101	Bhisti	day	0.27	714.00	192.78	
0003	Hire charges of Diesel Road Roller -					
	8 to 10 tonne	day	0.11	3000.00	330.00	
0007	Hire charges of Coaltar Sprayer	day	0.10	350.00	35.00	
	(e) Misc:					
	Brushes etc. for cleaning					
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20	
0365	Soft brush	each	0.32	20.00	6.40	
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33	
9999	Sundries	L.S.	9.49	2.12	20.12	
	TOTAL				12689.70	W
	Add 1 % Water charges on "W"				126.90	
	TOTAL				12816.60	X
	Add GST on "X" (multiplying factor 0.1405)				1800.73	
	TOTAL				14617.33	Y
	Add 15% CPOH on "Y"				2192.60	
	TOTAL				16809.93	Z
	Add Cess @ 1% on "Z"				168.10	
	Cost for 100 sqm.				16978.03	
	Cost per Sqm.				169.78	
	Say				169.80	

16.29 Surface dressing one coat on old surface with bitumen of specified grade at the rate of 1.22 kg/ sqm of surface area with 1.10 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete :

16.29.1 Using bitumen emulsion (minimum 50% bitumen content- RS grade conforming to IS : 8887)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
	Bitumen emulsion @1.22 kg per Sqm. =122 kg. or 0.122 tonne				
0310	Bitumen emulsion	tonne	0.122	30800.00	3757.60
2211	Carriage of Tar bitumen	tonne	0.122	163.93	20.00
	Stone chippings 11.2mm nominal size @ 1.10cum. per 100 sqm				
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.10	1200.00	1320.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.10	163.93	180.32
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.97	645.00	625.65
	(b) For Spraying bitumen emulsion :				
0130	Mistry	day	0.05	784.00	39.20
0138	Sprayer (for bitumen, tar etc.)	day	0.06	714.00	42.84
0114	Beldar	day	0.63	645.00	406.35
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.07	714.00	49.98
0114	Beldar	day	0.62	645.00	399.90
0115	Coolie	day	0.62	645.00	399.90
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.15	714.00	107.10
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.06	350.00	21.00
	(e) Misc:				
	Brushes etc. for cleaning				
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				8031.17 W
	Add 1 % Water charges on "W"				80.31
	TOTAL				8111.48 X
	Add GST on "X" (multiplying factor 0.1405)				1139.66
	TOTAL				9251.14 Y
	Add 15% CPOH on "Y"				1387.67
	TOTAL				10638.82 Z
	Add Cess @ 1% on "Z"				106.39
	Cost for 100 sqm.				10745.20
	Cost per Sqm.				107.45
	Say				107.45

16.30 Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :

16.30.1 On W.B.M. @ 0.75 Kg / sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.075	24500.00	1837.50
2211	Carriage of Tar bitumen	tonne	0.075	163.93	12.29
0370	Coal (steam)	quintal	0.15	440.00	66.00
2200	Carriage of steam coal	tonne	0.015	187.35	2.81
	MATERIAL				
0364	Wire brush (with thick wire)	each	0.05	20.00	1.00
0365	Soft brush	each	0.12	20.00	2.40
9999	Gunny bags	L.S.	7.80	2.12	16.54
0007	Hire charges of Coaltar Sprayer	day	0.03	350.00	10.50
9999	Sundries	L.S.	9.10	2.12	19.29
	LABOUR				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	1.46	645.00	941.70
	(b) For heating bitumen:				
0114	Beldar	day	0.19	645.00	122.55
	(c) For applying tack coat:				
0114	Beldar	day	0.47	645.00	303.15
	TOTAL				3378.57 W
	Add 1 % Water charges on "W"				33.79
	TOTAL				3412.36 X
	Add GST on "X" (multiplying factor 0.1405)				479.44
	TOTAL				3891.80 Y
	Add 15% CPOH on "Y"				583.77
	TOTAL				4475.56 Z
	Add Cess @ 1% on "Z"				44.76
	Cost for 100 sqm.				4520.32
	Cost per Sqm.				45.20
	Say				45.20

16.30.2 On bituminous surface @ 0.50 Kg / sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.05	24500.00	1225.00
2211	Carriage of Tar bitumen	tonne	0.05	163.93	8.20
0370	Coal (steam)	quintal	0.10	440.00	44.00
2200	Carriage of steam coal	tonne	0.01	187.35	1.87
	MATERIAL				
0364	Wire brush (with thick wire)	each	0.05	20.00	1.00
0365	Soft brush	each	0.12	20.00	2.40
9999	Gunny bags	L.S.	7.80	2.12	16.54
0007	Hire charges of Coaltar Sprayer	day	0.03	350.00	10.50
9999	Sundries	L.S.	7.80	2.12	16.54
	LABOUR				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	1.46	645.00	941.70
	(b) For heating bitumen:				
0114	Beldar	day	0.19	645.00	122.55
	(c) For applying tack coat:				
0114	Beldar	day	0.47	645.00	303.15
	TOTAL				2736.28 W
	Add 1 % Water charges on "W"				27.36
	TOTAL				2763.64 X
	Add GST on "X" (multiplying factor 0.1405)				388.29
	TOTAL				3151.94 Y
	Add 15% CPOH on "Y"				472.79
	TOTAL				3624.73 Z
	Add Cess @ 1% on "Z"				36.25
	Cost for 100 sqm.				3660.97
	Cost per Sqm.				36.61
	Say				36.60

16.31 Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributer including preparing the surface & cleaning with mechanical broom.

16.31.1 With rapid setting bitumen emulsion

16.31.1.1 On W.B.M / W.M.M. @ 0.4kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3500 sqm.				
	MATERIAL				
7382	Bitumen emulsion rapid setting (R.S.) confirming to IS : 8887-1995	tonne	1.40	18250.00	25550.00
2211	Carriage of Tar bitumen	tonne	1.40	163.93	229.50
	MACHINERY				
0075	Road sweeper (Mechamical Broom) @ 1250 sqm. Per hour.	hour	2.80	450.00	1260.00
0058	Air compressor	hour	2.80	200.00	560.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0061	Emulsion Pressure Distributor @				
	1750 sqm per hour	hour	2.00	700.00	1400.00
	LABOUR				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				30346.62 W
	Add 1 % Water charges on "W"				303.47
	TOTAL				30650.09 X
	Add GST on "X" (multiplying				
	factor 0.1405)				4306.34
	TOTAL				34956.43 Y
	Add 15% CPOH on "Y"				5243.46
	TOTAL				40199.89 Z
	Add Cess @ 1% on "Z"				402.00
	Cost for 3500 sqm.				40601.89
	Cost per Sqm.				11.60
	Say				11.60

16.31.1.2 On bituminous surface @ 0.25kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3500 sqm.				
	MATERIAL				
7382	Bitumen emulsion rapid setting (R.S.)				
	confirming to IS : 8887-1995	tonne	0.875	18250.00	15968.75
2211	Carriage of Tar bitumen	tonne	0.875	163.93	143.44
	MACHINERY				
0075	Road sweeper (Mechamical Broom) @				
	1250 sqm. Per hour.	hour	2.80	450.00	1260.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @				
	1750 sqm per hour	hour	2.00	700.00	1400.00
	LABOUR				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				20679.31 W
	Add 1 % Water charges on "W"				206.79
	TOTAL				20886.10 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2934.50
	TOTAL				23820.60 Y
	Add 15% CPOH on "Y"				3573.09
	TOTAL				27393.69 Z
	Add Cess @ 1% on "Z"				273.94
	Cost for 3500 sqm.				27667.63
	Cost per Sqm.				7.91
	Say				7.90

16.31.2 With medium setting bitumen emulsion

16.31.2.1 On W.B.M / W.M.M. @ 0.4kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 3500 sqm.					
	MATERIAL					
7742	Bitumen emulsion medium setting					
	(M.S.) confirming to IS : 8887-1995	tonne	1.40	27100.00	37940.00	
2211	Carriage of Tar bitumen	tonne	1.40	163.93	229.50	
	MACHINERY					
0075	Road sweeper (Mechamical Broom) @					
	1250 sqm. Per hour.	hour	2.80	450.00	1260.00	
0058	Air compressor	hour	2.80	200.00	560.00	
0061	Emulsion Pressure Distributor @					
	1750 sqm per hour	hour	2.00	700.00	1400.00	
	LABOUR					
0128	Mate	day	0.08	714.00	57.12	
0114	Beldar	day	2.00	645.00	1290.00	
	TOTAL				42736.62	W
	Add 1 % Water charges on "W"				427.37	
	TOTAL				43163.99	X
	Add GST on "X" (multiplying					
	factor 0.1405)				6064.54	
	TOTAL				49228.53	Y
	Add 15% CPOH on "Y"				7384.28	
	TOTAL				56612.81	Z
	Add Cess @ 1% on "Z"				566.13	
	Cost for 3500 sqm.				57178.94	
	Cost per Sqm.				16.34	
	Say				16.35	

16.31.2.2 On bituminous surface @ 0.25kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3500 sqm.				
	MATERIAL				
7742	Bitumen emulsion medium setting				
	(M.S.) confirming to IS : 8887-1995	tonne	0.875	27100.00	23712.50
2211	Carriage of Tar bitumen	tonne	0.875	163.93	143.44
	MACHINERY				
0075	Road sweeper (Mechamical Broom) @				
	1250 sqm. Per hour.	hour	2.80	450.00	1260.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @				
	1750 sqm per hour	hour	2.00	700.00	1400.00
	LABOUR				
0128	Mate	day	0.08	714.00	57.12

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				28423.06 W
	Add 1 % Water charges on "W"				284.23
	TOTAL				28707.29 X
	Add GST on "X" (multiplying factor 0.1405)				4033.37
	TOTAL				32740.66 Y
	Add 15% CPOH on "Y"				4911.10
	TOTAL				37651.76 Z
	Add Cess @ 1% on "Z"				376.52
	Cost for 3500 sqm.				38028.28
	Cost per Sqm.				10.87
	Say				10.85

16.32 2 cm premix carpet surfacing with 1.8 cum and 0.90 cum of stone chippings of 13.2 mm size and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).

16.32.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm. Asphalt 80/100 (i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings. Bitumen :52xl.8+56x0.9=144kg. or 0.144 tonne				
	MATERIAL				
2916	Paving Asphalt VG 10 of approved quality	tonne	0.144	24500.00	3528.00
2211	Carriage of Tar bitumen	tonne	0.144	163.93	23.61
	Solvent 70gms/kg. for 0.144 t = 10.08kg.				
2914	Solvent	kilogram	10.08	30.00	302.40
2342	Carriage of solvent/ Diesel.	quintal	0.10	16.39	1.64
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100 sqm	cum	1.80	1200.00	2160.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100 sqm	cum	0.90	1200.00	1080.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	163.93	442.61
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.144=0.288q				
0370	Coal (steam)	quintal	0.288	440.00	126.72
2200	Carriage of steam coal	tonne	0.0288	187.35	5.40
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.57	645.00	367.65
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	5.00	645.00	3225.00
	(d) Consolidation Charges				
0113	Chowkidar (at barrier for night watch and for road roller)	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.13	800.00	104.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				14144.84 W
	Add 1 % Water charges on “W”				141.45
	TOTAL				14286.29 X
	Add GST on “X” (multiplying factor 0.1405)				2007.22
	TOTAL				16293.51 Y
	Add 15% CPOH on “Y”				2444.03
	TOTAL				18737.54 Z
	Add Cess @ 1% on “Z”				187.38
	Cost for 100 sqm.				18924.92
	Cost per Sqm.				189.25
	Say				189.25

16.32.2 With paving Asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm. Asphalt 60/70 (i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings. Bitumen :52xl.8+56x0.9=144kg. or 0.144 tonne				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	0.144	38150.00	5493.60
2211	Carriage of Tar bitumen	tonne	0.144	163.93	23.61
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100sqm.	cum	1.80	1200.00	2160.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100sqm	cum	0.90	1200.00	1080.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	163.93	442.61
	Steam coal for heating of bitumen @ 2 quintals per tonne of bitumen =2x0.144=0.288q				
0370	Coal (steam)	quintal	0.288	440.00	126.72
2200	Carriage of steam coal	tonne	0.0288	187.35	5.40
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.57	645.00	367.65
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	5.00	645.00	3225.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.13	800.00	104.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				15806.40 W
	Add 1 % Water charges on "W"				158.06
	TOTAL				15964.47 X
	Add GST on "X" (multiplying factor 0.1405)				2243.01
	TOTAL				18207.47 Y
	Add 15% CPOH on "Y"				2731.12
	TOTAL				20938.60 Z
	Add Cess @ 1% on "Z"				209.39
	Cost for 100 sqm.				21147.98
	Cost per Sqm.				211.48
	Say				211.50

16.32.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm. Refinery Modified Bitumen CRMB 55 (i) Hot bitumen @52kg.per cum. of stone chippings 1.8cum. of 13.2mm nominal size chippings. (ii) Hot bitumen @56kg. per cum. of stone chippings 0.90cum. of 11.2mm nominal size chippings. Modified Bitumen CRMB - 55 (Refinary produced) :52xl.8+56x0.9=144kg. or 0.144 tonne				
	MATERIAL				
7739	Modified Bitumen Refinary produced CRMB - 55	tonne	0.144	28000.00	4032.00
2211	Carriage of Tar bitumen	tonne	0.144	163.93	23.61
	Solvent 70gms/kg. for 0.144 t = 10.08kg				
2914	Solvent	kilogram	10.08	30.00	302.40
2342	Carriage of solvent/ Diesel.	quintal	0.10	16.39	1.64
	Stone chippings 13.2mm nominal size @ 1.80cum. per 100sqm.				
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100sqm.	cum	1.80	1200.00	2160.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100sqm	cum	0.90	1200.00	1080.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	163.93	442.61
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.144=0.288q				
0370	Coal (steam)	quintal	0.288	440.00	126.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2200	Carriage of steam coal	tonne	0.0288	187.35	5.40
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.57	645.00	367.65
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	5.00	645.00	3225.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.13	800.00	104.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				14648.84 W
	Add 1 % Water charges on "W"				146.49
	TOTAL				14795.33 X
	Add GST on "X" (multiplying factor 0.1405)				2078.74
	TOTAL				16874.07 Y
	Add 15% CPOH on "Y"				2531.11
	TOTAL				19405.18 Z
	Add Cess @ 1% on "Z"				194.05
	Cost for 100 sqm.				19599.24
	Cost per Sqm.				195.99
	Say				196.00

16.33 2.5 cm premix carpet surfacing with 2.25 cum and 1.12 cum of stone chippings of 13.2 mm and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).

16.33.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	Paving Asphalt 80/100				
	(i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size chippings.				
	(ii) Hot bitumen @56kg. per cum. Of aggregate @1.12cum. of 11.2mm nominal size.				
	Bitumen :52x2.25+56x1.12= 180kg				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.18	24500.00	4410.00
	Solvent 0.07x180=12.60kg.				
2914	Solvent	kilogram	12.6	30.00	378.00
2211	Carriage of Tar bitumen	tonne	0.18	163.93	29.51
2342	Carriage of solvent/ Diesel.	quintal	0.126	16.39	2.07
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100 sqm.	cum	2.25	1200.00	2700.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100 sqm	cum	1.12	1200.00	1344.00
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum	cum	3.37	163.93	552.44
	Steam coal for heating of bitumen @2 quintals per tonne of bitumen =2x0.18=0.36q				
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.71	645.00	457.95
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	6.25	645.00	4031.25
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.15	800.00	120.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				16968.18 W
	Add 1 % Water charges on "W"				169.68
	TOTAL				17137.86 X
	Add GST on "X" (multiplying factor 0.1405)				2407.87
	TOTAL				19545.73 Y
	Add 15% CPOH on "Y"				2931.86
	TOTAL				22477.59 Z
	Add Cess @ 1% on "Z"				224.78
	Cost for 100 sqm.				22702.37
	Cost per Sqm.				227.02
	Say				227.00

16.33.2 With paving Asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm. Paving Asphalt 60/70 (i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size (ii) Hot bitumen @56kg. per cum. of stone aggregate@1.12cum. of 11.2mm nominal size size Bitumen :52x2.25+50xl. 12= 180kg MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	0.18	38150.00	6867.00
2211	Carriage of Tar bitumen	tonne	0.18	163.93	29.51
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @2.25cum. per 100sqm	cum	2.25	1200.00	2700.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @1.12cum. per 100sqm	cum	1.12	1200.00	1344.00
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum.	cum	3.37	163.93	552.44
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate : (a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.71	645.00	457.95
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	6.25	645.00	4031.25
	1.05x0.18)/0.267 = 0.71 Nos.				
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.15	800.00	120.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				19045.12 W
	Add 1 % Water charges on "W"				190.45
	TOTAL				19235.57 X
	Add GST on "X" (multiplying factor 0.1405)				2702.60
	TOTAL				21938.16 Y
	Add 15% CPOH on "Y"				3290.72
	TOTAL				25228.89 Z
	Add Cess @ 1% on "Z"				252.29
	Cost for 100 sqm.				25481.18
	Cost per Sqm.				254.81
	Say				254.80

16.33.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
	Refinery Modified Bitumen CRMB 55				
	(i) Hot bitumen @52kg.per cum. of stone chippings @2.25cum. of 13.2mm nominal size chippings.				
	(ii) Hot bitumen @56kg. per cum. Of aggregate @1.12cum. of 11.2mm nominal size.				
	52x2.25+56x1.12=180kg				
7739	Modified Bitumen Refinary produced CRMB - 55	tonne	0.18	28000.00	5040.00
	Solvent 0.07x180=12.60kg				
2914	Solvent	kilogram	12.6	30.00	378.00
2211	Carriage of Tar bitumen	tonne	0.18	163.93	29.51
2342	Carriage of solvent/ Diesel.	quintal	0.126	16.39	2.07

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @2.25 cum. per 100sqm	cum	2.25	1200.00	2700.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @1.12 cum. per 100sqm	cum	1.12	1200.00	1344.00
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum.+ Steam coal for heating of bitumen @ 2 quintals per tonne of bitumen =2x0.18=0.36q	cum	3.37	163.93	552.44
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	187.35	6.74
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	714.00	57.12
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen:				
0114	Beldar	day	0.71	645.00	457.95
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	6.25	645.00	4031.25
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.15	800.00	120.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00
	(e) Misc:				
0364	Wire brush (with thick wire)	each	0.11	20.00	2.20
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				17598.18 W
	Add 1 % Water charges on "W"				175.98
	TOTAL				17774.16 X
	Add GST on "X" (multiplying factor 0.1405)				2497.27
	TOTAL				20271.43 Y
	Add 15% CPOH on "Y"				3040.71
	TOTAL				23312.15 Z
	Add Cess @ 1% on "Z"				233.12
	Cost for 100 sqm.				23545.27
	Cost per Sqm.				235.45
	Say				235.45

16.34 2 cm premix carpet surfacing with 2.4 cum of stone chippings 11.2 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen content) complying with IS : 8887, using 96 kg per cum of chippings, including consolidation with road roller of 6 to 9 tonne capacity etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm.					
	MATERIAL					
	Bitumen emulsion M.S. @ 96kg per cum. of aggregate 96x2.4=230kg =0.230t					
7742	Bitumen emulsion medium setting (M.S.) confirming to IS : 8887-1995	tonne	0.23	27100.00	6233.00	
2211	Carriage of Tar bitumen	tonne	0.23	163.93	37.70	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @ 2.4cum. per 100 sqm	cum	2.40	1200.00	2880.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.40	163.93	393.43	
	LABOUR					
	(a) For mixing and spreading premix aggregate :					
0130	Mistry	day	0.19	784.00	148.96	
0114	Beldar	day	3.54	645.00	2283.30	
	(b) Consolidation Charges					
0113	Chowkidar	day	0.27	645.00	174.15	
0101	Bhisti	day	0.11	714.00	78.54	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.04	3500.00	140.00	
9999	Sundries	L.S.	9.49	2.12	20.12	
	TOTAL				12719.20	W
	Add 1 % Water charges on "W"				127.19	
	TOTAL				12846.40	X
	Add GST on "X" (multiplying factor 0.1405)				1804.92	
	TOTAL				14651.32	Y
	Add 15% CPOH on "Y"				2197.70	
	TOTAL				16849.01	Z
	Add Cess @ 1% on "Z"				168.49	
	Cost for 100 sqm.				17017.50	
	Cost per Sqm.				170.18	
	Say				170.20	

16.35 2.5 cm premix carpet surfacing with 3 cum of stone chippings 10 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen contents) complying with IS : 8887, using 96 kg per cum of chippings of road surface, including consolidation with road roller etc complete .

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm.				
	MATERIAL				
	Bitumen emulsion M.S. @ 96kg per cum. of aggregate 96x3 = 288 kg = 0.288 t				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7742	Bitumen emulsion medium setting (M.S.) confirming to IS : 8887-1995	tonne	0.288	27100.00	7804.80
2211	Carriage of Tar bitumen	tonne	0.288	163.93	47.21
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @ 3.00 cum. per 100 sqm	cum	3.00	1200.00	3600.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	3.00	163.93	491.79
	LABOUR				
	(a) For mixing and spreading premix aggregate :				
0130	Mistry	day	0.19	784.00	148.96
0114	Beldar	day	4.10	645.00	2644.50
	(b) Consolidation Charges				
0113	Chowkidar	day	0.27	645.00	174.15
0101	Bhisti	day	0.11	714.00	78.54
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
9999	Sundries	L.S.	9.49	2.12	20.12
	TOTAL				15340.07 W
	Add 1 % Water charges on "W"				153.40
	TOTAL				15493.47 X
	Add GST on "X" (multiplying factor 0.1405)				2176.83
	TOTAL				17670.30 Y
	Add 15% CPOH on "Y"				2650.55
	TOTAL				20320.85 Z
	Add Cess @ 1% on "Z"				203.21
	Cost for 100 sqm.				20524.06
	Cost per Sqm.				205.24
	Say				205.25

16.36 Providing and laying Bitumen Penetration Macadam with hard stone aggregate of quality, size and grading as specified, with bitumen of suitable penetration grade, including required key aggregate as specified, spreading coarse aggregate with the help of self propelled/ tipper tail mounted aggregate spreader and applying bitumen by a pressure distributor and then spreading key aggregate with the help of aggregate spreader complete, including consolidation with road roller of minimum 8 to 10 tonne capacity to achieve specified values of compaction and surface accuracy :

16.36.1 For 50mm compacted thickness using coarse aggregate of size 50-20 mm graded @ 0.60 cum per 10 sqm key aggregate of size 12.5 mm graded @ 0.15 cum per 10 sqm. With paving asphalt grade VG - 10 @ 50 kg/ 10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 370 sqm. MATERIAL Taking stone aggregate 40mm = 45% 20mm = 44% 11.2mm = 8% Stone dust = 3%				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	9.99	1300.00	12987.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	9.77	1400.00	13678.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1.78	1350.00	2403.00	
1159	Stone dust	cum	0.6	1100.00	660.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	2.33	1400.00	3262.00	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	2.66	1350.00	3591.00	
1159	Stone dust	cum	0.56	1100.00	616.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	9.99	178.19	1780.12	
2202	Carriage of Stone aggregate below 40 mm nominal size i.e. 20 mm	cum	12.1	163.93	1983.55	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	4.44	163.93	727.85	
2267	Carriage of Stone dust	cum	1.16	163.93	190.16	
2916	Paving Asphalt VG -10 of approved quality @ 50kg/10 sqm.	tonne	1.85	24500.00	45325.00	
2211	Carriage of Tar bitumen	tonne	1.85	163.93	303.27	
	(B) Labour:					
0114	Beldar for spreading stone metal	day	16.67	645.00	10752.15	
0114	Beldar for hand packing	day	5.33	645.00	3437.85	
0114	Beldar dry rolling	day	2.67	645.00	1722.15	
0114	Beldar Bajri spreader	day	1.33	645.00	857.85	
0138	Sprayer (for bitumen, tar etc.)	day	0.67	714.00	478.38	
0114	Beldar for spreading key aggregate	day	1.33	645.00	857.85	
0114	Beldar for spraying bitumen	day	6.67	645.00	4302.15	
0114	Beldar of power roller	day	0.67	645.00	432.15	
0128	Mate	day	1.77	714.00	1263.78	
	(C) Machinery :					
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.45	800.00	360.00	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.61	3000.00	1830.00	
9999	Misc. items as spray nozzle, joint paper, coconut oil, country soap etc.	L.S.	351	2.12	744.12	
	TOTAL				114545.38	W
	Add 1 % Water charges on "W"				1145.45	
	TOTAL				115690.83	X
	Add GST on "X" (multiplying factor 0.1405)				16254.56	
	TOTAL				131945.40	Y
	Add 15% CPOH on "Y"				19791.81	
	TOTAL				151737.20	Z
	Add Cess @ 1% on "Z"				1517.37	
	Cost for 370 Sqm.				153254.58	
	Cost per sqm.				414.20	
	Say				414.20	

16.36.2 For 75 mm compacted thickness in two layers using stone aggregate of size 63-41 mm graded @ 0.90 cum per 10 sqm key aggregate of size 20.0 mm graded @ 0.18 cum per 10 sqm. With paving asphalt grade VG - 10 @ 68 kg/10 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 300 sqm.				
	MATERIAL				
	Taking output as 300 sqm. for single layer.				
	Coarse agg. = 300/10x0.90 = 27 cum.				
	Key agg = 300/10x0.18 = 5.4 cum.				
	Bitumen = 300/10x68 = 2.04 t.				
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	8.10	178.19	1443.34
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	8.10	1000.00	8100.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	14.58	1400.00	20412.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	4.32	1350.00	5832.00
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	2.05	1350.00	2767.50
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	2.57	1350.00	3469.50
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.81	1350.00	1093.50
2916	Paving Asphalt VG -10 of approved quality	tonne	2.04	24500.00	49980.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	24.33	163.93	3988.42
2211	Carriage of Tar bitumen	tonne	2.04	163.93	334.42
	LABOUR				
0114	Beldar for spreading stone metal	day	25.00	645.00	16125.00
0114	Beldar for hand packing	day	8.00	645.00	5160.00
0114	Beldar dry rolling	day	4.00	645.00	2580.00
0114	Beldar /Bajri spreader	day	2.00	645.00	1290.00
0138	Sprayer (for bitumen, tar etc.)	day	1.00	714.00	714.00
0114	Beldar for spreading key aggregate	day	2.00	645.00	1290.00
0114	Beldar for spraying bitumen	day	10.00	645.00	6450.00
0114	Beldar road roller	day	1.00	645.00	645.00
0128	Mate	day	2.65	714.00	1892.10
	MACHINERY				
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.50	800.00	400.00
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.75	3000.00	2250.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Misc. items as spray nozzle, joint paper, coconut oil, country soap etc.	L.S.	429	2.12	909.48
	TOTAL				137126.25 W
	Add 1 % Water charges on "W"				1371.26
	TOTAL				138497.52 X
	Add GST on "X" (multiplying factor 0.1405)				19458.90
	TOTAL				157956.42 Y
	Add 15% CPOH on "Y"				23693.46
	TOTAL				181649.88 Z
	Add Cess @ 1% on "Z"				1816.50
	Cost for 300 Sqm.				183466.38
	Cost per sqm.				611.55
	Say				611.55

16.37 Providing and laying bitumen mastic wearing course (as per specifications) with industrial bitumen of grade 85/25 conforming to IS : 702, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of approved size at the rate of 0.005 cum per 10 sqm and at approximate spacing of 10 cm centre to centre in both directions, pressed into surface protruding 1 mm to 4 mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification).

16.37.1 25 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for surface area of 17.40 sqm for single layer of 25 mm finished thickness.				
	MATERIAL				
	Taking wearing coat as 1 tonne and density as 2.3 gm/c.c Volume of bitumen mastic = 1000/2300= 0.435 cum surface area = 0.435/0.025 = 17.4 sqm.				
	(i) Bitumen of penetration 85/25 @ 10.2% by weight of mix				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.102	34790.00	3548.58
2211	Carriage of Tar bitumen	tonne	0.102	163.93	16.72
	(ii) Weight of coarse aggregate @ 40% (1000 - 150) x 40/100 = 340 kg.				
	Stone aggregate : 340/43.38x0.0283 = 0.222 cum.				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.02	1400.00	28.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	0.202	1350.00	272.70
	(iii) Weight of fine aggregate @ 15% 850 x15/100 = 127.5 kg., volume of fine aggregate: 127.5/43.103x0.0283 =0.083 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1159	Stone dust (iv) Weight of lime stone dust @ 45% (850- 340-127.5) = 382.50 kg., Volume of lime stone dust 382.50/2200 =0.174 cum.	cum	0.083	1100.00	91.30
0784	Marble dust/ powder (v) Precoated stone chipping for surface finish: Volume of chips @ 0.005 cum/10 sqm=17.4x0.005/10 = 0.0087 cum say 0.009 cum	cum	0.174	1130.00	196.62
0297	Stone Aggregate (Single size) : 10 mm nominal size Bitumen for precoated stone chipping @ 2% =0.009x1600x2/100= 0.288 say 0.30 kg.	cum	0.009	1350.00	12.15
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.0003	34790.00	10.44
2211	Carriage of Tar bitumen	tonne	0.0003	163.93	0.05
2202	Carriage of Stone aggregate below 40 mm nominal size (0.222 + 0.009) =0.231 cum.	cum	0.231	163.93	37.87
2267	Carriage of Stone dust	cum	0.083	163.93	13.61
2208	Carriage of Lime	cum	0.174	163.93	28.52
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	1.50	714.00	1071.00
0130	Mistry	day	0.50	784.00	392.00
0138	Sprayer (for bitumen, tar etc.)	day	3.50	714.00	2499.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	714.00	178.50
0128	Mate	day	0.50	714.00	357.00
0016	Mastic Cooker	day	0.50	750.00	375.00
9999	sundries (Sealing of joints, placing angles, wastage materials)	L.S.	153.27	2.12	324.93
	TOTAL				9453.99 W
	Add 1 % Water charges on "W"				94.54
	TOTAL				9548.53 X
	Add GST on "X" (multiplying factor 0.1405)				1341.57
	TOTAL				10890.10 Y
	Add 15% CPOH on "Y"				1633.51
	TOTAL				12523.61 Z
	Add Cess @ 1% on "Z"				125.24
	Cost for 17.40 sqm				12648.85
	Cost per sqm				726.95
	Say				726.95

16.37.2 40 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for surface area of 10.875sqm for single layer of 40 mm finished thickness.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL Taking wearing coat as 1 tonne and density as 2.3 gm/c.c Volume of bitumen mastic = 1000/2300= 0.435 cum surface area = 0.435/0.040 = 10.875 sqm.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.102	34790.00	3548.58
2211	Carriage of Tar bitumen (ii) Weight of coarse aggregate @ 40% (1000 - 150) x 40/100 = 340 kg. Stone aggregate : 340/43.38x0.0283 = 0.222 cum.	tonne	0.102	163.93	16.72
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.02	1400.00	28.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size (iii) Weight of fine aggregate @ 15% 850 x15/100 = 127.5 kg., volume of fine aggregate: 127.5/43.103x0.0283 =0.083 cum	cum	0.202	1350.00	272.70
1159	Stone dust (iv) Weight of lime stone dust @ 45% (850-340-127.5) = 382.50 kg., Volume of lime stone dust 382.50/2200 =0.174 cum.	cum	0.083	1100.00	91.30
0784	Marble dust/ powder (v) Precoated stone chipping for surface finish: Volume of chips @ 0.005 cum/10 sqm=17.4x0.005/ 10 = 0.0087 cum say 0.009 cum	cum	0.174	1130.00	196.62
0297	Stone Aggregate (Single size) : 10 mm nominal size Bitumen for precoated stone chipping @ 2%=0.009x1600x2/100= 0.288 say 0.30 kg.	cum	0.009	1350.00	12.15
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.0003	34790.00	10.44
2211	Carriage of Tar bitumen	tonne	0.0003	163.93	0.05
2202	Carriage of Stone aggregate below 40 mm nominal size (0.222 + 0.009) =0.231 cum	cum	0.231	163.93	37.87
2267	Carriage of Stone dust	cum	0.083	163.93	13.61
2208	Carriage of Lime for mastic cooker (Taking capacity of cooker as one tonne)	cum	0.174	163.93	28.52
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	1.50	714.00	1071.00
0130	Mistry	day	0.50	784.00	392.00
0138	Sprayer (for bitumen, tar etc.)	day	3.50	714.00	2499.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	714.00	178.50
0128	Mate	day	0.50	714.00	357.00
0016	Mastic Cooker	day	0.50	750.00	375.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	sundries (Sealing of joints, placing angles, wastage materials)	L.S.	153.27	2.12	324.93
	TOTAL				9453.99 W
	Add 1 % Water charges on "W"				94.54
	TOTAL				9548.53 X
	Add GST on "X" (multiplying factor 0.1405)				1341.57
	TOTAL				10890.10 Y
	Add 15% CPOH on "Y"				1633.51
	TOTAL				12523.61 Z
	Add Cess @ 1% on "Z"				125.24
	Cost for 10.875 sqm				12648.85
	Cost per sqm				1163.11
	Say				1163.10

16.38 2.5 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 1.65 cum per 100 sqm and coarse sand @ 1.65 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :

16.38.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm. 80/100 bitumen @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x1.65=92.4kg. = 0.092t + 128x1.65 = 211.2kg = 0.211t				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.303	24500.00	7423.50
	Solvent 0.070 kg. x 303 kg. = 21.21kg				
2914	Solvent	kilogram	21.21	30.00	636.30
2211	Carriage of Tar bitumen	tonne	0.303	163.93	49.67
2342	Carriage of solvent/ Diesel.	quintal	0.212	16.39	3.47
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1200.00	1188.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1200.00	792.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	163.93	270.48
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	187.35	11.35
0982	Coarse sand (zone III)	cum	1.65	1500.00	2475.00
2203	Carriage of Coarse sand	cum	1.65	163.93	270.48
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.19	645.00	767.55
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.24	784.00	188.16
0114	Beldar	day	6.12	645.00	3947.40
	(d) Consolidation charges :				
0113	Chowkidar (at barriers for night watch and for road roller)	day	0.34	645.00	219.30
0101	Bhisti	day	0.13	714.00	92.82
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	3000.00	390.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.21	800.00	168.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3500.00	175.00
	(e) Misc :				
	Wire brush (with thick wire)				
0364	Wire brush	each	0.13	20.00	2.60
0365	Soft brush	each	0.40	20.00	8.00
9999	Brooms and gunny bags	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				21300.15 W
	Add 1 % Water charges on "W"				213.00
	TOTAL				21513.15 X
	Add GST on "X" (multiplying factor 0.1405)				3022.60
	TOTAL				24535.75 Y
	Add 15% CPOH on "Y"				3680.36
	TOTAL				28216.11 Z
	Add Cess @ 1% on "Z"				282.16
	Cost for 100 sqm.				28498.28
	Cost per sqm.				284.98
	Say				285.00

16.38.2 With paving Asphalt grade VG - 30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm. 60/70 bitumen @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x1.65=92.4kg. = 0.092t + 128x1.65 = 211.2kg = 0.211t Total= 0.303t				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	0.303	38150.00	11559.45
2211	Carriage of Tar bitumen	tonne	0.303	163.93	49.67
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1200.00	1188.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1200.00	792.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2202	Carriage of Stone aggregate below 40 mm nominal size Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.303=0.606q	cum	1.65	163.93	270.48
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	187.35	11.35
0982	Coarse sand (zone III)	cum	1.65	1500.00	2475.00
2203	Carriage of Coarse sand	cum	1.65	163.93	270.48
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate : (a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.19	645.00	767.55
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.24	784.00	188.16
0114	Beldar	day	6.12	645.00	3947.40
	(d) Consolidation charges :				
0113	Chowkidar (at barriers for night watch and for road roller)	day	0.34	645.00	219.30
0101	Bhisti	day	0.13	714.00	92.82
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	3000.00	390.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.21	800.00	168.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3500.00	175.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.13	20.00	2.60
0365	Soft brush	each	0.40	20.00	8.00
9999	Brooms and gunny bags	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				24796.33 W
	Add 1 % Water charges on "W"				247.96
	TOTAL				25044.29 X
	Add GST on "X" (multiplying factor 0.1405)				3518.72
	TOTAL				28563.01 Y
	Add 15% CPOH on "Y"				4284.45
	TOTAL				32847.47 Z
	Add Cess @ 1% on "Z"				328.47
	Cost for 100 sqm.				33175.94
	Cost per sqm.				331.76
	Say				331.75

16.38.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	MATERIAL				
7739	Modified Bitumen Refinary produced CRMB - 55 @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x1.65=92.4kg. = 0.092t + 128x1.65 = 211.2kg = 0.211t Total = 0.303 t	tonne	0.303	28000.00	8484.00
2914	Solvent 0.070 kg. x 303 kg. = 21.21kg	kilogram	21.21	30.00	636.30
2211	Carriage of Tar bitumen	tonne	0.303	163.93	49.67
2342	Carriage of solvent/ Diesel.	quintal	0.212	16.39	3.47
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1200.00	1188.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1200.00	792.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	163.93	270.48
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	187.35	11.35
0982	Coarse sand (zone III)	cum	1.65	1500.00	2475.00
2203	Carriage of Coarse sand	cum	1.65	163.93	270.48
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.19	645.00	767.55
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.24	784.00	188.16
0114	Beldar	day	6.12	645.00	3947.40
	(d) Consolidation charges :				
0113	Chowkidar	day	0.34	645.00	219.30
0101	Bhisti	day	0.13	714.00	92.82
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.13	3000.00	390.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.21	800.00	168.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.05	3500.00	175.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.13	20.00	2.60
0365	Soft brush	each	0.40	20.00	8.00
9999	Brooms and gunny bags	L.S.	7.15	2.12	15.16

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.97	2.12	19.02
	TOTAL				22360.65 W
	Add 1 % Water charges on "W"				223.61
	TOTAL				22584.26 X
	Add GST on "X" (multiplying factor 0.1405)				3173.09
	TOTAL				25757.35 Y
	Add 15% CPOH on "Y"				3863.60
	TOTAL				29620.95 Z
	Add Cess @ 1% on "Z"				296.21
	Cost for 100 sqm.				29917.16
	Cost per sqm.				299.17
	Say				299.15

16.39 4 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 2.60 cum per 100 sqm and coarse sand @ 2.60 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :

16.39.1 With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x2.60=145.6kg. = 0.146t + 128x2.60 = 332.8kg = 0.333t Total = 0.479 t	tonne	0.479	24500.00	11735.50
2914	Solvent 0.70kg.x479=33.53kg	kilogram	33.53	30.00	1005.90
2342	Carriage of solvent/ Diesel.	quintal	0.335	16.39	5.49
2211	Carriage of Tar bitumen	tonne	0.479	163.93	78.52
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1200.00	1872.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1200.00	1248.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	163.93	426.22
0982	Coarse sand (zone III)	cum	2.60	1500.00	3900.00
2203	Carriage of Coarse sand	cum	2.60	163.93	426.22
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen = 2x0.479=0.958q				
0370	Coal (steam)	quintal	0.958	440.00	421.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2200	Carriage of steam coal	tonne	0.0958	187.35	17.95
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.88	645.00	1212.60
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.31	784.00	243.04
0114	Beldar	day	9.46	645.00	6101.70
	(d) Consolidation charges :				
0113	Chowkidar	day	0.45	645.00	290.25
0101	Bhisti	day	0.18	714.00	128.52
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.18	3000.00	540.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.30	800.00	240.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.03	3500.00	105.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.09	20.00	1.80
0365	Soft brush	each	0.27	20.00	5.40
9999	Brooms and gunny bags	L.S.	5.33	2.12	11.30
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				31971.34 W
	Add 1 % Water charges on "W"				319.71
	TOTAL				32291.05 X
	Add GST on "X" (multiplying factor 0.1405)				4536.89
	TOTAL				36827.95 Y
	Add 15% CPOH on "Y"				5524.19
	TOTAL				42352.14 Z
	Add Cess @ 1% on "Z"				423.52
	Cost for 100 sqm.				42775.66
	Cost per sqm.				427.76
	Say				427.75

16.39.2 With paving asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x2.60=145.6kg. = 0.146t + 128x2.60 = 332.8kg = 0.333t Total = 0.479 t	tonne	0.479	38150.00	18273.85

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2211	Carriage of Tar bitumen	tonne	0.479	163.93	78.52	
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1200.00	1872.00	
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1200.00	1248.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	163.93	426.22	
0982	Coarse sand (zone III)	cum	2.60	1500.00	3900.00	
2203	Carriage of Coarse sand	cum	2.60	163.93	426.22	
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.479=0.958 qtl					
0370	Coal (steam)	quintal	0.958	440.00	421.52	
2200	Carriage of steam coal	tonne	0.0958	187.35	17.95	
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :					
	(a) For cleaning :					
0128	Mate	day	0.16	714.00	114.24	
0114	Beldar	day	1.40	645.00	903.00	
0115	Coolie	day	1.40	645.00	903.00	
	(b) For heating bitumen :					
0114	Beldar	day	1.88	645.00	1212.60	
	(c) For cleaning, mixing and spreading pre-mix aggregate :					
0130	Mistry	day	0.31	784.00	243.04	
0114	Beldar	day	9.46	645.00	6101.70	
	(d) Consolidation charges :					
0113	Chowkidar	day	0.45	645.00	290.25	
0101	Bhisti	day	0.18	714.00	128.52	
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.18	3000.00	540.00	
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.30	800.00	240.00	
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.03	3500.00	105.00	
	(e) Brushes etc. for cleaning :-					
0364	Wire brush (with thick wire)	each	0.09	20.00	1.80	
0365	Soft brush	each	0.27	20.00	5.40	
9999	Brooms and gunny bags	L.S.	5.33	2.12	11.30	
9999	Sundries	L.S.	16.12	2.12	34.17	
	TOTAL				37498.30	W
	Add 1 % Water charges on "W"				374.98	
	TOTAL				37873.28	X
	Add GST on "X" (multiplying factor 0.1405)				5321.20	
	TOTAL				43194.48	Y
	Add 15% CPOH on "Y"				6479.17	
	TOTAL				49673.65	Z
	Add Cess @ 1% on "Z"				496.74	
	Cost for 100 sqm.				50170.39	
	Cost per sqm.				501.70	
	Say				501.70	

16.39.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	MATERIAL				
7739	Modified Bitumen Refinary produced CRMB - 55 @56kg. per cum. of aggregate and 128kg. per cum. of sand: 56x2.60=145.6kg. = 0.146t + 128x2.60 = 332.8kg = 0.333t Total = 0.479 tonne	tonne	0.479	28000.00	13412.00
2914	Solvent 0.70kg.x479=33.53kg.	kilogram	33.53	30.00	1005.90
2342	Carriage of solvent/ Diesel.	quintal	0.335	16.39	5.49
2211	Carriage of Tar bitumen	tonne	0.479	163.93	78.52
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1200.00	1872.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1200.00	1248.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	163.93	426.22
0982	Coarse sand (zone III)	cum	2.60	1500.00	3900.00
2203	Carriage of Coarse sand	cum	2.60	163.93	426.22
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen = 2x0.479=0.958q				
0370	Coal (steam)	quintal	0.958	440.00	421.52
2200	Carriage of steam coal	tonne	0.0958	187.35	17.95
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	714.00	114.24
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(b) For heating bitumen :				
0114	Beldar	day	1.88	645.00	1212.60
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.31	784.00	243.04
0114	Beldar	day	9.46	645.00	6101.70
	(d) Consolidation charges :				
0113	Chowkidar	day	0.45	645.00	290.25
0101	Bhisti	day	0.18	714.00	128.52
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.18	3000.00	540.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.30	800.00	240.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.03	3500.00	105.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.09	20.00	1.80
0365	Soft brush	each	0.27	20.00	5.40
9999	Brooms and gunny bags	L.S.	5.33	2.12	11.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				33647.84 W
	Add 1 % Water charges on "W"				336.48
	TOTAL				33984.32 X
	Add GST on "X" (multiplying factor 0.1405)				4774.80
	TOTAL				38759.12 Y
	Add 15% CPOH on "Y"				5813.87
	TOTAL				44572.98 Z
	Add Cess @ 1% on "Z"				445.73
	Cost for 100 sqm.				45018.71
	Cost per sqm.				450.19
	Say				450.20

16.40 Providing and laying seal coat of premixed fine aggregate (passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade VG - 10 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface, including rolling and finishing with road roller all complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality @ 128kg/cum. of sand 128x0.60 = 76.80kg. = 0.0768 m.t	tonne	0.0768	24500.00	1881.60
2211	Carriage of Tar bitumen	tonne	0.0768	163.93	12.59
0982	Coarse sand (zone III)	cum	0.60	1500.00	900.00
2203	Carriage of Coarse sand	cum	0.60	163.93	98.36
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.768=0.1536 qtl				
0370	Coal (steam)	quintal	1.536	440.00	675.84
2200	Carriage of steam coal	tonne	0.1536	187.35	28.78
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.06	714.00	42.84
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.97	645.00	625.65
	(b) For heating bitumen :				
0114	Beldar 0.38/96x76.8	day	0.30	645.00	193.50
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0114	Beldar 11.39/0.75x0.60	day	1.11	645.00	715.95
0130	Mistry 0.06/0.75x0.60	day	0.05	784.00	39.20
	(d) Miscellaneous :				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3000.00	180.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.05	800.00	40.00
0023	Hot Bitumen mixer 0.5 cum i/c hand cart	day	0.01	3500.00	35.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.05	20.00	1.00
0365	Soft brush	each	0.12	20.00	2.40
9999	Sundries	L.S.	18.20	2.12	38.58
	TOTAL				5966.93 W
	Add 1 % Water charges on "W"				59.67
	TOTAL				6026.60 X
	Add GST on "X" (multiplying factor 0.1405)				846.74
	TOTAL				6873.34 Y
	Add 15% CPOH on "Y"				1031.00
	TOTAL				7904.34 Z
	Add Cess @ 1% on "Z"				79.04
	Cost for 100 sqm.				7983.38
	Cost per sqm.				79.83
	Say				79.85

16.41 Providing and laying seal coat over prepared surface of road with bitumen heated in bitumen boiler fitted with the spray set spraying using 98 kg of bitumen of grade VG - 10 and blinding surface with 0.90 cum of stone aggregate of 6.7 mm size (Passing 11.2 mm sieve and retained on 2.36 mm sieve) per 100 sqm of road surface, including rolling and finishing with power road roller all complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100sqm.				
	MATERIAL				
2916	Paving Asphalt VG -10 of approved quality	tonne	0.098	24500.00	2401.00
2211	Carriage of Tar bitumen	tonne	0.098	163.93	16.07
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	0.90	1400.00	1260.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.90	163.93	147.54
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.098=1.96 qtl				
0370	Coal (steam)	quintal	1.96	440.00	862.40
2200	Carriage of steam coal	tonne	0.196	187.35	36.72
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For heating and spraying bitumen :				
0130	Mistry	day	0.04	784.00	31.36
0138	Sprayer (for bitumen, tar etc.)	day	0.06	714.00	42.84

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.69	645.00	445.05
	(b) For cleaning :				
0128	Mate	day	0.11	714.00	78.54
0114	Beldar	day	1.40	645.00	903.00
0115	Coolie	day	1.40	645.00	903.00
	(c) For screening and spraying aggregate :				
0128	Mate	day	0.05	714.00	35.70
0114	Beldar	day	0.51	645.00	328.95
	(d) Misc :				
0113	Chowkidar	day	0.15	645.00	96.75
0101	Bhisti	day	0.06	714.00	42.84
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.06	3000.00	180.00
0007	Hire charges of Coaltar Sprayer	day	0.06	350.00	21.00
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	day	0.06	800.00	48.00
	(e) Misc :				
0364	Wire brush (with thick wire)	each	0.05	20.00	1.00
0365	Soft brush	each	0.12	20.00	2.40
9999	Sundries	L.S.	18.20	2.12	38.58
9999	Brooms and gunny bags	L.S.	2.73	2.12	5.79
	TOTAL				7928.52 W
	Add 1 % Water charges on "W"				79.29
	TOTAL				8007.81 X
	Add GST on "X" (multiplying factor 0.1405)				1125.10
	TOTAL				9132.91 Y
	Add 15% CPOH on "Y"				1369.94
	TOTAL				10502.84 Z
	Add Cess @ 1% on "Z"				105.03
	Cost for 100 sqm.				10607.87
	Cost per sqm.				106.08
	Say				106.10

16.42 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 cum.				
	MATERIAL				
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.52	1300.00	676.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.22	1400.00	308.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.11	1350.00	148.50
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	178.19	92.66
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	163.93	54.10
0982	Coarse sand (zone III)	cum	0.445	1500.00	667.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2203	Carriage of Coarse sand	cum	0.445	163.93	72.95
0367	Portland Cement (OPC-43 grade)	tonne	0.32	5000.00	1600.00
2209	Carriage of Cement	tonne	0.32	145.72	46.63
	LABOUR				
0155	Mason (average)	day	0.10	749.00	74.90
0114	Beldar	day	1.63	645.00	1051.35
0101	Bhisti	day	0.70	714.00	499.80
	MACHINERY				
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with hooper	day	0.077	800.00	61.60
0012	Vibrator (Needle type 40 mm)	day	0.07	350.00	24.50
9999	Sundries	L.S.	26.00	2.12	55.12
	Side shuttering Taking the slab to be 5cm thick and width to be 6 metre, length of road 27 metre = 9.90/24.30 = 0.407 sqm				
5.9.1	Rate as per item no 5.9.1 of SH : Reinforced cement concrete work	sqm	0.407	307.95	125.34 A
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				5561.97 W
	Add 1 % Water charges on "W-A"				54.37
	TOTAL				5616.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				771.49
	TOTAL				6387.82 Y
	Add 15% CPOH on "Y-A"				939.37
	TOTAL				7327.20 Z
	Add Cess @ 1% on "Z-A"				72.02
	Cost for 1 cum.				7399.22
	Say				7399.20

16.43 Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately).

Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.

16.43.1 Cement concrete prepared with batch mixing machine

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.34	5000.00	1700.00
2209	Carriage of Cement	tonne	0.34	145.72	49.54
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.52	1300.00	676.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.22	1350.00	297.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.11	1350.00	148.50
0982	Coarse sand (zone III)	cum	0.445	1500.00	667.50
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	178.19	92.66
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	163.93	54.10
2203	Carriage of Coarse sand	cum	0.445	163.93	72.95
	LABOUR :- FOR MIXING AND LAYING				
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.27	714.00	192.78
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0128	Mate	day	0.04	714.00	28.56
	For compaction by vibrator				
0155	Mason (average)	day	0.07	749.00	52.43
0114	Beldar	day	0.07	645.00	45.15
	MACHINERY				
0004	Production cost of concrete by batch mix plant. (Assuming 25 cum. per day)	cum	1.00	400.00	400.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	1.00	210.00	210.00
0021	Pin vibrator (SHP) with 50 cum. output per day	day	0.025	250.00	6.25
0022	Surface Vibrator with 25 cum. output per day	day	0.05	300.00	15.00
	Add for steel form work				
16.43B	Rate as per Item Number 16.43B of SH: Road work	cum	1.00	915.85	915.85
9999	Cutting and making joints	L.S.	50.00	2.12	106.00
	TOTAL				7095.17 W
	Add 1 % Water charges on "W"				70.95
	TOTAL				7166.12 X
	Add GST on "X" (multiplying factor 0.1405)				1006.84
	TOTAL				8172.96 Y
	Add 15% CPOH on "Y"				1225.94
	TOTAL				9398.91 Z
	Add Cess @ 1% on "Z"				93.99
	Cost per cum.				9492.89
	Say				9492.90

16.43.2 Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
0367	Portland Cement (OPC-43 grade)	tonne	0.34	5000.00	1700.00	
2209	Carriage of Cement	tonne	0.34	145.72	49.54	
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	0.52	1300.00	676.00	
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.22	1400.00	308.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.11	1350.00	148.50	
0982	Coarse sand (zone III)	cum	0.445	1500.00	667.50	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	178.19	92.66	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	163.93	54.10	
2203	Carriage of Coarse sand	cum	0.445	163.93	72.95	
	LABOUR :- FOR MIXING AND LAYING					
0114	Beldar	day	2.00	645.00	1290.00	
0101	Bhisti	day	0.27	714.00	192.78	
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20	
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70	
0128	Mate	day	0.04	714.00	28.56	
	For compaction by vibrator					
0155	Mason (average)	day	0.07	749.00	52.43	
0114	Beldar	day	0.07	645.00	45.15	
	MACHINERY					
0004	Production cost of concrete by batch mix plant. (Assuming 25 cum. per day)	cum	1.00	400.00	400.00	
0029	Carriage of concrete by transit mixer.	km/ cum	10.00	37.30	373.00	
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	1.00	210.00	210.00	
0021	Pin vibrator (SHP) with 50 cum. output per day	day	0.025	250.00	6.25	
0022	Surface Vibrator with 25 cum. output per day	day	0.05	300.00	15.00	
	Add for steel form work					
16.43B	Rate as per Item Number 16.43B of SH: Road work	cum	1.00	915.85	915.85	
9999	Cutting and making joints	L.S.	50.00	2.12	106.00	
	TOTAL				7479.17	W
	Add 1 % Water charges on "W"				74.79	
	TOTAL				7553.96	X
	Add GST on "X" (multiplying factor 0.1405)				1061.33	
	TOTAL				8615.29	Y
	Add 15% CPOH on "Y"				1292.29	
	TOTAL				9907.59	Z
	Add Cess @ 1% on "Z"				99.08	
	Cost per cum.				10006.66	
	Say				10006.65	

16.43A Annexure 'A' to Item number 16.43

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 8.5 cum. MATERIAL: (i) Painting with primer (i) Construction joint 6.15m. long 30cm deep 6.15x(0.30+0.01)= 1.91sqm.+ (ii) Dummy joints 4.61m long and 10cm deep 10mm wide 4.6 lx(0.10+0.10+0.01) = 0.97 sqm. = 2.88 sqm. 2.88sqm. @0.26 lit./sqm. = 0.75 lit. + Add 5% wastage = 0.03 Total =0.78 lit				
0316	Bitumen solution primer of approved quality	litre	0.78	47.00	36.66
9977	Carriage	L.S.	0.91	2.12	1.93
	(ii) Joint sealing compound (GradeA) for construction joint 6.15m long 10mm wide 25mm deep. 6.15x2x2.5cm = 3075cucm For dummy joints 461xl.0xl0cm. = 4610cucm. Total = 7685 cum Add 5% wastage = 384 cucm Total = 8069 cucm Say 8.07 cudm. @1.2kg/cudm = 9.68 kg				
0314	Bitumen hot sealing compound : grade A	kilogram	9.68	29.00	280.72
9977	Carriage	L.S.	0.91	2.12	1.93
0370	Coal (steam)	quintal	0.015	440.00	6.60
9977	Carriage	L.S.	0.91	2.12	1.93
	LABOUR: (ii) For applying primer qty. = 2.88 sqm				
0123	Mason (brick layer) 1st class	day	3.00	784.00	2352.00
0131	Painter	day	0.10	714.00	71.40
	(iii) Labour for heating and filling sealing compound.				
0124	Mason (brick layer) 2nd class	day	0.25	714.00	178.50
	(iv) Beldar for heating, carrying and pouring of bitumen				
0114	Beldar	day	0.68	645.00	438.60
	TOTAL				3370.27
	Cost for 8.5 cum				3370.27
	Cost per cum.				396.50
	Say				396.50

16.43B Annexure 'B' to Item number 16.43

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	ANALYSIS OF ANNEXTURE 'B' 16.43B (Required in 16.43) STEEL FORM WORK : Part-I Cost of materials :				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Assuming that pavement 30m long 22.5m wide and 0.30m deep having panel size 6.15x4.61x0.30m or 8.50cu. laid in a day of 8 hrs. Hence form work to be provided for 2 days. MATERIAL 22x30.75 = 676.50 2x46.10 = 92.20 Total = 768.70m. 768.70 @ 83.10 kg/ m = 25.44 M.T. Assuming that channel will become unserviceable after use for 5000 slab (100 times) and salvage value of steel shall fetch 20% of its basic cost.				
1007	Structurals such as tees, angles channels and R.S. joists	quintal	0.0407104	4950.00	201.52
2205	Carriage of Steel	tonne	0.00407104	145.72	0.59
	Part-II Labour for assembling, errection, dismeritelling and cleaning the shuttering. Assuming that 255 labour for steel shuttering shall be required as compared to timber shuttering. Contact area of 50 slabs of steel shuttering. Long channel = 11x20x0.30 = 66.00 = 2x45.10x0.30 = 27.06 Total= 93.06 LABOUR				
0103	Blacksmith 2nd class	day	2.86	714.00	2042.04
0114	Beldar	day	2.86	645.00	1844.70
	Carriage of steel for extra lead of runway				
0114	Beldar	day	5.73	645.00	3695.85
	TOTAL				7784.70
	Cost for 50 slabs / 8.5 cum				7784.70
	Cost per cum.				915.85
	Say				915.85

16.44 Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 litre MATERIAL				
7254	Hardening compound (including cartage)	litre	1.00	36.00	36.00
	TOTAL				36.00 W
	Add 1 % Water charges on "W"				0.36
	TOTAL				36.36 X
	Add GST on "X" (multiplying factor 0.1405)				5.11
	TOTAL				41.47 Y
	Add 15% CPOH on "Y"				6.22
	TOTAL				47.69 Z
	Add Cess @ 1% on "Z"				0.48
	Cost per litre				48.17
	Say				48.15

16.45 Providing and fixing pre-moulded joint filler in expansion joints of RCC roads / CC pavements after making the joints dust free with high pressure air jet cleaners, all complete as per direction of the Engineer-in-Charge. (Pre-moulded joint fillers shall be made of bitumen hot sealing compound impregnated fibre board having impregnation more than 35%, conforming to IS:1838 for fibre board and IS: 1834 for hot sealing bitumen compound grade A.)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 12 mm thick 15cm deep and 300m in length				
	MATERIAL				
0317	Premoulded joint filler board 12 mm thick (Rate inclusive of carriage)				
	= 300x0.15 = 45 sqm.	sqm	45.00	360.00	16200.00
	Labour for cutting the board in strips, making the joints clean and dust free and fixing etc. :				
0112	Carpenter 2nd class	day	1.00	714.00	714.00
0114	Beldar	day	3.00	645.00	1935.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				18906.05 W
	Add 1 % Water charges on "W"				189.06
	TOTAL				19095.11 X
	Add GST on "X" (multiplying factor 0.1405)				2682.86
	TOTAL				21777.97 Y
	Add 15% CPOH on "Y"				3266.70
	TOTAL				25044.67 Z
	Add Cess @ 1% on "Z"				250.45
	Cost for 300m length, **12mm** width and 15cm depth				25295.12
	Cost for one cm. depth one cm. width per metre length.				4.68
	Say				4.70

16.46 Providing and filling in position rubberized bitumen hot sealing compound for sealing of expansion joints in roads / pavements all complete as per direction of the Engineer-in-Charge.

16.46.1 Using grade 'A' sealing compound conforming to IS: 1834.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 12 mm wide 25 mm deep and 300 metres in length.				
	Sealing compound- 300x0.012x0.025 = 0.09cum.				
	Weight 1020 kg. per cum. = 1020x0.09 = 91.80 kg				
	MATERIAL				
0314	Bitumen hot sealing compound : grade A	kilogram	91.80	29.00	2662.20
2211	Carriage of Tar bitumen	tonne	0.092	163.93	15.08
	91.8 kg = 0.0918 Say 0.092 tonne				
	Labour for filling :				
0124	Mason (brick layer) 2nd class	day	1.00	714.00	714.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.50	645.00	1612.50
9999	Sundries	L.S.	20.67	2.12	43.82
	TOTAL				5047.60 W
	Add 1 % Water charges on "W"				50.48
	TOTAL				5098.08 X
	Add GST on "X" (multiplying factor 0.1405)				716.28
	TOTAL				5814.36 Y
	Add 15% CPOH on "Y"				872.15
	TOTAL				6686.51 Z
	Add Cess @ 1% on "Z"				66.87
	Cost for 12 mm depth, 25 mm width and 300m length				6753.38
	Cost for one cm. depth one cm. width permetre length.				7.50
	Say				7.50

16.47 Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign material etc. and lining out complete.

16.47.1 New work (Two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10sqm.				
	MATERIAL				
	1st Coat - 1.66 +				
	2nd Coat -1.13				
	Total = 2.79				
7256	Superior quality road marking paint (water based)	litre	2.79	130.00	362.70
9977	Carriage of paint	L.S.	5.07	2.12	10.75
	LABOUR				
0131	Painter	day	0.54	714.00	385.56
0114	Beldar	day	0.54	645.00	348.30
9999	Sundries (including painting brush, wire brush, labour for controlling traffic and other T&P etc.)	L.S.	36.40	2.12	77.17
	TOTAL				1184.48 W
	Add 1 % Water charges on "W"				11.84
	TOTAL				1196.32 X
	Add GST on "X" (multiplying factor 0.1405)				168.08
	TOTAL				1364.40 Y
	Add 15% CPOH on "Y"				204.66
	TOTAL				1569.06 Z
	Add Cess @ 1% on "Z"				15.69
	Cost for 10 sqm.				1584.76
	Cost per sqm.				158.48
	Say				158.50

16.47.2 Old work (One or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10sqm.				
	MATERIAL				
7256	Superior quality road marking paint (water based)	litre	1.66	130.00	215.80
9977	Carriage of paint	L.S.	1.12	2.12	2.37
	LABOUR				
0131	Painter	day	0.36	714.00	257.04
0114	Beldar	day	0.36	645.00	232.20
9999	Sundries (including painting brush, wire brush, labour for controlling traffic and other T&P etc.)	L.S.	24.44	2.12	51.81
	TOTAL				759.23 W
	Add 1 % Water charges on "W"				7.59
	TOTAL				766.82 X
	Add GST on "X" (multiplying factor 0.1405)				107.74
	TOTAL				874.56 Y
	Add 15% CPOH on "Y"				131.18
	TOTAL				1005.74 Z
	Add Cess @ 1% on "Z"				10.06
	Cost for 10 sqm.				1015.80
	Cost per sqm.				101.58
	Say				101.60

16.48 Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.

16.48.1 New work (Two or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10sqm.				
	MATERIAL				
7255	Road marking paint (spirit based) (confirming to IS 164 spirit base)	litre	1.48	115.00	170.20
9977	Carriage of paint (1.48/0.8x0.08x6.9)	L.S.	2.65	2.12	5.62
	LABOUR				
0128	Mate	day	0.10	714.00	71.40
0131	Painter	day	0.54	714.00	385.56
0114	Beldar for stretching of rope & errecting of barricading	day	1.68	645.00	1083.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (including painting brush, wire brush, labour for controlling traffic and other T&P etc.)	L.S.	36.40	2.12	77.17
	TOTAL				1793.55 W
	Add 1 % Water charges on "W"				17.94
	TOTAL				1811.48 X
	Add GST on "X" (multiplying factor 0.1405)				254.51
	TOTAL				2065.99 Y
	Add 15% CPOH on "Y"				309.90
	TOTAL				2375.89 Z
	Add Cess @ 1% on "Z"				23.76
	Cost for 10 sqm.				2399.65
	Cost per sqm.				239.97
	Say				239.95

16.48.2 Old work (One or more coats)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10sqm.				
	MATERIAL				
7255	Road marking paint (spirit based) (confirming to IS 164 spirit base)	litre	0.89	115.00	102.35
9977	Carriage of paint.	L.S.	0.65	2.12	1.38
	LABOUR				
0128	Mate	day	0.06	714.00	42.84
0131	Painter	day	0.36	714.00	257.04
0114	Beldar (stretching of rope & errecting of barricading etc.)	day	1.12	645.00	722.40
9999	Sundries (including painting brush, wire brush, labour for controlling traffic and other T&P etc.)	L.S.	24.44	2.12	51.81
	TOTAL				1177.82 W
	Add 1 % Water charges on “W”				11.78
	TOTAL				1189.60 X
	Add GST on “X” (multiplying factor 0.1405)				167.14
	TOTAL				1356.74 Y
	Add 15% CPOH on “Y”				203.51
	TOTAL				1560.25 Z
	Add Cess @ 1% on “Z”				15.60
	Cost for 10 sqm.				1575.85
	Cost per sqm.				157.59
	Say				157.60

16.49 Making bell mouth opening/ entrance of size 100x50x50 cm for drainage pipe under footpath, including providing cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) for shape of bell mouth, including plastering providing and fixing precast R.C.C./ S.F.R.C. slab including plastering with cement mortar 1:3 (1 cement : 3 fine sand) of 6 mm thickness on exposed surface of the slab & bell mouth including centring, shuttering & neat cement punning inside the bell mouth etc. all complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Nos. (i) Earth work in excavation Channel :- 10x1x1.00x0.20x0.15 = 0.30+ Bell mouth :-10x1x1.00x0.50x (0.18+0.075)/2 = 0.64 Total = 0.94				
	MATERIAL				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	0.94	286.85	269.64 A
	(ii) Cement concrete 1:4:8 Channel :-10x1x1.00x0.20x0.075 = 0.15 cum.				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.15	6326.05	948.91 A
	(iii) Cement concrete 1:3:6 Channel 10x1x1.00x0.20x0.75 = 0.15 + Bed of bell mouth : 10x1x1.00x0.50x(0.18+0.075)/2 = 0.64 + Haunches portion 10x2x(0.35+0.075)/2x0.25x0.375 = 0.40 + Rect part :- 10x2x0.35x0.25x0.375 = 0.65 + Quadrant portion :- 10x1[(0.30x0.30)-3.142/4(0.30)²]x 0.30 =0.06+ Central middle part :- 10x1x0.30x0.25x0.075 = 0.05 Total = 1.95 cum.				
4.1.5	(Rate as per item no.4.1.5 S.H. : Cement Concrete)	cum	1.95	6833.40	13325.13 A
	(iv) RCC in shelves 10x1x1.00x0.50x0.05 = 0.25cum.				
5.3	Rate as per item no. 5.3 SH : Reinforced cement concrete work	cum	0.25	10719.30	2679.83 A
	(v) Reinforcement for RCC @100kg/cum. 0.25x100=25kg.				
5.22.1	Rate as per item no. 5.22.1 SH : Reinforced cement concrete work	kg	25.00	88.95	2223.75 A
	(vi) Centering and shuttering For shelves (sides) 10x2(1.00+0.50)x0.05 = 1.50+ Front side of bell mouth : 10x2(0.446)x0.375 = 3.34 + Pipe portion: 10x[0.30x0.375-3.142/4(030)²] = 0.04 + Out side of bell mouth				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Total= 10x(1.00 =0.50)x0.45 = 9.00+ Deduct pipe opening Total =10x0.785x0.30x0.30 = (-)0.71 Total = 13.17					
5.9.1	Rate as per item No.5.9.1 of SH : RCC (vii) cement plaster on RCC slab 10x1.00x0.50 = 5.00 + 10x2(1.00+0.50)x0.05 = 1.50+ Total = 6.50 sqm.	sqm	13.17	307.95	4055.70	A
5.23	Rate as per item no.13.16.1 (viii) Neat cement punning: Qty. same as marked (x) at (9vi) = Total =3.34+0.04 = 3.38 sqm. Channel portion: 10x1x(0.85+0.30)/2x0.25 = 1.43 Total = 4.81	sqm	6.50	253.05	1644.83	A
13.18	Rate as per item no.13.18 S.H. Finishing	sqm	4.81	67.80	326.12	A
0367	Portland Cement (OPC-43 grade)	tonne	0.024	5000.00	120.00	
2209	Carriage of Cement	tonne	0.024	145.72	3.50	
0983	Fine sand (zone IV)	cum	0.05	900.00	45.00	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.05	163.93	8.20	
	LABOUR					
0114	Beldar	day	0.035	645.00	22.58	
0101	Bhisti	day	0.003	714.00	2.14	
9999	Hire charges of mixer	L.S.	1.27	2.12	2.69	
9999	Sundries	L.S.	1.27	2.12	2.69	
	Labour for plaster					
0155	Mason (average)	day	0.33	749.00	247.17	
0115	Coolie	day	0.488	645.00	314.76	
0101	Bhisti	day	0.60	714.00	428.40	
9999	Extra for removing burr	L.S.	8.71	2.12	18.47	
9999	Scaffolding	L.S.	7.62	2.12	16.15	
	TOTAL				26705.64	W
	Add 1 % Water charges on "W-A"				12.32	
	TOTAL				26717.96	X
	Add GST on "X-A" (multiplying factor 0.1405)				174.79	
	TOTAL				26892.75	Y
	Add 15% CPOH on "Y-A"				212.83	
	TOTAL				27105.58	Z
	Add Cess @ 1% on "Z-A"				16.32	
	Cost for 10 nos.				27121.89	
	Cost for one bell mouth				2712.19	
	Say				2712.20	

16.50 Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretrite) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degress to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 15 Nos.				
	MATERIAL				
7426	Cat's eye	each	15.00	80.00	1200.00
9977	Carriage of cats eyes	L.S.	2.60	2.12	5.51
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	39.00	2.12	82.68
	(including material required for fixing cats eyes and providing barricading to divert traffic)				
	TOTAL				1967.69 W
	Add 1 % Water charges on "W"				19.68
	TOTAL				1987.37 X
	Add GST on "X" (multiplying factor 0.1405)				279.23
	TOTAL				2266.59 Y
	Add 15% CPOH on "Y"				339.99
	TOTAL				2606.58 Z
	Add Cess @ 1% on "Z"				26.07
	Cost for 15 Nos.				2632.65
	Cost for one cat's eye.				175.51
	Say				175.50

16.51 Preparation of sub-base road pavement with commercial dry lime (slaked), fly ash stabilised soil with a mix of 3% lime, 12% fly ash and 85% local suitable soil by weight, so as to achieve minimum field C.B.R. of 20, including mixing, rolling with road roller curing etc. all complete.

16.51.1 Minimum thickness 15 cm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6.67 sqm. or 1 cum.				
	MATERIAL				
0777	Dry hydrated lime (factory made)	quintal	0.41	290.00	118.90
2208	Carriage of Lime	cum	0.068	163.93	11.15
1980	Flyash	cum	0.277	11.00	3.05
2267	Carriage of Stone dust	cum	0.277	163.93	45.41

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	(i)For earth work :				
0114	Beldar	day	0.116	645.00	74.82
0115	Coolie	day	0.116	645.00	74.82
0979	Royalty for good earth	cum	0.655	40.00	26.20
2241	Carriage of Good earth	cum	0.655	204.92	134.22
	(ii) For mixing :				
0114	Beldar	day	0.025	645.00	16.13
0115	Coolie	day	0.025	645.00	16.13
	(iii) For rolling layers :				
0113	Chowkidar	day	0.0008	645.00	0.52
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.0008	3000.00	2.40
9999	Sundries	L.S.	0.18	2.12	0.38
	(iv) Labour for spreading and watering :				
0114	Beldar	day	0.26	645.00	167.70
0115	Coolie	day	0.26	645.00	167.70
0101	Bhisti	day	0.18	714.00	128.52
	TOTAL				988.03 W
	Add 1 % Water charges on "W"				9.88
	TOTAL				997.91 X
	Add GST on "X" (multiplying factor 0.1405)				140.21
	TOTAL				1138.12 Y
	Add 15% CPOH on "Y"				170.72
	TOTAL				1308.84 Z
	Add Cess @ 1% on "Z"				13.09
	Cost for 1 cum.				1321.93
	Say				1321.95

16.52 Providing and fixing precast lime fly ash concrete blocks 1:2:3:6 (1 lime: 2 fly ash : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including finishing with 10mm thick cement mortar 1:3 (1 cement : 3 coarse sand) in foot paths, including preparation of sub grade with a hand rammer, laying 10 mm thick leveling course of fine sand (jamuna sand) and filling the joints with fine sand.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for a path of area 10sqm/0.9cum.				
	No. of blocks required for 10sqm. = 108 nos.				
	(a) Concrete in blocks (108x0.30x0.30x0.09 = 0.875 cum.)				
16.52Y	Rate as per sub analysis Item Number 16.52Y of SH:Road Work	cum	0.875	3727.10	3261.21
	(b) Labour for surface excavation :				
0114	Beldar	day	0.72	645.00	464.40
0115	Coolie	day	0.60	645.00	387.00
	(c) For levelling course of fine sand				
6501	Sand zone V (Jamuna)	cum	0.10	1300.00	130.00
2335	Carriage of Jamuna sand	cum	0.10	163.93	16.39

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0114	Beldar	day	0.0089	645.00	5.74
0115	Coolie	day	0.0107	645.00	6.90
0101	Bhisti	day	0.0035	714.00	2.50
	(d) For finishing with 10mm thick cement plaster cement plaster with cement mortar 1:3(1 Cement: 3 Coarse sand) qty. for 9.72sqm. = 0.0972 cum				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.0972	5024.15	488.35
0155	Mason (average)	day	0.787	749.00	589.46
0115	Coolie	day	0.787	645.00	507.62
0101	Bhisti	day	0.262	714.00	187.07
9999	Scaffolding and sundries	L.S.	12.22	2.12	25.91
	(e) For laying blocks and filling joints with Jamuna sand for filling joints 5mm (av.) thick				
6501	Sand zone V (Jamuna)	cum	0.005	1300.00	6.50
2335	Carriage of Jamuna sand	cum	0.005	163.93	0.82
0123	Mason (brick layer) 1st class	day	0.90	784.00	705.60
0115	Coolie	day	1.98	645.00	1277.10
0101	Bhisti	day	0.05	714.00	35.70
	TOTAL				8098.27 W
	Add 1 % Water charges on "W"				80.98
	TOTAL				8179.25 X
	Add GST on "X" (multiplying factor 0.1405)				1149.18
	TOTAL				9328.43 Y
	Add 15% CPOH on "Y"				1399.26
	TOTAL				10727.70 Z
	Add Cess @ 1% on "Z"				107.28
	Cost for 10sqm. or 0.9cum.				10834.97
	Rate per cum.				12038.86
	Say				12038.85

16.52X Sub Analysis X for sub analysis item Number 16.52Y

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Sub Analysis 16.52X for use in sub analysis of 16.52Y Details of cost for 1cum of lime Flyash mortar 1:2:3 (lime:2 flyash:3 coarse sand). MATERIAL				
0773	Unslaked lime	quintal	1.52	300.00	456.00
1980	Flyash	cum	0.48	11.00	5.28
0982	Coarse sand (zone III)	cum	0.72	1500.00	1080.00
2208	Carriage of Lime	cum	0.24	163.93	39.34
2266	Carriage of Surkhi	cum	0.48	163.93	78.69
2203	Carriage of Coarse sand	cum	0.72	163.93	118.03

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	Labour for slaking the lime making, lime putty, grinding, measuring, carrying, depositing and mixing.				
0114	Beldar	day	0.90	645.00	580.50
0101	Bhisti	day	0.45	714.00	321.30
9999	Running and upkeep of mortar mill	L.S.	26.91	2.12	57.05
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				2764.85
	Cost of 1.00 cum				2764.85
	Say				2764.85

16.52Y Sub Analysis Y for Item Number 16.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Sub Analysis 'Y' (16.52Y) for use in Item No. 16.52				
	Details of cost for 1 cum. of cement concrete				
	MATERIAL				
	Lime Flyash mortar				
16.52X	Rate as per sub analysis of Item No 16.52X	cum	0.40	2764.85	1105.94
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.64	1400.00	896.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.21	1350.00	283.50
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.85	163.93	139.34
	LABOUR				
0114	Beldar	day	0.65	645.00	419.25
0115	Coolie	day	0.60	645.00	387.00
0101	Bhisti	day	0.27	714.00	192.78
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0128	Mate	day	0.04	714.00	28.56
9999	Hire and running charges of mixer	L.S.	26.91	2.12	57.05
9999	Sundries	L.S.	13.52	2.12	28.66
9999	Hire charges of steel moulds, table vibrators, rammers, bolts, nuts and washers etc.	L.S.	53.82	2.12	114.10
	TOTAL				3727.08
	Cost of 1.00 cum				3727.08
	Say				3727.10

16.53 Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-

in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30.00 m length				
	MATERIAL				
8691	Punched tape concertina coil 600 mm dia 10 m openable length (Total length 90 m) (Having 50 Nos. of rounds per 6 meter = 1 bundles) Therefore, Nos. of bundles 30/10 =3bundles)	bundle	5.00	600.00	3000.00
8692	RBT reinforced barbed wire 9 rounds = 9x30 = 270m	metre	270.00	7.00	1890.00
8693	Turn buckle and strengthening bolt	each set	10.00	42.00	420.00
9999	G.I. staples clips etc.	L.S.	49.40	2.12	104.73
	LABOUR				
	Labour for fixing straightening cutting of tape/ coils & wire				
0114	Beldar 0.50x2 = 1.00 Nos (Taken double due to height)	day	1.00	645.00	645.00
0102	Blacksmith 1st class	day	0.50	784.00	392.00
0103	Blacksmith 2nd class	day	0.50	714.00	357.00
	TOTAL				6808.73 W
	Add 1 % Water charges on “W”				68.09
	TOTAL				6876.82 X
	Add GST on “X” (multiplying factor 0.1405)				966.19
	TOTAL				7843.01 Y
	Add 15% CPOH on “Y”				1176.45
	TOTAL				9019.46 Z
	Add Cess @ 1% on “Z”				90.19
	cost for 30.00 metre				9109.65
	cost per metre				303.66
	Say				303.65

16.54 Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.

16.54.1 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 195 cum (or 450 M.T.)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality (percentage by weight of total mix)	tonne	22.50	38150.00	858375.00
2211	Carriage of Tar bitumen	tonne	22.50	163.93	3688.43
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 22.50 tonnes				
	Weight of aggregate = 450 -22.50 = 427.50 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =427.50/1.5 =285cum				
	Grading - II/19 mm (Nominal Size)				
	25 - 10mm size = 30% of 285 = 85.5 cum				
	10 - 5mm size = 28% of 285 = 79.8 cum				
	5mm and below = 40% of 285 = 114 cum				
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	42.75	1350.00	57712.50
	Qty = 85.5 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	42.75	1350.00	57712.50
	Qty = 85.5 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	39.90	1350.00	53865.00
	Qty = 79.8 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	39.90	1400.00	55860.00
	Qty = 79.8 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	114.00	1400.00	159600.00
	Qty = 285 * 40 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	279.30	163.93	45785.65
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime	cum	6.63	163.93	1086.86
	(consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum				
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0053	Tipper -5 Cum	tonne/km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar	day	14.00	645.00	9030.00
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction				
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1459405.69 W
	Add 1 % Water charges on "W"				14594.06
	TOTAL				1473999.75 X
	Add GST on "X" (multiplying factor 0.1405)				207096.96
	TOTAL				1681096.71 Y
	Add 15% CPOH on "Y"				252164.51
	TOTAL				1933261.22 Z
	Add Cess @ 1% on "Z"				19332.61
	Cost for 195 cum(450 M.T.)				1952593.83
	Cost per cum.				10013.30
	Say				10013.30

16.54.2 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 195 cum (or 450 M.T.)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality (percentage by weight of total mix)	tonne	22.50	38150.00	858375.00
2211	Carriage of Tar bitumen	tonne	22.50	163.93	3688.43
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 22.50 tonnes				
	Weight of aggregate = 450 -22.50 = 427.50 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =427.50/1.5 =285cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Grading - II/19 mm (Nominal Size) 25 - 10mm size = 30% of 285 = 85.5 cum 10 - 5mm size = 28% of 285 = 79.8 cum 5mm and below = 40% of 285 = 114 cum				
0294	Stone Aggregate (Single size) : 25 mm nominal size Qty = 85.5 * 50 /100	cum	42.75	1350.00	57712.50
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 50 /100	cum	42.75	1350.00	57712.50
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 79.8 * 50 /100	cum	39.90	1350.00	53865.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 79.8 * 50 /100	cum	39.90	1400.00	55860.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 285 * 40 /100	cum	114.00	1400.00	159600.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	279.30	163.93	45785.65
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum	cum	6.63	163.93	1086.86
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1300.00	7800.00
0053	Tipper -5 Cum	tonne/km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistancefor setting out lines, levels and layout of construction	day	14.00	645.00	9030.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1447405.69 W
	Add 1 % Water charges on "W"				14474.06
	TOTAL				1461879.75 X
	Add GST on "X" (multiplying factor 0.1405)				205394.10
	TOTAL				1667273.85 Y
	Add 15% CPOH on "Y"				250091.08
	TOTAL				1917364.93 Z
	Add Cess @ 1% on "Z"				19173.65
	Cost for 195 cum(450 M.T.)				1936538.58
	Cost per cum.				9930.97
	Say				9930.95

16.55 Providing and laying bituminous macadam using crushed stone aggregates of specified grading premixed with bituminous binder, transported to site by tippers, laid over a previously prepared surface with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.

16.55.1 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 205 cum (or 450 M.T.)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality 3.5% of 450 MT = 15.75 MT	tonne	15.75	38150.00	600862.50
2211	Carriage of Tar bitumen Weight of mix = 205 * 2.5 = 450 tonnes Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 15.75 tonnes Weight of aggregate = 450 -15.75 = 434.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =434.25/1.5 = 289.50cum Grading - II/19 mm (Nominal Size) 25 - 10mm size = 40% of 289.50 = 115.8 cum 10 - 5mm size = 40% of 289.50 = 115.8 cum 5mm and below = 20% of 289.50 = 57.9 cum	tonne	15.75	163.93	2581.90
0294	Stone Aggregate (Single size) : 25 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1350.00	78165.00
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1350.00	78165.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1350.00	78165.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 115.8 * 50 /100	cum	57.90	1400.00	81060.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 289.50 * 20 /100	cum	57.90	1400.00	81060.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	289.50	163.93	47457.74
	MACHINERY				
0062	Hot mix Plant -120 TPH capacity @75tonne per hour actual output	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity @75tonne per hour actual output	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH @75tonne per hour actual output	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne/km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading X * 10 / 100 = 13500.00 * 10 / 100				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1188441.89 W
	Add 1 % Water charges on "W"				11884.42
	TOTAL				1200326.31 X
	Add GST on "X" (multiplying factor 0.1405)				168645.85
	TOTAL				1368972.16 Y
	Add 15% CPOH on "Y"				205345.82
	TOTAL				1574317.98 Z
	Add Cess @ 1% on "Z"				15743.18
	Cost for 205 cum(450 M.T.)				1590061.16
	Cost per cum.				7756.40
	Say				7756.40

16.55.2 50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 205 cum (or 450 M.T.)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality 3.5% of 450 MT = 15.75 MT	tonne	15.75	38150.00	600862.50
2211	Carriage of Tar bitumen	tonne	15.75	163.93	2581.90
	Weight of mix = 205 * 2.5 = 450 tonnes Aggregate				
	Total weight of mix = 450 tonnes Weight of bitumen = 15.75 tonnes				
	Weight of aggregate = 450 -15.75 = 434.25 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =434.25/1.5 =289.50cum				
	Grading - II/19 mm (Nominal Size)				
	25 - 10mm size = 40% of 289.50 = 115.8 cum				
	10 - 5mm size = 40% of 289.50 = 115.8 cum				
	5mm and below = 20% of 289.50 = 57.9 cum				
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	57.90	1350.00	78165.00
	Qty = 115.8 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	57.90	1350.00	78165.00
	Qty = 115.8 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	57.90	1350.00	78165.00
	Qty = 115.8 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	57.90	1400.00	81060.00
	Qty = 115.8 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	57.90	1400.00	81060.00
	Qty = 289.50 * 20 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	289.50	163.93	47457.74
	MACHINERY				
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
	@75tonne per hour actual output				
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
	@75tonne per hour actual output				
0069	Generator 250 KVA	hour	6.00	400.00	2400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1176441.89 W
	Add 1 % Water charges on "W"				11764.42
	TOTAL				1188206.31 X
	Add GST on "X" (multiplying factor 0.1405)				166942.99
	TOTAL				1355149.30 Y
	Add 15% CPOH on "Y"				203272.39
	TOTAL				1558421.69 Z
	Add Cess @ 1% on "Z"				15584.22
	Cost for 205 cum(450 M.T.)				1574005.91
	Cost per cum.				7678.08
	Say				7678.10

16.56 Providing and laying semi- dense Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.

16.56.1 25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 195 cum (450 tonnes) Area covered for 25 mm thickness =7800 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality 5% of 450 MT = 22.50 MT	tonne	22.50	38150.00	858375.00
2211	Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 22.50 tonnes Weight of aggregate = 450 -22.50 = 427.50 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =427.50/1.5 =285cum Grading - II/19 mm (Nominal Size) 9.5 - 4.75 mm size = 57% of 285 = 162.45 cum 4.75mm and below = 41% of 285 = 116.85 cum	tonne	22.50	163.93	3688.43
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 162.45 * 50 /100	cum	81.225	1350.00	109653.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 162.45 * 50 /100	cum	81.225	1350.00	109653.75
2903	Stone chippings/ screenings 4.75 mm nominal size nominal size Qty = 285 * 41 /100	cum	116.85	1400.00	163590.00
2202	Carriage of Stone aggregate below 40 mm nominal size nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	279.30	163.93	45785.65
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum	cum	6.63	163.93	1086.86
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity @75tonne per hour actual output	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity @75tonne per hour actual output	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH @75tonne per hour actual output	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1300.00	7800.00
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction for checking line & levels	day	14.00	645.00	9030.00
	TOTAL				1453983.19 W
	Add 1 % Water charges on "W"				14539.83
	TOTAL				1468523.02 X
	Add GST on "X" (multiplying factor 0.1405)				206327.48
	TOTAL				1674850.51 Y
	Add 15% CPOH on "Y"				251227.58
	TOTAL				1926078.08 Z
	Add Cess @ 1% on "Z"				19260.78
	Cost for 7800 Sqm				1945338.86
	Cost per sqm				249.40
	Say				249.40

16.56.2 25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 195 cum (450 tonnes) Area covered for 25 mm thickness =7800 sqm				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality 5% of 450 MT = 22.50 MT	tonne	22.50	38150.00	858375.00
2211	Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 22.50 tonnes Weight of aggregate = 450 -22.50 = 427.50 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =427.50/1.5 =285cum Grading - II/19 mm (Nominal Size) 9.5 - 4.75 mm size = 57% of 285 = 162.45 cum 4.75mm and below = 41% of 285 = 116.85 cum	tonne	22.50	163.93	3688.43

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 162.45 * 50 /100	cum	81.225	1350.00	109653.75	
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 162.45 * 50 /100	cum	81.225	1350.00	109653.75	
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 285 * 41 /100	cum	116.85	1400.00	163590.00	
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	279.30	163.93	45785.65	
0777	Dry hydrated lime (factory made)	quintal	85.5	290.00	24795.00	
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum	cum	6.63	163.93	1086.86	
	MACHINERY/ HIRE CHARGES:					
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00	
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00	
0069	Generator 250 KVA	hour	6.00	400.00	2400.00	
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1300.00	7800.00	
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00	
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00	
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00	
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00	
	LABOUR					
0128	Mate	day	0.84	714.00	599.76	
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction for checking line & levels	day	14.00	645.00	9030.00	
	TOTAL				1441983.19	W
	Add 1 % Water charges on "W"				14419.83	
	TOTAL				1456403.02	X
	Add GST on "X" (multiplying factor 0.1405)				204624.62	
	TOTAL				1661027.65	Y
	Add 15% CPOH on "Y"				249154.15	
	TOTAL				1910181.79	Z
	Add Cess @ 1% on "Z"				19101.82	
	Cost for 7800 Sqm				1929283.61	
	Cost per sqm				247.34	
	Say				247.35	

16.57 Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.

16.57.1 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes) MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	38150.00	944212.50
2211	Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum	tonne	24.75	163.93	4057.27
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	163.93	45080.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1551876.05 W
	Add 1 % Water charges on "W"				15518.76
	TOTAL				1567394.81 X
	Add GST on "X" (multiplying factor 0.1405)				220218.97
	TOTAL				1787613.78 Y
	Add 15% CPOH on "Y"				268142.07
	TOTAL				2055755.84 Z
	Add Cess @ 1% on "Z"				20557.56
	Cost for 191 cum(450 Tonne)				2076313.40
	Cost per cum.				10870.75
	Say				10870.75

16.57.2 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in Batch Type Hot Mix Plant of 100- 120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	38150.00	944212.50
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 =119.07 cum Waste Plastic @ 8% of the weigh of bitumen i.e. 24.75*8%				
7280	Waste plastic additive	tonne	1.98	38100.00	75438.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	163.93	45080.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1627314.05 W
	Add 1 % Water charges on "W"				16273.14
	TOTAL				1643587.19 X
	Add GST on "X" (multiplying factor 0.1405)				230924.00
	TOTAL				1874511.19 Y
	Add 15% CPOH on "Y"				281176.68
	TOTAL				2155687.86 Z
	Add Cess @ 1% on "Z"				21556.88
	Cost for 191 cum(450 Tonne)				2177244.74
	Cost per cum.				11399.19
	Say				11399.20

16.57.3 40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
0312	Bitumen grade PMB - 40 @5.50% (percentage by weight of total mix	M.T.	24.75	32950.00	815512.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2211	Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum	tonne	24.75	163.93	4057.27
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	163.93	45080.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1300.00	7800.00
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1423176.05 W
	Add 1 % Water charges on "W"				14231.76
	TOTAL				1437407.81 X
	Add GST on "X" (multiplying factor 0.1405)				201955.80
	TOTAL				1639363.60 Y
	Add 15% CPOH on "Y"				245904.54
	TOTAL				1885268.14 Z
	Add Cess @ 1% on "Z"				18852.68
	Cost for 191 cum(450 Tonne)				1904120.82
	Cost per cum.				9969.22
	Say				9969.20

16.57.4 40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7741	Modified Bitumen Refinary produced CRMB - 60 @5.50% (percentage by weight of total mix	tonne	24.75	29150.00	721462.50
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 24.75 tonnes				
	Weight of aggregate = 450 -24.75 = 425.25 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =425.25/1.5 =283.50cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	163.93	45080.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0062	Hot mix Plant -120 TPH capacity	hour	3.00	15000.00	45000.00
0063	Hot mix Plant 100 TPH Capacity	hour	3.00	13000.00	39000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1300.00	7800.00
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1329126.05 W
	Add 1 % Water charges on "W"				13291.26
	TOTAL				1342417.31 X
	Add GST on "X" (multiplying factor 0.1405)				188609.63
	TOTAL				1531026.94 Y
	Add 15% CPOH on "Y"				229654.04
	TOTAL				1760680.98 Z
	Add Cess @ 1% on "Z"				17606.81
	Cost for 191 cum(450 Tonne)				1778287.79
	Cost per cum.				9310.41
	Say				9310.40

16.57.5 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	38150.00	944212.50
2211	Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum	tonne	24.75	163.93	4057.27
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	163.93	45080.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1300.00	7800.00
0053	Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading	tonne km	4500.00	3.30	14850.00 1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1539876.05 W
	Add 1 % Water charges on "W"				15398.76
	TOTAL				1555274.81 X
	Add GST on "X" (multiplying factor 0.1405)				218516.11
	TOTAL				1773790.92 Y
	Add 15% CPOH on "Y"				266068.64
	TOTAL				2039859.55 Z
	Add Cess @ 1% on "Z"				20398.60
	Cost for 191 cum(450 Tonne)				2060258.15
	Cost per cum.				10786.69
	Say				10786.70

16.57.6 40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7309	Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	38150.00	944212.50
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Waste Plastic @ 8% of the weigh of bitumen i.e. 24.75*8%				
7280	Waste plastic additive	tonne	1.98	38100.00	75438.00
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 24.75 tonnes				
	Weight of aggregate = 450 -24.75 = 425.25 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =425.25/1.5 =283.50cum				
	Grading - II/19 mm (Nominal Size)				
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum				
	10 - 5mm size = 25% of 283.50 = 70.88 cum				
	5mm and below = 42% of 283.50 = 119.07 cum				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	42.525	1350.00	57408.75
	Qty = 85.05 * 50 /100				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	35.44	1350.00	47844.00
	Qty = 70.88 * 50 /100				
0298	Stone Aggregate (Single size) : 06 mm nominal size	cum	35.44	1400.00	49616.00
	Qty = 70.88 * 50 /100				
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	119.07	1400.00	166698.00
	Qty = 283.5 * 40 /100				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	275.00	163.93	45080.75
	Lime Filler @ 2% (percentage by weight of aggregate)				
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime	cum	9.89	163.93	1621.27
	(consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum				
	MACHINERY/ HIRE CHARGES:				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller	hour	3.90	1200.00	4680.00
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)				
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1615314.05 W
	Add 1 % Water charges on "W"				16153.14
	TOTAL				1631467.19 X
	Add GST on "X" (multiplying factor 0.1405)				229221.14
	TOTAL				1860688.33 Y
	Add 15% CPOH on "Y"				279103.25
	TOTAL				2139791.57 Z
	Add Cess @ 1% on "Z"				21397.92
	Cost for 191 cum(450 Tonne)				2161189.49
	Cost per cum.				11315.13
	Say				11315.15

16.57.7 40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
0312	Bitumen grade PMB - 40 @5.50% (percentage by weight of total mix	M.T.	24.75	32950.00	815512.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2211	Carriage of Tar bitumen Aggregate Total weight of mix = 450 tonnes Weight of bitumen = 24.75 tonnes Weight of aggregate = 450 -24.75 = 425.25 tonnes Taking density of aggregate = 1.5 tonne/cum Volume of aggregate =425.25/1.5 =283.50cum Grading - II/19 mm (Nominal Size) 13.2 - 10mm size = 30% of 283.50 = 85.05 cum 10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 = 119.07 cum	tonne	24.75	163.93	4057.27
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	163.93	45080.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL) Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km	hour	6.00	1300.00	7800.00
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1411176.05 W
	Add 1 % Water charges on "W"				14111.76
	TOTAL				1425287.81 X
	Add GST on "X" (multiplying factor 0.1405)				200252.94
	TOTAL				1625540.74 Y
	Add 15% CPOH on "Y"				243831.11
	TOTAL				1869371.85 Z
	Add Cess @ 1% on "Z"				18693.72
	Cost for 191 cum(450 Tonne)				1888065.57
	Cost per cum.				9885.16
	Say				9885.15

16.57.8 40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 191 cum (450 tonnes)				
	MATERIAL				
7741	Modified Bitumen Refinary produced CRMB - 60 @5.50% (percentage by weight of total mix	tonne	24.75	29150.00	721462.50
2211	Carriage of Tar bitumen	tonne	24.75	163.93	4057.27
	Aggregate				
	Total weight of mix = 450 tonnes				
	Weight of bitumen = 24.75 tonnes				
	Weight of aggregate = 450 -24.75 = 425.25 tonnes				
	Taking density of aggregate = 1.5 tonne/cum				
	Volume of aggregate =425.25/1.5 = 283.50cum				
	Grading - II/19 mm (Nominal Size)				
	13.2 - 10mm size = 30% of 283.50 = 85.05 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	10 - 5mm size = 25% of 283.50 = 70.88 cum 5mm and below = 42% of 283.50 =119.07 cum				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.05 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1350.00	47844.00
0298	Stone Aggregate (Single size) : 06 mm nominal size Qty = 70.88 * 50 /100	cum	35.44	1400.00	49616.00
2903	Stone chippings/ screenings 4.75 mm nominal size Qty = 283.5 * 40 /100	cum	119.07	1400.00	166698.00
2202	Carriage of Stone aggregate below 40 mm nominal size Lime Filler @ 2% (percentage by weight of aggregate)	cum	275.00	163.93	45080.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	163.93	1621.27
	MACHINERY/ HIRE CHARGES:				
0076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	Generator 250 KVA	hour	6.00	400.00	2400.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Topper 10 tonne capacity (Taken 10km avarage lead) 450x10=4500 tonne km				
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00
0055	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0054	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
	LABOUR				
0128	Mate	day	0.84	714.00	599.76
0114	Beldar working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.00	645.00	9030.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	714.00	3570.00
	TOTAL				1317126.05 W
	Add 1 % Water charges on "W"				13171.26
	TOTAL				1330297.31 X
	Add GST on "X" (multiplying factor 0.1405)				186906.77
	TOTAL				1517204.08 Y
	Add 15% CPOH on "Y"				227580.61
	TOTAL				1744784.69 Z
	Add Cess @ 1% on "Z"				17447.85
	Cost for 191 cum(450 Tonne)				1762232.54
	Cost per cum.				9226.35
	Say				9226.35

16.59 Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type - IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi-lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5 mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours).Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing , specification and direction of Engineer-in-charge.

16.59.1 Mandatory/ Regulatory sign boards of 900 mm diametre with support length of 3750 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details cost for 1 no. of 0.636 sqm MATERIAL Aluminium sheet 2 mm thick 3.14/4x(0.9)x(0.9)=0.636 sqm add 10% wastage = 0.064 i.e. 0.700sqm @ 5.60kg/ sqm = 3.92kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	3.92	240.00	940.80
2302	Carriage of G.I. sheet and accessories 3.92kg or 0.00392 MT	tonne	0.00392	145.72	0.57
	High intensity retro reflective sheet = 0.70 sqm. High intensity sheet for lettering / sign and border etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Taking 40% Area =0.28sqm,total = 0.70 + 0.28 = 0.98 sqm					
8690	High intensity retro - reflective sheet	sqm	0.98	1443.00	1414.14	
	Steel work					
	Supporting frame 25x25x3mm for 900mm dia board:-					
	3.14D=3.1416x0.90=2.83 metre @ 1.10kg/m					
	Angle iron 35x35x.5mm for fixing the support frame with vertical Tee-iron support post					
	2x0.05=0.10m @ 2.6 kg/m = 0.26kg					
	Vertical post of M.S. tee of section ISNT 50x50x6mm = 3.75 metre @ 4.50kg/m = 16.88 kg					
	Bass plate to be welded at bottom end of tee (As hold fast)					
	(100x100x5mm)x7850/133)=0.39kg, total = 3.11 + 0.26 +16.88 + 0.39 =					
	Add wastage @ 5% = 1.03					
	Total = 20.64 + 1.03 = 21.67kg.					
10.2	Rate as per item no 10.2 of					
	SH : Steel work	kg	21.67	78.20	1694.59	A
	LABOUR					
0128	Mate	day	0.01	714.00	7.14	
0114	Beldar	day	0.25	645.00	161.25	
9999	Cost of material for drilling holes,					
	nut bolts & rivets, fabrication etc.	L.S.	65.00	2.12	137.80	
	Painting with synthetic enamel paint on steel work					
	support frame 25x25x3mm					
	=2.83x0.10=0.283 sqm					
	Fixing angle 35x35x5mm					
	= 2x0.50x0.14=0.014 sqm					
	Vertical post Tee 50x50x6mm					
	=3.75x0.20=0.750sqm					
	Base plate 100x100x5mm					
	Surface area = 2x[0.10x0.10] =0.02					
	4x0.10x0.005 = 0.002					
	Total = 1.069 sqm					
13.61.1	Rate as per item no 13.61.1 of					
	SH : Finishing	sqm	1.07	131.45	140.65	A
	Painting with epoxy paint on back side of aluminium sheet.					
13.52.1	Rate as per Item no. 13.52.1 of					
	SH: Finishing	sqm	0.636	201.70	128.28	A
9999	Sundries and hold fast etc.	L.S.	78.00	2.12	165.36	
	TOTAL				4790.59	W
	Add 1 % Water charges on "W-A"				28.27	
	TOTAL				4818.86	X
	Add GST on "X-A" (multiplying factor 0.1405)				401.17	
	TOTAL				5220.03	Y
	Add 15% CPOH on "Y-A"				488.48	
	TOTAL				5708.51	Z
	Add Cess @ 1% on "Z-A"				37.45	
	Cost of 1 no.				5745.96	
	Say				5745.95	

16.59.2 Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details cost for 1 board of 0.35 sqm MATERIAL Aluminium sheet 2 mm thick Area 1/2x(0.9)x(0.78)=0.35 sqm add 10% wastage = 0.04 i.e. 0.39sqm @ 5.60kg/ sqm = 2.18kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	2.18	240.00	523.20
2302	Carriage of G.I. sheet and accessories 2.18kg or 0.00218 MT	tonne	0.00218	145.72	0.32
	High intensity retro reflective sheet = 0.39 sqm. High intensity sheet for lettering / sign/ symbol/ border etc. Taking 40% Area =0.16sqm, total = 0.39 + 0.16 = 0.55 sqm				
8690	High intensity retro - reflective sheet	sqm	0.55	1443.00	793.65
	Steel work Angle iron frame 25x25x3mm 3x0.90 = 2.70 metre @ 1.10kg/m Angle iron 35x35x.5mm for fixing the support frame to Tee- iron support post 2x0.05=0.10m @ 2.6 kg/m = 0.26kg Vertical post of M.S. tee of section ISNT 50x50x6mm = 1x3.65=3.65m @ 4.50kg/m =16.43kg Bass plate 100x100x5mm connected to bottom end of vertocal tee. (0.10x0.10x0.005x7850kg =0.39kg, total = 2.97+ 0.26 + 16.43 + 0.39 = 20.05kg. Add wastage @ 5% = 1.00, total = 20.05 + 1.00 = 21.05kg				
10.2	Rate as per item no 10.2 of SH : Steel work	kg	21.05	78.20	1646.11 A
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.25	645.00	161.25
9999	Cost of material for drilling holes, nut bolts & rivets, fabrication etc.	L.S.	65.00	2.12	137.80
	Painting with synthetic enamel paint on Angle iron . support frame 25x25x3mm =1x2.7x0.10=0.27 sqm. Angle 35x35x5mm = 2x0.50x0.14=0.014 sqm Tee 50x50x6mm =1x3.65x0.20 =0.73sqm Base plate to be welded at bottom end of Tee 100x100x5mm 0.022 sqm Total = 1.036 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.61.1	Rate as per item no 13.61.1 of SH : Finishing Painting with epoxy paint on back side of aluminium sheet. 0.35 sqm	sqm	1.036	131.45	136.18 A
13.52.1	Rate as per Item no. 13.52.1 of SH: Finishing	sqm	0.35	201.70	70.60 A
9999	Sundries & hold fast etc.	L.S.	65.00	2.12	137.80
	TOTAL				3614.04 W
	Add 1 % Water charges on "W-A"				17.61
	TOTAL				3631.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				249.92
	TOTAL				3881.57 Y
	Add 15% CPOH on "Y-A"				304.30
	TOTAL				4185.88 Z
	Add Cess @ 1% on "Z-A"				23.33
	Cost of 1 board.				4209.21
	Say				4209.20

16.60 Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D-4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive backing which shall be activated by applying pressure conforming to class II of ASTM-D-4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in-charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment).

16.60.1 Overhead informatory road signage

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for boards area 3.00x1.20 =3.60 sqm MATERIAL				
2704	Aluminium Strip 40 mm wide and 2 mm thick Add 5% wastage = 1.01 kg Total = 20.16 + 1.01 = 21.17 kg.	kilogram	21.17	240.00	5080.80
2302	Carriage of G.I. sheet and accessories high intensity sheet for written matter. Taking 40% 3.60x40% = 1.44 sqm. Total = 3.60 + 1.44 = 5.04 sqm.	tonne	0.02117	145.72	3.08

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8690	High intensity retro - reflective sheet	sqm	5.04	1443.00	7272.72
0588	Chromium plated Brass screws 25 mm for peripheries = 2x(300+120)/30=28 nos. For vertical Rows = 2x (120/30-2)=4 nos. Total= 28 + 4 = 32nos. For wastage @ 5% =2 nos. Total = 32 +2 = 34 nos. Labour charges for drilling holes	100 Nos	0.34	180.00	61.20
9999	Hire charges of drill machine and sundries	L.S.	52.00	2.12	110.24
9999	Hoisting board	L.S.	390.00	2.12	826.80
9999	Labour charges for manufacturing of board including . fixing retro reflective sheet	L.S.	564.20	2.12	1196.10
13.52.1	Painting with epoxy paint on back side of Aluminium sheet, Rate as per Item no. 13.52.1 of SH: Finishing	sqm	3.60	201.70	726.12 A
	TOTAL				15277.07 W
	Add 1 % Water charges on "W-A"				145.51
	TOTAL				15422.58 X
	Add GST on "X-A" (multiplying factor 0.1405)				2064.85
	TOTAL				17487.43 Y
	Add 15% CPOH on "Y-A"				2514.20
	TOTAL				20001.63 Z
	Add Cess @ 1% on "Z-A"				192.76
	Cost of 3.60 sqm				20194.38
	Cost of 1 sqm.				5609.55
	Say				5609.55

16.61 Providing Retro-reflective regulatory sign board of size 900 mm dia meter made out of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated lens type retro -reflective sheeting as approved by Engineer-in-charge. Letter, symbols, borders etc. will be as per IRC - 67 with required colour scheme on the boards and with the high intensity grade A. The aluminium sheet to be riveted to M.S. frame of angle iron of size 40x40x4 mm. The boards will be fixed to 1 No. 50x50 mm square post made of M.S. angle 50x50x4 mm, 4 m long welded to the frame with adequate anti-theft arrangement .Sheet work to be painted with two or more coats of synthetic enamel paint over an under coat (primer) and back side of aluminium sheet to be painted with two or more coats of epoxy paint including appropriate priming coat complete in all respects as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details cost for one board of 0.635 sqm Aluminium sheet 2mm thick = 0.635 sqm. Add 10% wastage = 0.06 sqm, total = 0.635 + 0.06 = 0.695 sqm. Say 0.70 sqm @ 5.6kg/sqm = 3.98 kg				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
2704	Aluminium Strip 40 mm wide and 2 mm thick High intensity retro reflective sheet = 0.70 sqm high intensity sheet for lettering/ sing and border etc. Taking 40% Area=0.28 sqm, total = 0.70 + 0.28 = 0.98 sqm.	kilogram	3.98	240.00	955.20
8690	High intensity retro - reflective sheet Angle iron 40x40x4mm = 4x0.60=2.40@ 2.4kg/ mtr = 5.76 kg 50x50x5 mm = 2x4m =8m @ 3kg/ mtr =24.00 kg Total = 5.76 + 24.00 = 29.76 kg	sqm	0.98	1443.00	1414.14
10.2	Rate as per item no 10.2 of SH : Steel work	kg	29.76	78.20	2327.23 A
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.25	645.00	161.25
9999	Cost of material for drilling holes, nut bolts & rivets, facrication etc. (e) Painting with synthetic enamel paint 1x2.40.12=0.29 sqm 1x4.00x0.12=0.80 sqm, Total = 0.29 + 0.80 = 1.09 sqm	L.S.	70.23	2.12	148.89
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.09	131.45	143.28 A
13.52.1	Painting with epoxy paint on back side of aluminium sheet, Rate as per Item no. 13.52.1 of SH: Finishing	sqm	0.635	201.70	128.08 A
9999	Sundries & hole fast etc,	L.S.	31.20	2.12	66.14
	TOTAL				5351.35 W
	Add 1 % Water charges on "W-A"				27.53
	TOTAL				5378.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				390.63
	TOTAL				5769.51 Y
	Add 15% CPOH on "Y-A"				475.64
	TOTAL				6245.15 Z
	Add Cess @ 1% on "Z-A"				36.47
	Cost for 1 board				6281.62
	Say				6281.60

16.62 Providing and applying 2.5 mm thick road marking strips (retro- reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 200 sqm (Area covered on one day):-					
	MATERIAL					
	Thermoplastic paint screeded in paint form for 2.5 mm thick road making stripe including glass beads etc. as per specifications					
	200 sqm @ 5kg/ sqm = 1000 kg					
	Wastage @ 5% = 50kg					
	Total = 1050 kg					
8687	Thermoplastic paint	kg	1050.00	66.00	69300.00	
	Glass beads (B-class) to be sprayed over the paint stripe @ 250 gms. Per sqm = 100x0.25=25 kg					
8688	Glass beads	kg	50.00	72.00	3600.00	
	MACHINERY					
0033	Paint applicator.	day	1.00	800.00	800.00	
0083	Hire charges of TATA 407 or equivalent for local shifting.	day	1.00	1400.00	1400.00	
1241	Commercial LPG in cylinder.	kg	142.00	84.00	11928.00	
	LABOUR					
0157	Operator (Pile/ Special machine)	day	1.00	784.00	784.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	4.00	714.00	2856.00	
0114	Beldar	day	4.00	645.00	2580.00	
	TOTAL				93248.00	W
	Add 1 % Water charges on “W”				932.48	
	TOTAL				94180.48	X
	Add GST on “X” (multiplying factor 0.1405)				13232.36	
	TOTAL				107412.84	Y
	Add 15% CPOH on “Y”				16111.93	
	TOTAL				123524.76	Z
	Add Cess @ 1% on “Z”				1235.25	
	Cost for 200 sqm				124760.01	
	Cost per sqm				623.80	
	Say				623.80	

16.63 Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	METERIAL				
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	1.00	650.00	650.00
2260	Carriage of Brick aggregate	cum	1.00	178.19	178.19
6501	Sand zone V (Jamuna)	cum	0.08	1300.00	104.00
2335	Carriage of Jamuna sand	cum	0.08	163.93	13.11
	Labour for spreading, ramming and consolidation.				
0114	Beldar	day	0.35	645.00	225.75
0115	Coolie	day	0.26	645.00	167.70
0101	Bhisti	day	0.18	714.00	128.52
	Cement concrete-1:3:6				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete				
	Work	cum	0.50	6670.25	3335.13 A
	TOTAL				4802.40 W
	Add 1 % Water charges on "W-A"				14.67
	TOTAL				4817.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				208.21
	TOTAL				5025.29 Y
	Add 15% CPOH on "Y-A"				253.52
	TOTAL				5278.81 Z
	Add Cess @ 1% on "Z-A"				19.44
	Cost for 10 sqm.				5298.25
	Cost for 1 sqm.				529.82
	Say				529.80

16.64 Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with jamuna sand, including finishing smooth etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	METERIAL				
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	1.00	650.00	650.00
2260	Carriage of Brick aggregate	cum	1.00	178.19	178.19
6501	Sand zone V (Jamuna)	cum	0.08	1300.00	104.00
2335	Carriage of Jamuna sand	cum	0.08	163.93	13.11
	Labour for spreading, ramming and consolidation.				
0114	Beldar	day	0.35	645.00	225.75
0115	Coolie	day	0.26	645.00	167.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.18	714.00	128.52
	TOTAL				1467.27 W
	Add 1 % Water charges on “W”				14.67
	TOTAL				1481.95 X
	Add GST on “X” (multiplying factor 0.1405)				208.21
	TOTAL				1690.16 Y
	Add 15% CPOH on “Y”				253.52
	TOTAL				1943.68 Z
	Add Cess @ 1% on “Z”				19.44
	Cost for 10 sqm.				1963.12
	Cost for 1 sqm.				196.31
	Say				196.30

16.65 Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8685	Delineator	each	1.00	336.00	336.00
9999	Fixing materials.	L.S.	78.00	2.12	165.36
9999	Fixing charges.	L.S.	39.00	2.12	82.68
	TOTAL				584.04 W
	Add 1 % Water charges on "W"				5.84
	TOTAL				589.88 X
	Add GST on "X" (multiplying factor 0.1405)				82.88
	TOTAL				672.76 Y
	Add 15% CPOH on "Y"				100.91
	TOTAL				773.67 Z
	Add Cess @ 1% on "Z"				7.74
	Cost of 1 no.				781.41
	Say				781.40

16.66 Excavating holes upto 0.10 cum, including getting out the excavated soil, then returning the soil as deported in layers not exceeding 20 cm in depth, including consolidating and deposited layer by ramming watering etc., disposing of surplus excavated soil as directed with in a lead of 50 mm and lift upto 1.5 m.

16.66.1 All kind of soil

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 holes-				
	Earth work 30x0.10 = 3.0 cum.				
	Extra labour for filling and ramming				
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	3.00	286.85	860.55 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				889.21 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				889.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				893.57 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				898.52 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 30 holes				898.90
	Cost of 1 hole				29.96
	Say				29.95

16.67 Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL				
8694	Precast pavement slab 450 x 450 x 50 mm (M - 30)	each	48.00	145.00	6960.00
9977	Carriage of slab.	L.S.	52.00	2.12	110.24
	20mm (bed and joints) CM. 1:5 (1 cement: 5 coarse sand)				
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.25	3995.00	998.75
	LABOUR				
0155	Mason (average)	day	1.10	749.00	823.90
0100	Bandhani	day	1.10	714.00	785.40
0114	Beldar	day	0.55	645.00	354.75
0101	Bhisti	day	0.27	714.00	192.78
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				10248.69 W
	Add 1 % Water charges on "W"				102.49
	TOTAL				10351.18 X
	Add GST on "X" (multiplying factor 0.1405)				1454.34
	TOTAL				11805.52 Y
	Add 15% CPOH on "Y"				1770.83
	TOTAL				13576.35 Z
	Add Cess @ 1% on "Z"				135.76
	Cost for 10 sqm.				13712.11
	Cost for 1 sqm				1371.21
	Say				1371.20

16.68 Providing and laying 60mm thick faciory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 sqm				
	MATERIAL				
8689	Interlocking C.C. paver block (60 mm thick, M-30)	sqm	10.00	440.00	4400.00
	Bedding layer - 50mm thick				
0982	Coarse sand (zone III) =10x0.050=0.50 cum	cum	0.50	1500.00	750.00
2203	Carriage of Coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2203	Carriage of fine sand	cum	0.15	163.93	24.59
	Laying charges (Bassed on actual observation)				
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
	TOTAL				7108.05 W
	Add 1 % Water charges on "W"				71.08
	TOTAL				7179.14 X
	Add GST on "X" (multiplying factor 0.1405)				1008.67
	TOTAL				8187.80 Y
	Add 15% CPOH on "Y"				1228.17
	TOTAL				9415.97 Z
	Add Cess @ 1% on "Z"				94.16
	Cost for 10.00 sqm				9510.13
	Cost for 1.00 sqm.				951.01
	Say				951.00

16.69 Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 100 metre i.e. 100x0.375x0.20=7.50 cum. No. of kerb stones = 100/0.405=247 Nos Precast C.C. Kerb stone M - 25 = 247x0.40x0.375x0.20=7.41 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	METERIAL				
8686	Precast C.C. Kerb stone M - 25	cum	7.41	5600.00	41496.00
	Mortar 1:3 for fixing joints = 246x1x[(0.115+0.20)/2] x 0.375x0.005 = 0.073 cum.				
	Cement mortar 1:3 (1 cement : 3 coarse sand)				
3.8	Rate as per Item Number 3.8 of SH: Mortars	cum	0.073	5024.15	366.76
	Labour for fixing of kerb stones				
0123	Mason (brick layer) 1st class	day	2.50	784.00	1960.00
0124	Mason (brick layer) 2nd class	day	2.50	714.00	1785.00
0114	Beldar	day	2.50	645.00	1612.50
0115	Coolie	day	1.65	645.00	1064.25
	TOTAL				48284.51 W
	Add 1 % Water charges on "W"				482.85
	TOTAL				48767.36 X
	Add GST on "X" (multiplying factor 0.1405)				6851.81
	TOTAL				55619.17 Y
	Add 15% CPOH on "Y"				8342.88
	TOTAL				63962.05 Z
	Add Cess @ 1% on "Z"				639.62
	Cost of 7.50 cum				64601.67
	cost for 1 cum.				8613.56
	Say				8613.55

16.70 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.

16.70.1 Made of G.I. wire of dia 4 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
	G.I. chain link 50x50 mm mesh = 10.00 sqm.				
	Wastage @ 5% = 0.50 sqm.				
	Total = 10.50 sqm.				
8695	Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm	sqm	10.50	300.00	3150.00
9977	Carriage.	L.S.	156.00	2.12	330.72
	LABOUR				
0103	Blacksmith 2nd class	day	2.14	714.00	1527.96
0114	Beldar	day	1.62	645.00	1044.90

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including G.I. wire, nuts and bolts and warshers.	L.S.	174.75	2.12	370.47
	TOTAL				6424.05 W
	Add 1 % Water charges on "W"				64.24
	TOTAL				6488.29 X
	Add GST on "X" (multiplying factor 0.1405)				911.60
	TOTAL				7399.90 Y
	Add 15% CPOH on "Y"				1109.98
	TOTAL				8509.88 Z
	Add Cess @ 1% on "Z"				85.10
	Cost for 10 sqm.				8594.98
	Cost for 1 sqm.				859.50
	Say				859.50

16.70.2 Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
	G.I. chain link 50x50 mm mesh PVC coated = 10.00 sqm.				
	Wastage @ 5% = 0.50 sqm.				
	Total = 10.50 sqm.				
8696	Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm, PVC coated to outer dia 5 mm	sqm	10.50	330.00	3465.00
9977	Carriage.	L.S.	156.00	2.12	330.72
	LABOUR				
0103	Blacksmith 2nd class	day	2.14	714.00	1527.96
0114	Beldar	day	1.62	645.00	1044.90
9999	Sundries including G.I. wire, nuts and bolts and warshers.	L.S.	174.75	2.12	370.47
	TOTAL				6739.05 W
	Add 1 % Water charges on "W"				67.39
	TOTAL				6806.44 X
	Add GST on "X" (multiplying factor 0.1405)				956.30
	TOTAL				7762.75 Y
	Add 15% CPOH on "Y"				1164.41
	TOTAL				8927.16 Z
	Add Cess @ 1% on "Z"				89.27
	Cost for 10 sqm.				9016.43
	Cost for 1 sqm.				901.64
	Say				901.65

16.71 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
	G.I. chain link 25x25 mm mesh = 10.00 sqm.				
	Wastage @ 5% = 0.50 sqm.				
	Total = 10.50 sqm.				
8697	Chain link fabric fencing mesh of size 25x25 mm made of G.I. wire of dia 3 mm	sqm	10.50	380.00	3990.00
9977	Carriage.	L.S.	156.00	2.12	330.72
	LABOUR				
0103	Blacksmith 2nd class	day	2.14	714.00	1527.96
0114	Beldar	day	1.62	645.00	1044.90
9999	Sundries including G.I. wire, nuts and bolts and warshers.	L.S.	174.75	2.12	370.47
	TOTAL				7264.05 W
	Add 1 % Water charges on "W"				72.64
	TOTAL				7336.69 X
	Add GST on "X" (multiplying factor 0.1405)				1030.81
	TOTAL				8367.50 Y
	Add 15% CPOH on "Y"				1255.12
	TOTAL				9622.62 Z
	Add Cess @ 1% on "Z"				96.23
	Cost for 10 sqm.				9718.85
	Cost for 1 sqm.				971.88
	Say				971.90

16.72 Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 2.25 cum				
	MATERIAL				
	22.5 cm thick stone (Hard)				
1158	Stone for pitching 15 cm x 22.5 cm	cum	2.25	600.00	1350.00
	Carriage by mechanical transport i/c loading unloading and stacking				
2215	Carriage of Soling stone & masonary stone	cum	2.25	192.86	433.94
	TOTAL				1783.94 W
	Add 1 % Water charges on "W"				17.84
	TOTAL				1801.77 X
	Add GST on "X" (multiplying factor 0.1405)				253.15
	TOTAL				2054.92 Y
	Add 15% CPOH on "Y"				308.24
	TOTAL				2363.16 Z
	Add Cess @ 1% on "Z"				23.63
	Cost for 2.25 cum				2386.79
	Cost for one cum				1060.80
	Say				1060.80

16.73 Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete. (Payment for Stone to be made separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	LABOUR					
0123	Mason (brick layer) 1st class	day	1.08	784.00	846.72	
0124	Mason (brick layer) 2nd class	day	1.08	714.00	771.12	
0114	Beldar	day	2.15	645.00	1386.75	
0115	Coolie	day	1.61	645.00	1038.45	
9999	Sundries	L.S.	6.76	2.12	14.33	
	TOTAL				4057.37	W
	Add 1 % Water charges on "W"				40.57	
	TOTAL				4097.94	X
	Add GST on "X" (multiplying factor 0.1405)				575.76	
	TOTAL				4673.71	Y
	Add 15% CPOH on "Y"				701.06	
	TOTAL				5374.76	Z
	Add Cess @ 1% on "Z"				53.75	
	Cost for 10 sqm				5428.51	
	Cost for one sqm				542.85	
	Say				542.85	

16.74 75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :

16.74.1 Moorum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 sqm					
	MATERIAL					
0810	Moorum	cum	7.50	500.00	3750.00	
	Carriage by mechanical transport i/c loading unloading and stacking					
2265	Carriage of Moorum	cum	7.50	163.93	1229.48	
	LABOUR					
0114	Beldar	day	1.64	645.00	1057.80	
0101	Bhisti	day	0.13	714.00	92.82	
	TOTAL				6130.10	W
	Add 1 % Water charges on "W"				61.30	
	TOTAL				6191.40	X
	Add GST on "X" (multiplying factor 0.1405)				869.89	
	TOTAL				7061.29	Y
	Add 15% CPOH on "Y"				1059.19	
	TOTAL				8120.48	Z
	Add Cess @ 1% on "Z"				81.20	
	Cost for 100 sqm				8201.68	
	Cost per sqm				82.02	
	Say				82.00	

16.74.2 Stone aggregate 20 mm nominal size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 sqm				
	MATERIAL				
0295	Stone Aggregate (Single size) :				
	20 mm nominal size	cum	7.50	1400.00	10500.00
	100sqm x7.50cm= 7.50 cum				
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	7.50	163.93	1229.48
	LABOUR				
0114	Beldar	day	2.05	645.00	1322.25
0101	Bhisti	day	0.13	714.00	92.82
	TOTAL				13144.55 W
	Add 1 % Water charges on "W"				131.45
	TOTAL				13275.99 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1865.28
	TOTAL				15141.27 Y
	Add 15% CPOH on "Y"				2271.19
	TOTAL				17412.46 Z
	Add Cess @ 1% on "Z"				174.12
	Cost for 100 sqm				17586.58
	Cost per sqm				175.87
	Say				175.85

16.74.3 Stone aggregate 40 mm nominal size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 sqm				
	MATERIAL				
0293	Stone Aggregate (Single size) :				
	40 mm nominal size	cum	7.50	1300.00	9750.00
	100sqm x7.50cm= 7.50 cum				
2206	Carriage of Stone aggregate 40 mm				
	nominal size and above	cum	7.50	178.19	1336.43
	LABOUR				
0114	Beldar	day	2.05	645.00	1322.25
0101	Bhisti	day	0.13	714.00	92.82
	TOTAL				12501.50 W
	Add 1 % Water charges on "W"				125.01
	TOTAL				12626.51 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1774.02
	TOTAL				14400.53 Y
	Add 15% CPOH on "Y"				2160.08
	TOTAL				16560.61 Z
	Add Cess @ 1% on "Z"				165.61
	Cost for 100 sqm				16726.22
	Cost per sqm				167.26
	Say				167.25

16.75 Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately).
(Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 cum				
	MATERIAL				
	Ready mix concrete M 25 = 1.00 cum. i/c placing of concrete, vibrating, leveling etc.				
5.33.1.1	Rate as per Item No.5.33.1.1 of SH:RCC	cum	1.00	7997.30	7997.30 A
9999	Operational charges for vacuum dewatering system i/c screed vibration, placing of filter mat , top mat, vacuum process, floating , troweling, Brooming etc.	L.S.	57.20	2.12	121.26
9999	T& P charges i/c consumable power charges, loading , unloading and hire charges of equipments	L.S.	41.60	2.12	88.19
	TOTAL				8206.76 W
	Add 1 % Water charges on "W-A"				2.09
	TOTAL				8208.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				29.72
	TOTAL				8238.57 Y
	Add 15% CPOH on "Y-A"				36.19
	TOTAL				8274.76 Z
	Add Cess @ 1% on "Z-A"				2.77
	Cost for 1 cum				8277.54
	Say				8277.55

16.76 Deduct for using of M-20 grade concrete instead of M-25 grade concrete in C.C. pavement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	Cement for M-25 mix = 0.410 t				
	Cement for M - 20 mix = 0.383 t				
	Difference = 0.027 t				
	METERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.027	5000.00	135.00
2209	Carriage of Cement	tonne	0.027	145.72	3.93
	Plasticizer for M- 25 mix = 2.050kg				
	Plasticizer for M- 20 mix = 1.915 kg				
	Difference = 0.135 kg				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7318	Plasticizer / super plasticizer	kilogram	0.135	29.00	3.92
	TOTAL				142.85 W
	Add 1 % Water charges on "W"				1.43
	TOTAL				144.28 X
	Add GST on "X" (multiplying factor 0.1405)				20.27
	TOTAL				164.55 Y
	Add 15% CPOH on "Y"				24.68
	TOTAL				189.23 Z
	Add Cess @ 1% on "Z"				1.89
	Cost for 1 cum.				191.12
	Say				191.10

16.77 Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead upto 1km (by mechanical means).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm				
	LABOUR				
0128	Mate	day	0.01	714.00	7.14
0114	Beldar	day	0.25	645.00	161.25
	MACHINERY				
0038	Tractor with ripper attachment.	day	0.01	1200.00	12.00
0014	Front end loader capacity 1.00 cum	day	0.025	6000.00	150.00
0017	Hire and running charges of tipper	day	0.02875	3750.00	107.81
	TOTAL				438.20 W
	Add 1 % Water charges on "W"				4.38
	TOTAL				442.58 X
	Add GST on "X" (multiplying factor 0.1405)				62.18
	TOTAL				504.77 Y
	Add 15% CPOH on "Y"				75.72
	TOTAL				580.48 Z
	Add Cess @ 1% on "Z"				5.80
	Cost for 100 sqm				586.29
	Cost for 1 sqm				5.86
	Say				5.85

16.78 Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.

16.78.1 With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 225 cum (450 tonnes)					
	MATERIAL					
	Close graded graunlar sub-base material as per Grading-I of specifications					
	53mm to 9.5mm @ 50% = 144 cum					
	9.5 mm to 2.36mm @ 20% = 57 cum					
	2.36mm below @ 30% = 86.40 cum					
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	72.00	1000.00	72000.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	72.00	1350.00	97200.00	
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	72.00	178.19	12829.68	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	72.00	163.93	11802.96	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	57.00	900.00	51300.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	57.00	163.93	9344.01	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	43.20	1400.00	60480.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	43.20	1400.00	60480.00	
2203	Carriage of Coarse sand	cum	86.40	163.93	14163.55	
	Machinery/ Hire charges:					
0059	Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.00	950.00	5700.00	
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00	
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	4.50	200.00	900.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00	
	Tipper 10 tonne capacity(taking lead = 10 Km) =450x10 =4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00	
0050	Motor Grader 3.35 metre blade	hour	6.00	2400.00	14400.00	
0054	Vibratory roller 8 to 10 tonne	hour	6.00	600.00	3600.00	
	LABOUR					
0128	Mate	day	0.40	714.00	285.60	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00	
0114	Beldar	day	8.00	645.00	5160.00	
	TOTAL				447008.80	W
	Add 1 % Water charges on "W"				4470.09	
	TOTAL				451478.89	X
	Add GST on "X" (multiplying factor 0.1405)				63432.78	
	TOTAL				514911.67	Y
	Add 15% CPOH on "Y"				77236.75	
	TOTAL				592148.43	Z
	Add Cess @ 1% on "Z"				5921.48	
	Cost for 225 cum(450 Tonne)				598069.91	
	Cost per cum.				2658.09	
	Say				2658.10	

16.78.2 With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBR Value-25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 225 cum (450 tonnes)					
	MATERIAL					
	Close graded graunlar sub-base material as per Grading-I of specifications					
	26.5mm to 9.5mm @ 35% = 100.80 cum					
	9.5 mm to 2.36mm @ 25% = 72 cum					
	2.36mm below @ 40% = 115.20 cum					
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	50.40	1350.00	68040.00	
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	50.40	1350.00	68040.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	100.80	163.93	16524.14	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	72.00	900.00	64800.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	72.00	163.93	11802.96	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	57.60	1400.00	80640.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	57.60	1400.00	80640.00	
2203	Carriage of Coarse sand	cum	115.20	163.93	18884.74	
	Machinery/ Hire charges:					
0059	Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.00	950.00	5700.00	
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00	
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	4.50	200.00	900.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00	
	Tipper 10 tonne capacity(taking lead= 10 Km) =450x10 =4500 tonne km					
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00	
0050	Motor Grader 3.35 metre blade	hour	6.00	2400.00	14400.00	
0054	Vibratory roller 8 to 10 tonne	hour	6.00	600.00	3600.00	
	LABOUR					
0128	Mate	day	0.40	714.00	285.60	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00	
0114	Beldar	day	8.00	645.00	5160.00	
	TOTAL				466780.44	W
	Add 1 % Water charges on "W"				4667.80	
	TOTAL				471448.24	X
	Add GST on "X" (multiplying factor 0.1405)				66238.48	
	TOTAL				537686.72	Y
	Add 15% CPOH on "Y"				80653.01	
	TOTAL				618339.73	Z
	Add Cess @ 1% on "Z"				6183.40	
	Cost for 225 cum(450 Tonne)				624523.13	
	Cost per cum.				2775.66	
	Say				2775.65	

16.78.3 With material conforming to Grade-III (size range 26.5 mm to 0.075 mm) having CBR Value-20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 225 cum (450 tonnes)					
	MATERIAL					
	Close graded graunlar sub-base material as per Grading-III of specifications					
	9.5mm to 4.75mm @ 35% = 100.80 cum					
	4.75 mm to 2.36mm @ 12.5% = 36.00 cum					
	2.36mm below @ 52.5% = 151.20 cum					
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	100.80	900.00	90720.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	100.80	163.93	16524.14	
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	36.00	900.00	32400.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	36.00	163.93	5901.48	
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	75.60	1400.00	105840.00	
2904	Stone chippings/ screenings 150 micron nominal size	cum	75.60	1400.00	105840.00	
2203	Carriage of Coarse sand	cum	151.20	163.93	24786.22	
	Machinery/ Hire charges:					
0059	Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.00	950.00	5700.00	
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00	
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	4.50	200.00	900.00	
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00	
	Tipper 10 tonne capacity(taking lead = 10Km) =450x10 =4500 t.Km					
0053	Tipper -5 Cum	tonne km	4500.00	3.30	14850.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1485.00	
0050	Motor Grader 3.35 metre blade	hour	6.00	2400.00	14400.00	
0054	Vibratory roller 8 to 10 tonne	hour	6.00	600.00	3600.00	
	LABOUR					
0128	Mate	day	0.40	714.00	285.60	
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00	
0114	Beldar	day	8.00	645.00	5160.00	
	TOTAL				439420.44	W
	Add 1 % Water charges on "W"				4394.20	
	TOTAL				443814.64	X
	Add GST on "X" (multiplying factor 0.1405)				62355.96	
	TOTAL				506170.60	Y
	Add 15% CPOH on "Y"				75925.59	
	TOTAL				582096.19	Z
	Add Cess @ 1% on "Z"				5820.96	
	Cost for 225 cum(450 Tonne)				587917.15	
	Cost per cum.				2612.97	
	Say				2612.95	

16.79 Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 225 cum (495 tonne) MATERIAL Conforming to table …… 45mm to22.4mm @ 30% = 89.10 cum Qty for 0292,0293,0294,0295 codes = 89.10 / 4 = 22.275 cum Qty for 2206, 2202 codes = 89.10 /2 = 44.55 cum 22.4 mm to 2.36mm @ 40% = 118.80 cum Qty for 0294,0295 codes = 118.80 /4 = 29.70 cum Qty for 1179 code = 118.80 /2 = 59.40 cum 2.36 mm to 75 microon @ 30% = 89.10 cum Qty for 2903, 2904 codes = 89.10 / 2 = 44.55 cum				
0292	Stone Aggregate (Single size) : 50 mm nominal size	cum	22.275	1000.00	22275.00
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	22.275	1300.00	28957.50
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	22.275	1350.00	30071.25
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	22.275	1400.00	31185.00
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	44.55	178.19	7938.36
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	44.55	163.93	7303.08
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	29.70	1350.00	40095.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	29.70	1400.00	41580.00
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	59.40	900.00	53460.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	118.80	163.93	19474.88
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	44.55	1400.00	62370.00
2904	Stone chippings/ screenings 150 micron nominal size	cum	44.55	1400.00	62370.00
2203	Carriage of Coarse sand	cum	89.10	163.93	14606.16
	Machinery/ Hire charges:				
0059	Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.60	950.00	6270.00
0070	Generator 100 KVA/125 KVA	hour	6.00	300.00	1800.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	3.00	200.00	600.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	1300.00	7800.00
	Tipper 10 tonne capacity(taking lead = 10 Km) =495x10 =4950 tonne km				
0053	Tipper -5 Cum	tonne km	4950.00	3.30	16335.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1633.50
0065	Paver finisher Mechanical 100 TPH	hour	6.00	800.00	4800.00
0054	Vibratory roller 8 to 10 tonne	hour	3.90	600.00	2340.00
	LABOUR				
0128	Mate	day	0.48	714.00	342.72
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	714.00	1428.00
0114	Beldar	day	10.00	645.00	6450.00
	TOTAL				471485.46 W
	Add 1 % Water charges on "W"				4714.85
	TOTAL				476200.32 X
	Add GST on "X" (multiplying factor 0.1405)				66906.14
	TOTAL				543106.46 Y
	Add 15% CPOH on "Y"				81465.97
	TOTAL				624572.43 Z
	Add Cess @ 1% on "Z"				6245.72
	Cost for 225 cum(450 Tonne)				630818.16
	Cost per cum.				2803.64
	Say				2803.65

16.80 Construction of dry lean cement concrete sub base over a prepared sub-grade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in- charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 450 cum (990 tonne) MATERIAL Crushed stone coarse aggregate of 25mm & 12.5 mm nominal sizes graded as per specifications @ 0.90 cum/cum of concrete conforming to specification. = 405 cum Coarse Sand @0.45 m3 per cum of concrete = 203 cum Cement @150 Kg. per cum of concrete = 67.50 cum Qty for 0294,0296 codes = 405 / 2 = 202.50 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0294	Stone Aggregate (Single size) : 25 mm nominal size	cum	202.50	1350.00	273375.00	
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	202.50	1350.00	273375.00	
0982	Coarse sand (zone III)	cum	203.00	1500.00	304500.00	
0367	Portland Cement (OPC-43 grade)	tonne	67.50	5000.00	337500.00	
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	405.00	163.93	66391.65	
2203	Carriage of Coarse sand	cum	203.00	163.93	33277.79	
2209	Carriage of Cement	tonne	67.50	145.72	9836.10	
	Machinery/ Hire charges:					
0052	Front end loader 1 cum bucket capacity (incl POL) @75 tonne capacity	hour	6.00	1300.00	7800.00	
0066	Batching and Mixing Plant @ 75 cum per hour	hour	6.00	2400.00	14400.00	
0069	Generator 250 KVA	hour	6.00	400.00	2400.00	
	5 km lead with one trip per hour					
0065	Paver finisher Mechanical 100 TPH	hour	6.00	800.00	4800.00	
0054	Vibratory roller 8 to 10 tonne	hour	8.00	600.00	4800.00	
0057	Water Tanker 5 to 6 KL capacity	hour	8.00	200.00	1600.00	
	Tipper 10 tonne capacity (Taken 10km average lead) 990x10=9900 tonne km					
0053	Tipper -5 Cum	tonne km	9900.00	3.30	32670.00	
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				3267.00	
	LABOUR					
0128	Mate	day	1.12	714.00	799.68	
0139	Skilled Beldar (for floor rubbing etc.)	day	6.00	714.00	4284.00	
0114	Beldar	day	22.00	645.00	14190.00	
	TOTAL				1389266.22	W
	Add 1 % Water charges on "W"				13892.66	
	TOTAL				1403158.88	X
	Add GST on "X" (multiplying factor 0.1405)				197143.82	
	TOTAL				1600302.71	Y
	Add 15% CPOH on "Y"				240045.41	
	TOTAL				1840348.11	Z
	Add Cess @ 1% on "Z"				18403.48	
	Cost for 450 cum(990 Tonne)				1858751.59	
	Cost per cum.				4130.56	
	Say				4130.55	

16.81 Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts/horizontal members/bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC 75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long

expansion fasteners at both ends. The work shall be executed as per drawing/ direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.

(Note :- One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall remain to be the property of the contractor on completion of the work).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 2.5 metre				
	MATERIAL				
16.81X	Rate as per Sub Analysis No.16.81X	metre	2.50	46.05	115.13
16.81Y	Rate as per Sub Analysis No.16.81Y	metre	2.50	1452.40	3631.00
13.50.3	Rate as per Item No.13.50.3 of SH: FINISHING	sqm	11.00	55.50	610.50 A
13.61.1	Rate as per Item No.13.61.1 of SH: FINISHING	sqm	11.00	131.45	1445.95 A
	TOTAL				5802.58 W
	Add 1 % Water charges on "W-A"				37.46
	TOTAL				5840.04 X
	Add GST on "X-A" (multiplying factor 0.1405)				531.59
	TOTAL				6371.63 Y
	Add 15% CPOH on "Y-A"				647.28
	TOTAL				7018.91 Z
	Add Cess @ 1% on "Z-A"				49.62
	Cost of 2.5 metre				7068.53
	Cost of 1 metre				2827.41
	Say				2827.40

16.81X Sub analysis item for material component of Item No. 16.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Sub analysis item no.16.81X to be used in Item No. 16.81				
	Details of cost for 2.5 meter				
	MATERIAL				
	M.S. Sheet 1.63mm thick = 1x2.50x2.00 = 5.00 sqm @ 12.80 kg/sqm = 64.00 kg				
	wastage @ 5%= 3.20 kg				
	Total = 67.20 kg				
1013	Mild steel sheets for tanks	quintal	0.672	4850.00	3259.20
	MS Angle - 40 x 40 x 6 mm				
	Outframe=2x(2.50+2.00)=9.00 m				
	Vertical extra = 2x0.300 = 0.60 m				
	Horizontal = 1x2.50 =2.50 m				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Bracing = 2x3.20 = 6.40 m Bracing at bottom = 2x0.50 = 1.00 m Total = 19.50 m @ 3.50 kg/m = 68.25 kg + wastage @ 5% = 3.14 kg Total = 71.66 kg				
1007	Structurals such as tees,angles channels and R.S. joists M.S. Channel = 2x0.50 =1.00 m @ 5.70 kg/m = 5.70 kg+ wastage @ 5% = 0.29 kg Total = 5.99 kg	quintal	0.717	4950.00	3549.15
1007	Structurals such as tees, angles channels and R.S. joists M.S. Flat 30x5 mm Horizontal = 2x2.50 = 5.00 m Vertical = 2x2.00 = 4.00 m Total = 9.00 m @ 1.20 kg/m = 10.80 kg + wastage @ 5% = 0.54 kg Total = 11.34 kg	quintal	0.0599	4950.00	296.51
1008	Flats upto 10 mm in thickness	quintal	0.1134	4850.00	549.99
2205	Carriage of Steel	tonne	0.156	145.72	22.73
	TOTAL				7677.58 P
	Add for maintenance @ 10% on P				767.76 Q
	Less for salvage value of material @ 50% on P				-3838.79
	TOTAL				4606.55 S
	Assuming that material will become unserviceable after using 40 times, cost of 2.5 metre using once = S/40				
	Cost of 2.5 meter				115.16
	Cost of 1 meter				46.07
	Say				46.05

16.81Y Sub analysis item for fabrication charges of Item No. 16.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Sub analysis item no.16.81Y to be used in Item No. 16.81 Details of cost for 2.5 metre				
	MATERIAL				
1215	Welding by electric plant	cm	165.00	2.00	330.00
	Cutting, assembling and erection charges				
	LABOUR				
0102	Blacksmith 1st class	day	0.115	784.00	90.16
0103	Blacksmith 2nd class	day	0.115	714.00	82.11
0100	Bandhani	day	0.11	714.00	78.54
0114	Beldar	day	0.83	645.00	535.35
9999	Sundries	L.S.	12.10	2.12	25.65
	Labour for riveting / bolting / cutting etc.				
0116	Fitter (grade 1)	day	0.41	784.00	321.44
0103	Blacksmith 2nd class	day	0.54	714.00	385.56
0100	Bandhani	day	0.70	714.00	499.80
0114	Beldar	day	0.54	645.00	348.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar (for floor rubbing etc.)	day	0.81	714.00	578.34
9999	Sundries	L.S.	12.10	2.12	25.65
	TOTAL				3300.90
	Shifting including transportation, re-erection etc. @ 10%				330.09
	TOTAL Cost of 2.5 meter				3630.99
	Cost of 1 meter				1452.40
	Say				1452.40

16.82 Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 meter				
	LABOUR				
0114	Beldar	day	0.75	645.00	483.75
0115	Coolie	day	3.00	645.00	1935.00
9999	Sundries	L.S.	2.00	2.12	4.24
	TOTAL				2422.99 W
	Add 1 % Water charges on "W"				24.23
	TOTAL				2447.22 X
	Add GST on "X" (multiplying factor 0.1405)				343.83
	TOTAL				2791.05 Y
	Add 15% CPOH on "Y"				418.66
	TOTAL				3209.71 Z
	Add Cess @ 1% on "Z"				32.10
	Cost of 100 meter				3241.81
	Cost of 1 meter				32.42
	Say				32.40

16.83 Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	1.00	645.00	645.00
9999	Sundries	L.S.	2.70	2.12	5.72
	TOTAL				811.97 W
	Add 1 % Water charges on "W"				8.12
	TOTAL				820.09 X
	Add GST on "X" (multiplying factor 0.1405)				115.22
	TOTAL				935.32 Y
	Add 15% CPOH on "Y"				140.30
	TOTAL				1075.61 Z
	Add Cess @ 1% on "Z"				10.76
	Cost of 10 sqm.				1086.37
	Cost of 1 sqm				108.64
	Say				108.65

16.84 Laying old cement cocrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
	Bedding layer 50mm thick				
0982	Coarse sand (zone III)	cum	0.50	1500.00	750.00
	Qty = 10 x 0.05 = 0.50 cum				
2203	Carriage of Coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.15	163.93	24.59
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
	TOTAL				2708.05 W
	Add 1 % Water charges on "W"				27.08
	TOTAL				2735.14 X
	Add GST on "X" (multiplying factor 0.1405)				384.29
	TOTAL				3119.42 Y
	Add 15% CPOH on "Y"				467.91
	TOTAL				3587.33 Z
	Add Cess @ 1% on "Z"				35.87
	Cost of 10 sqm.				3623.21
	Cost of 1 sqm				362.32
	Say				362.30

16.85 Laying at or near ground level old kerb stones of all types in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement : 3 coarse sand), including making joints with or without grooves (thickness of joints, except at sharp curve, shall not be more than 5 mm), including making drainage opening wherever required etc. complete as per direction of Engineer-in-charge. (Length of finished kerb edging shall be measured for payment). (Old kerb stones shall be supplied by the department free of cost)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 meter. MATERIAL Number of kerb stones = 100 / 0.405 = 247 Nos. Qty. = 247 x 0.40 x 0.375 x 0.20 = 7.41cum No. of joints = 247 - 1 = 246 Nos. Cement Mortar 1:3 for fixing joints = 246 x[(0.115 + 0.20)/2 x 0.375 x 0.005] = 0.073 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.8	Rate as per Item No.3.8 of				
	SH:MORTARS	cum	0.073	5024.15	366.76
	LABOUR				
0123	Mason (brick layer) 1st class	day	2.50	784.00	1960.00
0124	Mason (brick layer) 2nd class	day	2.50	714.00	1785.00
0114	Beldar	day	2.50	645.00	1612.50
0115	Coolie	day	1.65	645.00	1064.25
	TOTAL				6788.51 W
	Add 1 % Water charges on "W"				67.89
	TOTAL				6856.40 X
	Add GST on "X" (multiplying factor 0.1405)				963.32
	TOTAL				7819.72 Y
	Add 15% CPOH on "Y"				1172.96
	TOTAL				8992.68 Z
	Add Cess @ 1% on "Z"				89.93
	Cost of 100 meter.				9082.61
	Cost of 1 meter.				90.83
	Say				90.85

16.86 Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.

16.86.1 With granite stone of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 0.5sqm.				
	Mirror polished granite 0.5 sqm.				
	Waste @5% = 0.025 +0.5 = 0.525 sqm.				
7295	Granite of any colour, 18 mm thick				
	(slab area upto 0.50 sqm)	sqm	0.525	1800.00	945.00
3.9	Rate as per Item No.3.9 of				
	SH: MORTARS	cum	0.012	4355.20	52.26
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
0114	Beldar	day	0.05	645.00	32.25
0115	Coolie	day	0.05	645.00	32.25
9999	Sundries	L.S.	17.60	2.12	37.31
	TOTAL				1538.11 W
	Add 1 % Water charges on “W”				15.38
	TOTAL				1553.50 X
	Add GST on “X” (multiplying factor 0.1405)				218.27
	TOTAL				1771.76 Y
	Add 15% CPOH on “Y”				265.76
	TOTAL				2037.53 Z
	Add Cess @ 1% on “Z”				20.38
	Cost of 0.5 sqm				2057.90
	Cost per sqm.				4115.80
	Say				4115.80

16.87 Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.

16.87.1 With granite stone of colour black, cherry/ruby red of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 0.50 sqm				
	MATERIAL				
	Mirror polished granite 0.50 sqm + Waste @5% total = 0.025. Total = 0.525 sqm				
7296	Granite stone slab of colour Black, Cherry/Ruby Red 30mm thick (slab area less than 0.5 sqm)	sqm	0.53	1900.00	997.50
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.012	4355.20	52.26
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
0114	Beldar	day	0.05	645.00	32.25
0115	Coolie	day	0.05	645.00	32.25
9999	Sundries	L.S.	17.60	2.12	37.31
	TOTAL				1590.61 W
	Add 1 % Water charges on "W"				15.91
	TOTAL				1606.52 X
	Add GST on "X" (multiplying factor 0.1405)				225.72
	TOTAL				1832.24 Y
	Add 15% CPOH on "Y"				274.84
	TOTAL				2107.07 Z
	Add Cess @ 1% on "Z"				21.07
	Cost of 0.5 sqm				2128.14
	Cost of 1 sqm				4256.29
	Say				4256.30

16.87.2 With granite stone of all colour except black, cherry/ruby red of area less than 0.50 sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 0.50 sqm				
	MATERIAL				
	Mirror polished granite 0.50 sqm + Waste @5% total = 0.025. Total = 0.525 sqm				
7300	Granite stone slab of all colour except Black, Cherry/Ruby Red 30mm thick (slab area less than 0.5 sqm)	sqm	0.53	2100.00	1102.50
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.012	4355.20	52.26

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
0114	Beldar	day	0.05	645.00	32.25
0115	Coolie	day	0.05	645.00	32.25
9999	Sundries	L.S.	17.60	2.12	37.31
	TOTAL				1695.61 W
	Add 1 % Water charges on "W"				16.96
	TOTAL				1712.57 X
	Add GST on "X" (multiplying factor 0.1405)				240.62
	TOTAL				1953.19 Y
	Add 15% CPOH on "Y"				292.98
	TOTAL				2246.16 Z
	Add Cess @ 1% on "Z"				22.46
	Cost of 0.5 sqm				2268.63
	Cost of 1 sqm				4537.25
	Say				4537.25

16.88 Providing and laying matt finished vitrified tile of size 100x100x16mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in out door floors such as footpath, court yard multi models etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 sqm.				
	MATERIAL				
	Matt finished vitrified tile 100x100 x16mm				
7895	Matt finished vitrified tile 100x100 x16mm	sqm	1.00	910.00	910.00
9977	Carriage	L.S.	6.24	2.12	13.23
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.024	4355.20	104.52
9999	Sundries	L.S.	3.64	2.12	7.72
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	5000.00	16.50
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	784.00	156.80
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				1394.82 W
	Add 1 % Water charges on "W"				13.95
	TOTAL				1408.77 X
	Add GST on "X" (multiplying factor 0.1405)				197.93
	TOTAL				1606.70 Y
	Add 15% CPOH on "Y"				241.00
	TOTAL				1847.70 Z
	Add Cess @ 1% on "Z"				18.48
	Cost per sqm.				1866.18
	Say				1866.20

16.89 Providing and laying matt finished vitrified tile of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 sqm.				
	MATERIAL				
	Tile 300x300 x9.8mm = 1.00 sqm.				
7896	Vitrified tile	sqm	1.00	450.00	450.00
9977	Carriage	L.S.	6.24	2.12	13.23
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.024	4355.20	104.52
9999	Sundries	L.S.	3.64	2.12	7.72
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	5000.00	16.50
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	784.00	156.80
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				934.82 W
	Add 1 % Water charges on "W"				9.35
	TOTAL				944.17 X
	Add GST on "X" (multiplying factor 0.1405)				132.66
	TOTAL				1076.82 Y
	Add 15% CPOH on "Y"				161.52
	TOTAL				1238.35 Z
	Add Cess @ 1% on "Z"				12.38
	Rate per sqm.				1250.73
	Say				1250.75

16.90 Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 sqm.				
	MATERIAL:				
	Tile 300x300 x9.8mm = 1.00 sqm.				
7893	Tactile tile	sqm	1.00	800.00	800.00
9977	Carriage	L.S.	6.24	2.12	13.23
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.024	4355.20	104.52
9999	Sundries	L.S.	3.64	2.12	7.72
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	5000.00	16.50
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	784.00	156.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.20	645.00	129.00
9999	Sundries	L.S.	26.91	2.12	57.05
	TOTAL				1284.82 W
	Add 1 % Water charges on "W"				12.85
	TOTAL				1297.67 X
	Add GST on "X" (multiplying factor 0.1405)				182.32
	TOTAL				1479.99 Y
	Add 15% CPOH on "Y"				222.00
	TOTAL				1701.99 Z
	Add Cess @ 1% on "Z"				17.02
	Cosr per sqm				1719.01
	Say				1719.00

16.91 Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.

16.91.1 60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL :				
7773	Coloured inter locking C.C. paver Block	sqm	10.00	425.00	4250.00
0982	Coarse sand (zone-III)	cum	0.50	1500.00	750.00
2203	Carriage of coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.11	900.00	99.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.11	163.93	18.03
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
9999	Sundries	L.S.	25.00	2.12	53.00
	TOTAL				6968.50 W
	Add 1 % Water charges on "W"				69.68
	TOTAL				7038.18 X
	Add GST on "X" (multiplying factor 0.1405)				988.86
	TOTAL				8027.05 Y
	Add 15% CPOH on "Y"				1204.06
	TOTAL				9231.10 Z
	Add Cess @ 1% on "Z"				92.31
	Cost of 10 Sqm				9323.41
	Cost of 1 Sqm				932.34
	Say				932.35

16.91.2 80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 sqm.				
	MATERIALS :				
8785	Interlocking C.C. paver block (80 mm thick, M-30)	sqm	10.00	485.00	4850.00
0982	Coarse sand (zone 111) (10 x 0.050 = 0.50 cum)	cum	0.50	1500.00	750.00
2203	Carriage of Coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of Fine sand	cum	0.15	163.93	24.59
	Labour for Laying				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
	TOTAL				7558.05 W
	Add 1 % Water charges on "W"				75.58
	TOTAL				7633.64 X
	Add GST on "X" (multiplying factor 0.1405)				1072.53
	TOTAL				8706.16 Y
	Add 15% CPOH on "Y"				1305.92
	TOTAL				10012.08 Z
	Add Cess @ 1% on "Z"				100.12
	Cost of 10 Sqm				10112.21
	Cost of 1 Sqm				1011.22
	Say				1011.20

16.92 Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 sqm.				
	MATERIALS :				
	Stone size 10x10x7.50cm =1sqm				
7774	Stone size 10x10x7.50cm	each	827.00	9.00	7443.00
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.434	4355.20	1890.16
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
	LABOUR :				
0124	Mason (brick layer) 2nd class	day	1.08	714.00	771.12
0114	Beldar	day	0.25	645.00	161.25
0115	Coolie	day	1.62	645.00	1044.90
0101	Bhisti	day	0.27	714.00	192.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.33.1	Rate as per Item No.13.33.1 of SH: FINISHING	sqm	10.00	319.35	3193.50 A
	TOTAL				14796.71 W
	Add 1 % Water charges on "W-A"				116.03
	TOTAL				14912.74 X
	Add GST on "X-A" (multiplying factor 0.1405)				1646.55
	TOTAL				16559.29 Y
	Add 15% CPOH on "Y-A"				2004.87
	TOTAL				18564.16 Z
	Add Cess @ 1% on "Z-A"				153.71
	Cost of 10 sqm.				18717.87
	Cost of 1 sqm.				1871.79
	Say				1871.80

16.93 Providing and placing in position 100 mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8 mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways , neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick , 100 mm wide MS sheet duly painted over priming coat , reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc i/c cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of 1 No of size 1.50 x 0.40 = 0.60 sqm				
	MATERIALS :				
	Precast RCC M-25				
5.33.1.1	Rate as per Item No.5.33.1.1 of SH: REINFORCED CEMENT CONCRETE	cum	0.06	7997.30	479.84 A
	Reinforcement TMT				
5.22.6	Rate as per Item No.5.22.6 of SH: REINFORCED CEMENT CONCRETE	Kg	4.59	89.65	411.49 A
	Welding by gas plant/ Electric plant				
10.22	Rate as per Item No.10.22 of SH: STEEL WORK	cm	82.00	3.40	278.80 A
	M.S. sheet 1.60 mm thick 2x(1.50+0.40)x0.10x0.016x7850 =4.77kg				
1013	Mild steel sheets for tanks	quintal	0.0477	4850.00	231.35
	Paint 2x(1.50+0.40)x0.10=0.38sqm				
13.61.1	Rate as per Item No.13.61.1 of SH: FINISHING	sqm	0.38	131.45	49.95 A
	Neat Cement Punning 1x1.50x0.40=0.60 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.18	Rate as per Item No.13.18 of SH: FINISHING	sqm	0.60	67.80	40.68 A
	TOTAL				1492.11 W
	Add 1 % Water charges on "W-A"				2.31
	TOTAL				1494.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				32.83
	TOTAL				1527.25 Y
	Add 15% CPOH on "Y-A"				39.97
	TOTAL				1567.22 Z
	Add Cess @ 1% on "Z-A"				3.06
	Cost of 0.60 sqm.				1570.29
	Cost of 1 sqm.				2617.15
	Say				2617.15

16.94 Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of ± 2%) Zinc coated, Mesh wire diameter 3.0 mm, mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2mm, supplied @ 3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum				
	MATERIAL				
8576	Crates made of Mesh type 10x12 (D=100 mm) Zn coated. (Mesh wire diameter 3.00 mm). Surface area required = 11.00 sqm.	sqm	11.00	200.00	2200.00
7753	Stone boulder with least dimension 200mm	cum	2.00	810.00	1620.00
2206	Carriage of boulder	cum	2.00	178.19	356.38
	LABOUR				
0128	Mate	day	0.10	714.00	71.40
0125	Mason (for plain stone work) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.50	645.00	967.50
	TOTAL				5572.28 W
	Add 1 % Water charges on "W"				55.72
	TOTAL				5628.00 X
	Add GST on "X" (multiplying factor 0.1405)				790.73
	TOTAL				6418.74 Y
	Add 15% CPOH on "Y"				962.81
	TOTAL				7381.55 Z
	Add Cess @ 1% on "Z"				73.82
	Cost of 2 cum				7455.36
	Cost of 1 cum				3727.68
	Say				3727.70

16.95 Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of ± 2%) Zinic+PVC coated, Mesh wire diameter2.7/3.7mm, mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum				
	MATERIAL				
8577	Crates made of Mesh type 10x12 (D=100 mm) Zn+PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD). Surface area required = 11.00 sqm.	sqm	11.00	250.00	2750.00
7753	Stone boulder with least dimension 200mm	cum	2.00	810.00	1620.00
	LABOUR				
0128	Mate	day	0.10	714.00	71.40
0125	Mason (for plain stone work) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.50	645.00	967.50
	TOTAL				5765.90 W
	Add 1 % Water charges on "W"				57.66
	TOTAL				5823.56 X
	Add GST on "X" (multiplying factor 0.1405)				818.21
	TOTAL				6641.77 Y
	Add 15% CPOH on "Y"				996.27
	TOTAL				7638.03 Z
	Add Cess @ 1% on "Z"				76.38
	Cost of 2 cum				7714.41
	Cost of 1 cum				3857.21
	Say				3857.20

16.96 Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of ±2%), Zinic+10% Al alloy+PVC coated, Mesh wire diameter 2.7/3.7mm (ID/OD), mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL					
8578	Crates made of Mesh type 10x12 (D=100 mm) Zn+10% Al alloy + PVC coated. Mesh wire diameter 2.70/ 3.70 mm (ID/OD). Surface area required = 11.00 sqm.	sqm	11.00	290.00	3190.00	
7753	Stone boulder with least dimension 200mm	cum	2.00	810.00	1620.00	
	LABOUR					
0128	Mate	day	0.10	714.00	71.40	
0125	Mason (for plain stone work) 2nd class	day	0.50	714.00	357.00	
0114	Beldar	day	1.50	645.00	967.50	
	TOTAL				6205.90	W
	Add 1 % Water charges on "W"				62.06	
	TOTAL				6267.96	X
	Add GST on "X" (multiplying factor 0.1405)				880.65	
	TOTAL				7148.61	Y
	Add 15% CPOH on "Y"				1072.29	
	TOTAL				8220.90	Z
	Add Cess @ 1% on "Z"				82.21	
	Cost of 2 cum				8303.11	
	Cost of 1 cum				4151.55	
	Say				4151.55	

SUB HEAD : 17.0

SANITARY INSTALLATIONS

17.1 Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:

17.1.1 White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1290.00	1290.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
1896	100 mm S.C.I. trap with vent heel	each	1.00	325.00	325.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				4321.10 W
	Add 1 % Water charges on "W"				43.21
	TOTAL				4364.31 X
	Add GST on "X" (multiplying factor 0.1405)				613.19
	TOTAL				4977.49 Y
	Add 15% CPOH on "Y"				746.62
	TOTAL				5724.12 Z
	Add Cess @ 1% on "Z"				57.24
	Cost of each				5781.36
	Say				5781.35

17.1.2 Stainless Steel AISI-304(18/8) Orissa pattern W.C. pan of size 585x480 mm with flush pipe and integrated type foot rests

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
7805	Salem Stainless steel AISI - 304 (18/8) Orrisa pattern W.C. pan 724mm X 578mm	each	1.00	4500.00	4500.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
1896	100 mm S.C.I. trap with vent heel	each	1.00	325.00	325.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				7531.10 W
	Add 1 % Water charges on "W"				75.31
	TOTAL				7606.41 X
	Add GST on "X" (multiplying factor 0.1405)				1068.70
	TOTAL				8675.11 Y
	Add 15% CPOH on "Y"				1301.27
	TOTAL				9976.38 Z
	Add Cess @ 1% on "Z"				99.76
	Cost of each				10076.14
	Say				10076.15

17.2 Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :

17.2.1 W.C. pan with ISI marked white solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				4141.10 W
	Add 1 % Water charges on "W"				41.41
	TOTAL				4182.51 X
	Add GST on "X" (multiplying factor 0.1405)				587.64
	TOTAL				4770.15 Y
	Add 15% CPOH on "Y"				715.52
	TOTAL				5485.67 Z
	Add Cess @ 1% on "Z"				54.86
	Cost of each				5540.53
	Say				5540.55

17.2.2 W.C. pan with ISI marked black solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	325.00	325.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.25	784.00	980.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				4056.10 W
	Add 1 % Water charges on "W"				40.56
	TOTAL				4096.66 X
	Add GST on "X" (multiplying factor 0.1405)				575.58
	TOTAL				4672.24 Y
	Add 15% CPOH on "Y"				700.84
	TOTAL				5373.08 Z
	Add Cess @ 1% on "Z"				53.73
	Cost of each				5426.81
	Say				5426.80

17.3 Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :

17.3.1 W.C. pan with ISI marked white solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00
9999	Overflow arrangement and specials for oveflow pipe	L.S.	62.79	2.12	133.11
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs ,screws etc.	L.S.	13.52	2.12	28.66
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				5188.05 W
	Add 1 % Water charges on "W"				51.88
	TOTAL				5239.93 X
	Add GST on "X" (multiplying factor 0.1405)				736.21
	TOTAL				5976.14 Y
	Add 15% CPOH on "Y"				896.42
	TOTAL				6872.56 Z
	Add Cess @ 1% on "Z"				68.73
	Cost of each				6941.29
	Say				6941.30

17.3.2 W.C. pan with ISI marked black solid plastic seat and lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	325.00	325.00
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00
9999	Overflow arrangement and specials for oveflow pipe	L.S.	62.79	2.12	133.11
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs, screws etc.	L.S.	13.52	2.12	28.66
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				5103.05 W
	Add 1 % Water charges on "W"				51.03
	TOTAL				5154.08 X
	Add GST on "X" (multiplying factor 0.1405)				724.15
	TOTAL				5878.23 Y
	Add 15% CPOH on "Y"				881.73
	TOTAL				6759.96 Z
	Add Cess @ 1% on "Z"				67.60
	Cost of each				6827.56
	Say				6827.55

17.4 Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :

17.4.1 One urinal basin with 5 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	1.00	470.00	470.00
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	450.00	450.00
7375	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Single lipped urinal	each	1.00	445.00	445.00
9999	Red lead, white lead and gaskit	L.S.	13.52	2.12	28.66
9999	Plugs ,screws etc.	L.S.	13.52	2.12	28.66
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	0.88	784.00	689.92
0123	Mason (brick layer) 1st class	day	0.88	784.00	689.92
0114	Beldar	day	1.50	645.00	967.50
	TOTAL				3938.06 W
	Add 1 % Water charges on "W"				39.38
	TOTAL				3977.44 X
	Add GST on "X" (multiplying factor 0.1405)				558.83
	TOTAL				4536.27 Y
	Add 15% CPOH on "Y"				680.44
	TOTAL				5216.71 Z
	Add Cess @ 1% on "Z"				52.17
	Cost of each				5268.87
	Say				5268.85

17.4.2 Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	2.00	470.00	940.00
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	450.00	450.00
7376	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of two lipped urinals	each	1.00	765.00	765.00
9999	Red lead, white lead and gaskit	L.S.	20.28	2.12	42.99
9999	Plugs ,screws etc.	L.S.	20.28	2.12	42.99
9999	Cement, sand and grit etc.	L.S.	20.28	2.12	42.99
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	26.91	2.12	57.05

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0123	Mason (brick layer) 1st class	day	1.50	784.00	1176.00
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				6065.71 W
	Add 1 % Water charges on "W"				60.66
	TOTAL				6126.37 X
	Add GST on "X" (multiplying factor 0.1405)				860.75
	TOTAL				6987.12 Y
	Add 15% CPOH on "Y"				1048.07
	TOTAL				8035.19 Z
	Add Cess @ 1% on "Z"				80.35
	Cost of each				8115.54
	Say				8115.55

17.4.3 Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	3.00	470.00	1410.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	500.00	500.00
7377	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of three lipped urinals	each	1.00	1050.00	1050.00
9999	Red lead, white lead and gaskit	L.S.	33.67	2.12	71.38
9999	Plugs ,screws etc.	L.S.	33.67	2.12	71.38
9999	Cement, sand and grit etc.	L.S.	33.67	2.12	71.38
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	40.30	2.12	85.44
	LABOUR				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0123	Mason (brick layer) 1st class	day	2.00	784.00	1568.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				8413.26 W
	Add 1 % Water charges on "W"				84.13
	TOTAL				8497.39 X
	Add GST on "X" (multiplying factor 0.1405)				1193.88
	TOTAL				9691.27 Y
	Add 15% CPOH on "Y"				1453.69
	TOTAL				11144.96 Z
	Add Cess @ 1% on "Z"				111.45
	Cost of each				11256.41
	Say				11256.40

17.4.4 Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	4.00	470.00	1880.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	500.00	500.00
7378	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of four lipped urinals	each	1.00	1430.00	1430.00
9999	Red lead, white lead and gaskit	L.S.	53.82	2.12	114.10
9999	Plugs ,screws etc.	L.S.	53.82	2.12	114.10
9999	Cement, sand and grit etc.	L.S.	53.82	2.12	114.10
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0123	Mason (brick layer) 1st class	day	3.00	784.00	2352.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				11633.07 W
	Add 1 % Water charges on "W"				116.33
	TOTAL				11749.40 X
	Add GST on "X" (multiplying factor 0.1405)				1650.79
	TOTAL				13400.20 Y
	Add 15% CPOH on "Y"				2010.03
	TOTAL				15410.22 Z
	Add Cess @ 1% on "Z"				154.10
	Cost of each				15564.33
	Say				15564.35

17.5 Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :

17.5.1 Single half stall urinal with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	1.00	865.00	865.00
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	450.00	450.00
1532	Flush pipe with union spreaders and clamps all in C.P. brass for single stall	each	1.00	310.00	310.00
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 50 mm dia	each	1.00	190.00	190.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	40.43	2.12	85.71
	LABOUR				
0116	Fitter (grade 1)	day	1.75	784.00	1372.00
0123	Mason (brick layer) 1st class	day	2.00	784.00	1568.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				7570.09 W
	Add 1 % Water charges on "W"				75.70
	TOTAL				7645.79 X
	Add GST on "X" (multiplying factor 0.1405)				1074.23
	TOTAL				8720.02 Y
	Add 15% CPOH on "Y"				1308.00
	TOTAL				10028.02 Z
	Add Cess @ 1% on "Z"				100.28
	Cost of each				10128.30
	Say				10128.30

17.5.2 Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	2.00	865.00	1730.00
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	450.00	450.00
1533	Flush pipe with union spreaders and clamps all in C.P. brass for double stall	each	1.00	425.00	425.00
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 50 mm dia	each	1.00	190.00	190.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	53.82	2.12	114.10
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	2.50	784.00	1960.00
0123	Mason (brick layer) 1st class	day	3.00	784.00	2352.00
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				11297.52 W
	Add 1 % Water charges on "W"				112.98
	TOTAL				11410.50 X
	Add GST on "X" (multiplying factor 0.1405)				1603.17
	TOTAL				13013.67 Y
	Add 15% CPOH on "Y"				1952.05
	TOTAL				14965.72 Z
	Add Cess @ 1% on "Z"				149.66
	Cost of each				15115.38
	Say				15115.40

17.5.3 Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	3.00	865.00	2595.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	500.00	500.00
1534	Flush pipe with union spreaders and clamps all in C.P. brass for range of three stall	each	1.00	525.00	525.00
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 80 mm dia	each	1.00	225.00	225.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	80.73	2.12	171.15
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	67.21	2.12	142.49
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0123	Mason (brick layer) 1st class	day	3.50	784.00	2744.00
0114	Beldar	day	7.00	645.00	4515.00
	TOTAL				13861.96 W
	Add 1 % Water charges on "W"				138.62
	TOTAL				14000.58 X
	Add GST on "X" (multiplying factor 0.1405)				1967.08
	TOTAL				15967.66 Y
	Add 15% CPOH on "Y"				2395.15
	TOTAL				18362.81 Z
	Add Cess @ 1% on "Z"				183.63
	Cost of each				18546.44
	Say				18546.45

17.5.4 Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	4.00	865.00	3460.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	500.00	500.00
1535	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall	each	1.00	610.00	610.00
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 80 mm dia	each	1.00	225.00	225.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Cement, sand and grit etc.	L.S.	107.64	2.12	228.20
9999	Painting of fittings etc.	L.S.	39.00	2.12	82.68
9977	Carriage of materials	L.S.	80.73	2.12	171.15
	LABOUR				
0116	Fitter (grade 1)	day	3.50	784.00	2744.00
0123	Mason (brick layer) 1st class	day	4.00	784.00	3136.00
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				16354.23 W
	Add 1 % Water charges on "W"				163.54
	TOTAL				16517.77 X
	Add GST on "X" (multiplying factor 0.1405)				2320.75
	TOTAL				18838.52 Y
	Add 15% CPOH on "Y"				2825.78
	TOTAL				21664.30 Z
	Add Cess @ 1% on "Z"				216.64
	Cost of each				21880.94
	Say				21880.95

17.6 Providing and fixing one piece construction white vitreous china squatting plate with an integral longitudinal flushing pipe, white P.V.C. automatic flushing cistern, with fittings, standard size G.I. / PVC flush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P. brass coupling complete, including painting of fittings and cutting and making good the walls and floors etc. wherever required :

17.6.1 Single squatting plate with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1915	Vitreous china squatting plate urinal	each	1.00	1053.00	1053.00
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	1.00	450.00	450.00
1540	Flush pipe and spreaders G.I.for single set of one squatting plate urinal	each	1.00	190.00	190.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	26.91	2.12	57.05
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	26.91	2.12	57.05
	LABOUR				
0116	Fitter (grade 1)	day	1.75	784.00	1372.00
0123	Mason (brick layer) 1st class	day	0.75	784.00	588.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				5794.42 W
	Add 1 % Water charges on "W"				57.94
	TOTAL				5852.37 X
	Add GST on "X" (multiplying factor 0.1405)				822.26
	TOTAL				6674.63 Y
	Add 15% CPOH on "Y"				1001.19
	TOTAL				7675.82 Z
	Add Cess @ 1% on "Z"				76.76
	Cost of each				7752.58
	Say				7752.60

17.6.2 Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
1915	Vitreous china squatting plate urinal	each	2.00	1053.00	2106.00	
7359	P.V.C. automatic flushing cistern					
	5 lts capacity	each	1.00	450.00	450.00	
1541	Flush pipe and spreaders G.I.for range					
	of two squatting plates urinal	each	1.00	275.00	275.00	
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21	
9999	Cement, sand and grit etc.	L.S.	53.82	2.12	114.10	
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12	
9977	Carriage of materials	L.S.	33.15	2.12	70.28	
	LABOUR					
0116	Fitter (grade 1)	day	2.50	784.00	1960.00	
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00	
0114	Beldar	day	4.00	645.00	2580.00	
	TOTAL				8431.70	W
	Add 1 % Water charges on "W"				84.32	
	TOTAL				8516.02	X
	Add GST on "X" (multiplying					
	factor 0.1405)				1196.50	
	TOTAL				9712.52	Y
	Add 15% CPOH on "Y"				1456.88	
	TOTAL				11169.40	Z
	Add Cess @ 1% on "Z"				111.69	
	Cost of each				11281.09	
	Say				11281.10	

17.6.3 Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1915	Vitreous china squatting plate urinal	each	3.00	1053.00	3159.00
7361	P.V.C. automatic flushing cistern				
	10 lts capacity	each	1.00	500.00	500.00
1542	Flush pipe and spreaders G.I.for range				
	of three squatting plates urinal	each	1.00	310.00	310.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	80.73	2.12	171.15
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	42.12	2.12	89.29
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0123	Mason (brick layer) 1st class	day	1.50	784.00	1176.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				11074.77 W
	Add 1 % Water charges on "W"				110.75
	TOTAL				11185.52 X
	Add GST on "X" (multiplying factor 0.1405)				1571.56
	TOTAL				12757.08 Y
	Add 15% CPOH on "Y"				1913.56
	TOTAL				14670.64 Z
	Add Cess @ 1% on "Z"				146.71
	Cost of each				14817.35
	Say				14817.35

17.6.4 Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1915	Vitreous china squatting plate urinal	each	4.00	1053.00	4212.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	500.00	500.00
1543	Flush pipe and spreaders G.I.for range of four squatting plates urinal	each	1.00	450.00	450.00
9999	Red lead, white lead and gaskit	L.S.	17.55	2.12	37.21
9999	Cement, sand and grit etc.	L.S.	107.64	2.12	228.20
9999	Painting of fittings etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	69.03	2.12	146.34
	LABOUR				
0116	Fitter (grade 1)	day	3.50	784.00	2744.00
0123	Mason (brick layer) 1st class	day	1.75	784.00	1372.00
0114	Beldar	day	5.50	645.00	3547.50
	TOTAL				13292.37 W
	Add 1 % Water charges on "W"				132.92
	TOTAL				13425.29 X
	Add GST on "X" (multiplying factor 0.1405)				1886.25
	TOTAL				15311.54 Y
	Add 15% CPOH on "Y"				2296.73
	TOTAL				17608.27 Z
	Add Cess @ 1% on "Z"				176.08
	Cost of each				17784.36
	Say				17784.35

17.7 Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:

17.7.1 White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	725.00	725.00
1885	15 mm C.P.brass tap	each	2.00	270.00	540.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1700.37 W
	Add 1 % Water charges on "W"				17.00
	TOTAL				1717.37 X
	Add GST on "X" (multiplying factor 0.1405)				241.29
	TOTAL				1958.67 Y
	Add 15% CPOH on "Y"				293.80
	TOTAL				2252.47 Z
	Add Cess @ 1% on "Z"				22.52
	Cost of each				2274.99
	Say				2275.00

17.7.2 White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	725.00	725.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1430.37 W
	Add 1 % Water charges on "W"				14.30
	TOTAL				1444.67 X
	Add GST on "X" (multiplying factor 0.1405)				202.98
	TOTAL				1647.65 Y
	Add 15% CPOH on "Y"				247.15
	TOTAL				1894.80 Z
	Add Cess @ 1% on "Z"				18.95
	Cost of each				1913.75
	Say				1913.75

17.7.3 White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	550.00	550.00
1885	15 mm C.P.brass tap	each	2.00	270.00	540.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1525.37 W
	Add 1 % Water charges on "W"				15.25
	TOTAL				1540.62 X
	Add GST on "X" (multiplying factor 0.1405)				216.46
	TOTAL				1757.08 Y
	Add 15% CPOH on "Y"				263.56
	TOTAL				2020.65 Z
	Add Cess @ 1% on "Z"				20.21
	Cost of each				2040.85
	Say				2040.85

17.7.4 White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	550.00	550.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1255.37 W
	Add 1 % Water charges on "W"				12.55
	TOTAL				1267.92 X
	Add GST on "X" (multiplying factor 0.1405)				178.14
	TOTAL				1446.07 Y
	Add 15% CPOH on "Y"				216.91
	TOTAL				1662.98 Z
	Add Cess @ 1% on "Z"				16.63
	Cost of each				1679.61
	Say				1679.60

17.7.5 White Vitreous China Angle back wash basin size 600 x 480 mm with single 15mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1949	Vitreous china angle back wash basin 600x480 mm	each	1.00	725.00	725.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1430.37 W
	Add 1 % Water charges on "W"				14.30
	TOTAL				1444.67 X
	Add GST on "X" (multiplying factor 0.1405)				202.98
	TOTAL				1647.65 Y
	Add 15% CPOH on "Y"				247.15
	TOTAL				1894.80 Z
	Add Cess @ 1% on "Z"				18.95
	Cost of each				1913.75
	Say				1913.75

17.7.6 White Vitreous China Angle back wash basin size 400 x 400 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1950	Vitreous china angle back wash basin 400x400 mm	each	1.00	425.00	425.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1130.37 W
	Add 1 % Water charges on "W"				11.30
	TOTAL				1141.67 X
	Add GST on "X" (multiplying factor 0.1405)				160.41
	TOTAL				1302.08 Y
	Add 15% CPOH on "Y"				195.31
	TOTAL				1497.39 Z
	Add Cess @ 1% on "Z"				14.97
	Cost of each				1512.37
	Say				1512.35

17.7.7 White Vitreous China Flat back wash basin size 450x 300 mm with single 15mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7004	Vitreous china flat back wash basin 450x300 mm	each	1.00	280.00	280.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				985.37 W
	Add 1 % Water charges on "W"				9.85
	TOTAL				995.22 X
	Add GST on "X" (multiplying factor 0.1405)				139.83
	TOTAL				1135.05 Y
	Add 15% CPOH on "Y"				170.26
	TOTAL				1305.31 Z
	Add Cess @ 1% on "Z"				13.05
	Cost of each				1318.37
	Say				1318.35

17.7.8 White Vitreous China Surgeon type wash basin of size 660x460 mm with a pair of 15 mm C.P. brass pillar taps with elbow including operated levers

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1100.00	1100.00
7363	15 mm C.P. brass tap with elbow operation lever	each	2.00	430.00	860.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2395.37 W
	Add 1 % Water charges on "W"				23.95
	TOTAL				2419.32 X
	Add GST on "X" (multiplying factor 0.1405)				339.92
	TOTAL				2759.24 Y
	Add 15% CPOH on "Y"				413.89
	TOTAL				3173.13 Z
	Add Cess @ 1% on "Z"				31.73
	Cost of each				3204.86
	Say				3204.85

17.7.9 White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI Marked

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1100.00	1100.00
7363	15 mm C.P. brass tap with elbow operation lever	each	1.00	430.00	430.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1965.37 W
	Add 1 % Water charges on "W"				19.65
	TOTAL				1985.02 X
	Add GST on "X" (multiplying factor 0.1405)				278.90
	TOTAL				2263.92 Y
	Add 15% CPOH on "Y"				339.59
	TOTAL				2603.51 Z
	Add Cess @ 1% on "Z"				26.04
	Cost of each				2629.54
	Say				2629.55

17.7.10 Stainless Steel AISI-304(18/8) Round basin 405x355 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7806	Salem Stainless steel AISI - 304 (18/8) Round basin 405mm X 355mm	each	1.00	1500.00	1500.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2205.37 W
	Add 1 % Water charges on "W"				22.05
	TOTAL				2227.42 X
	Add GST on "X" (multiplying factor 0.1405)				312.95
	TOTAL				2540.38 Y
	Add 15% CPOH on "Y"				381.06
	TOTAL				2921.43 Z
	Add Cess @ 1% on "Z"				29.21
	Cost of each				2950.65
	Say				2950.65

17.7.11 Stainless Steel AISI-304(18/8) Wash basin 530x345 mm with single 15 mm C.P. brass pillar tap

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7807	Salem Stainless steel AISI - 304 (18/8) Wash basin 530mm X 345mm	each	1.00	2000.00	2000.00
1885	15 mm C.P.brass tap	each	1.00	270.00	270.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2705.37 W
	Add 1 % Water charges on "W"				27.05
	TOTAL				2732.42 X
	Add GST on "X" (multiplying factor 0.1405)				383.91
	TOTAL				3116.33 Y
	Add 15% CPOH on "Y"				467.45
	TOTAL				3583.78 Z
	Add Cess @ 1% on "Z"				35.84
	Cost of each				3619.62
	Say				3619.60

17.7A Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:-
(a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	550.00	550.00
9001	C.P. Brass Centre Hole Basin Mixer With Cast Spout (Kigston/Marc/Prima/ Parko/Hindware)	each	1.00	1600.00	1600.00
1951	C.P. brass waste 32 mm	each	1.00	85.00	85.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, Sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				2585.37 W
	Add 1 % Water charges on "W"				25.85
	TOTAL				2611.22 X
	Add GST on "X" (multiplying factor 0.1405)				366.88
	TOTAL				2978.10 Y
	Add 15% CPOH on "Y"				446.72
	TOTAL				3424.82 Z
	Add Cess @ 1% on "Z"				34.25
	Cost of each				3459.07
	Say				3459.05

17.7B Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No.				
	MATERIAL				
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	550.00	550.00
7406	PTMT pillar cock	each	1.00	115.00	115.00
7491	PTMT - Waste Coupling 31/32 mm	each	1.00	34.00	34.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Red Lead, White Lead and Gasket	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc	L.S.	13.39	2.12	28.39

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
9999	Fixing Charges	L.S.	53.82	2.12	114.10
	TOTAL				1049.37 W
	Add 1 % Water charges on "W"				10.49
	TOTAL				1059.86 X
	Add GST on "X" (multiplying factor 0.1405)				148.91
	TOTAL				1208.78 Y
	Add 15% CPOH on "Y"				181.32
	TOTAL				1390.09 Z
	Add Cess @ 1% on "Z"				13.90
	Cost of each				1403.99
	Say				1404.00

17.8 Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pedestal				
	MATERIAL				
1396	Vitrous china pedestal for wash basin	each	1.00	950.00	950.00
9999	White cement mortar	L.S.	40.30	2.12	85.44
9988	Carriage of materials and fixing charges	L.S.	40.43	2.12	85.71
	TOTAL				1121.15 W
	Add 1 % Water charges on "W"				11.21
	TOTAL				1132.36 X
	Add GST on "X" (multiplying factor 0.1405)				159.10
	TOTAL				1291.46 Y
	Add 15% CPOH on "Y"				193.72
	TOTAL				1485.17 Z
	Add Cess @ 1% on "Z"				14.85
	Cost of each				1500.03
	Say				1500.05

17.9 Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required:

17.9.1 White glazed fire clay kitchen sink of size 600x450x 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1863	Fire clay kitchen sink: 600x450x 250 mm	each	1.00	1300.00	1300.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	40.00	40.00
1952	C.P. brass waste 40 mm	each	1.00	100.00	100.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting brackets etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				2468.67 W
	Add 1 % Water charges on "W"				24.69
	TOTAL				2493.36 X
	Add GST on "X" (multiplying factor 0.1405)				350.32
	TOTAL				2843.68 Y
	Add 15% CPOH on "Y"				426.55
	TOTAL				3270.23 Z
	Add Cess @ 1% on "Z"				32.70
	Cost of each				3302.93
	Say				3302.95

17.10 Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :

17.10.1 Kitchen sink with drain board

17.10.1.1 510x1040 mm bowl depth 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7095	Stainless steel kitchen sink - with drain board bowl depth 250 mm.	each	1.00	3000.00	3000.00
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32
9999	Painting of brackets etc.	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40
0114	Beldar	day	0.82	645.00	528.90
	TOTAL				4490.82 W
	Add 1 % Water charges on "W"				44.91
	TOTAL				4535.72 X
	Add GST on "X" (multiplying factor 0.1405)				637.27
	TOTAL				5172.99 Y
	Add 15% CPOH on "Y"				775.95
	TOTAL				5948.94 Z
	Add Cess @ 1% on "Z"				59.49
	Cost of each				6008.43
	Say				6008.45

17.10.1.2 510x1040 mm bowl depth 225 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7096	Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 225 mm.	each	1.00	3500.00	3500.00	
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00	
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32	
9999	Painting of brackets etc.	L.S.	26.91	2.12	57.05	
9977	Carriage of materials	L.S.	13.52	2.12	28.66	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	784.00	172.48	
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40	
0114	Beldar	day	0.82	645.00	528.90	
	TOTAL				4990.82	W
	Add 1 % Water charges on "W"				49.91	
	TOTAL				5040.72	X
	Add GST on "X" (multiplying factor 0.1405)				708.22	
	TOTAL				5748.95	Y
	Add 15% CPOH on "Y"				862.34	
	TOTAL				6611.29	Z
	Add Cess @ 1% on "Z"				66.11	
	Cost of each				6677.40	
	Say				6677.40	

17.10.1.3 510x1040 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7097	Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 200 mm.	each	1.00	3200.00	3200.00	
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00	
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32	
9999	Painting of brackets etc.	L.S.	26.91	2.12	57.05	
9977	Carriage of materials	L.S.	13.52	2.12	28.66	
	LABOUR					
0116	Fitter (grade 1)	day	0.22	784.00	172.48	
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40	
0114	Beldar	day	0.82	645.00	528.90	
	TOTAL				4690.82	W
	Add 1 % Water charges on "W"				46.91	
	TOTAL				4737.72	X
	Add GST on "X" (multiplying factor 0.1405)				665.65	
	TOTAL				5403.37	Y
	Add 15% CPOH on "Y"				810.51	
	TOTAL				6213.88	Z
	Add Cess @ 1% on "Z"				62.14	
	Cost of each				6276.02	
	Say				6276.00	

17.10.1.4 510x1040 mm bowl depth 178 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7098	Stainless steel kitchen sink - with drain board 510x1040mm bowl depth 178 mm	each	1.00	3000.00	3000.00
1309	C.I. bracket for wash basin and sinks	pair	2.00	88.00	176.00
9999	Cement, sand and grit etc.	L.S.	27.04	2.12	57.32
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40
0114	Beldar	day	0.82	645.00	528.90
	TOTAL				4490.82 W
	Add 1 % Water charges on "W"				44.91
	TOTAL				4535.72 X
	Add GST on "X" (multiplying factor 0.1405)				637.27
	TOTAL				5172.99 Y
	Add 15% CPOH on "Y"				775.95
	TOTAL				5948.94 Z
	Add Cess @ 1% on "Z"				59.49
	Cost of each				6008.43
	Say				6008.45

17.10.2 Kitchen sink without drain board

17.10.2.1 610x510 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7101	Stainless steel kitchen sink - without drain board 610x510mm bowl depth 200 mm	each	1.00	2200.00	2200.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				3194.77 W
	Add 1 % Water charges on "W"				31.95
	TOTAL				3226.72 X
	Add GST on "X" (multiplying factor 0.1405)				453.35
	TOTAL				3680.08 Y
	Add 15% CPOH on "Y"				552.01
	TOTAL				4232.09 Z
	Add Cess @ 1% on "Z"				42.32
	Cost of each				4274.41
	Say				4274.40

17.10.2.2 610x460 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7102	Stainless steel kitchen sink - without drain board 610x460mm bowl depth 200 mm.	each	1.00	1500.00	1500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				2494.77 W
	Add 1 % Water charges on "W"				24.95
	TOTAL				2519.72 X
	Add GST on "X" (multiplying factor 0.1405)				354.02
	TOTAL				2873.74 Y
	Add 15% CPOH on "Y"				431.06
	TOTAL				3304.80 Z
	Add Cess @ 1% on "Z"				33.05
	Cost of each				3337.85
	Say				3337.85

17.10.2.3 470x420 mm bowl depth 178 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7103	Stainless steel kitchen sink - without drain board 470x420mm bowl depth 178 mm	each	1.00	1200.00	1200.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9999	Painting brackets	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				2194.77 W
	Add 1 % Water charges on "W"				21.95
	TOTAL				2216.72 X
	Add GST on "X" (multiplying factor 0.1405)				311.45
	TOTAL				2528.17 Y
	Add 15% CPOH on "Y"				379.23
	TOTAL				2907.40 Z
	Add Cess @ 1% on "Z"				29.07
	Cost of each				2936.47
	Say				2936.45

17.11 Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :

17.11.1 Size 450x300x150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1871	White vitreous china laboratry sink 450x300x150 mm	each	1.00	1500.00	1500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	40.00	40.00
1952	C.P. brass waste 40 mm	each	1.00	100.00	100.00
1895	C.P.brass trap40 mm dia	each	1.00	315.00	315.00
3617	C.P.brass union 40 mm dia	each	1.00	210.00	210.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Sundries	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				3193.67 W
	Add 1 % Water charges on "W"				31.94
	TOTAL				3225.61 X
	Add GST on "X" (multiplying factor 0.1405)				453.20
	TOTAL				3678.81 Y
	Add 15% CPOH on "Y"				551.82
	TOTAL				4230.63 Z
	Add Cess @ 1% on "Z"				42.31
	Cost of each				4272.94
	Say				4272.95

17.11.2 Size 600x450x200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1872	White vitreous china laboratry sink 600x450x200 mm	each	1.00	2500.00	2500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
1315	C.P.brass chain with 40 mm dia rubber plug	each	1.00	40.00	40.00
1952	C.P. brass waste 40 mm	each	1.00	100.00	100.00
1895	C.P.brass trap40 mm dia	each	1.00	315.00	315.00
3617	C.P.brass union 40 mm dia	each	1.00	210.00	210.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.12	34.17
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Sundries	L.S.	26.91	2.12	57.05
9977	Carriage of materials	L.S.	13.52	2.12	28.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0114	Beldar	day	0.56	645.00	361.20
	TOTAL				4193.67 W
	Add 1 % Water charges on "W"				41.94
	TOTAL				4235.61 X
	Add GST on "X" (multiplying factor 0.1405)				595.10
	TOTAL				4830.71 Y
	Add 15% CPOH on "Y"				724.61
	TOTAL				5555.32 Z
	Add Cess @ 1% on "Z"				55.55
	Cost of each				5610.87
	Say				5610.85

17.12 Providing and fixing draining board with C.I. brackets including painting of brackets, cutting and making good the walls wherever required :

17.12.1 White glazed fire clay draining board of size 600x450x 25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7364	White glazed fire clay draining board 600x450x25 mm	each	1.00	500.00	500.00
1309	C.I. bracket for wash basin and sinks	pair	1.00	88.00	88.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9999	Painting brackets etc.	L.S.	26.00	2.12	55.12
9977	Carriage of materials	L.S.	7.80	2.12	16.54
	LABOUR				
0116	Fitter (grade 1)	day	0.06	784.00	47.04
0123	Mason (brick layer) 1st class	day	0.17	784.00	133.28
0114	Beldar	day	0.22	645.00	141.90
	TOTAL				1010.26 W
	Add 1 % Water charges on "W"				10.10
	TOTAL				1020.37 X
	Add GST on "X" (multiplying factor 0.1405)				143.36
	TOTAL				1163.73 Y
	Add 15% CPOH on "Y"				174.56
	TOTAL				1338.29 Z
	Add Cess @ 1% on "Z"				13.38
	Cost of each				1351.67
	Say				1351.65

17.13 Providing and fixing white vitreous china water closet squatting pan (Indian type) :

17.13.1 Long pattern W.C. pan of size 580 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1953	Vitreous china indian type w.c. pan size 580 mm	each	1.00	475.00	475.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1246.55 W
	Add 1 % Water charges on "W"				12.47
	TOTAL				1259.01 X
	Add GST on "X" (multiplying factor 0.1405)				176.89
	TOTAL				1435.91 Y
	Add 15% CPOH on "Y"				215.39
	TOTAL				1651.29 Z
	Add Cess @ 1% on "Z"				16.51
	Cost of each				1667.81
	Say				1667.80

17.13.2 Orissa pattern W.C. pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1290.00	1290.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				2061.55 W
	Add 1 % Water charges on "W"				20.62
	TOTAL				2082.16 X
	Add GST on "X" (multiplying factor 0.1405)				292.54
	TOTAL				2374.71 Y
	Add 15% CPOH on "Y"				356.21
	TOTAL				2730.92 Z
	Add Cess @ 1% on "Z"				27.31
	Cost of each				2758.22
	Say				2758.20

17.14 Extra for using coloured W.C. pan instead of white W.C. pan :
17.14.1 Orissa pattern W.C. pan 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
	Difference in cost of				
7104	Coloured Orissa pattern W.C. pan 580x440 mm	each	1.00	1600.00	1600.00
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	-1.00	1290.00	-1290.00
	TOTAL				310.00 W
	Add 1 % Water charges on "W"				3.10
	TOTAL				313.10 X
	Add GST on "X" (multiplying factor 0.1405)				43.99
	TOTAL				357.09 Y
	Add 15% CPOH on "Y"				53.56
	TOTAL				410.65 Z
	Add Cess @ 1% on "Z"				4.11
	Cost of each				414.76
	Say				414.75

17.15 Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1955	Vitreous china pedestal type water closet	each	1.00	1025.00	1025.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.12	28.39
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1796.55 W
	Add 1 % Water charges on "W"				17.97
	TOTAL				1814.51 X
	Add GST on "X" (multiplying factor 0.1405)				254.94
	TOTAL				2069.45 Y
	Add 15% CPOH on "Y"				310.42
	TOTAL				2379.87 Z
	Add Cess @ 1% on "Z"				23.80
	Cost of each				2403.67
	Say				2403.65

17.16 Extra for using coloured pedestal type W.C pan (European type) with low level cistern of same colour instead of white vitreous china W.C pan and cistern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7105	Coloured Pedestal type W.C. pan 580x440 mm (European type)	each	1.00	850.00	850.00
	Deduct				
1955	Vitreous china pedestal type water closet	each	-1.00	1025.00	-1025.00
7106	Coloured Vitreous china 10 lit. low level cistern	each	1.00	1000.00	1000.00
	Deduct				
7005	Vitreous china 10 litres low level cistern without fittings	each	-1.00	700.00	-700.00
	TOTAL				125.00 W
	Add 1 % Water charges on "W"				1.25
	TOTAL				126.25 X
	Add GST on "X" (multiplying factor 0.1405)				17.74
	TOTAL				143.99 Y
	Add 15% CPOH on "Y"				21.60
	TOTAL				165.59 Z
	Add Cess @ 1% on "Z"				1.66
	Cost of each				167.24
	Say				167.25

17.16A Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to Eureopean type W.C. of quality and make as approved by Engineer - in - charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No.				
1313	8 mm dia C.P. Brass/ S.S. Jet with flexible tube upto 1 metre long with S.S. tringular plate for Eureopean type W.C.(Hindware/Kingston/Prima/Parko/ Marc)	each	1.00	200.00	200.00
9999	Carriage of material and fixing charges	L.S.	11.20	2.12	23.74
	TOTAL				223.74 W
	Add 1 % Water charges on "W"				2.24
	TOTAL				225.98 X
	Add GST on "X" (multiplying factor 0.1405)				31.75
	TOTAL				257.73 Y
	Add 15% CPOH on "Y"				38.66
	TOTAL				296.39 Z
	Add Cess @ 1% on "Z"				2.96
	Cost of each				299.36
	Say				299.35

17.17 Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet :

17.17.1 250x130x30 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pair				
	MATERIAL				
1363	Vitreous china foot rests 250x130x30 mm	pair	1.00	100.00	100.00
9988	Cement, sand including carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
	TOTAL				164.13 W
	Add 1 % Water charges on "W"				1.64
	TOTAL				165.77 X
	Add GST on "X" (multiplying factor 0.1405)				23.29
	TOTAL				189.06 Y
	Add 15% CPOH on "Y"				28.36
	TOTAL				217.42 Z
	Add Cess @ 1% on "Z"				2.17
	Cost for 1 pair				219.59
	Say				219.60

17.17.2 250x125x25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pair				
	MATERIAL				
1970	Vitreous china foot rests 250x125x25 mm	pair	1.00	103.00	103.00
9988	Cement, sand including carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
	TOTAL				167.13 W
	Add 1 % Water charges on "W"				1.67
	TOTAL				168.80 X
	Add GST on "X" (multiplying factor 0.1405)				23.72
	TOTAL				192.51 Y
	Add 15% CPOH on "Y"				28.88
	TOTAL				221.39 Z
	Add Cess @ 1% on "Z"				2.21
	Cost for 1 pair				223.61
	Say				223.60

17.18 Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.

17.18.1 10 litre capacity - White

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7358	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	each	1.00	575.00	575.00
9977	Carriage of materials	L.S.	5.20	2.12	11.02
	LABOUR				
	(Considering 1 fitter and 1 beldar can fix 8 cistern in one day)				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0114	Beldar	day	0.125	645.00	80.63
	TOTAL				764.65 W
	Add 1 % Water charges on "W"				7.65
	TOTAL				772.30 X
	Add GST on "X" (multiplying factor 0.1405)				108.51
	TOTAL				880.80 Y
	Add 15% CPOH on "Y"				132.12
	TOTAL				1012.92 Z
	Add Cess @ 1% on "Z"				10.13
	Cost of each				1023.05
	Say				1023.05

17.18.2 10 litre capacity - coloured

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7123	Coloured High density polythylene/ poly propylene 10 lit. (full flush) capacity controlled low level flushing cistern with fittings	each	1.00	550.00	550.00
9977	Carriage of materials	L.S.	5.20	2.12	11.02
	LABOUR				
	(Considering 1 fitter and 1 beldar can fix 8 cistern in one day)				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0114	Beldar	day	0.125	645.00	80.63
	TOTAL				739.65 W
	Add 1 % Water charges on "W"				7.40
	TOTAL				747.05 X
	Add GST on "X" (multiplying factor 0.1405)				104.96
	TOTAL				852.01 Y
	Add 15% CPOH on "Y"				127.80
	TOTAL				979.81 Z
	Add Cess @ 1% on "Z"				9.80
	Cost of each				989.60
	Say				989.60

17.19 Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete.

17.19.1 10 litre (full flush) capacity-white

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7126	White Vitreous china 10 lit. (full flush) capacity controlled low level flushing cistern with all fittings	each	1.00	700.00	700.00
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1443.16 W
	Add 1 % Water charges on "W"				14.43
	TOTAL				1457.59 X
	Add GST on "X" (multiplying factor 0.1405)				204.79
	TOTAL				1662.39 Y
	Add 15% CPOH on "Y"				249.36
	TOTAL				1911.74 Z
	Add Cess @ 1% on "Z"				19.12
	Cost of each				1930.86
	Say				1930.85

17.19.2 10 litre (full flush) capacity-coloured

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7127	Coloured Vitreous china 10 lit. (full flush) capacity controlled low level flushing cistern with all fittings	each	1.00	1150.00	1150.00
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1893.16 W
	Add 1 % Water charges on "W"				18.93
	TOTAL				1912.09 X
	Add GST on "X" (multiplying factor 0.1405)				268.65
	TOTAL				2180.74 Y
	Add 15% CPOH on "Y"				327.11
	TOTAL				2507.85 Z
	Add Cess @ 1% on "Z"				25.08
	Cost of each				2532.93
	Say				2532.95

17.20 Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :

17.20.1 White solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1875	White plastic seat (solid)with lid				
	C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				438.39 W
	Add 1 % Water charges on "W"				4.38
	TOTAL				442.77 X
	Add GST on "X" (multiplying				
	factor 0.1405)				62.21
	TOTAL				504.98 Y
	Add 15% CPOH on "Y"				75.75
	TOTAL				580.73 Z
	Add Cess @ 1% on "Z"				5.81
	Cost of each				586.53
	Say				586.55

17.20.2 Black solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1876	Black plastic seat (solid) with lid				
	C.P.brass hinges and rubber buffers	each	1.00	325.00	325.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				353.39 W
	Add 1 % Water charges on "W"				3.53
	TOTAL				356.92 X
	Add GST on "X" (multiplying				
	factor 0.1405)				50.15
	TOTAL				407.07 Y
	Add 15% CPOH on "Y"				61.06
	TOTAL				468.13 Z
	Add Cess @ 1% on "Z"				4.68
	Cost of each				472.81
	Say				472.80

17.20.3 Coloured (other than black & white) solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
	Difference in cost of				
7107	Coloured (other than black) solid				
	P.V.C. seat in European W.C. pan	each	1.00	350.00	350.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				378.39 W
	Add 1 % Water charges on "W"				3.78
	TOTAL				382.17 X
	Add GST on "X" (multiplying factor 0.1405)				53.69
	TOTAL				435.87 Y
	Add 15% CPOH on "Y"				65.38
	TOTAL				501.25 Z
	Add Cess @ 1% on "Z"				5.01
	Cost of each				506.26
	Say				506.25

17.22 Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1614	G.I. inlet connection	each	1.00	70.00	70.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				98.39 W
	Add 1 % Water charges on "W"				0.98
	TOTAL				99.37 X
	Add GST on "X" (multiplying factor 0.1405)				13.96
	TOTAL				113.33 Y
	Add 15% CPOH on "Y"				17.00
	TOTAL				130.33 Z
	Add Cess @ 1% on "Z"				1.30
	Cost of each				131.64
	Say				131.65

17.22A Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7121	Bottle Trap	each	1.00	620.00	620.00
9988	Carriage and sundries	L.S.	20.00	2.12	42.40
	TOTAL				662.40 W
	Add 1 % Water charges on "W"				6.62
	TOTAL				669.02 X
	Add GST on "X" (multiplying factor 0.1405)				94.00
	TOTAL				763.02 Y
	Add 15% CPOH on "Y"				114.45
	TOTAL				877.48 Z
	Add Cess @ 1% on "Z"				8.77
	Cost of each				886.25
	Say				886.25

17.22B Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge.
(a) 15 mm nominal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7122	CP Brass Single lever telephonic wall mixer of approved make	each	1.00	4500.00	4500.00
9977	Carriage of material and fixing charges	L.S.	34.71	2.12	73.59
	TOTAL				4573.59 W
	Add 1 % Water charges on "W"				45.74
	TOTAL				4619.32 X
	Add GST on "X" (multiplying factor 0.1405)				649.01
	TOTAL				5268.34 Y
	Add 15% CPOH on "Y"				790.25
	TOTAL				6058.59 Z
	Add Cess @ 1% on "Z"				60.59
	Cost of each				6119.17
	Say				6119.15

17.23 Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1913	Vitreous china lipped front urinal	each	1.00	470.00	470.00
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	0.38	784.00	297.92
0114	Beldar	day	0.38	645.00	245.10
	TOTAL				1033.14 W
	Add 1 % Water charges on "W"				10.33
	TOTAL				1043.47 X
	Add GST on "X" (multiplying factor 0.1405)				146.61
	TOTAL				1190.08 Y
	Add 15% CPOH on "Y"				178.51
	TOTAL				1368.59 Z
	Add Cess @ 1% on "Z"				13.69
	Cost of each				1382.28
	Say				1382.30

17.24 Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1915	Vitreous china squatting plate urinal	each	1.00	1053.00	1053.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Cement, sand and grit etc.	L.S.	10.79	2.12	22.87
9977	Carriage of materials	L.S.	13.39	2.12	28.39
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				2533.26 W
	Add 1 % Water charges on "W"				25.33
	TOTAL				2558.59 X
	Add GST on "X" (multiplying factor 0.1405)				359.48
	TOTAL				2918.08 Y
	Add 15% CPOH on "Y"				437.71
	TOTAL				3355.79 Z
	Add Cess @ 1% on "Z"				33.56
	Cost of each				3389.35
	Say				3389.35

17.25 Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings :

17.25.1 Flat back wash basin of size 630x450 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1947	Vitreous china flat back wash basin 630x450 mm	each	1.00	725.00	725.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				859.22 W
	Add 1 % Water charges on "W"				8.59
	TOTAL				867.81 X
	Add GST on "X" (multiplying factor 0.1405)				121.93
	TOTAL				989.74 Y
	Add 15% CPOH on "Y"				148.46
	TOTAL				1138.20 Z
	Add Cess @ 1% on "Z"				11.38
	Cost of each				1149.58
	Say				1149.60

17.25.2 Flat back wash basin of size 550x400 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3229	Vitreous china flat back wash basin 550x400 mm	each	1.00	550.00	550.00
9999	Fixing charges	L.S.	53.82	2.12	114.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				684.22 W
	Add 1 % Water charges on "W"				6.84
	TOTAL				691.06 X
	Add GST on "X" (multiplying factor 0.1405)				97.09
	TOTAL				788.15 Y
	Add 15% CPOH on "Y"				118.22
	TOTAL				906.38 Z
	Add Cess @ 1% on "Z"				9.06
	Cost of each				915.44
	Say				915.45

17.25.3 Angle back wash basin of size 600x480 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1949	Vitreous china angle back wash basin 600x480 mm	each	1.00	725.00	725.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				859.22 W
	Add 1 % Water charges on "W"				8.59
	TOTAL				867.81 X
	Add GST on "X" (multiplying factor 0.1405)				121.93
	TOTAL				989.74 Y
	Add 15% CPOH on "Y"				148.46
	TOTAL				1138.20 Z
	Add Cess @ 1% on "Z"				11.38
	Cost of each				1149.58
	Say				1149.60

17.25.4 Angle back wash basin of size 400x400 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1950	Vitreous china angle back wash basin 400x400 mm	each	1.00	425.00	425.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				559.22 W
	Add 1 % Water charges on "W"				5.59
	TOTAL				564.81 X
	Add GST on "X" (multiplying factor 0.1405)				79.36
	TOTAL				644.17 Y
	Add 15% CPOH on "Y"				96.62
	TOTAL				740.79 Z
	Add Cess @ 1% on "Z"				7.41
	Cost of each				748.20
	Say				748.20

17.25.5 Flat back wash basin of size 450x300 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7004	Vitreous china flat back wash basin 450x300 mm	each	1.00	280.00	280.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				414.22 W
	Add 1 % Water charges on "W"				4.14
	TOTAL				418.36 X
	Add GST on "X" (multiplying factor 0.1405)				58.78
	TOTAL				477.14 Y
	Add 15% CPOH on "Y"				71.57
	TOTAL				548.71 Z
	Add Cess @ 1% on "Z"				5.49
	Cost of each				554.20
	Say				554.20

17.25.6 Surgeon type wash basin of size 660x460 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1100.00	1100.00
9999	Fixing charges	L.S.	53.82	2.12	114.10
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	TOTAL				1234.22 W
	Add 1 % Water charges on "W"				12.34
	TOTAL				1246.56 X
	Add GST on "X" (multiplying factor 0.1405)				175.14
	TOTAL				1421.70 Y
	Add 15% CPOH on "Y"				213.26
	TOTAL				1634.96 Z
	Add Cess @ 1% on "Z"				16.35
	Cost of each				1651.31
	Say				1651.30

17.26 Providing and fixing kitchen sink including making all connections excluding cost of fittings.

17.26.1 White glazed fire clay sink of size 600x450x250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1863	Fire clay kitchen sink: 600x450x250 mm	each	1.00	1300.00	1300.00
9999	Fixing charges	L.S.	40.43	2.12	85.71

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	TOTAL				1408.59 W
	Add 1 % Water charges on "W"				14.09
	TOTAL				1422.67 X
	Add GST on "X" (multiplying factor 0.1405)				199.89
	TOTAL				1622.56 Y
	Add 15% CPOH on "Y"				243.38
	TOTAL				1865.94 Z
	Add Cess @ 1% on "Z"				18.66
	Cost of each				1884.60
	Say				1884.60

17.27 Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings :

17.27.1 Size 450x300x150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1871	White vitreous china laboratry sink 450x300x150 mm	each	1.00	1500.00	1500.00
9999	Fixing charges	L.S.	40.43	2.12	85.71
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	TOTAL				1608.59 W
	Add 1 % Water charges on "W"				16.09
	TOTAL				1624.67 X
	Add GST on "X" (multiplying factor 0.1405)				228.27
	TOTAL				1852.94 Y
	Add 15% CPOH on "Y"				277.94
	TOTAL				2130.88 Z
	Add Cess @ 1% on "Z"				21.31
	Cost of each				2152.19
	Say				2152.20

17.27.2 Size 600x450x200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1872	White vitreous china laboratry sink 600x450x200 mm	each	1.00	2500.00	2500.00
9999	Fixing charges	L.S.	40.43	2.12	85.71

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	TOTAL				2608.59 W
	Add 1 % Water charges on "W"				26.09
	TOTAL				2634.67 X
	Add GST on "X" (multiplying factor 0.1405)				370.17
	TOTAL				3004.84 Y
	Add 15% CPOH on "Y"				450.73
	TOTAL				3455.57 Z
	Add Cess @ 1% on "Z"				34.56
	Cost of each				3490.13
	Say				3490.15

17.28 Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.

17.28.1 Semi rigid pipe

17.28.1.1 32 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7117	Semi Rigid PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	25.00	25.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				67.99 W
	Add 1 % Water charges on "W"				0.68
	TOTAL				68.67 X
	Add GST on "X" (multiplying factor 0.1405)				9.65
	TOTAL				78.32 Y
	Add 15% CPOH on "Y"				11.75
	TOTAL				90.07 Z
	Add Cess @ 1% on "Z"				0.90
	Cost of each				90.97
	Say				90.95

17.28.1.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7118	Semi Rigid PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	33.00	33.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				75.99 W
	Add 1 % Water charges on "W"				0.76
	TOTAL				76.75 X
	Add GST on "X" (multiplying factor 0.1405)				10.78
	TOTAL				87.54 Y
	Add 15% CPOH on "Y"				13.13
	TOTAL				100.67 Z
	Add Cess @ 1% on "Z"				1.01
	Cost of each				101.67
	Say				101.65

17.28.2 Flexible pipe

17.28.2.1 32 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7119	Flexible (coil shaped) PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				77.99 W
	Add 1 % Water charges on "W"				0.78
	TOTAL				78.77 X
	Add GST on "X" (multiplying factor 0.1405)				11.07
	TOTAL				89.84 Y
	Add 15% CPOH on "Y"				13.48
	TOTAL				103.32 Z
	Add Cess @ 1% on "Z"				1.03
	Cost of each				104.35
	Say				104.35

17.28.2.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7120	Flexible (coil shaped) PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	1.00	35.00	35.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				77.99 W
	Add 1 % Water charges on "W"				0.78
	TOTAL				78.77 X
	Add GST on "X" (multiplying factor 0.1405)				11.07
	TOTAL				89.84 Y
	Add 15% CPOH on "Y"				13.48
	TOTAL				103.32 Z
	Add Cess @ 1% on "Z"				1.03
	Cost of each				104.35
	Say				104.35

17.29 Providing and fixing 100 mm sand cast Iron grating for gully trap.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1369	S.C.I. gully or nahani grating 100 mm dia	each	1.00	25.00	25.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				33.82 W
	Add 1 % Water charges on "W"				0.34
	TOTAL				34.16 X
	Add GST on "X" (multiplying factor 0.1405)				4.80
	TOTAL				38.96 Y
	Add 15% CPOH on "Y"				5.84
	TOTAL				44.80 Z
	Add Cess @ 1% on "Z"				0.45
	Cost of each				45.25
	Say				45.25

17.30 Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9988	Carriage of materials and fixing charges	L.S.	1.82	2.12	3.86
	TOTAL				33.86 W
	Add 1 % Water charges on "W"				0.34
	TOTAL				34.20 X
	Add GST on "X" (multiplying factor 0.1405)				4.80
	TOTAL				39.00 Y
	Add 15% CPOH on "Y"				5.85
	TOTAL				44.85 Z
	Add Cess @ 1% on "Z"				0.45
	Cost of each				45.30
	Say				45.30

17.31 Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1392	Mirror of superior make glass 60x45 cm	each	1.00	450.00	450.00
7116	Hard board 6 mm thick	sqm	0.27	115.00	31.05
	600x450 mm Wooden cleats				
8.23	Rate as per item no 8.23 of				
	SH : Cladding work	each	4.00	35.50	142.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9977	Carriage of materials	L.S.	4.16	2.12	8.82
9999	Sundries	L.S.	1.43	2.12	3.03
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				1090.57 W
	Add 1 % Water charges on "W-A"				9.49
	TOTAL				1100.06 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				134.61
	TOTAL				1234.66 Y
	Add 15% CPOH on "Y-A"				163.90
	TOTAL				1398.56 Z
	Add Cess @ 1% on "Z-A"				12.57
	Cost of each				1411.13
	Say				1411.15

17.32 Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :

17.32.1 Circular shape 450 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7112	Circular shape 450 mm dia Mirror with Plastic moulded frame Hard board 0.45x0.45 = 0.2025 sqm Add wastage @ 10% = 0.0203 sqm = 0.2228 sqm say 0.22sqm	each	1.00	400.00	400.00
7116	Hard board 6 mm thick	sqm	0.22	115.00	25.30
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	22.00	44.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	180.00	3.60
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				933.22 W
	Add 1 % Water charges on "W"				9.33
	TOTAL				942.55 X
	Add GST on "X" (multiplying factor 0.1405)				132.43
	TOTAL				1074.98 Y
	Add 15% CPOH on "Y"				161.25
	TOTAL				1236.23 Z
	Add Cess @ 1% on "Z"				12.36
	Cost of each				1248.59
	Say				1248.60

17.32.2 Rectangular shape 453x357 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7113	Rectangular shape 453x357 mm Mirror with Plastic moulded frame Hard board 0.453x0.357 = 0.1617 sqm Add wastage @ 10% = 0.0162 sqm = 0.1779 sqm say 0.18 sqm	each	1.00	290.00	290.00
7116	Hard board 6 mm thick	sqm	0.18	115.00	20.70
7048	Rawl plug 50 mm (designation 10 no.)	each	4.00	22.00	88.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				866.22 W
	Add 1 % Water charges on "W"				8.66
	TOTAL				874.88 X
	Add GST on "X" (multiplying factor 0.1405)				122.92
	TOTAL				997.80 Y
	Add 15% CPOH on "Y"				149.67
	TOTAL				1147.47 Z
	Add Cess @ 1% on "Z"				11.47
	Cost of each				1158.95
	Say				1158.95

17.32.3 Oval shape 450x350 mm (outer dimensions)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7114	Ovel shape 450x350 mm (outer dimensions) Mirror with Plastic moulded frame	each	1.00	290.00	290.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Hard board 0.45x0.35=0.1575 sqm Add wastage @ 10% = 0.0158 sqm = 0.1733 sqm say 0.17 sqm				
7116	Hard board 6 mm thick	sqm	0.17	115.00	19.55
7048	Rawl plug 50 mm (designation 10 no.)	each	4.00	22.00	88.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				865.07 W
	Add 1 % Water charges on "W"				8.65
	TOTAL				873.72 X
	Add GST on "X" (multiplying factor 0.1405)				122.76
	TOTAL				996.48 Y
	Add 15% CPOH on "Y"				149.47
	TOTAL				1145.95 Z
	Add Cess @ 1% on "Z"				11.46
	Cost of each				1157.41
	Say				1157.40

17.32.4 Rectangular shape 1500x450 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7115	Rectangular shape 1500x450 mm Mirror with Plastic moulded frame Hard board 1.50x0.45 = 0.675 sqm Add wastage @ 10% = 0.0675 sqm = 0.7425 sqm say 0.74sqm	each	1.00	670.00	670.00
7116	Hard board 6 mm thick	sqm	0.74	115.00	85.10
7048	Rawl plug 50 mm (designation 10 no.)	each	6.00	22.00	132.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9999	Sundries	L.S.	1.43	2.12	3.03
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.33	714.00	235.62
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				1358.22 W
	Add 1 % Water charges on "W"				13.58
	TOTAL				1371.80 X
	Add GST on "X" (multiplying factor 0.1405)				192.74
	TOTAL				1564.54 Y
	Add 15% CPOH on "Y"				234.68
	TOTAL				1799.22 Z
	Add Cess @ 1% on "Z"				17.99
	Cost of each				1817.21
	Say				1817.20

17.33 Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3228	600x120 mm glass shelf with anodised aluminium angle frame, C.P. brass brackets and guard rail of standard size	each	1.00	300.00	300.00
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	22.00	44.00
0586	Chromium plated Brass screws 40 mm	100 Nos	0.04	290.00	11.60
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0112	Carpenter 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25
	TOTAL				704.17 W
	Add 1 % Water charges on "W"				7.04
	TOTAL				711.21 X
	Add GST on "X" (multiplying factor 0.1405)				99.93
	TOTAL				811.14 Y
	Add 15% CPOH on "Y"				121.67
	TOTAL				932.81 Z
	Add Cess @ 1% on "Z"				9.33
	Cost of each				942.13
	Say				942.15

17.34 Providing and fixing toilet paper holder :
17.34.1 C.P. brass

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1889	C.P.brass toilet paper holder of standard size	each	1.00	280.00	280.00
	Wooden cleats				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	35.50	71.00 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	180.00	3.60
9977	Carriage of materials	L.S.	4.29	2.12	9.09
	LABOUR				
0112	Carpenter 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				526.77 W
	Add 1 % Water charges on "W-A"				4.56
	TOTAL				531.33 X
	Add GST on "X-A" (multiplying factor 0.1405)				64.68
	TOTAL				596.01 Y
	Add 15% CPOH on "Y-A"				78.75
	TOTAL				674.76 Z
	Add Cess @ 1% on "Z-A"				6.04
	Cost of each				680.80
	Say				680.80

17.34.2 Vitreous china

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one no.					
	MATERIAL					
3749	Vitreous china toilet paper holder of standard size	each	1.00	110.00	110.00	
	Wooden cleats					
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	35.50	71.00	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80	
9977	Carriage of materials	L.S.	4.29	2.12	9.09	
	LABOUR					
0112	Carpenter 2nd class	day	0.12	714.00	85.68	
0114	Beldar	day	0.12	645.00	77.40	
	TOTAL				363.97	W
	Add 1 % Water charges on "W-A"				2.93	
	TOTAL				366.90	X
	Add GST on "X-A" (multiplying factor 0.1405)				41.57	
	TOTAL				408.48	Y
	Add 15% CPOH on "Y-A"				50.62	
	TOTAL				459.10	Z
	Add Cess @ 1% on "Z-A"				3.88	
	Cost of each				462.98	
	Say				463.00	

17.35 Providing and fixing soil, waste and vent pipes :
17.35.1 100 mm dia
17.35.1.1 Sand cast iron S&S pipe as per IS: 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 17.37 m (1.8mx10)-(9x0.07m) = 17.37 m					
	MATERIAL					
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia	each	10.50	1135.00	11917.50	
9999	Scaffolding	L.S.	80.73	2.12	171.15	
9977	Carriage of materials	L.S.	53.82	2.12	114.10	
	LABOUR					
0116	Fitter (grade 1)	day	0.42	784.00	329.28	
0100	Bandhani	day	0.21	714.00	149.94	
0114	Beldar	day	0.83	645.00	535.35	
	TOTAL				13217.32	W
	Add 1 % Water charges on "W"				132.17	
	TOTAL				13349.49	X
	Add GST on "X" (multiplying factor 0.1405)				1875.60	
	TOTAL				15225.09	Y
	Add 15% CPOH on "Y"				2283.76	
	TOTAL				17508.86	Z
	Add Cess @ 1% on "Z"				175.09	
	Cost for 17.37 m pan				17683.94	
	Cost per metre				1018.07	
	Say				1018.05	

17.35.1.2 Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 16.87 m				
	(1.75mx10)-(9x0.07m) = 16.87 m				
	MATERIAL				
3620	C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:100mm dia	each	10.50	1170.00	12285.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	0.42	784.00	329.28
0100	Bandhani	day	0.21	714.00	149.94
0114	Beldar	day	0.83	645.00	535.35
	TOTAL				13584.82 W
	Add 1 % Water charges on "W"				135.85
	TOTAL				13720.66 X
	Add GST on "X" (multiplying factor 0.1405)				1927.75
	TOTAL				15648.42 Y
	Add 15% CPOH on "Y"				2347.26
	TOTAL				17995.68 Z
	Add Cess @ 1% on "Z"				179.96
	Cost for 16.87 m pan				18175.64
	Cost per metre				1077.39
	Say				1077.40

17.35.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 18.00 m (6 x 3.00 m)				
	MATERIAL				
7621	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 100 mm dia (3000 mm length pipe) i/c (3% wastage)	metre	18.54	700.00	12978.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	53.82	2.12	114.10
	LABOUR				
0116	Fitter (grade 1)	day	0.42	784.00	329.28
0100	Bandhani	day	0.21	714.00	149.94
0114	Beldar	day	0.83	645.00	535.35
	TOTAL				14277.82 W
	Add 1 % Water charges on "W"				142.78
	TOTAL				14420.59 X
	Add GST on "X" (multiplying factor 0.1405)				2026.09
	TOTAL				16446.69 Y
	Add 15% CPOH on "Y"				2467.00
	TOTAL				18913.69 Z
	Add Cess @ 1% on "Z"				189.14
	Cost of 18.00 metre				19102.83
	Cost of 1 metre				1061.27
	Say				1061.25

17.35.2 75 mm diameter :

17.35.2.1 Sand cast iron S&S pipe as per IS: 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 17.42 m (1.8mx10)-(9x0.065m) = 17.415 m say 17.42 m				
	MATERIAL				
1616	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long:				
	75mm dia	each	10.50	1050.00	11025.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	40.38	2.12	85.61
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40
0100	Bandhani	day	0.17	714.00	121.38
0114	Beldar	day	0.70	645.00	451.50
	TOTAL				12129.03 W
	Add 1 % Water charges on "W"				121.29
	TOTAL				12250.32 X
	Add GST on "X" (multiplying factor 0.1405)				1721.17
	TOTAL				13971.49 Y
	Add 15% CPOH on "Y"				2095.72
	TOTAL				16067.22 Z
	Add Cess @ 1% on "Z"				160.67
	Cost for 17.42 m pan				16227.89
	Cost per metre				931.57
	Say				931.55

17.35.2.2 Centrifugally cast (spun) iron socketed pipe as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 16.92 m (1.75mx10)-(9x0.065m) = 16.915 m. say 16.92 m				
	MATERIAL				
3621	C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:75mm dia including 5% allowance for wastage	each	10.50	1150.00	12075.00
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	40.38	2.12	85.61
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40
0100	Bandhani	day	0.17	714.00	121.38
0114	Beldar	day	0.70	645.00	451.50
	TOTAL				13179.03 W
	Add 1 % Water charges on "W"				131.79
	TOTAL				13310.82 X
	Add GST on "X" (multiplying factor 0.1405)				1870.17
	TOTAL				15180.99 Y
	Add 15% CPOH on "Y"				2277.15
	TOTAL				17458.14 Z
	Add Cess @ 1% on "Z"				174.58
	Cost for 16.92 m pan				17632.72
	Cost per metre				1042.12
	Say				1042.10

17.35.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 18.00 m (6 x 3.00 m)				
	MATERIAL				
7622	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 75 mm dia (3000 mm length pipe) i/c (3% wastage)	metre	18.54	570.00	10567.80
9999	Scaffolding	L.S.	80.73	2.12	171.15
9977	Carriage of materials	L.S.	40.38	2.12	85.61
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40
0100	Bandhani	day	0.17	714.00	121.38
0114	Beldar	day	0.70	645.00	451.50
	TOTAL				11671.83 W
	Add 1 % Water charges on "W"				116.72
	TOTAL				11788.55 X
	Add GST on "X" (multiplying factor 0.1405)				1656.29
	TOTAL				13444.84 Y
	Add 15% CPOH on "Y"				2016.73
	TOTAL				15461.57 Z
	Add Cess @ 1% on "Z"				154.62
	Cost of 18.00 metre				15616.19
	Cost of 1 metre				867.57
	Say				867.55

17.36 Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :

17.36.1 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 4 joints				
	MATERIAL				
9999	Cement mortar, spun yarn etc.	L.S.	6.89	2.12	14.61
	LABOUR				
0116	Fitter (grade 1)	day	0.28	784.00	219.52
0114	Beldar	day	0.28	645.00	180.60
	TOTAL				414.73 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				418.87 X
	Add GST on "X" (multiplying factor 0.1405)				58.85
	TOTAL				477.73 Y
	Add 15% CPOH on "Y"				71.66
	TOTAL				549.38 Z
	Add Cess @ 1% on "Z"				5.49
	Cost of 4 joints				554.88
	Cost of 1 joint				138.72
	Say				138.70

17.36.2 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 4 joints				
	MATERIAL				
9999	Cement mortar, spun yarn etc.	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				488.66 W
	Add 1 % Water charges on "W"				4.89
	TOTAL				493.54 X
	Add GST on "X" (multiplying factor 0.1405)				69.34
	TOTAL				562.89 Y
	Add 15% CPOH on "Y"				84.43
	TOTAL				647.32 Z
	Add Cess @ 1% on "Z"				6.47
	Cost of 4 joints				653.79
	Cost of 1 joint				163.45
	Say				163.45

17.37 Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :

17.37.1 For 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 nos.				
	MATERIAL				
1331	M.S.Holder bat clamp of approved design for 100 mm S.C.I. pipe	each	5.00	30.00	150.00
9977	Carriage of bat clamps	L.S.	2.47	2.12	5.24
	LABOUR				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0124	Mason (brick layer) 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	7.15	2.12	15.16
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.0033	1400.00	4.62
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0011	1350.00	1.49
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0044	163.93	0.72
0982	Coarse sand (zone III)	cum	0.0022	1500.00	3.30
2203	Carriage of Coarse sand	cum	0.0022	163.93	0.36
0367	Portland Cement (OPC-43 grade)	tonne	0.0016	5000.00	8.00
2209	Carriage of Cement	tonne	0.0016	145.72	0.23
0114	Beldar	day	0.0045	645.00	2.90
0115	Coolie	day	0.0032	645.00	2.06
0101	Bhisti	day	0.0014	714.00	1.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0123	Mason (brick layer) 1st class	day	0.0003	784.00	0.24
0124	Mason (brick layer) 2nd class	day	0.0003	714.00	0.21
0128	Mate	day	0.0002	714.00	0.14
9999	Hire charges of machine etc.	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28
9999	Sundries	L.S.	0.13	2.12	0.28
	TOTAL				1152.78 W
	Add 1 % Water charges on "W"				11.53
	TOTAL				1164.30 X
	Add GST on "X" (multiplying factor 0.1405)				163.58
	TOTAL				1327.89 Y
	Add 15% CPOH on "Y"				199.18
	TOTAL				1527.07 Z
	Add Cess @ 1% on "Z"				15.27
	Cost of 5.00 bat clamps				1542.34
	Cost of each				308.47
	Say				308.45

17.37.2 For 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 nos.				
	MATERIAL				
1332	M.S.Holder bat clamp of approved design for75 mm S.C.I. pipe	each	5.00	27.00	135.00
9977	Carriage of bat clamps	L.S.	2.47	2.12	5.24
	LABOUR				
0116	Fitter (grade 1)	day	0.125	784.00	98.00
0124	Mason (brick layer) 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	7.15	2.12	15.16
	C.C. Black 5x0.1x0.1x0.1 = 0.005 cum				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.0033	1400.00	4.62
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.0011	1350.00	1.49
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.0044	163.93	0.72
0982	Coarse sand (zone III)	cum	0.0022	1500.00	3.30
2203	Carriage of Coarse sand	cum	0.0022	163.93	0.36
0367	Portland Cement (OPC-43 grade)	tonne	0.0016	5000.00	8.00
2209	Carriage of Cement	tonne	0.0016	145.72	0.23
0114	Beldar	day	0.0045	645.00	2.90
0115	Coolie	day	0.0032	645.00	2.06
0101	Bhisti	day	0.0014	714.00	1.00
0123	Mason (brick layer) 1st class	day	0.0003	784.00	0.24
0124	Mason (brick layer) 2nd class	day	0.0003	714.00	0.21
0128	Mate	day	0.0002	714.00	0.14
9999	Hire charges of machine etc.	L.S.	0.26	2.12	0.55
9999	Sundries	L.S.	0.13	2.12	0.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.13	2.12	0.28
	TOTAL				1137.78 W
	Add 1 % Water charges on “W”				11.38
	TOTAL				1149.15 X
	Add GST on “X” (multiplying factor 0.1405)				161.46
	TOTAL				1310.61 Y
	Add 15% CPOH on “Y”				196.59
	TOTAL				1507.20 Z
	Add Cess @ 1% on “Z”				15.07
	Cost of 5.00 bat clamps				1522.27
	Cost of each				304.45
	Say				304.45

17.38 Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.

17.38.1 100 mm dia

17.38.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1625	S.C.I. bend with access door 100mm dia	each	1.00	350.00	350.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				396.66 W
	Add 1 % Water charges on "W"				3.97
	TOTAL				400.63 X
	Add GST on "X" (multiplying factor 0.1405)				56.29
	TOTAL				456.92 Y
	Add 15% CPOH on "Y"				68.54
	TOTAL				525.46 Z
	Add Cess @ 1% on "Z"				5.25
	Cost of each				530.71
	Say				530.70

17.38.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3624	S.C.I. S&S bends with access door 100mm dia	each	1.00	400.00	400.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				446.66 W
	Add 1 % Water charges on "W"				4.47
	TOTAL				451.13 X
	Add GST on "X" (multiplying factor 0.1405)				63.38
	TOTAL				514.51 Y
	Add 15% CPOH on "Y"				77.18
	TOTAL				591.69 Z
	Add Cess @ 1% on "Z"				5.92
	Cost of each				597.61
	Say				597.60

17.38.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7639	Hubless centrifugally cast (spun) iron bend with access door - 100 mm dia as per IS IS:15905	each	1.00	365.00	365.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				411.66 W
	Add 1 % Water charges on "W"				4.12
	TOTAL				415.78 X
	Add GST on "X" (multiplying factor 0.1405)				58.42
	TOTAL				474.20 Y
	Add 15% CPOH on "Y"				71.13
	TOTAL				545.33 Z
	Add Cess @ 1% on "Z"				5.45
	Cost of each				550.78
	Say				550.80

17.38.2 75 mm dia

17.38.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1624	S.C.I. bend with access door 75mm dia	each	1.00	290.00	290.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				328.87 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				332.16 X
	Add GST on "X" (multiplying factor 0.1405)				46.67
	TOTAL				378.83 Y
	Add 15% CPOH on "Y"				56.82
	TOTAL				435.66 Z
	Add Cess @ 1% on "Z"				4.36
	Cost of each				440.01
	Say				440.00

17.38.2.2 Sand cast iron S&S as per IS- 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3625	S.C.I. S&S bends with access door75mm dia	each	1.00	300.00	300.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				338.87 W
	Add 1 % Water charges on "W"				3.39
	TOTAL				342.26 X
	Add GST on "X" (multiplying factor 0.1405)				48.09
	TOTAL				390.35 Y
	Add 15% CPOH on "Y"				58.55
	TOTAL				448.90 Z
	Add Cess @ 1% on "Z"				4.49
	Cost of each				453.39
	Say				453.40

17.38.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7640	Hubless centrifugally cast (spun) iron bend with access door - 75 mm dia as per IS 15905 including cost of bolts & nuts.	each	1.00	290.00	290.00
1373	Rubber insertions for 80 mm dia pipe joints 3mm thick	each	1.00	16.00	16.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				328.87 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				332.16 X
	Add GST on "X" (multiplying factor 0.1405)				46.67
	TOTAL				378.83 Y
	Add 15% CPOH on "Y"				56.82
	TOTAL				435.66 Z
	Add Cess @ 1% on "Z"				4.36
	Cost of each				440.01
	Say				440.00

17.39 Providing and fixing plain bend of required degree.

17.39.1 100 mm dia

17.39.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1621	S.C.I. plain bend 100 mm dia	each	1.00	280.00	280.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				308.66 W
	Add 1 % Water charges on "W"				3.09
	TOTAL				311.75 X
	Add GST on "X" (multiplying factor 0.1405)				43.80
	TOTAL				355.55 Y
	Add 15% CPOH on "Y"				53.33
	TOTAL				408.88 Z
	Add Cess @ 1% on "Z"				4.09
	Cost of each				412.97
	Say				412.95

17.39.1.2 Sand cast iron S&S as per IS : 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3628	S.C.I. S&S bend100mm dia	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z
	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75

17.39.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7623	Hubless centrifugally cast (spun) iron plain bend as per IS 15905-				
	100 mm dia	each	1.00	230.00	230.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				258.66 W
	Add 1 % Water charges on "W"				2.59
	TOTAL				261.25 X
	Add GST on "X" (multiplying factor 0.1405)				36.71
	TOTAL				297.95 Y
	Add 15% CPOH on "Y"				44.69
	TOTAL				342.65 Z
	Add Cess @ 1% on "Z"				3.43
	Cost of each				346.07
	Say				346.05

17.39.2 75 mm dia

17.39.2.1 Sand cast iron S&S as per IS -1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1620	S.C.I. plain bend 75 mm dia	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				232.87 W
	Add 1 % Water charges on "W"				2.33
	TOTAL				235.20 X
	Add GST on "X" (multiplying factor 0.1405)				33.05
	TOTAL				268.25 Y
	Add 15% CPOH on "Y"				40.24
	TOTAL				308.49 Z
	Add Cess @ 1% on "Z"				3.08
	Cost of each				311.57
	Say				311.55

17.39.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3629	S.C.I. S&S bend75mm dia	each	1.00	200.00	200.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				222.87 W
	Add 1 % Water charges on "W"				2.23
	TOTAL				225.10 X
	Add GST on "X" (multiplying factor 0.1405)				31.63
	TOTAL				256.73 Y
	Add 15% CPOH on "Y"				38.51
	TOTAL				295.24 Z
	Add Cess @ 1% on "Z"				2.95
	Cost of each				298.19
	Say				298.20

17.39.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7624	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 75 mm dia	each	1.00	160.00	160.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				182.87 W
	Add 1 % Water charges on "W"				1.83
	TOTAL				184.70 X
	Add GST on "X" (multiplying factor 0.1405)				25.95
	TOTAL				210.65 Y
	Add 15% CPOH on "Y"				31.60
	TOTAL				242.25 Z
	Add Cess @ 1% on "Z"				2.42
	Cost of each				244.68
	Say				244.70

17.40 Providing and fixing heel rest sanitary bend
17.40.1 100 mm dia
17.40.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1667	Sand cast iron heel rest bend 100mm dia	each	1.00	355.00	355.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				383.66 W
	Add 1 % Water charges on "W"				3.84
	TOTAL				387.50 X
	Add GST on "X" (multiplying factor 0.1405)				54.44
	TOTAL				441.94 Y
	Add 15% CPOH on "Y"				66.29
	TOTAL				508.23 Z
	Add Cess @ 1% on "Z"				5.08
	Cost of each				513.32
	Say				513.30

17.40.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3634	S.C.I. S&S heel rest sanitary bend 100mm dia	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z
	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75

17.40.2 75 mm dia

17.40.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1666	Sand cast iron heel rest bend75mm dia	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				322.87 W
	Add 1 % Water charges on "W"				3.23
	TOTAL				326.10 X
	Add GST on "X" (multiplying factor 0.1405)				45.82
	TOTAL				371.92 Y
	Add 15% CPOH on "Y"				55.79
	TOTAL				427.71 Z
	Add Cess @ 1% on "Z"				4.28
	Cost of each				431.99
	Say				432.00

17.40.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3635	S.C.I. S&S heel rest sanitary bend 75mm dia	each	1.00	280.00	280.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				302.87 W
	Add 1 % Water charges on "W"				3.03
	TOTAL				305.90 X
	Add GST on "X" (multiplying factor 0.1405)				42.98
	TOTAL				348.88 Y
	Add 15% CPOH on "Y"				52.33
	TOTAL				401.22 Z
	Add Cess @ 1% on "Z"				4.01
	Cost of each				405.23
	Say				405.25

17.41 Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :

17.41.1 100x100x100x100 mm

17.41.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1637	S.C.I. double equal junctions 100x100x100x100 mm dia with access door.	each	1.00	730.00	730.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				776.39 W
	Add 1 % Water charges on "W"				7.76
	TOTAL				784.15 X
	Add GST on "X" (multiplying factor 0.1405)				110.17
	TOTAL				894.32 Y
	Add 15% CPOH on "Y"				134.15
	TOTAL				1028.47 Z
	Add Cess @ 1% on "Z"				10.28
	Cost of each				1038.76
	Say				1038.75

17.41.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3654	S.C.I. S&S double equal junctions with access door 100x100x100x100 mm.	each	1.00	630.00	630.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.12	28.39
	TOTAL				676.39 W
	Add 1 % Water charges on "W"				6.76
	TOTAL				683.15 X
	Add GST on "X" (multiplying factor 0.1405)				95.98
	TOTAL				779.13 Y
	Add 15% CPOH on "Y"				116.87
	TOTAL				896.00 Z
	Add Cess @ 1% on "Z"				8.96
	Cost of each				904.96
	Say				904.95

17.41.2 75x75x75x75 mm

17.41.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1636	S.C.I. double equal junctions 75x75x75x75 mm dia with access door.	each	1.00	525.00	525.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				563.87 W
	Add 1 % Water charges on "W"				5.64
	TOTAL				569.51 X
	Add GST on "X" (multiplying factor 0.1405)				80.02
	TOTAL				649.53 Y
	Add 15% CPOH on "Y"				97.43
	TOTAL				746.96 Z
	Add Cess @ 1% on "Z"				7.47
	Cost of each				754.43
	Say				754.45

17.41.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3655	S.C.I. S&S double equal junctions with access door 75x75x75x75 mm.	each	1.00	500.00	500.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				538.87 W
	Add 1 % Water charges on "W"				5.39
	TOTAL				544.26 X
	Add GST on "X" (multiplying factor 0.1405)				76.47
	TOTAL				620.73 Y
	Add 15% CPOH on "Y"				93.11
	TOTAL				713.84 Z
	Add Cess @ 1% on "Z"				7.14
	Cost of each				720.98
	Say				721.00

17.42 Providing and fixing double equal plain junction of required degree.
17.42.1 100x100x100x100 mm
17.42.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1634	S.C.I. plain double equal junctions				
	100x100x100x100 mm dia	each	1.00	615.00	615.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				643.66 W
	Add 1 % Water charges on "W"				6.44
	TOTAL				650.10 X
	Add GST on "X" (multiplying factor 0.1405)				91.34
	TOTAL				741.44 Y
	Add 15% CPOH on "Y"				111.22
	TOTAL				852.65 Z
	Add Cess @ 1% on "Z"				8.53
	Cost of each				861.18
	Say				861.20

17.42.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3650	S.C.I. S&S double equal junctions				
	100x100x100x100 mm	each	1.00	630.00	630.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				658.66 W
	Add 1 % Water charges on "W"				6.59
	TOTAL				665.25 X
	Add GST on "X" (multiplying factor 0.1405)				93.47
	TOTAL				758.72 Y
	Add 15% CPOH on "Y"				113.81
	TOTAL				872.52 Z
	Add Cess @ 1% on "Z"				8.73
	Cost of each				881.25
	Say				881.25

17.42.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7625	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 100x100x100x100 mm dia	each	1.00	510.00	510.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				538.66 W
	Add 1 % Water charges on "W"				5.39
	TOTAL				544.05 X
	Add GST on "X" (multiplying factor 0.1405)				76.44
	TOTAL				620.49 Y
	Add 15% CPOH on "Y"				93.07
	TOTAL				713.56 Z
	Add Cess @ 1% on "Z"				7.14
	Cost of each				720.70
	Say				720.70

17.42.2 75x75x75x75 mm

17.42.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1633	S.C.I. plain double equal junctions 75x75x75x75 mm dia	each	1.00	410.00	410.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				432.87 W
	Add 1 % Water charges on "W"				4.33
	TOTAL				437.20 X
	Add GST on "X" (multiplying factor 0.1405)				61.43
	TOTAL				498.63 Y
	Add 15% CPOH on "Y"				74.79
	TOTAL				573.43 Z
	Add Cess @ 1% on "Z"				5.73
	Cost of each				579.16
	Say				579.15

17.42.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3651	S.C.I. S&S double equal junctions 75x75x75x75 mm	each	1.00	470.00	470.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				492.87 W
	Add 1 % Water charges on "W"				4.93
	TOTAL				497.80 X
	Add GST on "X" (multiplying factor 0.1405)				69.94
	TOTAL				567.74 Y
	Add 15% CPOH on "Y"				85.16
	TOTAL				652.91 Z
	Add Cess @ 1% on "Z"				6.53
	Cost of each				659.44
	Say				659.45

17.42.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7626	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 75x75x75x75 mm dia	each	1.00	275.00	275.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				297.87 W
	Add 1 % Water charges on "W"				2.98
	TOTAL				300.85 X
	Add GST on "X" (multiplying factor 0.1405)				42.27
	TOTAL				343.12 Y
	Add 15% CPOH on "Y"				51.47
	TOTAL				394.59 Z
	Add Cess @ 1% on "Z"				3.95
	Cost of each				398.54
	Say				398.55

17.43 Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.

17.43.1 100x100x100 mm

17.43.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1631	S.C.I. single equal junctions 100x 100x100 mm dia with access door.	each	1.00	455.00	455.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				501.66 W
	Add 1 % Water charges on "W"				5.02
	TOTAL				506.68 X
	Add GST on "X" (multiplying factor 0.1405)				71.19
	TOTAL				577.87 Y
	Add 15% CPOH on "Y"				86.68
	TOTAL				664.55 Z
	Add Cess @ 1% on "Z"				6.65
	Cost of each				671.19
	Say				671.20

17.43.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3644	S.C.I. S&S single equal junctions with access door 100x100x100 mm	each	1.00	500.00	500.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				546.66 W
	Add 1 % Water charges on "W"				5.47
	TOTAL				552.13 X
	Add GST on "X" (multiplying factor 0.1405)				77.57
	TOTAL				629.70 Y
	Add 15% CPOH on "Y"				94.46
	TOTAL				724.16 Z
	Add Cess @ 1% on "Z"				7.24
	Cost of each				731.40
	Say				731.40

17.43.2 75x75x75 mm

17.43.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1630	S.C.I. single equal junctions75x75x 75 mm dia with access door.	each	1.00	390.00	390.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				428.87 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				433.16 X
	Add GST on "X" (multiplying factor 0.1405)				60.86
	TOTAL				494.02 Y
	Add 15% CPOH on "Y"				74.10
	TOTAL				568.13 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.81
	Say				573.80

17.43.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3645	S.C.I. S&S single equal junctions with access door 75x75x75 mm	each	1.00	390.00	390.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				428.87 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				433.16 X
	Add GST on "X" (multiplying factor 0.1405)				60.86
	TOTAL				494.02 Y
	Add 15% CPOH on "Y"				74.10
	TOTAL				568.13 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.81
	Say				573.80

17.44 Providing and fixing single equal plain junction of required degree :

17.44.1 100x100x100 mm

17.44.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	1.00	405.00	405.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				433.66 W
	Add 1 % Water charges on "W"				4.34
	TOTAL				438.00 X
	Add GST on "X" (multiplying factor 0.1405)				61.54
	TOTAL				499.54 Y
	Add 15% CPOH on "Y"				74.93
	TOTAL				574.47 Z
	Add Cess @ 1% on "Z"				5.74
	Cost of each				580.21
	Say				580.20

17.44.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3640	S.C.I. S&S single equal junctions 100x100x100 mm	each	1.00	500.00	500.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				528.66 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				533.95 X
	Add GST on "X" (multiplying factor 0.1405)				75.02
	TOTAL				608.97 Y
	Add 15% CPOH on "Y"				91.35
	TOTAL				700.31 Z
	Add Cess @ 1% on "Z"				7.00
	Cost of each				707.32
	Say				707.30

17.44.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7627	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 100x100x100 mm dia	each	1.00	400.00	400.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				428.66 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				432.95 X
	Add GST on "X" (multiplying factor 0.1405)				60.83
	TOTAL				493.78 Y
	Add 15% CPOH on "Y"				74.07
	TOTAL				567.85 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.52
	Say				573.50

17.44.2 75x75x75 mm

17.44.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1627	S.C.I. plain single equal junctions 75x75x75 mm dia	each	1.00	315.00	315.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				337.87 W
	Add 1 % Water charges on "W"				3.38
	TOTAL				341.25 X
	Add GST on "X" (multiplying factor 0.1405)				47.95
	TOTAL				389.20 Y
	Add 15% CPOH on "Y"				58.38
	TOTAL				447.58 Z
	Add Cess @ 1% on "Z"				4.48
	Cost of each				452.06
	Say				452.05

17.44.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3641	S.C.I. S&S single equal junctions 75x75x75 mm	each	1.00	350.00	350.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				372.87 W
	Add 1 % Water charges on "W"				3.73
	TOTAL				376.60 X
	Add GST on "X" (multiplying factor 0.1405)				52.91
	TOTAL				429.52 Y
	Add 15% CPOH on "Y"				64.43
	TOTAL				493.94 Z
	Add Cess @ 1% on "Z"				4.94
	Cost of each				498.88
	Say				498.90

17.44.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7628	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 75x75x75 mm dia	each	1.00	215.00	215.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				237.87 W
	Add 1 % Water charges on "W"				2.38
	TOTAL				240.25 X
	Add GST on "X" (multiplying factor 0.1405)				33.76
	TOTAL				274.01 Y
	Add 15% CPOH on "Y"				41.10
	TOTAL				315.11 Z
	Add Cess @ 1% on "Z"				3.15
	Cost of each				318.26
	Say				318.25

17.45 Providing and fixing double unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete:

17.45.1 100x100x75x75 mm

17.45.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1662	Sand cast iron S&S double unequal junctions: 100x100x75x75 mm dia with access door.	each	1.00	725.00	725.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				771.66 W
	Add 1 % Water charges on "W"				7.72
	TOTAL				779.38 X
	Add GST on "X" (multiplying factor 0.1405)				109.50
	TOTAL				888.88 Y
	Add 15% CPOH on "Y"				133.33
	TOTAL				1022.21 Z
	Add Cess @ 1% on "Z"				10.22
	Cost of each				1032.44
	Say				1032.45

17.45.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3674	S.C.I. S&S double unequal junctions with access door 100x100x75x75 mm	each	1.00	900.00	900.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				946.66 W
	Add 1 % Water charges on "W"				9.47
	TOTAL				956.13 X
	Add GST on "X" (multiplying factor 0.1405)				134.34
	TOTAL				1090.47 Y
	Add 15% CPOH on "Y"				163.57
	TOTAL				1254.03 Z
	Add Cess @ 1% on "Z"				12.54
	Cost of each				1266.58
	Say				1266.60

17.46 Providing and fixing double unequal plain junction of required degree :

17.46.1 100x100x75x75 mm

17.46.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1659	Sand cast iron S&S plain double unequal junctions : 100x100x75x 75 mm dia	each	1.00	625.00	625.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				653.66 W
	Add 1 % Water charges on "W"				6.54
	TOTAL				660.20 X
	Add GST on "X" (multiplying factor 0.1405)				92.76
	TOTAL				752.96 Y
	Add 15% CPOH on "Y"				112.94
	TOTAL				865.90 Z
	Add Cess @ 1% on "Z"				8.66
	Cost of each				874.56
	Say				874.55

17.46.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3670	S.C.I. S&S double unequal junctions 100x100x75x75 mm	each	1.00	800.00	800.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				828.66 W
	Add 1 % Water charges on "W"				8.29
	TOTAL				836.95 X
	Add GST on "X" (multiplying factor 0.1405)				117.59
	TOTAL				954.54 Y
	Add 15% CPOH on "Y"				143.18
	TOTAL				1097.72 Z
	Add Cess @ 1% on "Z"				10.98
	Cost of each				1108.70
	Say				1108.70

17.46.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7629	Hubless centrifugally cast (spun) iron double unequal plain junction as per IS 15905 - 100x100x75x75 mm dia	each	1.00	400.00	400.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				428.66 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				432.95 X
	Add GST on "X" (multiplying factor 0.1405)				60.83
	TOTAL				493.78 Y
	Add 15% CPOH on "Y"				74.07
	TOTAL				567.85 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of each				573.52
	Say				573.50

17.47 Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :

17.47.1 100x100x75 mm

17.47.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1656	Sand cast iron S&S single unequal junctions: 100x100x75 mm dia with access door.	each	1.00	575.00	575.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				621.66 W
	Add 1 % Water charges on "W"				6.22
	TOTAL				627.88 X
	Add GST on "X" (multiplying factor 0.1405)				88.22
	TOTAL				716.10 Y
	Add 15% CPOH on "Y"				107.41
	TOTAL				823.51 Z
	Add Cess @ 1% on "Z"				8.24
	Cost of each				831.75
	Say				831.75

17.47.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3664	S.C.I. S&S single unequal junctions with access door 100x100x75 mm	each	1.00	650.00	650.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				696.66 W
	Add 1 % Water charges on "W"				6.97
	TOTAL				703.63 X
	Add GST on "X" (multiplying factor 0.1405)				98.86
	TOTAL				802.49 Y
	Add 15% CPOH on "Y"				120.37
	TOTAL				922.86 Z
	Add Cess @ 1% on "Z"				9.23
	Cost of each				932.09
	Say				932.10

17.48 Providing and fixing single unequal plain junction of required degree :
17.48.1 100x100x75 mm
17.48.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1653	Sand cast iron S&S plain single unequal junctions : 100x100x75 mm dia	each	1.00	525.00	525.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				553.66 W
	Add 1 % Water charges on "W"				5.54
	TOTAL				559.20 X
	Add GST on "X" (multiplying factor 0.1405)				78.57
	TOTAL				637.77 Y
	Add 15% CPOH on "Y"				95.66
	TOTAL				733.43 Z
	Add Cess @ 1% on "Z"				7.33
	Cost of each				740.77
	Say				740.75

17.48.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3660	S.C.I. S&S single unequal junctions 100x100x75 mm	each	1.00	600.00	600.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				628.66 W
	Add 1 % Water charges on "W"				6.29
	TOTAL				634.95 X
	Add GST on "X" (multiplying factor 0.1405)				89.21
	TOTAL				724.16 Y
	Add 15% CPOH on "Y"				108.62
	TOTAL				832.78 Z
	Add Cess @ 1% on "Z"				8.33
	Cost of each				841.11
	Say				841.10

17.48.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7630	Hubless centrifugally cast (spun) iron single unequal plain junction as per IS 15905 - 100x100x75 mm dia	each	1.00	375.00	375.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				403.66 W
	Add 1 % Water charges on "W"				4.04
	TOTAL				407.70 X
	Add GST on "X" (multiplying factor 0.1405)				57.28
	TOTAL				464.98 Y
	Add 15% CPOH on "Y"				69.75
	TOTAL				534.73 Z
	Add Cess @ 1% on "Z"				5.35
	Cost of each				540.08
	Say				540.10

17.49 Providing and fixing double equal plain invert branch of required degree:
17.49.1 100x100x100x100 mm
17.49.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1673	S.C.I. double equal invert branch of required degree 100x100x100x 100 mm dia	each	1.00	550.00	550.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				578.66 W
	Add 1 % Water charges on "W"				5.79
	TOTAL				584.45 X
	Add GST on "X" (multiplying factor 0.1405)				82.12
	TOTAL				666.56 Y
	Add 15% CPOH on "Y"				99.98
	TOTAL				766.55 Z
	Add Cess @ 1% on "Z"				7.67
	Cost of each				774.21
	Say				774.20

17.49.1.2 Sand cast iron S&S as per IS 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3685	S.C.I. S&S double equal invert branch of required degree100x100x100x 100 mm dia	each	1.00	540.00	540.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				568.66 W
	Add 1 % Water charges on "W"				5.69
	TOTAL				574.35 X
	Add GST on "X" (multiplying factor 0.1405)				80.70
	TOTAL				655.05 Y
	Add 15% CPOH on "Y"				98.26
	TOTAL				753.30 Z
	Add Cess @ 1% on "Z"				7.53
	Cost of each				760.83
	Say				760.85

17.49.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7631	Hubless centrifugally cast (spun) iron double equal plain invert branch as per IS 15905 - 100x100x100x100 mm dia	each	1.00	625.00	625.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				653.66 W
	Add 1 % Water charges on "W"				6.54
	TOTAL				660.20 X
	Add GST on "X" (multiplying factor 0.1405)				92.76
	TOTAL				752.96 Y
	Add 15% CPOH on "Y"				112.94
	TOTAL				865.90 Z
	Add Cess @ 1% on "Z"				8.66
	Cost of each				874.56
	Say				874.55

17.49.2 75x75x75x75 mm

17.49.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1672	S.C.I. double equal invert branch of required degree 75x75x75x75 mm dia	each	1.00	425.00	425.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				447.87 W
	Add 1 % Water charges on "W"				4.48
	TOTAL				452.35 X
	Add GST on "X" (multiplying factor 0.1405)				63.56
	TOTAL				515.91 Y
	Add 15% CPOH on "Y"				77.39
	TOTAL				593.30 Z
	Add Cess @ 1% on "Z"				5.93
	Cost of each				599.23
	Say				599.25

17.49.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3686	S.C.I. S&S double equal invert branch of required degree 75x75x75x 75 mm dia	each	1.00	450.00	450.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				472.87 W
	Add 1 % Water charges on "W"				4.73
	TOTAL				477.60 X
	Add GST on "X" (multiplying factor 0.1405)				67.10
	TOTAL				544.71 Y
	Add 15% CPOH on "Y"				81.71
	TOTAL				626.41 Z
	Add Cess @ 1% on "Z"				6.26
	Cost of each				632.68
	Say				632.70

17.50 Providing and fixing single equal plain invert branch of required degree :

17.50.1 100x100x100 mm

17.50.1.1 Sand cast iron S&S as per iron 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1670	S.C.I. single equal invert branch of required degree 100x100x100 mm dia	each	1.00	435.00	435.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				463.66 W
	Add 1 % Water charges on "W"				4.64
	TOTAL				468.30 X
	Add GST on "X" (multiplying factor 0.1405)				65.80
	TOTAL				534.10 Y
	Add 15% CPOH on "Y"				80.11
	TOTAL				614.21 Z
	Add Cess @ 1% on "Z"				6.14
	Cost of each				620.35
	Say				620.35

17.50.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3681	S.C.I. S&S single equal invert branch of required degree 100x100x 100 mm dia	each	1.00	430.00	430.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				458.66 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				463.25 X
	Add GST on "X" (multiplying factor 0.1405)				65.09
	TOTAL				528.34 Y
	Add 15% CPOH on "Y"				79.25
	TOTAL				607.59 Z
	Add Cess @ 1% on "Z"				6.08
	Cost of each				613.66
	Say				613.65

17.50.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7632	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 100x100x100 mm dia	each	1.00	390.00	390.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				418.66 W
	Add 1 % Water charges on "W"				4.19
	TOTAL				422.85 X
	Add GST on "X" (multiplying factor 0.1405)				59.41
	TOTAL				482.26 Y
	Add 15% CPOH on "Y"				72.34
	TOTAL				554.60 Z
	Add Cess @ 1% on "Z"				5.55
	Cost of each				560.14
	Say				560.15

17.50.2 75x75x75 mm

17.50.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1669	S.C.I. single equal invert branch of required degree75x75x75 mm dia	each	1.00	350.00	350.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				372.87 W
	Add 1 % Water charges on "W"				3.73
	TOTAL				376.60 X
	Add GST on "X" (multiplying factor 0.1405)				52.91
	TOTAL				429.52 Y
	Add 15% CPOH on "Y"				64.43
	TOTAL				493.94 Z
	Add Cess @ 1% on "Z"				4.94
	Cost of each				498.88
	Say				498.90

17.50.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3682	S.C.I. S&S single equal invert branch of required degree 75x75x75 mm dia	each	1.00	330.00	330.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				352.87 W
	Add 1 % Water charges on "W"				3.53
	TOTAL				356.40 X
	Add GST on "X" (multiplying factor 0.1405)				50.07
	TOTAL				406.48 Y
	Add 15% CPOH on "Y"				60.97
	TOTAL				467.45 Z
	Add Cess @ 1% on "Z"				4.67
	Cost of each				472.12
	Say				472.10

17.50.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7633	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 75x75x75 mm dia	each	1.00	260.00	260.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				282.87 W
	Add 1 % Water charges on "W"				2.83
	TOTAL				285.70 X
	Add GST on "X" (multiplying factor 0.1405)				40.14
	TOTAL				325.84 Y
	Add 15% CPOH on "Y"				48.88
	TOTAL				374.72 Z
	Add Cess @ 1% on "Z"				3.75
	Cost of each				378.47
	Say				378.45

17.51 Providing and fixing double unequal invert branch of required degree :
17.51.1 100x100x75x75 mm
17.51.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1677	S.C.I. double unequal invert branch of required degree 100x100x75x75 mm dia	each	1.00	600.00	600.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				628.66 W
	Add 1 % Water charges on "W"				6.29
	TOTAL				634.95 X
	Add GST on "X" (multiplying factor 0.1405)				89.21
	TOTAL				724.16 Y
	Add 15% CPOH on "Y"				108.62
	TOTAL				832.78 Z
	Add Cess @ 1% on "Z"				8.33
	Cost of each				841.11
	Say				841.10

17.51.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3695	S.C.I. S&S double unequal invert branch of required degree100x100x75x75 mm dia	each	1.00	730.00	730.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				758.66 W
	Add 1 % Water charges on "W"				7.59
	TOTAL				766.25 X
	Add GST on "X" (multiplying factor 0.1405)				107.66
	TOTAL				873.91 Y
	Add 15% CPOH on "Y"				131.09
	TOTAL				1004.99 Z
	Add Cess @ 1% on "Z"				10.05
	Cost of each				1015.04
	Say				1015.05

17.52 Providing and fixing single unequal plain invert branch of required degree :
17.52.1 100x100x75 mm
17.52.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1674	S.C.I. single unequal invert branch of required degree100x100x75 mm dia	each	1.00	500.00	500.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				528.66 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				533.95 X
	Add GST on "X" (multiplying factor 0.1405)				75.02
	TOTAL				608.97 Y
	Add 15% CPOH on "Y"				91.35
	TOTAL				700.31 Z
	Add Cess @ 1% on "Z"				7.00
	Cost of each				707.32
	Say				707.30

17.52.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3690	S.C.I. S&S single unequal invert branch of required degree100x100x 75 mm dia	each	1.00	550.00	550.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				578.66 W
	Add 1 % Water charges on "W"				5.79
	TOTAL				584.45 X
	Add GST on "X" (multiplying factor 0.1405)				82.12
	TOTAL				666.56 Y
	Add 15% CPOH on "Y"				99.98
	TOTAL				766.55 Z
	Add Cess @ 1% on "Z"				7.67
	Cost of each				774.21
	Say				774.20

17.52.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7634	Hubless centrifugally cast (spun) iron single unequal plain invert branch 45 degree as per IS 15905 - 100x100x 75 mm dia	each	1.00	430.00	430.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				458.66 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				463.25 X
	Add GST on "X" (multiplying factor 0.1405)				65.09
	TOTAL				528.34 Y
	Add 15% CPOH on "Y"				79.25
	TOTAL				607.59 Z
	Add Cess @ 1% on "Z"				6.08
	Cost of each				613.66
	Say				613.65

17.53 Providing and fixing sand cast iron S&S off sets as per IS: 1729

17.53.1 76 mm off sets

17.53.1.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3746	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	1.00	220.00	220.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				242.87 W
	Add 1 % Water charges on "W"				2.43
	TOTAL				245.30 X
	Add GST on "X" (multiplying factor 0.1405)				34.47
	TOTAL				279.77 Y
	Add 15% CPOH on "Y"				41.97
	TOTAL				321.73 Z
	Add Cess @ 1% on "Z"				3.22
	Cost of each				324.95
	Say				324.95

17.53.1.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3747	S.C.I. S&S, 75 mm offset for 100 mm dia pipe	each	1.00	360.00	360.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				382.87 W
	Add 1 % Water charges on "W"				3.83
	TOTAL				386.70 X
	Add GST on "X" (multiplying factor 0.1405)				54.33
	TOTAL				441.04 Y
	Add 15% CPOH on "Y"				66.16
	TOTAL				507.19 Z
	Add Cess @ 1% on "Z"				5.07
	Cost of each				512.26
	Say				512.25

17.53.2 114 mm off sets

17.53.2.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3712	S.C.I. S&S, 114 mm offset for 75 mm dia pipe	each	1.00	310.00	310.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				338.66 W
	Add 1 % Water charges on "W"				3.39
	TOTAL				342.05 X
	Add GST on "X" (multiplying factor 0.1405)				48.06
	TOTAL				390.11 Y
	Add 15% CPOH on "Y"				58.52
	TOTAL				448.62 Z
	Add Cess @ 1% on "Z"				4.49
	Cost of each				453.11
	Say				453.10

17.53.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3713	S.C.I. S&S, 114 mm offset for 100 mm dia pipe	each	1.00	390.00	390.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				418.66 W
	Add 1 % Water charges on "W"				4.19
	TOTAL				422.85 X
	Add GST on "X" (multiplying factor 0.1405)				59.41
	TOTAL				482.26 Y
	Add 15% CPOH on "Y"				72.34
	TOTAL				554.60 Z
	Add Cess @ 1% on "Z"				5.55
	Cost of each				560.14
	Say				560.15

17.53.3 152 mm off sets
17.53.3.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3716	S.C.I. S&S, 152 mm offset for 75 mm dia pipe	each	1.00	360.00	360.00
9988	Carriage of materials and fixing charges	L.S.	17.94	2.12	38.03
	TOTAL				398.03 W
	Add 1 % Water charges on "W"				3.98
	TOTAL				402.01 X
	Add GST on "X" (multiplying factor 0.1405)				56.48
	TOTAL				458.50 Y
	Add 15% CPOH on "Y"				68.77
	TOTAL				527.27 Z
	Add Cess @ 1% on "Z"				5.27
	Cost of each				532.54
	Say				532.55

17.53.3.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3717	S.C.I. S&S, 152 mm offset for 100 mm dia pipe	each	1.00	460.00	460.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	17.94	2.12	38.03
	TOTAL				498.03 W
	Add 1 % Water charges on "W"				4.98
	TOTAL				503.01 X
	Add GST on "X" (multiplying factor 0.1405)				70.67
	TOTAL				573.69 Y
	Add 15% CPOH on "Y"				86.05
	TOTAL				659.74 Z
	Add Cess @ 1% on "Z"				6.60
	Cost of each				666.34
	Say				666.35

17.53A Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905

17.53A.1 65 mm offsets

17.53A.1.1 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7635	Hubless centrifugally cast (spun) iron 65 mm offset with 100 mm dia pipe as per IS 15905	each	1.00	360.00	360.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				382.87 W
	Add 1 % Water charges on "W"				3.83
	TOTAL				386.70 X
	Add GST on "X" (multiplying factor 0.1405)				54.33
	TOTAL				441.04 Y
	Add 15% CPOH on "Y"				66.16
	TOTAL				507.19 Z
	Add Cess @ 1% on "Z"				5.07
	Cost of each				512.26
	Say				512.25

17.53A.1.2 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7636	Hubless centrifugally cast (spun) iron 65 mm offset with 75 mm dia pipe as per IS 15905	each	1.00	295.00	295.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				317.87 W
	Add 1 % Water charges on "W"				3.18
	TOTAL				321.05 X
	Add GST on "X" (multiplying factor 0.1405)				45.11
	TOTAL				366.16 Y
	Add 15% CPOH on "Y"				54.92
	TOTAL				421.09 Z
	Add Cess @ 1% on "Z"				4.21
	Cost of each				425.30
	Say				425.30

17.54 Providing and fixing sand cast iron S&S off sets as per IS: 3989 :

17.54.1 75 mm off sets

17.54.1.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3699	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	1.00	230.00	230.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				252.87 W
	Add 1 % Water charges on "W"				2.53
	TOTAL				255.40 X
	Add GST on "X" (multiplying factor 0.1405)				35.88
	TOTAL				291.29 Y
	Add 15% CPOH on "Y"				43.69
	TOTAL				334.98 Z
	Add Cess @ 1% on "Z"				3.35
	Cost of each				338.33
	Say				338.35

17.54.2 150 mm off sets

17.54.2.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3707	S.C.I. S&S, 150 mm offset for 75 mm dia pipe	each	1.00	300.00	300.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				334.17 W
	Add 1 % Water charges on "W"				3.34
	TOTAL				337.52 X
	Add GST on "X" (multiplying factor 0.1405)				47.42
	TOTAL				384.94 Y
	Add 15% CPOH on "Y"				57.74
	TOTAL				442.68 Z
	Add Cess @ 1% on "Z"				4.43
	Cost of each				447.10
	Say				447.10

17.54.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3708	S.C.I. S&S, 150 mm offset for 100 mm dia pipe	each	1.00	400.00	400.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				434.17 W
	Add 1 % Water charges on "W"				4.34
	TOTAL				438.52 X
	Add GST on "X" (multiplying factor 0.1405)				61.61
	TOTAL				500.13 Y
	Add 15% CPOH on "Y"				75.02
	TOTAL				575.15 Z
	Add Cess @ 1% on "Z"				5.75
	Cost of each				580.90
	Say				580.90

17.54A Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905

17.54A.1 130 mm offsets

17.54A.1.1 With 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7637	Hubless centrifugally cast (spun) iron 130 mm offset with 100 mm dia pipe as per IS 15905	each	1.00	440.00	440.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				468.66 W
	Add 1 % Water charges on "W"				4.69
	TOTAL				473.35 X
	Add GST on "X" (multiplying factor 0.1405)				66.51
	TOTAL				539.85 Y
	Add 15% CPOH on "Y"				80.98
	TOTAL				620.83 Z
	Add Cess @ 1% on "Z"				6.21
	Cost of each				627.04
	Say				627.05

17.54A.1.2 With 75 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7638	Hubless centrifugally cast (spun) iron 130 mm offset with 75 mm dia pipe as per IS 15905	each	1.00	310.00	310.00
9999	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				332.87 W
	Add 1 % Water charges on "W"				3.33
	TOTAL				336.20 X
	Add GST on "X" (multiplying factor 0.1405)				47.24
	TOTAL				383.44 Y
	Add 15% CPOH on "Y"				57.52
	TOTAL				440.96 Z
	Add Cess @ 1% on "Z"				4.41
	Cost of each				445.37
	Say				445.35

17.55 Providing and fixing door piece, insertion rubber washer 3mm thick, bolts & nuts complete :

17.55.1 100 mm

17.55.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1683	S.C.I. door pieces 100 mm dia	each	1.00	485.00	485.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				531.66 W
	Add 1 % Water charges on "W"				5.32
	TOTAL				536.98 X
	Add GST on "X" (multiplying factor 0.1405)				75.45
	TOTAL				612.42 Y
	Add 15% CPOH on "Y"				91.86
	TOTAL				704.29 Z
	Add Cess @ 1% on "Z"				7.04
	Cost of each				711.33
	Say				711.35

17.55.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3728	S.C.I. S&S door pieces 100 mm dia	each	1.00	410.00	410.00
1374	Rubber insertions for 100 mm dia pipe joints	each	1.00	18.00	18.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				456.66 W
	Add 1 % Water charges on "W"				4.57
	TOTAL				461.23 X
	Add GST on "X" (multiplying factor 0.1405)				64.80
	TOTAL				526.03 Y
	Add 15% CPOH on "Y"				78.90
	TOTAL				604.94 Z
	Add Cess @ 1% on "Z"				6.05
	Cost of each				610.99
	Say				611.00

17.55.2 75 mm

17.55.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1682	S.C.I. door pieces 75 mm dia	each	1.00	285.00	285.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				323.87 W
	Add 1 % Water charges on "W"				3.24
	TOTAL				327.11 X
	Add GST on "X" (multiplying factor 0.1405)				45.96
	TOTAL				373.07 Y
	Add 15% CPOH on "Y"				55.96
	TOTAL				429.03 Z
	Add Cess @ 1% on "Z"				4.29
	Cost of each				433.32
	Say				433.30

17.55.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3729	S.C.I. S&S door pieces 75 mm dia	each	1.00	300.00	300.00
1373	Rubber insertions for 80 mm dia pipe joints	each	1.00	16.00	16.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				338.87 W
	Add 1 % Water charges on "W"				3.39
	TOTAL				342.26 X
	Add GST on "X" (multiplying factor 0.1405)				48.09
	TOTAL				390.35 Y
	Add 15% CPOH on "Y"				58.55
	TOTAL				448.90 Z
	Add Cess @ 1% on "Z"				4.49
	Cost of each				453.39
	Say				453.40

17.56 Providing and fixing terminal guard :
17.56.1 100 mm
17.56.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1640	Slotted cowl (terminal guard) 100 mm dia	each	1.00	265.00	265.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				293.66 W
	Add 1 % Water charges on "W"				2.94
	TOTAL				296.60 X
	Add GST on "X" (multiplying factor 0.1405)				41.67
	TOTAL				338.27 Y
	Add 15% CPOH on "Y"				50.74
	TOTAL				389.01 Z
	Add Cess @ 1% on "Z"				3.89
	Cost of each				392.90
	Say				392.90

17.56.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3733	S.C.I. S&S, Slotted Cowl (Terminal Guard) 100 mm	each	1.00	300.00	300.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z
	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75

17.56.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7641	Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) -				
	100 mm dia as per IS 15905	each	1.00	270.00	270.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				298.66 W
	Add 1 % Water charges on "W"				2.99
	TOTAL				301.65 X
	Add GST on "X" (multiplying factor 0.1405)				42.38
	TOTAL				344.03 Y
	Add 15% CPOH on "Y"				51.60
	TOTAL				395.64 Z
	Add Cess @ 1% on "Z"				3.96
	Cost of each				399.59
	Say				399.60

17.56.2 75 mm

17.56.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1639	Slotted cowl (terminal guard)75 mm dia	each	1.00	215.00	215.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				237.87 W
	Add 1 % Water charges on "W"				2.38
	TOTAL				240.25 X
	Add GST on "X" (multiplying factor 0.1405)				33.76
	TOTAL				274.01 Y
	Add 15% CPOH on "Y"				41.10
	TOTAL				315.11 Z
	Add Cess @ 1% on "Z"				3.15
	Cost of each				318.26
	Say				318.25

17.56.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3734	S.C.I. S&S, Slotted Cowl (Terminal Guard) 75 mm	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				232.87 W
	Add 1 % Water charges on "W"				2.33
	TOTAL				235.20 X
	Add GST on "X" (multiplying factor 0.1405)				33.05
	TOTAL				268.25 Y
	Add 15% CPOH on "Y"				40.24
	TOTAL				308.49 Z
	Add Cess @ 1% on "Z"				3.08
	Cost of each				311.57
	Say				311.55

17.57 Providing and fixing collar :
17.57.1 100 mm
17.57.1.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1686	S.C.I. collar 100 mm dia	each	1.00	270.00	270.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				298.66 W
	Add 1 % Water charges on "W"				2.99
	TOTAL				301.65 X
	Add GST on "X" (multiplying factor 0.1405)				42.38
	TOTAL				344.03 Y
	Add 15% CPOH on "Y"				51.60
	TOTAL				395.64 Z
	Add Cess @ 1% on "Z"				3.96
	Cost of each				399.59
	Say				399.60

17.57.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3738	S.C.I. S&S, collars 100 mm	each	1.00	300.00	300.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				328.66 W
	Add 1 % Water charges on "W"				3.29
	TOTAL				331.95 X
	Add GST on "X" (multiplying factor 0.1405)				46.64
	TOTAL				378.59 Y
	Add 15% CPOH on "Y"				56.79
	TOTAL				435.38 Z
	Add Cess @ 1% on "Z"				4.35
	Cost of each				439.73
	Say				439.75

17.57.2 75 mm

17.57.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1685	S.C.I. collar 75 mm dia	each	1.00	180.00	180.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				202.87 W
	Add 1 % Water charges on "W"				2.03
	TOTAL				204.90 X
	Add GST on "X" (multiplying factor 0.1405)				28.79
	TOTAL				233.69 Y
	Add 15% CPOH on "Y"				35.05
	TOTAL				268.75 Z
	Add Cess @ 1% on "Z"				2.69
	Cost of each				271.43
	Say				271.45

17.57.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3739	S.C.I. S&S, collars 75 mm	each	1.00	180.00	180.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				202.87 W
	Add 1 % Water charges on "W"				2.03
	TOTAL				204.90 X
	Add GST on "X" (multiplying factor 0.1405)				28.79
	TOTAL				233.69 Y
	Add 15% CPOH on "Y"				35.05
	TOTAL				268.75 Z
	Add Cess @ 1% on "Z"				2.69
	Cost of each				271.43
	Say				271.45

17.57A Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe
17.57A.1 100 mm dia
17.57A.1.1 SS 304 grade coupling with EPDM rubber gasket

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7644	SS 304 grade shielded coupling with EPDM rubber gasket for 100 mm dia Hubless centrifugally cast (spun) iron	each	1.00	275.00	275.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				303.66 W
	Add 1 % Water charges on "W"				3.04
	TOTAL				306.70 X
	Add GST on "X" (multiplying factor 0.1405)				43.09
	TOTAL				349.79 Y
	Add 15% CPOH on "Y"				52.47
	TOTAL				402.26 Z
	Add Cess @ 1% on "Z"				4.02
	Cost of each				406.28
	Say				406.30

17.57A.2 75 mm dia
17.57A.2.1 SS 304 grade coupling with EPDM rubber gasket

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7645	SS 304 grade shielded coupling with EPDM rubber gasket for 75 mm dia Hubless centrifugally cast (spun) iron	each	1.00	250.00	250.00
9977	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				272.87 W
	Add 1 % Water charges on "W"				2.73
	TOTAL				275.60 X
	Add GST on "X" (multiplying factor 0.1405)				38.72
	TOTAL				314.33 Y
	Add 15% CPOH on "Y"				47.15
	TOTAL				361.47 Z
	Add Cess @ 1% on "Z"				3.61
	Cost of each				365.09
	Say				365.10

17.58 Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :
17.58.1 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one joint				
	MATERIAL				
1397	Pig lead	kilogram	0.98	210.00	205.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1881	Spun yarn	kilogram	0.11	55.00	6.05
9999	Kerosene oil, fuel and other sundries	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0116	Fitter (grade 1)	day	0.06	784.00	47.04
0117	Assistant Fitter or 2nd class Fitter	day	0.06	714.00	42.84
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				410.82 W
	Add 1 % Water charges on "W"				4.11
	TOTAL				414.93 X
	Add GST on "X" (multiplying				
	factor 0.1405)				58.30
	TOTAL				473.23 Y
	Add 15% CPOH on "Y"				70.98
	TOTAL				544.21 Z
	Add Cess @ 1% on "Z"				5.44
	Cost of each				549.66
	Say				549.65

17.58.2 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one joint				
	MATERIAL				
1397	Pig lead	kilogram	0.88	210.00	184.80
1881	Spun yarn	kilogram	0.09	55.00	4.95
9999	Kerosene oil, fuel and other sundries	L.S.	10.79	2.12	22.87
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0116	Fitter (grade 1)	day	0.05	784.00	39.20
0117	Assistant Fitter or 2nd class Fitter	day	0.05	714.00	35.70
0114	Beldar	day	0.09	645.00	58.05
	TOTAL				348.61 W
	Add 1 % Water charges on "W"				3.49
	TOTAL				352.09 X
	Add GST on "X" (multiplying				
	factor 0.1405)				49.47
	TOTAL				401.56 Y
	Add 15% CPOH on "Y"				60.23
	TOTAL				461.80 Z
	Add Cess @ 1% on "Z"				4.62
	Cost of each				466.41
	Say				466.40

17.58.3 50 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one joint				
	MATERIAL				
1397	Pig lead	kilogram	0.77	210.00	161.70
1881	Spun yarn	kilogram	0.06	55.00	3.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Kerosene oil, fuel and other sundries	L.S.	6.76	2.12	14.33
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0116	Fitter (grade 1)	day	0.04	784.00	31.36
0117	Assistant Fitter or 2nd class Fitter	day	0.05	714.00	35.70
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				281.67 W
	Add 1 % Water charges on "W"				2.82
	TOTAL				284.49 X
	Add GST on "X" (multiplying factor 0.1405)				39.97
	TOTAL				324.46 Y
	Add 15% CPOH on "Y"				48.67
	TOTAL				373.13 Z
	Add Cess @ 1% on "Z"				3.73
	Cost of each				376.86
	Say				376.85

17.59 Providing and fixing M.S. stays and clamps for sand cast iron/ centrifugally cast (spun) iron pipes of diameter :

17.59.1 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1330	Clamps and M.S. stays including bolts and nuts for 100 mm pipe	each	1.00	67.50	67.50
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				96.16 W
	Add 1 % Water charges on "W"				0.96
	TOTAL				97.12 X
	Add GST on "X" (multiplying factor 0.1405)				13.65
	TOTAL				110.77 Y
	Add 15% CPOH on "Y"				16.62
	TOTAL				127.39 Z
	Add Cess @ 1% on "Z"				1.27
	Cost of each				128.66
	Say				128.65

17.59.2 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1335	Clamps and M.S. stays including bolts and nuts for 75 mm pipe	each	1.00	37.00	37.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				59.87 W
	Add 1 % Water charges on "W"				0.60
	TOTAL				60.47 X
	Add GST on "X" (multiplying factor 0.1405)				8.50
	TOTAL				68.97 Y
	Add 15% CPOH on "Y"				10.35
	TOTAL				79.32 Z
	Add Cess @ 1% on "Z"				0.79
	Cost of each				80.11
	Say				80.10

17.59.3 50 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1334	Clamps and M.S. stays including bolts and nuts for 50 mm pipe	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				55.12 W
	Add 1 % Water charges on "W"				0.55
	TOTAL				55.67 X
	Add GST on "X" (multiplying factor 0.1405)				7.82
	TOTAL				63.49 Y
	Add 15% CPOH on "Y"				9.52
	TOTAL				73.02 Z
	Add Cess @ 1% on "Z"				0.73
	Cost of each				73.75
	Say				73.75

17.60 Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :

17.60.1 100 mm inlet and 100 mm outlet

17.60.1.1 Sand cast iron S&S as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7808	Centrifugally cast (spun) iron S&S 100 mm inlet and 100 mm outlet	each	1.00	450.00	450.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1198.95 W
	Add 1 % Water charges on "W"				11.99
	TOTAL				1210.94 X
	Add GST on "X" (multiplying factor 0.1405)				170.14
	TOTAL				1381.08 Y
	Add 15% CPOH on "Y"				207.16
	TOTAL				1588.24 Z
	Add Cess @ 1% on "Z"				15.88
	Cost of each				1604.12
	Say				1604.10

17.60.1.2 Sand Cast Iron S&S as per IS: 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1897	100 mm S.C.I. trap with 100 mm inlet and 100 mm outlet	each	1.00	300.00	300.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1048.95 W
	Add 1 % Water charges on "W"				10.49
	TOTAL				1059.44 X
	Add GST on "X" (multiplying factor 0.1405)				148.85
	TOTAL				1208.29 Y
	Add 15% CPOH on "Y"				181.24
	TOTAL				1389.53 Z
	Add Cess @ 1% on "Z"				13.90
	Cost of each				1403.43
	Say				1403.45

17.60.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7642	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 100 mm outlet as per IS 15905	each	1.00	540.00	540.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				568.66 W
	Add 1 % Water charges on "W"				5.69
	TOTAL				574.35 X
	Add GST on "X" (multiplying factor 0.1405)				80.70
	TOTAL				655.05 Y
	Add 15% CPOH on "Y"				98.26
	TOTAL				753.30 Z
	Add Cess @ 1% on "Z"				7.53
	Cost of each				760.83
	Say				760.85

17.60.2 100 mm inlet and 75 mm outlet

17.60.2.1 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7809	Centrifugally cast (spun) iron S&S 100 mm inlet and 75 mm outlet	each	1.00	500.00	500.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				1248.95 W
	Add 1 % Water charges on "W"				12.49
	TOTAL				1261.44 X
	Add GST on "X" (multiplying factor 0.1405)				177.23
	TOTAL				1438.67 Y
	Add 15% CPOH on "Y"				215.80
	TOTAL				1654.47 Z
	Add Cess @ 1% on "Z"				16.54
	Cost of each				1671.02
	Say				1671.00

17.60.2.2 Sand Cast Iron S&S as per IS- 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1898	100 mm S.C.I. trap with 100 mm inlet and 75 mm outlet	each	1.00	220.00	220.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				968.95 W
	Add 1 % Water charges on "W"				9.69
	TOTAL				978.64 X
	Add GST on "X" (multiplying factor 0.1405)				137.50
	TOTAL				1116.14 Y
	Add 15% CPOH on "Y"				167.42
	TOTAL				1283.56 Z
	Add Cess @ 1% on "Z"				12.84
	Cost of each				1296.39
	Say				1296.40

17.60.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one no.				
	MATERIAL				
7643	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 75 mm outlet as per IS 15905	each	1.00	385.00	385.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				413.66 W
	Add 1 % Water charges on "W"				4.14
	TOTAL				417.80 X
	Add GST on "X" (multiplying factor 0.1405)				58.70
	TOTAL				476.50 Y
	Add 15% CPOH on "Y"				71.47
	TOTAL				547.97 Z
	Add Cess @ 1% on "Z"				5.48
	Cost of each				553.45
	Say				553.45

17.61 Cutting chases in brick masonry walls for following diameter sand cast iron/ centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate 12.5 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand) :

17.61.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.022	8843.45	194.56 A
9999	Plastering in cement mortar 1:4	L.S.	10.40	2.12	22.05
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.14	784.00	109.76
0114	Beldar	day	0.27	645.00	174.15
	TOTAL				509.33 W
	Add 1 % Water charges on "W-A"				3.15
	TOTAL				512.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				44.67
	TOTAL				557.15 Y
	Add 15% CPOH on "Y-A"				54.39
	TOTAL				611.54 Z
	Add Cess @ 1% on "Z-A"				4.17
	Cost of one metre				615.71
	Say				615.70

17.61.2 75 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre				
	MATERIAL				
	Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.015	8843.45	132.65 A
9999	Plastering in cement mortar 1:4	L.S.	7.80	2.12	16.54
9977	Carriage of materials	L.S.	3.51	2.12	7.44
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				364.03 W
	Add 1 % Water charges on "W-A"				2.31
	TOTAL				366.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				32.83
	TOTAL				399.18 Y
	Add 15% CPOH on "Y-A"				39.98
	TOTAL				439.15 Z
	Add Cess @ 1% on "Z-A"				3.07
	Cost of one metre				442.22
	Say				442.20

17.61.3 50 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre				
	MATERIAL				
	Cement concrete 1:3:6 (1 cement : 3 coarse sand :6 graded stone aggregate)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.008	8843.45	70.75 A
9999	Plastering in cement mortar 1:4	L.S.	5.20	2.12	11.02
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.07	784.00	54.88
0114	Beldar	day	0.14	645.00	90.3
	TOTAL				232.74 W
	Add 1 % Water charges on "W-A"				1.62
	TOTAL				234.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				22.99
	TOTAL				257.35 Y
	Add 15% CPOH on "Y-A"				27.99
	TOTAL				285.34 Z
	Add Cess @ 1% on "Z-A"				2.15
	Cost of one metre				287.48
	Say				287.50

17.62 Painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint over a coat of zinc chromate yellow primer (of approved quality) on the outside surface of the cistern, flush pipe, other fittings, etc. complete for new work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cistern with fittings				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.23	100.00	23.00
4202	Red oxide Zinc chromate primer	litre	0.20	120.00	24.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.40	165.00	66.00
9977	Carriage of materials	L.S.	1.43	2.12	3.03
9999	Sundries	L.S.	6.76	2.12	14.33
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				631.36 W
	Add 1 % Water charges on "W"				6.31
	TOTAL				637.68 X
	Add GST on "X" (multiplying factor 0.1405)				89.59
	TOTAL				727.27 Y
	Add 15% CPOH on "Y"				109.09
	TOTAL				836.36 Z
	Add Cess @ 1% on "Z"				8.36
	Cost of each				844.72
	Say				844.70

17.63 Re-painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint on the outside surface of the cistern, flush pipe, other fittings, etc. complete, including polishing of wooden seat and lid and cleaning of W.C. pan with acid wherever necessary.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cistern with fittings				
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.23	100.00	23.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.20	165.00	33.00
9999	Polishing of wooden seat and cleaning of W.C. pan with acid	L.S.	20.67	2.12	43.82
9988	Sundries and carriage of materials	L.S.	7.15	2.12	15.16
	LABOUR				
0131	Painter	day	0.20	714.00	142.80
0114	Beldar	day	0.25	645.00	161.25
	TOTAL				419.03 W
	Add 1 % Water charges on "W"				4.19
	TOTAL				423.22 X
	Add GST on "X" (multiplying factor 0.1405)				59.46
	TOTAL				482.68 Y
	Add 15% CPOH on "Y"				72.40
	TOTAL				555.08 Z
	Add Cess @ 1% on "Z"				5.55
	Cost of each				560.63
	Say				560.65

17.64 Repainting C.I. cistern with synthetic enamel paint of approved colour, brand and manufacture on the outside surface of cistern, flush pipe, other fittings etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cistern with fittings				
	MATERIAL				
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.20	165.00	33.00
9988	Sundries and carriage of materials	L.S.	3.64	2.12	7.72
	LABOUR				
0131	Painter	day	0.09	714.00	64.26
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				182.38 W
	Add 1 % Water charges on "W"				1.82
	TOTAL				184.20 X
	Add GST on "X" (multiplying factor 0.1405)				25.88
	TOTAL				210.08 Y
	Add 15% CPOH on "Y"				31.51
	TOTAL				241.59 Z
	Add Cess @ 1% on "Z"				2.42
	Cost of each				244.01
	Say				244.00

17.65 Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :

17.65.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	MATERIAL				
	Perimeter = 3.14x110 mm =345.71				
	Area 10x0.3457 = 3.46 sqm				
	Priming coat				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	3.46	55.50	192.03 A
	Painting two coats with paint of any colour such as chocolatem grey or buff etc.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	3.46	131.45	454.82 A
9999	Add for delay	L.S.	17.16	2.12	36.38
	TOTAL				683.23 W
	Add 1 % Water charges on "W-A"				0.36
	TOTAL				683.59 X
	Add GST on "X" (multiplying factor 0.1405)				5.16
	TOTAL				688.75 Y
	Add 15% CPOH on "Y-A"				6.29
	TOTAL				695.04 Z
	Add Cess @ 1% on "Z-A"				0.48
	Cost of 10 metres				695.52
	Cost of 1 metre				69.55
	Say				69.55

17.65.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	MATERIAL				
	Perimeter = 3.14x82 mm =257.71				
	Area 10x0.2577 =2.577 sqm				
	say 2.60 sq. m				
	for outer surface				
	Priming coat				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	2.60	55.50	144.30 A
	Painting two coats with paint of any colour such as choclate grey or buff etc.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	2.60	131.45	341.77 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	15.21	2.12	32.25
	TOTAL				518.32 W
	Add 1 % Water charges on "W-A"				0.32
	TOTAL				518.64 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.58
	TOTAL				523.21 Y
	Add 15% CPOH on "Y-A"				5.57
	TOTAL				528.78 Z
	Add Cess @ 1% on "Z-A"				0.43
	Cost of 10 metres				529.21
	Cost of 1 metre				52.92
	Say				52.90

17.66 Repainting sand cast iron/ centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings with one coat of synthetic enamel paint of any colour such as chocolate, grey or buff etc :

17.66.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	Painting one coat with paint of any colour such as chocolate,grey or buff etc.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	3.46	86.55	299.46 A
9999	Add for delay	L.S.	12.22	2.12	25.91
	TOTAL				325.37 W
	Add 1 % Water charges on "W-A"				0.26
	TOTAL				325.63 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.68
	TOTAL				329.30 Y
	Add 15% CPOH on "Y-A"				4.48
	TOTAL				333.78 Z
	Add Cess @ 1% on "Z-A"				0.34
	Cost of 10 metres				334.12
	Cost of 1 metre				33.41
	Say				33.40

17.66.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	Painting one coat with paint of any colour such as chocolate,grey or buff etc.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	2.577	86.55	223.04 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	9.49	2.12	20.12
	TOTAL				243.16 W
	Add 1 % Water charges on "W-A"				0.20
	TOTAL				243.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.85
	TOTAL				246.21 Y
	Add 15% CPOH on "Y-A"				3.48
	TOTAL				249.69 Z
	Add Cess @ 1% on "Z-A"				0.27
	Cost of 10 metres				249.96
	Cost of 1 metre				25.00
	Say				25.00

17.67 Repainting bath tub of size 1700x730x430 mm with enamel paint.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one tub				
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	0.90	175.00	157.50
9999	Sundries	L.S.	6.76	2.12	14.33
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0115	Coolie	day	0.25	645.00	161.25
	TOTAL				511.58 W
	Add 1 % Water charges on "W"				5.12
	TOTAL				516.70 X
	Add GST on "X" (multiplying factor 0.1405)				72.60
	TOTAL				589.29 Y
	Add 15% CPOH on "Y"				88.39
	TOTAL				677.69 Z
	Add Cess @ 1% on "Z"				6.78
	Cost of each				684.46
	Say				684.45

17.68 Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat & lid fixed with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40 mm flush bend, 20 mm over flow pipe, with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:

17.68.1 White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1965	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as sequatting pan or European type water closet as per manufacturer's specifications	each	1.00	2500.00	2500.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1200.00	1200.00
9999	20 mm G.I.over flow pipe and specials for over flow pipe	L.S.	276.25	2.12	585.65
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs, screws etc.	L.S.	59.15	2.12	125.40
9999	Red lead, white lead and gaskin etc.	L.S.	71.76	2.12	152.13
9999	Cement,sand and grit	L.S.	118.43	2.12	251.07
9977	Carriage of materials	L.S.	118.43	2.12	251.07
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				7718.32 W
	Add 1 % Water charges on "W"				77.18
	TOTAL				7795.51 X
	Add GST on "X" (multiplying factor 0.1405)				1095.27
	TOTAL				8890.77 Y
	Add 15% CPOH on "Y"				1333.62
	TOTAL				10224.39 Z
	Add Cess @ 1% on "Z"				102.24
	Cost of each				10326.63
	Say				10326.65

17.69 Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.

17.69.1 Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7491	PTMT Waste Coupling 31/32MM	each	1.00	34.00	34.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				76.99 W
	Add 1 % Water charges on "W"				0.77
	TOTAL				77.76 X
	Add GST on "X" (multiplying factor 0.1405)				10.93
	TOTAL				88.69 Y
	Add 15% CPOH on "Y"				13.30
	TOTAL				101.99 Z
	Add Cess @ 1% on "Z"				1.02
	Cost of each				103.01
	Say				103.00

17.69.2 Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7492	PTMT Waste Coupling 38/40MM	each	1.00	39.00	39.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				81.99 W
	Add 1 % Water charges on "W"				0.82
	TOTAL				82.81 X
	Add GST on "X" (multiplying factor 0.1405)				11.64
	TOTAL				94.45 Y
	Add 15% CPOH on "Y"				14.17
	TOTAL				108.62 Z
	Add Cess @ 1% on "Z"				1.09
	Cost of each				109.70
	Say				109.70

17.70 Providing and fixing PTMT Bottle Trap for Wash basin and sink.

17.70.1 Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7493	PTMT Bottle Trap 31/32MM	each	1.00	200.00	200.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				242.99 W
	Add 1 % Water charges on "W"				2.43
	TOTAL				245.42 X
	Add GST on "X" (multiplying factor 0.1405)				34.48
	TOTAL				279.91 Y
	Add 15% CPOH on "Y"				41.99
	TOTAL				321.89 Z
	Add Cess @ 1% on "Z"				3.22
	Cost of each				325.11
	Say				325.10

17.70.2 Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7494	PTMT Bottle Trap 38/40MM	each	1.00	200.00	200.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				242.99 W
	Add 1 % Water charges on "W"				2.43
	TOTAL				245.42 X
	Add GST on "X" (multiplying factor 0.1405)				34.48
	TOTAL				279.91 Y
	Add 15% CPOH on "Y"				41.99
	TOTAL				321.89 Z
	Add Cess @ 1% on "Z"				3.22
	Cost of each				325.11
	Say				325.10

17.71 Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7503	PTMT Liquid Soap Container of 400ml capacity	each	1.00	95.00	95.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				109.33 W
	Add 1 % Water charges on "W"				1.09
	TOTAL				110.42 X
	Add GST on "X" (multiplying factor 0.1405)				15.51
	TOTAL				125.94 Y
	Add 15% CPOH on "Y"				18.89
	TOTAL				144.83 Z
	Add Cess @ 1% on "Z"				1.45
	Cost of each				146.28
	Say				146.30

17.72 Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
7504	PTMT - Towel Ring 215x200x37mm	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				152.99 W
	Add 1 % Water charges on “W”				1.53
	TOTAL				154.52 X
	Add GST on “X” (multiplying factor 0.1405)				21.71
	TOTAL				176.23 Y
	Add 15% CPOH on “Y”				26.44
	TOTAL				202.67 Z
	Add Cess @ 1% on “Z”				2.03
	Cost of each				204.70
	Say				204.70

17.73 Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.

17.73.1 450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7505	PTMT Towel Rail (450mm)	each	1.00	125.00	125.00	
	Wooden cleates					
8.23	Rate as per item no 8.23 of					
	SH : Cladding work	each	2.00	35.50	71.00	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80	
9977	Carriage of materials	L.S.	4.16	2.12	8.82	
	LABOUR					
0112	Carpenter 2nd class	day	0.17	714.00	121.38	
0114	Beldar	day	0.17	645.00	109.65	
	TOTAL				446.65	W
	Add 1 % Water charges on "W-A"				3.76	
	TOTAL				450.41	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				53.31	
	TOTAL				503.71	Y
	Add 15% CPOH on "Y-A"				64.91	
	TOTAL				568.62	Z
	Add Cess @ 1% on "Z-A"				4.98	
	Cost of each				573.60	
	Say				573.60	

17.73.2 600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7506	PTMT Towel Rail (600mm)	each	1.00	145.00	145.00	
	Wooden cleates					
8.23	Rate as per item no 8.23 of					
	SH : Cladding work	each	2.00	35.50	71.00	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80	
9977	Carriage of materials	L.S.	4.16	2.12	8.82	
	LABOUR					
0112	Carpenter 2nd class	day	0.17	714.00	121.38	
0114	Beldar	day	0.17	645.00	109.65	
	TOTAL				466.65	W
	Add 1 % Water charges on "W-A"				3.96	
	TOTAL				470.61	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				56.14	
	TOTAL				526.75	Y
	Add 15% CPOH on "Y-A"				68.36	
	TOTAL				595.11	Z
	Add Cess @ 1% on "Z-A"				5.24	
	Cost of each				600.35	
	Say				600.35	

17.74 Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour, weighing not less than 300 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7507	PTMT Shelf 450x124x36mm	each	1.00	150.00	150.00	
	Wooden cleates					
8.23	Rate as per item no 8.23 of					
	SH : Cladding work	each	2.00	35.50	71.00	A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80	
9977	Carriage of materials	L.S.	4.16	2.12	8.82	
	LABOUR					
0112	Carpenter 2nd class	day	0.17	714.00	121.38	
0114	Beldar	day	0.17	645.00	109.65	
	TOTAL				471.65	W
	Add 1 % Water charges on "W-A"				4.01	
	TOTAL				475.66	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				56.85	
	TOTAL				532.51	Y
	Add 15% CPOH on "Y-A"				69.23	
	TOTAL				601.74	Z
	Add Cess @ 1% on "Z-A"				5.31	
	Cost of each				607.04	
	Say				607.05	

17.75 Providing and fixing PTMT 15 mm Urinal spreader size 95x69x100 mm with 1/2" BSP thread and shapes, weighing not less than 60 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one no.					
	MATERIAL					
7508	PTMT Urinal Spreader 15mm	each	1.00	55.00	55.00	
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33	
	TOTAL				69.33	W
	Add 1 % Water charges on "W"				0.69	
	TOTAL				70.02	X
	Add GST on "X" (multiplying					
	factor 0.1405)				9.84	
	TOTAL				79.86	Y
	Add 15% CPOH on "Y"				11.98	
	TOTAL				91.84	Z
	Add Cess @ 1% on "Z"				0.92	
	Cost of each				92.76	
	Say				92.75	

17.76 Providing and fixing PTMT urinal cock of approved quality and colour.

17.76.1 15 mm nominal bore, 80 mm long, 42 mm high and 30mm wide with BSP female threads weighing not less than 48 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7858	P.T.M.T. Urinal cock 15mm dia	each	1.00	95.00	95.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				112.09 W
	Add 1 % Water charges on "W"				1.12
	TOTAL				113.21 X
	Add GST on "X" (multiplying factor 0.1405)				15.91
	TOTAL				129.11 Y
	Add 15% CPOH on "Y"				19.37
	TOTAL				148.48 Z
	Add Cess @ 1% on "Z"				1.48
	Cost of each				149.97
	Say				149.95

17.77 Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe.

17.77.1 Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 nos.				
	MATERIAL				
	M.S. flats 50x5mm 5 x 0.58 = 2.90m @ 1.97 kg/ metre = 5.71 kg.				
	M.S. flats 30x1.6mm 5x0.42 = 2.10m. 0.38kg/metre = 0.80kg.				
	Total = 6.51kg.				
	Add wastage 5% = 0.33kg.				
	Total = 6.86 kg.= 0.0686 quintal				
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.0686	4950.00	339.57
2205	Carriage of Steel	tonne	0.0068	145.72	0.99
	LABOUR				
0116	Fitter (grade 1)	day	0.033	784.00	25.87
0103	Blacksmith 2nd class	day	0.049	714.00	34.99
0114	Beldar	day	0.065	645.00	41.93
	priming coat				
	5x0.58x0.11 = 0.32				
	5x0.42x0.063 = 0.13				
	Total=0.45sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.50.1	Rate as per item no 13.50.1 of SH : Finishing	sqm	0.45	61.45	27.65 A
9999	Sundries P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos.	L.S.	1.35	2.12	2.86
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	20.00	30.75	615.00 A
	TOTAL				1088.86 W
	Add 1 % Water charges on "W-A"				4.46
	TOTAL				1093.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				63.32
	TOTAL				1156.64 Y
	Add 15% CPOH on "Y-A"				77.10
	TOTAL				1233.74 Z
	Add Cess @ 1% on "Z-A"				5.91
	Cost of 5 Nos.				1239.65
	Cost of each				247.93
	Say				247.95

17.77.2 Total bracket length 810 mm of approved shape and design (for two 100 mm dia pipes)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 nos.				
	MATERIAL				
	M.S. flats 50x5mm 5 x 0.81 = 4.05m @ 1.97 kg/ metre = 7.98 kg.				
	M.S. flats 30x1.6mm 5x2x0.42 = 4.20m. 0.38kg/metre = 1.60kg.				
	Total = 9.58kg.				
	Add wastage 5% = 0.48kg.				
	Total = 10.06 kg.				
	M.S.flats 10.06kg. = 0.1006 quintal				
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.1006	4950.00	497.97
2205	Carriage of Steel	tonne	0.01006	145.72	1.47
	LABOUR				
0116	Fitter (grade 1)	day	0.048	784.00	37.63
0103	Blacksmith 2nd class	day	0.072	714.00	51.41
0114	Beldar	day	0.096	645.00	61.92
	priming coat				
	5x0.81x0.11 = 0.45				
	5x2x0.42x0.063 = 0.26				
	Total =0.71sqm				
13.50.1	Rate as per item no 13.50.1 of SH : Finishing	sqm	0.71	61.45	43.63 A
9999	Sundries P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos.	L.S.	1.98	2.12	4.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	20.00	30.75	615.00 A
	TOTAL				1313.22 W
	Add 1 % Water charges on "W-A"				6.55
	TOTAL				1319.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				92.89
	TOTAL				1412.66 Y
	Add 15% CPOH on "Y-A"				113.10
	TOTAL				1525.76 Z
	Add Cess @ 1% on "Z-A"				8.67
	Cost of 5 Nos.				1534.43
	Cost of each				306.89
	Say				306.90

17.77.3 Total bracket length 1040 mm of approved shape and design (for three 100 mm dia pipes)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 nos.				
	MATERIAL				
	M.S. flats 50x5mm 5 x 1.04= 5.20m @ 1.97 kg/ metre = 10.24 kg.				
	M.S. flats 30x1.6mm 5x3x0.42 = 6.30m. 0.38kg/metre = 2.39kg.				
	Total = 12.63kg.				
	Add wastage 5% = 0.63kg.				
	Total = 13.26 kg.				
	M.S.flats 13.26kg. = 0.1326 quintal				
1007	Structurals such as tees,angles channels and R.S. joists	quintal	0.1326	4950.00	656.37
2205	Carriage of Steel	tonne	0.01326	145.72	1.93
	LABOUR				
0116	Fitter (grade 1)	day	0.063	784.00	49.39
0103	Blacksmith 2nd class	day	0.095	714.00	67.83
0114	Beldar	day	0.126	645.00	81.27
	priming coat				
	5x1.04x0.11 = 0.57				
	5x3x0.42x0.063 = 0.40				
	Total=0.97sqm				
13.50.1	Rate as per item no 13.50.1 of SH : Finishing	sqm	0.97	61.45	59.61 A
9999	Sundries	L.S.	2.60	2.12	5.51
	P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8.8.1.1	Rate asper item no. 8.8.1.1 of SH :- Marble work	each	20.00	30.75	615.00 A
	TOTAL				1536.91 W
	Add 1 % Water charges on "W-A"				8.62
	TOTAL				1545.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				122.37
	TOTAL				1667.90 Y
	Add 15% CPOH on "Y-A"				148.99
	TOTAL				1816.90 Z
	Add Cess @ 1% on "Z-A"				11.42
	Cost of 5 Nos.				1828.32
	Cost of each				365.66
	Say				365.65

17.78 Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
7072	Wall mounted water closet	each	1.00	5500.00	5500.00
7073	Adjustable Vetrious China Cistern with fittings	each	1.00	1600.00	1600.00
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	410.00	410.00
9977	Carriage of materials	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				9743.75 W
	Add 1 % Water charges on "W"				97.44
	TOTAL				9841.19 X
	Add GST on "X" (multiplying factor 0.1405)				1382.69
	TOTAL				11223.88 Y
	Add 15% CPOH on "Y"				1683.58
	TOTAL				12907.46 Z
	Add Cess @ 1% on "Z"				129.07
	Cost of each				13036.54
	Say				13036.55

17.79 Providing & fixing white vitreous china water less urinal of size 600 x 330 x 315 mm having antibacterial /germs free ceramic surface, fixed with cartridge having debris catcher and hygiene seal.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
7074	White Vetrious China Waterless Urinal	each	1.00	9000.00	9000.00
7075	Cistern with fittings for Waterless Urinal	each	1.00	2200.00	2200.00
9977	Carriage of materials	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				11935.25 W
	Add 1 % Water charges on "W"				119.35
	TOTAL				12054.61 X
	Add GST on "X" (multiplying factor 0.1405)				1693.67
	TOTAL				13748.28 Y
	Add 15% CPOH on "Y"				2062.24
	TOTAL				15810.52 Z
	Add Cess @ 1% on "Z"				158.11
	Cost of each				15968.63
	Say				15968.65

17.80 Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pan				
	MATERIAL				
7076	White Vetrious Urinal	each	1.00	4500.00	4500.00
9977	Carriage of materials	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				5235.25 W
	Add 1 % Water charges on "W"				52.35
	TOTAL				5287.61 X
	Add GST on "X" (multiplying factor 0.1405)				742.91
	TOTAL				6030.52 Y
	Add 15% CPOH on "Y"				904.58
	TOTAL				6935.09 Z
	Add Cess @ 1% on "Z"				69.35
	Cost of each				7004.44
	Say				7004.45

17.81 Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
1966	Floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc.	each	1.00	9800.00	9800.00
9977	Carriage of material	L.S.	9.79	2.12	20.75
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
	TOTAL				12033.75 W
	Add 1 % Water charges on "W"				120.34
	TOTAL				12154.09 X
	Add GST on "X" (multiplying factor 0.1405)				1707.65
	TOTAL				13861.74 Y
	Add 15% CPOH on "Y"				2079.26
	TOTAL				15941.00 Z
	Add Cess @ 1% on "Z"				159.41
	Cost of each				16100.41
	Say				16100.40

SUB HEAD : 18.0

WATER SUPPLY

18.1 Providing and fixing Polyethelene-Aluminium-Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes testing of joints complete as per direction of the Engineer-in-charge.

INTERNAL WORK - EXPOSED ON WALL

18.1.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8300	1216 mm PE-AL-PE Composit pressure pipe	metre	10.00	80.00	800.00 P
	Add 30% for fittings and wastage etc. on (P)				240.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2201.45 W
	Add 1 % Water charges on "W"				22.01
	TOTAL				2223.46 X
	Add GST on "X" (multiplying factor 0.1405)				312.40
	TOTAL				2535.86 Y
	Add 15% CPOH on "Y"				380.38
	TOTAL				2916.24 Z
	Add Cess @ 1% on "Z"				29.16
	Cost of 10 metre				2945.40
	Cost of 1 metre				294.54
	Say				294.55

18.1.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8301	1620 mm PE-AL-PE Composit pressure pipe	metre	10.00	90.00	900.00 P
	Add 30% for fittings and wastage etc. on (P)				270.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.82	714.00	585.48

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2445.69 W
	Add 1 % Water charges on "W"				24.46
	TOTAL				2470.14 X
	Add GST on "X" (multiplying factor 0.1405)				347.06
	TOTAL				2817.20 Y
	Add 15% CPOH on "Y"				422.58
	TOTAL				3239.78 Z
	Add Cess @ 1% on "Z"				32.40
	Cost of 10 metre				3272.18
	Cost of 1 metre				327.22
	Say				327.20

18.1.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	140.00	1400.00 P
	Add 30% for fittings and wastage etc. on (P)				420.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3209.93 W
	Add 1 % Water charges on "W"				32.10
	TOTAL				3242.03 X
	Add GST on "X" (multiplying factor 0.1405)				455.50
	TOTAL				3697.53 Y
	Add 15% CPOH on "Y"				554.63
	TOTAL				4252.16 Z
	Add Cess @ 1% on "Z"				42.52
	Cost of 10 metre				4294.68
	Cost of 1 metre				429.47
	Say				429.45

18.1.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8303	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	180.00	1800.00 P
	Add 30% for fittings and wastage etc. on (P)				540.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.98	645.00	632.10
	TOTAL				3939.36 W
	Add 1 % Water charges on "W"				39.39
	TOTAL				3978.75 X
	Add GST on "X" (multiplying factor 0.1405)				559.01
	TOTAL				4537.77 Y
	Add 15% CPOH on "Y"				680.67
	TOTAL				5218.43 Z
	Add Cess @ 1% on "Z"				52.18
	Cost of 10 metre				5270.62
	Cost of 1 metre				527.06
	Say				527.05

18.1.5 3240 (40 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8304	3240 mm PE-AL-PE Composit pressure pipe	metre	10.00	280.00	2800.00 P
	Add 30% for fittings and wastage etc. on (P) 30 x P / 100				840.00
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				5690.31 W
	Add 1 % Water charges on "W"				56.90
	TOTAL				5747.21 X
	Add GST on "X" (multiplying factor 0.1405)				807.48
	TOTAL				6554.70 Y
	Add 15% CPOH on "Y"				983.20
	TOTAL				7537.90 Z
	Add Cess @ 1% on "Z"				75.38
	Cost of 10 metre				7613.28
	Cost of 1 metre				761.33
	Say				761.35

18.1.6 4050 (50 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8305	4050 mm PE-AL-PE Composit pressure pipe	metre	10.00	360.00	3600.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 30% for fittings and wastage etc. on (P) 30 x P / 100				1080.00
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				6730.31 W
	Add 1 % Water charges on "W"				67.30
	TOTAL				6797.61 X
	Add GST on "X" (multiplying factor 0.1405)				955.06
	TOTAL				7752.68 Y
	Add 15% CPOH on "Y"				1162.90
	TOTAL				8915.58 Z
	Add Cess @ 1% on "Z"				89.16
	Cost of 10 metre				9004.73
	Cost of 1 metre				900.47
	Say				900.45

18.2 Providing and fixing Polyethelene-Aluminium- Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes the costs of cutting chases and including testing of joints complete as per direction of the engineer in charge.
Concealed work, including cutting chases and making good the wall etc.

18.2.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8300	1216 mm PE-AL-PE Composit pressure pipe	metre	10.00	80.00	800.00 P
	Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100				600.00
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per item no. 18.78 of SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				4273.66 W
	Add 1 % Water charges on "W-A"				25.56
	TOTAL				4299.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				362.66
	TOTAL				4661.88 Y
	Add 15% CPOH on "Y-A"				441.58
	TOTAL				5103.46 Z
	Add Cess @ 1% on "Z-A"				33.85
	Cost of 10 metre				5137.31
	Cost of 1 metre				513.73
	Say				513.75

18.2.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8301	1620 mm PE-AL-PE Composit pressure pipe	metre	10.00	90.00	900.00 P
	Add 75% for fittings, clamps and wastage etc. on (P)				675.00
	75 * P / 100				
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per item no. 18.78 of SH: water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4448.66 W
	Add 1 % Water charges on "W-A"				27.31
	TOTAL				4475.97 X
	Add GST on "X-A" (multiplying factor 0.1405)				387.49
	TOTAL				4863.46 Y
	Add 15% CPOH on "Y-A"				471.82
	TOTAL				5335.28 Z
	Add Cess @ 1% on "Z-A"				36.17
	Cost of 10 metre				5371.45
	Cost of 1 metre				537.15
	Say				537.15

18.2.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	140.00	1400.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Add 75% for fittings, clamps and wastage etc. on (P)				1050.00	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 of SH: Water Supply	metre	10.00	171.80	1718.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	784.00	258.72	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24	
0114	Beldar	day	0.66	645.00	425.70	
	TOTAL				5323.66	W
	Add 1 % Water charges on "W-A"				36.06	
	TOTAL				5359.72	X
	Add GST on "X-A" (multiplying factor 0.1405)				511.66	
	TOTAL				5871.38	Y
	Add 15% CPOH on "Y-A"				623.01	
	TOTAL				6494.38	Z
	Add Cess @ 1% on "Z-A"				47.76	
	Cost of 10 metre				6542.15	
	Cost of 1 metre				654.21	
	Say				654.20	

18.2.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8303	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	180.00	1800.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				1350.00	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 of SH: Water Supply	metre	10.00	171.80	1718.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	784.00	258.72	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24	
0114	Beldar	day	0.66	645.00	425.70	
	TOTAL				6023.66	W
	Add 1 % Water charges on "W-A"				43.06	
	TOTAL				6066.72	X
	Add GST on "X-A" (multiplying factor 0.1405)				610.99	
	TOTAL				6677.71	Y
	Add 15% CPOH on "Y-A"				743.96	
	TOTAL				7421.67	Z
	Add Cess @ 1% on "Z-A"				57.04	
	Cost of 10 metre				7478.70	
	Cost of 1 metre				747.87	
	Say				747.85	

18.3 Providing and fixing Polyethelene-Aluminium- Polyethelene PE-AL-PE Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80°C, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with trenching, refilling and testing of joints complete as per direction of the engineer in charge.

External work

18.3.1 1216 (16 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8300	1216 mm PE-AL-PE Composit pressure pipe	metre	10.00	80.00	800.00 P
	Add 30% for fittings and wastage etc. on (P)				240.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2057.32 W
	Add 1 % Water charges on "W"				20.57
	TOTAL				2077.89 X
	Add GST on "X" (multiplying factor 0.1405)				291.94
	TOTAL				2369.84 Y
	Add 15% CPOH on "Y"				355.48
	TOTAL				2725.31 Z
	Add Cess @ 1% on "Z"				27.25
	Cost of 10 metre				2752.57
	Cost of 1 metre				275.26
	Say				275.25

18.3.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8301	1620 mm PE-AL-PE Composit pressure pipe	metre	10.00	90.00	900.00 P
	Add 30% for fittings and wastage etc. on (P)				270.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2187.32 W
	Add 1 % Water charges on "W"				21.87
	TOTAL				2209.19 X
	Add GST on "X" (multiplying factor 0.1405)				310.39
	TOTAL				2519.58 Y
	Add 15% CPOH on "Y"				377.94
	TOTAL				2897.52 Z
	Add Cess @ 1% on "Z"				28.98
	Cost of 10 metre				2926.50
	Cost of 1 metre				292.65
	Say				292.65

18.3.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8302	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	140.00	1400.00 P
	Add 30% for fittings and wastage etc. on (P)				420.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2837.32 W
	Add 1 % Water charges on “W”				28.37
	TOTAL				2865.69 X
	Add GST on “X” (multiplying factor 0.1405)				402.63
	TOTAL				3268.32 Y
	Add 15% CPOH on “Y”				490.25
	TOTAL				3758.57 Z
	Add Cess @ 1% on “Z”				37.59
	Cost of 10 metre				3796.16
	Cost of 1 metre				379.62
	Say				379.60

18.3.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8303	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	180.00	1800.00 P
	Add 30% for fittings and wastage etc. on (P)				540.00
	30 x P / 100				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3357.32 W
	Add 1 % Water charges on "W"				33.57
	TOTAL				3390.89 X
	Add GST on "X" (multiplying factor 0.1405)				476.42
	TOTAL				3867.31 Y
	Add 15% CPOH on "Y"				580.10
	TOTAL				4447.41 Z
	Add Cess @ 1% on "Z"				44.47
	Cost of 10 metre				4491.88
	Cost of 1 metre				449.19
	Say				449.20

18.3.5 3240 (40 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8304	3240 mm PE-AL-PE Composit pressure pipe	metre	10.00	280.00	2800.00 P
	Add 30% for fittings and wastage etc. on (P)				840.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4829.69 W
	Add 1 % Water charges on "W"				48.30
	TOTAL				4877.99 X
	Add GST on "X" (multiplying factor 0.1405)				685.36
	TOTAL				5563.34 Y
	Add 15% CPOH on "Y"				834.50
	TOTAL				6397.85 Z
	Add Cess @ 1% on "Z"				63.98
	Cost of 10 metre				6461.82
	Cost of 1 metre				646.18
	Say				646.20

18.3.6 4050 (50 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8305	4050 mm PE-AL-PE Composit pressure pipe	metre	10.00	360.00	3600.00 P
	Add 30% for fittings and wastage etc. on (P)				1080.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				5869.69 W
	Add 1 % Water charges on "W"				58.70
	TOTAL				5928.39 X
	Add GST on "X" (multiplying factor 0.1405)				832.94
	TOTAL				6761.33 Y
	Add 15% CPOH on "Y"				1014.20
	TOTAL				7775.52 Z
	Add Cess @ 1% on "Z"				77.76
	Cost of 10 metre				7853.28
	Cost of 1 metre				785.33
	Say				785.35

18.4 Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS 15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes testing of joints complete as per direction of Engineer-in-Charge.

Internal Exposed on walls

18.4.1 PN - 16 Pipe, 20mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8626	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	48.46	484.60 P
	Add 30% for fittings, clamps and wastage etc. on P, 30xP/100				145.38
9999	Cement, Sand and grit	L.S.	2.73	2.12	5.79
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.82	714.00	585.48

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				1905.67 W
	Add 1 % Water charges on "W"				19.06
	TOTAL				1924.72 X
	Add GST on "X" (multiplying factor 0.1405)				270.42
	TOTAL				2195.15 Y
	Add 15% CPOH on "Y"				329.27
	TOTAL				2524.42 Z
	Add Cess @ 1% on "Z"				25.24
	Cost of 10 metre				2549.66
	Cost of 1 metre				254.97
	Say				254.95

18.4.2 PN - 16 Pipe, 25mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8627	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	10.00	74.82	748.20 P
	Add 30% for fittings, clamps and wastage etc. on P, 30xP/100				224.46
9999	Cement,Sand and grit	L.S.	2.73	2.12	5.79
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2362.59 W
	Add 1 % Water charges on "W"				23.63
	TOTAL				2386.21 X
	Add GST on "X" (multiplying factor 0.1405)				335.26
	TOTAL				2721.48 Y
	Add 15% CPOH on "Y"				408.22
	TOTAL				3129.70 Z
	Add Cess @ 1% on "Z"				31.30
	Cost of 10 metre				3160.99
	Cost of 1 metre				316.10
	Say				316.10

18.4.3 PN - 16 Pipe, 32mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8628	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia	metre	10.00	107.47	1074.70 P
	Add 20% for fittings, clamps and wastage etc. on P, 20xP/100				214.94
9999	Cement, Sand and grit	L.S.	4.16	2.12	8.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2682.60 W
	Add 1 % Water charges on "W"				26.83
	TOTAL				2709.43 X
	Add GST on "X" (multiplying factor 0.1405)				380.67
	TOTAL				3090.10 Y
	Add 15% CPOH on "Y"				463.51
	TOTAL				3553.61 Z
	Add Cess @ 1% on "Z"				35.54
	Cost of 10 metre				3589.15
	Cost of 1 metre				358.92
	Say				358.90

18.4.4 PN - 16 Pipe, 40mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8629	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 40 mm Outer dia	metre	10.00	162.00	1620.00 P
	Add 15% for fittings, clamps and wastage etc. on P, 15xP/100				243.00
9999	Cement, Sand and grit	L.S.	5.33	2.12	11.30
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				3913.31 W
	Add 1 % Water charges on "W"				39.13
	TOTAL				3952.44 X
	Add GST on "X" (multiplying factor 0.1405)				555.32
	TOTAL				4507.76 Y
	Add 15% CPOH on "Y"				676.16
	TOTAL				5183.93 Z
	Add Cess @ 1% on "Z"				51.84
	Cost of 10 metre				5235.76
	Cost of 1 metre				523.58
	Say				523.60

18.4.5 PN - 10 Pipe, 50mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8630	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 50 mm Outer dia	metre	10.00	255.00	2550.00 P
	Add 15% for fittings, clamps and wastage etc. on P, 15xP/100				382.50
9999	Cement, Sand and grit	L.S.	5.33	2.12	11.30
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				4982.81 W
	Add 1 % Water charges on "W"				49.83
	TOTAL				5032.64 X
	Add GST on "X" (multiplying factor 0.1405)				707.09
	TOTAL				5739.72 Y
	Add 15% CPOH on "Y"				860.96
	TOTAL				6600.68 Z
	Add Cess @ 1% on "Z"				66.01
	Cost of 10 metre				6666.69
	Cost of 1 metre				666.67
	Say				666.65

18.5 Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS:15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer-in-Charge.

Concealed work,including cutting chases and making good the wall etc.

18.5.1 PN - 16 Pipe, 20mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8626	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	48.46	484.60 P
	Add 75% for fittings, clamps and wastage etc. on P, 75xP/100				363.45
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per Item Number 18.78 of SH: Water supply	metre	10.00	171.80	1718.00 A
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3721.71 W
	Add 1 % Water charges on "W-A"				20.04
	TOTAL				3741.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				284.34
	TOTAL				4026.08 Y
	Add 15% CPOH on "Y-A"				346.21
	TOTAL				4372.30 Z
	Add Cess @ 1% on "Z-A"				26.54
	Cost of 10 metre				4398.84
	Cost of 1 metre				439.88
	Say				439.90

18.5.2 PN - 16 Pipe, 25mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8627	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	10.00	74.82	748.20 P
	Add 75% for fittings, clamps and wastage etc. on P, 75xP/100				561.15
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per Item Number 18.78 of SH: Water supply	metre	10.00	171.80	1718.00 A
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4183.01 W
	Add 1 % Water charges on "W-A"				24.65
	TOTAL				4207.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				349.80
	TOTAL				4557.46 Y
	Add 15% CPOH on "Y-A"				425.92
	TOTAL				4983.38 Z
	Add Cess @ 1% on "Z-A"				32.65
	Cost of 10 metre				5016.03
	Cost of 1 metre				501.60
	Say				501.60

18.5.3 PN - 16 Pipe, 32mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8628	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia	metre	10.00	107.47	1074.70 P
	Add 50% for fittings, clamps and wastage etc. on P, 50xP/100				537.35
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per Item Number 18.78 of SH: Water supply	metre	10.00	171.80	1718.00 A
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4485.71 W
	Add 1 % Water charges on "W-A"				27.68
	TOTAL				4513.39 X
	Add GST on "X-A" (multiplying factor 0.1405)				392.75
	TOTAL				4906.14 Y
	Add 15% CPOH on "Y-A"				478.22
	TOTAL				5384.36 Z
	Add Cess @ 1% on "Z-A"				36.66
	Cost of 10 metre				5421.02
	Cost of 1 metre				542.10
	Say				542.10

18.6 Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS:15801 UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, including trenching, refilling & testing of joints complete as per direction of Engineer-in-Charge.

External work

18.6.1 PN - 16 Pipe, 20mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8626	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	48.46	484.60 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				96.92
	LABOUR:				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				1598.84 W
	Add 1 % Water charges on "W"				15.99
	TOTAL				1614.83 X
	Add GST on "X" (multiplying factor 0.1405)				226.88
	TOTAL				1841.71 Y
	Add 15% CPOH on "Y"				276.26
	TOTAL				2117.97 Z
	Add Cess @ 1% on "Z"				21.18
	Cost of 10 metre				2139.15
	Cost of 1 metre				213.91
	Say				213.90

18.6.2 PN - 16 Pipe, 25 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8627	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	10.00	74.82	748.20 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				149.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2004.57 W
	Add 1 % Water charges on "W"				20.05
	TOTAL				2024.62 X
	Add GST on "X" (multiplying factor 0.1405)				284.46
	TOTAL				2309.07 Y
	Add 15% CPOH on "Y"				346.36
	TOTAL				2655.44 Z
	Add Cess @ 1% on "Z"				26.55
	Cost of 10 metre				2681.99
	Cost of 1 metre				268.20
	Say				268.20

18.6.3 PN - 16 Pipe, 32 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8628	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia	metre	10.00	107.47	1074.70 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				214.94

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR:				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2396.37 W
	Add 1 % Water charges on "W"				23.96
	TOTAL				2420.33 X
	Add GST on "X" (multiplying factor 0.1405)				340.06
	TOTAL				2760.39 Y
	Add 15% CPOH on "Y"				414.06
	TOTAL				3174.45 Z
	Add Cess @ 1% on "Z"				31.74
	Cost of 10 metre				3206.19
	Cost of 1 metre				320.62
	Say				320.60

18.6.4 PN - 16 Pipe, 40 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8629	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 40 mm Outer dia	metre	10.00	162.00	1620.00 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				324.00
	LABOUR:				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3133.69 W
	Add 1 % Water charges on "W"				31.34
	TOTAL				3165.03 X
	Add GST on "X" (multiplying factor 0.1405)				444.69
	TOTAL				3609.71 Y
	Add 15% CPOH on "Y"				541.46
	TOTAL				4151.17 Z
	Add Cess @ 1% on "Z"				41.51
	Cost of 10 metre				4192.68
	Cost of 1 metre				419.27
	Say				419.25

18.6.5 PN - 10 Pipe, 50 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8630	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 50 mm Outer dia	metre	10.00	255.00	2550.00 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				510.00
	LABOUR:				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4249.69 W
	Add 1 % Water charges on "W"				42.50
	TOTAL				4292.19 X
	Add GST on "X" (multiplying factor 0.1405)				603.05
	TOTAL				4895.24 Y
	Add 15% CPOH on "Y"				734.29
	TOTAL				5629.53 Z
	Add Cess @ 1% on "Z"				56.30
	Cost of 10 metre				5685.82
	Cost of 1 metre				568.58
	Say				568.60

18.6.6 PN - 10 Pipe, 63 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8631	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 63 mm Outer dia	metre	10.00	285.00	2850.00 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				570.00
	LABOUR:				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	coolie	day	0.66	645.00	425.70
	TOTAL				4893.10 W
	Add 1 % Water charges on "W"				48.93
	TOTAL				4942.03 X
	Add GST on "X" (multiplying factor 0.1405)				694.36
	TOTAL				5636.39 Y
	Add 15% CPOH on "Y"				845.46
	TOTAL				6481.84 Z
	Add Cess @ 1% on "Z"				64.82
	Cost of 10 metre				6546.66
	Cost of 1 metre				654.67
	Say				654.65

18.6.7 PN - 10 Pipe, 75 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8632	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 75 mm Outer dia	metre	10.00	425.00	4250.00 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				850.00
	LABOUR:				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				6573.10 W
	Add 1 % Water charges on "W"				65.73
	TOTAL				6638.83 X
	Add GST on "X" (multiplying factor 0.1405)				932.76
	TOTAL				7571.59 Y
	Add 15% CPOH on "Y"				1135.74
	TOTAL				8707.32 Z
	Add Cess @ 1% on "Z"				87.07
	Cost of 10 metre				8794.40
	Cost of 1 metre				879.44
	Say				879.45

18.6.8 PN - 10 Pipe, 90 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8633	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 90 mm Outer dia	metre	10.00	600.00	6000.00 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				1200.00
	LABOUR:				
0116	Fitter (grade 1)	day	0.37	784.00	290.08
0114	Beldar	day	0.97	645.00	625.65
	Trenching and refilling etc.				
0114	Beldar	day	0.80	645.00	516.00
0115	Beldar	day	0.80	645.00	516.00
	TOTAL				9147.73 W
	Add 1 % Water charges on "W"				91.48
	TOTAL				9239.21 X
	Add GST on "X" (multiplying factor 0.1405)				1298.11
	TOTAL				10537.32 Y
	Add 15% CPOH on "Y"				1580.60
	TOTAL				12117.91 Z
	Add Cess @ 1% on "Z"				121.18
	Cost of 10 metre				12239.09
	Cost of 1 metre				1223.91
	Say				1223.90

18.6.9 PN - 10 Pipe, 110 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8634	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 110 mm Outer dia	metre	10.00	890.00	8900.00 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				1780.00
	LABOUR:				
0116	Fitter (grade 1)	day	0.37	784.00	290.08
0114	Beldar	day	0.97	645.00	625.65
	Trenching and refilling etc.				
0114	Beldar	day	0.80	645.00	516.00
0115	Coolie	day	0.80	645.00	516.00
	TOTAL				12627.73 W
	Add 1 % Water charges on "W"				126.28
	TOTAL				12754.01 X
	Add GST on "X" (multiplying factor 0.1405)				1791.94
	TOTAL				14545.95 Y
	Add 15% CPOH on "Y"				2181.89
	TOTAL				16727.84 Z
	Add Cess @ 1% on "Z"				167.28
	Cost of 10 metre				16895.12
	Cost of 1 metre				1689.51
	Say				1689.50

18.6.10 PN - 10 Pipe, 160 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL:				
8635	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 160 mm Outer dia	metre	10.00	2575.00	25750.00 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				5150.00
	LABOUR:				
0116	Fitter (grade 1)	day	0.58	784.00	454.72
0114	Beldar	day	1.54	645.00	993.30
	Trenching and refilling etc.				
0114	Beldar	day	1.20	645.00	774.00
0115	Coolie	day	1.20	645.00	774.00
	TOTAL				33896.02 W
	Add 1 % Water charges on "W"				338.96
	TOTAL				34234.98 X
	Add GST on "X" (multiplying factor 0.1405)				4810.01
	TOTAL				39044.99 Y
	Add 15% CPOH on "Y"				5856.75
	TOTAL				44901.74 Z
	Add Cess @ 1% on "Z"				449.02
	Cost of 10 metre				45350.76
	Cost of 1 metre				4535.08
	Say				4535.10

18.6A Providing and fixing PPR Unions

18.6A.1 PPR Union 20mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL:				
8306	PPR Union 20mm	each	1.00	60.00	60.00
9999	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				221.05 W
	Add 1 % Water charges on "W"				2.21
	TOTAL				223.26 X
	Add GST on "X" (multiplying				
	factor 0.1405)				31.37
	TOTAL				254.63 Y
	Add 15% CPOH on "Y"				38.19
	TOTAL				292.82 Z
	Add Cess @ 1% on "Z"				2.93
	Cost of 1 No				295.75
	Say				295.75

18.6A.2 PPR Union 25mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL:				
8307	PPR Union 25mm	each	1.00	110.00	110.00
9999	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				271.05 W
	Add 1 % Water charges on "W"				2.71
	TOTAL				273.76 X
	Add GST on "X" (multiplying				
	factor 0.1405)				38.46
	TOTAL				312.22 Y
	Add 15% CPOH on "Y"				46.83
	TOTAL				359.06 Z
	Add Cess @ 1% on "Z"				3.59
	Cost of 1 No				362.65
	Say				362.65

18.6A.3 PPR Union 32mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL:				
8308	PPR Union 32mm	each	1.00	150.00	150.00
9999	Carriage of materials and sundries	L.S.	1.82	2.12	3.86

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				311.05 W
	Add 1 % Water charges on "W"				3.11
	TOTAL				314.16 X
	Add GST on "X" (multiplying factor 0.1405)				44.14
	TOTAL				358.30 Y
	Add 15% CPOH on "Y"				53.74
	TOTAL				412.04 Z
	Add Cess @ 1% on "Z"				4.12
	Cost of 1 No				416.16
	Say				416.15

18.6A.4 PPR Union 40mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL:				
8309	PPR Union 40mm	each	1.00	220.00	220.00
9999	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				381.05 W
	Add 1 % Water charges on "W"				3.81
	TOTAL				384.86 X
	Add GST on "X" (multiplying factor 0.1405)				54.07
	TOTAL				438.93 Y
	Add 15% CPOH on "Y"				65.84
	TOTAL				504.77 Z
	Add Cess @ 1% on "Z"				5.05
	Cost of 1 No				509.82
	Say				509.80

18.6A.5 PPR Union 50mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL:				
8310	PPR Union 50mm	each	1.00	410.00	410.00
9999	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	784.00	86.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				571.05 W
	Add 1 % Water charges on "W"				5.71
	TOTAL				576.76 X
	Add GST on "X" (multiplying factor 0.1405)				81.03
	TOTAL				657.79 Y
	Add 15% CPOH on "Y"				98.67
	TOTAL				756.46 Z
	Add Cess @ 1% on "Z"				7.56
	Cost of 1 No				764.03
	Say				764.05

18.6A.6 PPR Union 63mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL:				
8311	PPR Union 63mm	each	1.00	550.00	550.00
9999	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				711.05 W
	Add 1 % Water charges on "W"				7.11
	TOTAL				718.16 X
	Add GST on "X" (multiplying factor 0.1405)				100.90
	TOTAL				819.06 Y
	Add 15% CPOH on "Y"				122.86
	TOTAL				941.92 Z
	Add Cess @ 1% on "Z"				9.42
	Cost of 1 No				951.34
	Say				951.35

18.6A.7 PPR Union 75mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL:				
8312	PPR Union 75mm	each	1.00	1100.00	1100.00
9999	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				1261.05 W
	Add 1 % Water charges on "W"				12.61
	TOTAL				1273.66 X
	Add GST on "X" (multiplying factor 0.1405)				178.95
	TOTAL				1452.61 Y
	Add 15% CPOH on "Y"				217.89
	TOTAL				1670.50 Z
	Add Cess @ 1% on "Z"				16.70
	Cost of 1 No				1687.20
	Say				1687.20

18.7 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.
Internal work - Exposed on wall

18.7.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia.	metre	10.00	49.00	490.00 P
	Add 30% for fittings and wastage etc. on (P) 30 x P / 100				147.00
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.82	714.00	585.48
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				1912.69 W
	Add 1 % Water charges on "W"				19.13
	TOTAL				1931.81 X
	Add GST on "X" (multiplying factor 0.1405)				271.42
	TOTAL				2203.23 Y
	Add 15% CPOH on "Y"				330.49
	TOTAL				2533.72 Z
	Add Cess @ 1% on "Z"				25.34
	Cost of 10 metre				2559.06
	Cost of 1 metre				255.91
	Say				255.90

18.7.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	80.00	800.00 P
	Add 30% for fittings and wastage etc. on (P) 30 x P / 100				240.00
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2429.93 W
	Add 1 % Water charges on "W"				24.30
	TOTAL				2454.23 X
	Add GST on "X" (multiplying factor 0.1405)				344.82
	TOTAL				2799.05 Y
	Add 15% CPOH on "Y"				419.86
	TOTAL				3218.90 Z
	Add Cess @ 1% on "Z"				32.19
	Cost of 10 metre				3251.09
	Cost of 1 metre				325.11
	Say				325.10

18.7.3 25 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	127.97	1279.70 P
	Add 30% for fittings and wastage etc. on (P) 30 x P / 100				383.91
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3053.54 W
	Add 1 % Water charges on "W"				30.54
	TOTAL				3084.07 X
	Add GST on "X" (multiplying factor 0.1405)				433.31
	TOTAL				3517.39 Y
	Add 15% CPOH on "Y"				527.61
	TOTAL				4044.99 Z
	Add Cess @ 1% on "Z"				40.45
	Cost of 10 metre				4085.44
	Cost of 1 metre				408.54
	Say				408.55

18.7.4 32 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia.	metre	10.00	165.00	1650.00 P
	Add 30% for fittings and wastage etc. on (P) 30 x P / 100				495.00
9999	Cement, sand and grit etc.	L.S.	4.16	2.12	8.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.98	645.00	632.10
	TOTAL				3744.36 W
	Add 1 % Water charges on "W"				37.44
	TOTAL				3781.80 X
	Add GST on "X" (multiplying factor 0.1405)				531.34
	TOTAL				4313.15 Y
	Add 15% CPOH on "Y"				646.97
	TOTAL				4960.12 Z
	Add Cess @ 1% on "Z"				49.60
	Cost of 10 metre				5009.72
	Cost of 1 metre				500.97
	Say				500.95

18.7.5 40 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm nominal dia.	metre	10.00	230.00	2300.00 P
	Add 30% for fittings and wastage etc. on (P)				690.00
	30 x P / 100				
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				5040.31 W
	Add 1 % Water charges on "W"				50.40
	TOTAL				5090.71 X
	Add GST on "X" (multiplying factor 0.1405)				715.25
	TOTAL				5805.96 Y
	Add 15% CPOH on "Y"				870.89
	TOTAL				6676.85 Z
	Add Cess @ 1% on "Z"				66.77
	Cost of 10 metre				6743.62
	Cost of 1 metre				674.36
	Say				674.35

18.7.6 50 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm nominal dia.	metre	10.00	375.25	3752.50	P
	Add 30% for fittings and wastage etc. on (P)				1125.75	
	30 x P / 100					
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	784.00	258.72	
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34	
0114	Beldar	day	1.31	645.00	844.95	
	TOTAL				6928.56	W
	Add 1 % Water charges on "W"				69.29	
	TOTAL				6997.85	X
	Add GST on "X" (multiplying factor 0.1405)				983.20	
	TOTAL				7981.04	Y
	Add 15% CPOH on "Y"				1197.16	
	TOTAL				9178.20	Z
	Add Cess @ 1% on "Z"				91.78	
	Cost of 10 metre				9269.98	
	Cost of 1 metre				927.00	
	Say				927.00	

18.8 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.

Concealed work, including cutting chases and making good the walls etc.

18.8.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia.	metre	10.00	49.00	490.00	P
	Add 75% for fittings, clamps and wastage etc. on (P)				367.50	
	75 x P / 100					
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same					
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	171.80	1718.00	A
	LABOUR					
0116	Fitter (grade 1)	day	0.33	784.00	258.72	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3731.16 W
	Add 1 % Water charges on "W-A"				20.13
	TOTAL				3751.29 X
	Add GST on "X-A" (multiplying factor 0.1405)				285.68
	TOTAL				4036.97 Y
	Add 15% CPOH on "Y-A"				347.85
	TOTAL				4384.81 Z
	Add Cess @ 1% on "Z-A"				26.67
	Cost of 10 metre				4411.48
	Cost of 1 metre				441.15
	Say				441.15

18.8.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	80.00	800.00 P
	Add 75% for fittings, clamps and wastage etc. on (P)				600.00
	75 x P / 100				
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4273.66 W
	Add 1 % Water charges on "W-A"				25.56
	TOTAL				4299.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				362.66
	TOTAL				4661.88 Y
	Add 15% CPOH on "Y-A"				441.58
	TOTAL				5103.46 Z
	Add Cess @ 1% on "Z-A"				33.85
	Cost of 10 metre				5137.31
	Cost of 1 metre				513.73
	Say				513.75

18.8.3 25 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	127.97	1279.70 P
	Add 75% for fittings, clamps and wastage etc. on (P)				959.78
	75 x P / 100				
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5113.14 W
	Add 1 % Water charges on "W-A"				33.95
	TOTAL				5147.09 X
	Add GST on "X-A" (multiplying factor 0.1405)				481.79
	TOTAL				5628.87 Y
	Add 15% CPOH on "Y-A"				586.63
	TOTAL				6215.50 Z
	Add Cess @ 1% on "Z-A"				44.98
	Cost of 10 metre				6260.48
	Cost of 1 metre				626.05
	Say				626.05

18.8.4 32 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia.	metre	10.00	165.00	1650.00 P
	Add 75% for fittings, clamps and wastage etc. on (P)				1237.50
	75 x P / 100				
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5761.16 W
	Add 1 % Water charges on "W-A"				40.43
	TOTAL				5801.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				573.74
	TOTAL				6375.34 Y
	Add 15% CPOH on "Y-A"				698.60
	TOTAL				7073.94 Z
	Add Cess @ 1% on "Z-A"				53.56
	Cost of 10 metre				7127.50
	Cost of 1 metre				712.75
	Say				712.75

18.9 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.

External work

18.9.1 15 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm nominal dia.	metre	10.00	49.00	490.00 P
	Add 30% for fittings and wastage etc. on (P)				147.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				1654.32 W
	Add 1 % Water charges on "W"				16.54
	TOTAL				1670.86 X
	Add GST on "X" (multiplying factor 0.1405)				234.76
	TOTAL				1905.62 Y
	Add 15% CPOH on "Y"				285.84
	TOTAL				2191.46 Z
	Add Cess @ 1% on "Z"				21.91
	Cost of 10 metre				2213.38
	Cost of 1 metre				221.34
	Say				221.35

18.9.2 20 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm nominal dia.	metre	10.00	80.00	800.00 P
	Add 30% for fittings and wastage etc. on (P)				240.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2057.32 W
	Add 1 % Water charges on "W"				20.57
	TOTAL				2077.89 X
	Add GST on "X" (multiplying factor 0.1405)				291.94
	TOTAL				2369.84 Y
	Add 15% CPOH on "Y"				355.48
	TOTAL				2725.31 Z
	Add Cess @ 1% on "Z"				27.25
	Cost of 10 metre				2752.57
	Cost of 1 metre				275.26
	Say				275.25

18.9.3 25 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm nominal dia.	metre	10.00	127.97	1279.70 P
	Add 30% for fittings and wastage etc. on (P)				383.91
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2770.34 W
	Add 1 % Water charges on "W"				27.70
	TOTAL				2798.04 X
	Add GST on "X" (multiplying factor 0.1405)				393.13
	TOTAL				3191.17 Y
	Add 15% CPOH on "Y"				478.68
	TOTAL				3669.84 Z
	Add Cess @ 1% on "Z"				36.70
	Cost of 10 metre				3706.54
	Cost of 1 metre				370.65
	Say				370.65

18.9.4 32 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm nominal dia.	metre	10.00	165.00	1650.00 P
	Add 30% for fittings and wastage etc. on (P)				495.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3251.73 W
	Add 1 % Water charges on "W"				32.52
	TOTAL				3284.25 X
	Add GST on "X" (multiplying factor 0.1405)				461.44
	TOTAL				3745.68 Y
	Add 15% CPOH on "Y"				561.85
	TOTAL				4307.54 Z
	Add Cess @ 1% on "Z"				43.08
	Cost of 10 metre				4350.61
	Cost of 1 metre				435.06
	Say				435.05

18.9.5 40 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm nominal dia.	metre	10.00	230.00	2300.00 P
	Add 30% for fittings and wastage etc. on (P)				690.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4179.69 W
	Add 1 % Water charges on "W"				41.80
	TOTAL				4221.49 X
	Add GST on "X" (multiplying factor 0.1405)				593.12
	TOTAL				4814.61 Y
	Add 15% CPOH on "Y"				722.19
	TOTAL				5536.80 Z
	Add Cess @ 1% on "Z"				55.37
	Cost of 10 metre				5592.16
	Cost of 1 metre				559.22
	Say				559.20

18.9.6 50 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm nominal dia.	metre	10.00	375.25	3752.50 P
	Add 30% for fittings and wastage etc. on (P)				1125.75
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				6067.94 W
	Add 1 % Water charges on "W"				60.68
	TOTAL				6128.62 X
	Add GST on "X" (multiplying factor 0.1405)				861.07
	TOTAL				6989.69 Y
	Add 15% CPOH on "Y"				1048.45
	TOTAL				8038.14 Z
	Add Cess @ 1% on "Z"				80.38
	Cost of 10 metre				8118.53
	Cost of 1 metre				811.85
	Say				811.85

18.9.7 65 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8642	Chlorinated Polyvinyl - chloride (CPVC) pipe 65 mm nominal dia.	metre	10.00	793.30	7933.00 P
	Add 30% for fittings and wastage etc. on (P)				2379.90
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				11786.00 W
	Add 1 % Water charges on "W"				117.86
	TOTAL				11903.86 X
	Add GST on "X" (multiplying factor 0.1405)				1672.49
	TOTAL				13576.35 Y
	Add 15% CPOH on "Y"				2036.45
	TOTAL				15612.81 Z
	Add Cess @ 1% on "Z"				156.13
	Cost of 10 metre				15768.93
	Cost of 1 metre				1576.89
	Say				1576.90

18.9.8 80 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8643	Chlorinated Polyvinyl - chloride (CPVC) pipe 80 mm nominal dia.	metre	10.00	1031.05	10310.50 P
	Add 30% for fittings and wastage etc. on (P)				3093.15
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				14876.75 W
	Add 1 % Water charges on "W"				148.77
	TOTAL				15025.52 X
	Add GST on "X" (multiplying factor 0.1405)				2111.09
	TOTAL				17136.60 Y
	Add 15% CPOH on "Y"				2570.49
	TOTAL				19707.09 Z
	Add Cess @ 1% on "Z"				197.07
	Cost of 10 metre				19904.16
	Cost of 1 metre				1990.42
	Say				1990.40

18.9.9 100 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8644	Chlorinated Polyvinyl - chloride (CPVC) pipe 100 mm nominal dia.	metre	10.00	1466.75	14667.50 P
	Add 30% for fittings and wastage etc. on (P)				4400.25
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.37	784.00	290.08
0114	Beldar	day	0.97	645.00	625.65
	Trenching and refilling etc.				
0114	Beldar	day	0.80	645.00	516.00
0115	Coolie	day	0.80	645.00	516.00
	TOTAL				21015.48 W
	Add 1 % Water charges on "W"				210.15
	TOTAL				21225.63 X
	Add GST on "X" (multiplying factor 0.1405)				2982.20
	TOTAL				24207.84 Y
	Add 15% CPOH on "Y"				3631.18
	TOTAL				27839.01 Z
	Add Cess @ 1% on "Z"				278.39
	Cost of 10 metre				28117.40
	Cost of 1 metre				2811.74
	Say				2811.75

18.9.10 150 mm nominal dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8645	Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm nominal dia.	metre	10.00	3145.15	31451.50 P
	Add 30% for fittings and wastage etc. on (P)				9435.45
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.58	784.00	454.72
0114	Beldar	day	1.54	645.00	993.30
	Trenching and refilling etc.				
0114	Beldar	day	1.20	645.00	774.00
0115	Coolie	day	1.20	645.00	774.00
	TOTAL				43882.97 W
	Add 1 % Water charges on "W"				438.83
	TOTAL				44321.80 X
	Add GST on "X" (multiplying factor 0.1405)				6227.21
	TOTAL				50549.01 Y
	Add 15% CPOH on "Y"				7582.35
	TOTAL				58131.36 Z
	Add Cess @ 1% on "Z"				581.31
	Cost of 10 metre				58712.68
	Cost of 1 metre				5871.27
	Say				5871.25

18.10 Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.
Internal work - Exposed on wall
18.10.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1545	G.I. pipes 15 mm dia	metre	11.50	95.00	1092.50
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 12.30 = 14.145 kg = 0.014145 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014145	145.72	2.06
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2273.10 W
	Add 1 % Water charges on "W"				22.73
	TOTAL				2295.83 X
	Add GST on "X" (multiplying factor 0.1405)				322.56
	TOTAL				2618.39 Y
	Add 15% CPOH on "Y"				392.76
	TOTAL				3011.15 Z
	Add Cess @ 1% on "Z"				30.11
	Cost of 10 metre				3041.26
	Cost of 1 metre				304.13
	Say				304.15

18.10.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1546	G.I. pipes 20 mm dia Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 15.90= 18.285 kg = 0.018285 tonne	metre	11.50	130.00	1495.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018285	145.72	2.66
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
9999	Cement, sand and grit etc.	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.82	714.00	585.48
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2790.44 W
	Add 1 % Water charges on "W"				27.90
	TOTAL				2818.34 X
	Add GST on "X" (multiplying factor 0.1405)				395.98
	TOTAL				3214.32 Y
	Add 15% CPOH on "Y"				482.15
	TOTAL				3696.47 Z
	Add Cess @ 1% on "Z"				36.96
	Cost of 10 metre				3733.43
	Cost of 1 metre				373.34
	Say				373.35

18.10.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1547	G.I. pipes 25 mm dia Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 24.60 = 28.29 kg = 0.02829 tonne	metre	11.50	196.00	2254.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.02829	145.72	4.12
9999	White lead, hemp, oil etc.	L.S.	9.49	2.12	20.12
9999	Cement, sand and grit etc.	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3671.20 W
	Add 1 % Water charges on "W"				36.71
	TOTAL				3707.91 X
	Add GST on "X" (multiplying factor 0.1405)				520.96
	TOTAL				4228.87 Y
	Add 15% CPOH on "Y"				634.33
	TOTAL				4863.21 Z
	Add Cess @ 1% on "Z"				48.63
	Cost of 10 metre				4911.84
	Cost of 1 metre				491.18
	Say				491.20

18.10.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1548	G.I. pipes 32 mm dia	metre	11.50	225.00	2587.50
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 31.70 = 36.455 kg = 0.036455 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.036455	145.72	5.31
9999	White lead, hemp, oil etc.	L.S.	9.49	2.12	20.12
9999	Cement, sand and grit etc.	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.98	714.00	699.72
0114	Beldar	day	0.98	645.00	632.10
	TOTAL				4212.29 W
	Add 1 % Water charges on "W"				42.12
	TOTAL				4254.41 X
	Add GST on "X" (multiplying factor 0.1405)				597.75
	TOTAL				4852.16 Y
	Add 15% CPOH on "Y"				727.82
	TOTAL				5579.98 Z
	Add Cess @ 1% on "Z"				55.80
	Cost of 10 metre				5635.78
	Cost of 1 metre				563.58
	Say				563.60

18.10.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1549	G.I. pipes 40 mm dia	metre	11.50	290.00	3335.00
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 36.50 = 41.975 kg = 0.041975 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.041975	145.72	6.12
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.31	714.00	935.34
0114	Beldar	day	1.31	645.00	844.95
	TOTAL				5420.09 W
	Add 1 % Water charges on "W"				54.20
	TOTAL				5474.29 X
	Add GST on "X" (multiplying factor 0.1405)				769.14
	TOTAL				6243.43 Y
	Add 15% CPOH on "Y"				936.51
	TOTAL				7179.94 Z
	Add Cess @ 1% on "Z"				71.80
	Cost of 10 metre				7251.74
	Cost of 1 metre				725.17
	Say				725.15

18.10.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1550	G.I. pipes 50 mm dia	metre	11.50	360.00	4140.00
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 51.70 = 59.455 kg = 0.059455 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.059455	145.72	8.66
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66
9999	Cement, sand and grit etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	1.64	714.00	1170.96
0114	Beldar	day	1.64	645.00	1057.80
	TOTAL				6676.11 W
	Add 1 % Water charges on "W"				66.76
	TOTAL				6742.87 X
	Add GST on "X" (multiplying factor 0.1405)				947.37
	TOTAL				7690.24 Y
	Add 15% CPOH on "Y"				1153.54
	TOTAL				8843.78 Z
	Add Cess @ 1% on "Z"				88.44
	Cost of 10 metre				8932.21
	Cost of 1 metre				893.22
	Say				893.20

18.11 Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :

18.11.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1545	G.I. pipes 15 mm dia	metre	11.50	95.00	1092.50
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 12.30 = 14.145 kg = 0.014145 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014145	145.72	2.06
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats				
18.40.1	(Rate same as per item no. 18.40.1)	metre	10.00	10.05	100.50 A
	Making chases upto 7.5x7.5cm in walls and making good the same				
18.78	Rate as per item no. 18.78 Of				
	SH Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4085.81 W
	Add 1 % Water charges on "W-A"				22.67
	TOTAL				4108.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				321.74
	TOTAL				4430.22 Y
	Add 15% CPOH on "Y-A"				391.76
	TOTAL				4821.98 Z
	Add Cess @ 1% on "Z-A"				30.03
	Cost of 10 metre				4852.02
	Cost of 1 metre				485.20
	Say				485.20

18.11.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1546	G.I. pipes 20 mm dia	metre	11.50	130.00	1495.00
	Weight for carriage = pipe weight + 15% for fiitings = 1.15 * 15.90= 18.285 kg = 0.018285 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018285	145.72	2.66
9999	White lead, hemp, oil etc.	L.S.	8.06	2.12	17.09
	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats				
18.40.2	(Rate same as per item no. 18.40.2 Of				
	SH Water Supply)	metre	10.00	12.00	120.00 A
	Making chases upto 7.5x7.5cm in walls and making good the same				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.78	Rate as per item no. 18.78 Of SH Water Supply	metre	10.00	171.80	1718.00 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4508.41 W
	Add 1 % Water charges on "W-A"				26.70
	TOTAL				4535.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				378.94
	TOTAL				4914.06 Y
	Add 15% CPOH on "Y-A"				461.41
	TOTAL				5375.47 Z
	Add Cess @ 1% on "Z-A"				35.37
	Cost of 10 metre				5410.84
	Cost of 1 metre				541.08
	Say				541.10

18.12 Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.

External work

18.12.1 15 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1545	G.I. pipes 15 mm dia	metre	10.20	95.00	969.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 12.30 = 12.546 kg = 0.012546 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.012546	145.72	1.83
9999	White lead, hemp, oil etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				1999.45 W
	Add 1 % Water charges on "W"				19.99
	TOTAL				2019.44 X
	Add GST on "X" (multiplying factor 0.1405)				283.73
	TOTAL				2303.17 Y
	Add 15% CPOH on "Y"				345.48
	TOTAL				2648.65 Z
	Add Cess @ 1% on "Z"				26.49
	Cost of 10 metre				2675.14
	Cost of 1 metre				267.51
	Say				267.50

18.12.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detailsof cost for 10 metre				
	MATERIAL				
1546	G.I. pipes 20 mm dia	metre	10.20	130.00	1326.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 15.90 = 16.218 kg = 0.016218 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.016218	145.72	2.36
9999	White lead, hemp, oil etc.	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.16	645.00	103.20
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				2356.98 W
	Add 1 % Water charges on "W"				23.57
	TOTAL				2380.55 X
	Add GST on "X" (multiplying factor 0.1405)				334.47
	TOTAL				2715.02 Y
	Add 15% CPOH on "Y"				407.25
	TOTAL				3122.27 Z
	Add Cess @ 1% on "Z"				31.22
	Cost of 10 metre				3153.50
	Cost of 1 metre				315.35
	Say				315.35

18.12.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1547	G.I. pipes 25 mm dia	metre	10.20	196.00	1999.20
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 24.60 = 25.092 kg = 0.025092 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.025092	145.72	3.66
9999	White lead, hemp, oil etc.	L.S.	6.76	2.12	14.33
	LABOUR				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3123.92 W
	Add 1 % Water charges on "W"				31.24
	TOTAL				3155.16 X
	Add GST on "X" (multiplying factor 0.1405)				443.30
	TOTAL				3598.46 Y
	Add 15% CPOH on "Y"				539.77
	TOTAL				4138.22 Z
	Add Cess @ 1% on "Z"				41.38
	Cost of 10 metre				4179.61
	Cost of 1 metre				417.96
	Say				417.95

18.12.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1548	G.I. pipes 32 mm dia	metre	10.20	225.00	2295.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 31.70 = 32.334 kg = 0.032334 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.032334	145.72	4.71
9999	White lead, hemp, oil etc.	L.S.	6.76	2.12	14.33
	LABOUR				
0116	Fitter (grade 1)	day	0.12	784.00	94.08
0114	Beldar	day	0.25	645.00	161.25
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				3420.77 W
	Add 1 % Water charges on "W"				34.21
	TOTAL				3454.98 X
	Add GST on "X" (multiplying factor 0.1405)				485.42
	TOTAL				3940.41 Y
	Add 15% CPOH on "Y"				591.06
	TOTAL				4531.47 Z
	Add Cess @ 1% on "Z"				45.31
	Cost of 10 metre				4576.78
	Cost of 1 metre				457.68
	Say				457.70

18.12.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1549	G.I. pipes 40 mm dia	metre	10.20	290.00	2958.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 36.50 = 37.23 kg = 0.03723 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.03723	145.72	5.43
9999	White lead, hemp, oil etc.	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4173.23 W
	Add 1 % Water charges on "W"				41.73
	TOTAL				4214.97 X
	Add GST on "X" (multiplying factor 0.1405)				592.20
	TOTAL				4807.17 Y
	Add 15% CPOH on "Y"				721.08
	TOTAL				5528.24 Z
	Add Cess @ 1% on "Z"				55.28
	Cost of 10 metre				5583.53
	Cost of 1 metre				558.35
	Say				558.35

18.12.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1550	G.I. pipes 50 mm dia	metre	10.20	360.00	3672.00
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 51.70 = 52.73 kg = 0.05273 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.052734	145.72	7.68
9999	White lead, hemp, oil etc.	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.33	645.00	212.85
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				4889.49 W
	Add 1 % Water charges on "W"				48.89
	TOTAL				4938.39 X
	Add GST on "X" (multiplying factor 0.1405)				693.84
	TOTAL				5632.23 Y
	Add 15% CPOH on "Y"				844.83
	TOTAL				6477.07 Z
	Add Cess @ 1% on "Z"				64.77
	Cost of 10 metre				6541.84
	Cost of 1 metre				654.18
	Say				654.20

18.12.7 65 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1551	G.I. pipes 65 mm dia Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 66.30 = 67.626 kg = 0.067626 tonne	metre	10.20	415.00	4233.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.067626	145.72	9.85
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.66	645.00	425.70
	Trenching and refilling etc.				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.66	645.00	425.70
	TOTAL				5744.62 W
	Add 1 % Water charges on "W"				57.45
	TOTAL				5802.06 X
	Add GST on "X" (multiplying factor 0.1405)				815.19
	TOTAL				6617.25 Y
	Add 15% CPOH on "Y"				992.59
	TOTAL				7609.84 Z
	Add Cess @ 1% on "Z"				76.10
	Cost of 10 metre				7685.94
	Cost of 1 metre				768.59
	Say				768.60

18.12.8 80 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
1552	G.I. pipes 80 mm dia	metre	10.20	525.00	5355.00	
	Weight for carriage = pipe weight + 2% for fiitings = 1.02 * 86.40 = 88.128 kg = 0.088128 tonne					
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.088128	145.72	12.84	
9999	White lead, hemp, oil etc.	L.S.	13.52	2.12	28.66	
	LABOUR					
0116	Fitter (grade 1)	day	0.25	784.00	196.00	
0114	Beldar	day	0.66	645.00	425.70	
	Trenching and refilling etc.					
0114	Beldar	day	0.66	645.00	425.70	
0115	Coolie	day	0.66	645.00	425.70	
	TOTAL				6869.60	W
	Add 1 % Water charges on "W"				68.70	
	TOTAL				6938.30	X
	Add GST on "X" (multiplying factor 0.1405)				974.83	
	TOTAL				7913.13	Y
	Add 15% CPOH on "Y"				1186.97	
	TOTAL				9100.10	Z
	Add Cess @ 1% on "Z"				91.00	
	Cost of 10 metre				9191.10	
	Cost of 1 metre				919.11	
	Say				919.10	

18.13 Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :

18.13.1 25 to 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one connection.					
	Take 25mm dia as an average size.					
	MATERIAL					
1608	G.I. tees (equal) 25 mm	each	1.00	65.00	65.00	
1555	G.I. back (jam) nuts 25 mm dia	each	1.00	18.00	18.00	
9988	Carriage of materials and sundries	L.S.	5.33	2.12	11.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	784.00	258.72	
0114	Beldar	day	0.33	645.00	212.85	
	TOTAL				565.87	W
	Add 1 % Water charges on "W"				5.66	
	TOTAL				571.53	X
	Add GST on "X" (multiplying factor 0.1405)				80.30	
	TOTAL				651.83	Y
	Add 15% CPOH on "Y"				97.77	
	TOTAL				749.60	Z
	Add Cess @ 1% on "Z"				7.50	
	Cost of one connection				757.10	
	Say				757.10	

18.13.2 50 to 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one connection. Take 65mm dia as an average size.				
	MATERIAL				
1612	G.I. tees (equal) 65 mm	each	1.00	452.00	452.00
1559	G.I. back (jam) nuts 65 mm dia	each	1.00	25.00	25.00
9988	Carriage of materials and sundries	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				1131.35 W
	Add 1 % Water charges on "W"				11.31
	TOTAL				1142.66 X
	Add GST on "X" (multiplying factor 0.1405)				160.54
	TOTAL				1303.21 Y
	Add 15% CPOH on "Y"				195.48
	TOTAL				1498.69 Z
	Add Cess @ 1% on "Z"				14.99
	Cost of one connection				1513.68
	Say				1513.70

18.14 Fixing water meter and stop cock in G.I. pipe line including cutting and threading the pipe and making long screws etc. complete (cost of water meter and stop cock to be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one meter with stop cock				
	MATERIAL				
1555	G.I. back (jam) nuts 25 mm dia	each	1.00	18.00	18.00
9988	Carriage of materials and sundries	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				500.87 W
	Add 1 % Water charges on "W"				5.01
	TOTAL				505.88 X
	Add GST on "X" (multiplying factor 0.1405)				71.08
	TOTAL				576.95 Y
	Add 15% CPOH on "Y"				86.54
	TOTAL				663.50 Z
	Add Cess @ 1% on "Z"				6.63
	Cost of one metre with stop cock				670.13
	Say				670.15

18.15 Providing and fixing brass bib cock of approved quality :

18.15.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1339	Brass bib-cock 15 mm dia	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				227.09 W
	Add 1 % Water charges on "W"				2.27
	TOTAL				229.36 X
	Add GST on "X" (multiplying factor 0.1405)				32.22
	TOTAL				261.58 Y
	Add 15% CPOH on "Y"				39.24
	TOTAL				300.82 Z
	Add Cess @ 1% on "Z"				3.01
	Cost of one no.				303.83
	Say				303.85

18.15.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1340	Brass bib-cock 20 mm dia	each	1.00	225.00	225.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				245.12 W
	Add 1 % Water charges on "W"				2.45
	TOTAL				247.57 X
	Add GST on "X" (multiplying factor 0.1405)				34.78
	TOTAL				282.35 Y
	Add 15% CPOH on "Y"				42.35
	TOTAL				324.71 Z
	Add Cess @ 1% on "Z"				3.25
	Cost of one no.				327.95
	Say				327.95

18.16 Providing and fixing brass stop cock of approved quality :

18.16.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1342	Brass stop-cock 15 mm dia	each	1.00	210.00	210.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				227.09 W
	Add 1 % Water charges on "W"				2.27
	TOTAL				229.36 X
	Add GST on "X" (multiplying factor 0.1405)				32.22
	TOTAL				261.58 Y
	Add 15% CPOH on "Y"				39.24
	TOTAL				300.82 Z
	Add Cess @ 1% on "Z"				3.01
	Cost of one no.				303.83
	Say				303.85

18.16.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1343	Brass stop-cock 20 mm dia	each	1.00	225.00	225.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				245.12 W
	Add 1 % Water charges on "W"				2.45
	TOTAL				247.57 X
	Add GST on "X" (multiplying factor 0.1405)				34.78
	TOTAL				282.35 Y
	Add 15% CPOH on "Y"				42.35
	TOTAL				324.71 Z
	Add Cess @ 1% on "Z"				3.25
	Cost of one no.				327.95
	Say				327.95

18.17 Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :

18.17.1 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1927	Brass full way valve with C.I. wheel (screwed end) 25 mm dia	each	1.00	375.00	375.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.12	22.87
	TOTAL				397.87 W
	Add 1 % Water charges on "W"				3.98
	TOTAL				401.85 X
	Add GST on "X" (multiplying factor 0.1405)				56.46
	TOTAL				458.31 Y
	Add 15% CPOH on "Y"				68.75
	TOTAL				527.06 Z
	Add Cess @ 1% on "Z"				5.27
	Cost of one no.				532.33
	Say				532.35

18.17.1A 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No.				
	MATERIAL				
1926	20 mm dia Gunmetal gate valve with wheel	each	1.00	325.00	325.00
9977	Carriage of metrial and fixing charge	L.S.	9.49	2.12	20.12
	TOTAL				345.12 W
	Add 1 % Water charges on "W"				3.45
	TOTAL				348.57 X
	Add GST on "X" (multiplying factor 0.1405)				48.97
	TOTAL				397.54 Y
	Add 15% CPOH on "Y"				59.63
	TOTAL				457.18 Z
	Add Cess @ 1% on "Z"				4.57
	Cost of 1 No.				461.75
	Say				461.75

18.17.2 32 mm nominal bore.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1928	Brass full way valve with C.I. wheel (screwed end) 32 mm dia	each	1.00	415.00	415.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91
	TOTAL				440.91 W
	Add 1 % Water charges on "W"				4.41
	TOTAL				445.32 X
	Add GST on "X" (multiplying factor 0.1405)				62.57
	TOTAL				507.88 Y
	Add 15% CPOH on "Y"				76.18
	TOTAL				584.06 Z
	Add Cess @ 1% on "Z"				5.84
	Cost of one no.				589.91
	Say				589.90

18.17.3 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1929	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	each	1.00	500.00	500.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				528.66 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				533.95 X
	Add GST on "X" (multiplying factor 0.1405)				75.02
	TOTAL				608.97 Y
	Add 15% CPOH on "Y"				91.35
	TOTAL				700.31 Z
	Add Cess @ 1% on "Z"				7.00
	Cost of one no.				707.32
	Say				707.30

18.17.4 50 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1930	Brass full way valve with C.I. wheel (screwed end) 50 mm dia	each	1.00	625.00	625.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.12	31.42
	TOTAL				656.42 W
	Add 1 % Water charges on "W"				6.56
	TOTAL				662.98 X
	Add GST on "X" (multiplying factor 0.1405)				93.15
	TOTAL				756.13 Y
	Add 15% CPOH on "Y"				113.42
	TOTAL				869.55 Z
	Add Cess @ 1% on "Z"				8.70
	Cost of one no.				878.25
	Say				878.25

18.17.5 65 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1931	Brass full way valve with C.I. wheel (screwed end) 65 mm dia	each	1.00	1080.00	1080.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				1114.17 W
	Add 1 % Water charges on "W"				11.14
	TOTAL				1125.32 X
	Add GST on "X" (multiplying factor 0.1405)				158.11
	TOTAL				1283.42 Y
	Add 15% CPOH on "Y"				192.51
	TOTAL				1475.94 Z
	Add Cess @ 1% on "Z"				14.76
	Cost of one no.				1490.70
	Say				1490.70

18.17.6 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1932	Brass full way valve with C.I. wheel (screwed end) 80 mm dia	each	1.00	1625.00	1625.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.12	39.96
	TOTAL				1664.96 W
	Add 1 % Water charges on "W"				16.65
	TOTAL				1681.61 X
	Add GST on "X" (multiplying factor 0.1405)				236.27
	TOTAL				1917.88 Y
	Add 15% CPOH on "Y"				287.68
	TOTAL				2205.56 Z
	Add Cess @ 1% on "Z"				22.06
	Cost of one no.				2227.62
	Say				2227.60

18.18 Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :

18.18.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1922	H.P. or L.P. ball valve with polythene floats: 15 mm dia	each	1.00	215.00	215.00
9988	Carriage of materials and fixing charges	L.S.	21.58	2.12	45.75
	TOTAL				260.75 W
	Add 1 % Water charges on "W"				2.61
	TOTAL				263.36 X
	Add GST on "X" (multiplying factor 0.1405)				37.00
	TOTAL				300.36 Y
	Add 15% CPOH on "Y"				45.05
	TOTAL				345.41 Z
	Add Cess @ 1% on "Z"				3.45
	Cost of one no.				348.87
	Say				348.85

18.18.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1923	H.P. or L.P. ball valve with polythene floats: 20 mm dia	each	1.00	240.00	240.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	26.91	2.12	57.05
	TOTAL				297.05 W
	Add 1 % Water charges on "W"				2.97
	TOTAL				300.02 X
	Add GST on "X" (multiplying factor 0.1405)				42.15
	TOTAL				342.17 Y
	Add 15% CPOH on "Y"				51.33
	TOTAL				393.50 Z
	Add Cess @ 1% on "Z"				3.93
	Cost of one no.				397.43
	Say				397.45

18.18.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1924	H.P. or L.P. ball valve with polythene floats: 25 mm dia	each	1.00	230.00	230.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				298.35 W
	Add 1 % Water charges on "W"				2.98
	TOTAL				301.33 X
	Add GST on "X" (multiplying factor 0.1405)				42.34
	TOTAL				343.67 Y
	Add 15% CPOH on "Y"				51.55
	TOTAL				395.22 Z
	Add Cess @ 1% on "Z"				3.95
	Cost of one no.				399.17
	Say				399.15

18.19 Providing and fixing gun metal non- return valve of approved quality (screwed end) :

18.19.1 25 mm nominal bore

18.19.1.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1933	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	each	1.00	350.00	350.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				378.66 W
	Add 1 % Water charges on "W"				3.79
	TOTAL				382.45 X
	Add GST on "X" (multiplying factor 0.1405)				53.73
	TOTAL				436.18 Y
	Add 15% CPOH on "Y"				65.43
	TOTAL				501.61 Z
	Add Cess @ 1% on "Z"				5.02
	Cost of one no.				506.63
	Say				506.65

18.19.1.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3080	Gunmetal non-return valve-vertical (screwed end) 25 mm dia	each	1.00	400.00	400.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				428.66 W
	Add 1 % Water charges on "W"				4.29
	TOTAL				432.95 X
	Add GST on "X" (multiplying factor 0.1405)				60.83
	TOTAL				493.78 Y
	Add 15% CPOH on "Y"				74.07
	TOTAL				567.85 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of one no.				573.52
	Say				573.50

18.19.2 32 mm nominal bore

18.19.2.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1934	Gunmetal non-return valve-horizontal (screwed end) 32 mm dia	each	1.00	475.00	475.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.12	31.42
	TOTAL				506.42 W
	Add 1 % Water charges on "W"				5.06
	TOTAL				511.48 X
	Add GST on "X" (multiplying factor 0.1405)				71.86
	TOTAL				583.35 Y
	Add 15% CPOH on "Y"				87.50
	TOTAL				670.85 Z
	Add Cess @ 1% on "Z"				6.71
	Cost of one no.				677.56
	Say				677.55

18.19.2.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3084	Gunmetal non-return valve-vertical (screwed end) 32 mm dia	each	1.00	550.00	550.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.12	31.42
	TOTAL				581.42 W
	Add 1 % Water charges on "W"				5.81
	TOTAL				587.23 X
	Add GST on "X" (multiplying factor 0.1405)				82.51
	TOTAL				669.74 Y
	Add 15% CPOH on "Y"				100.46
	TOTAL				770.20 Z
	Add Cess @ 1% on "Z"				7.70
	Cost of one no.				777.90
	Say				777.90

18.19.3 40 mm nominal bore

18.19.3.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1935	Gunmetal non-return valve-horizontal (screwed end) 40 mm dia	each	1.00	575.00	575.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				609.17 W
	Add 1 % Water charges on "W"				6.09
	TOTAL				615.27 X
	Add GST on "X" (multiplying factor 0.1405)				86.44
	TOTAL				701.71 Y
	Add 15% CPOH on "Y"				105.26
	TOTAL				806.97 Z
	Add Cess @ 1% on "Z"				8.07
	Cost of one no.				815.04
	Say				815.05

18.19.3.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3088	Gunmetal non-return valve-vertical (screwed end) 40 mm dia	each	1.00	750.00	750.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	16.12	2.12	34.17
	TOTAL				784.17 W
	Add 1 % Water charges on "W"				7.84
	TOTAL				792.02 X
	Add GST on "X" (multiplying factor 0.1405)				111.28
	TOTAL				903.29 Y
	Add 15% CPOH on "Y"				135.49
	TOTAL				1038.79 Z
	Add Cess @ 1% on "Z"				10.39
	Cost of one no.				1049.18
	Say				1049.20

18.19.4 50 mm nominal bore

18.19.4.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1936	Gunmetal non-return valve-horizontal (screwed end) 50 mm dia	each	1.00	840.00	840.00
9988	Carriage of materials and fixing charges	L.S.	17.55	2.12	37.21
	TOTAL				877.21 W
	Add 1 % Water charges on "W"				8.77
	TOTAL				885.98 X
	Add GST on "X" (multiplying factor 0.1405)				124.48
	TOTAL				1010.46 Y
	Add 15% CPOH on "Y"				151.57
	TOTAL				1162.03 Z
	Add Cess @ 1% on "Z"				11.62
	Cost of one no.				1173.65
	Say				1173.65

18.19.4.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3092	Gunmetal non-return valve-vertical (screwed end) 50 mm dia	each	1.00	950.00	950.00
9988	Carriage of materials and fixing charges	L.S.	17.55	2.12	37.21
	TOTAL				987.21 W
	Add 1 % Water charges on "W"				9.87
	TOTAL				997.08 X
	Add GST on "X" (multiplying factor 0.1405)				140.09
	TOTAL				1137.17 Y
	Add 15% CPOH on "Y"				170.58
	TOTAL				1307.74 Z
	Add Cess @ 1% on "Z"				13.08
	Cost of one no.				1320.82
	Say				1320.80

18.19.5 65 mm nominal bore

18.19.5.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1937	Gunmetal non-return valve-horizontal (screwed end) 65 mm dia	each	1.00	1525.00	1525.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.12	39.96
	TOTAL				1564.96 W
	Add 1 % Water charges on "W"				15.65
	TOTAL				1580.61 X
	Add GST on "X" (multiplying factor 0.1405)				222.08
	TOTAL				1802.69 Y
	Add 15% CPOH on "Y"				270.40
	TOTAL				2073.09 Z
	Add Cess @ 1% on "Z"				20.73
	Cost of one no.				2093.82
	Say				2093.80

18.19.5.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3096	Gunmetal non-return valve-vertical (screwed end) 65 mm dia	each	1.00	1550.00	1550.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.12	39.96
	TOTAL				1589.96 W
	Add 1 % Water charges on "W"				15.90
	TOTAL				1605.86 X
	Add GST on "X" (multiplying factor 0.1405)				225.62
	TOTAL				1831.49 Y
	Add 15% CPOH on "Y"				274.72
	TOTAL				2106.21 Z
	Add Cess @ 1% on "Z"				21.06
	Cost of one no.				2127.27
	Say				2127.25

18.19.6 80 mm nominal bore

18.19.6.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1938	Gunmetal non-return valve-horizontal (screwed end) 80 mm dia	each	1.00	2300.00	2300.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				2342.99 W
	Add 1 % Water charges on "W"				23.43
	TOTAL				2366.42 X
	Add GST on "X" (multiplying factor 0.1405)				332.48
	TOTAL				2698.91 Y
	Add 15% CPOH on "Y"				404.84
	TOTAL				3103.74 Z
	Add Cess @ 1% on "Z"				31.04
	Cost of one no.				3134.78
	Say				3134.80

18.19.6.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3300	Gunmetal non-return valve-vertical (screwed end) 80 mm dia	each	1.00	2600.00	2600.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.12	42.99
	TOTAL				2642.99 W
	Add 1 % Water charges on "W"				26.43
	TOTAL				2669.42 X
	Add GST on "X" (multiplying factor 0.1405)				375.05
	TOTAL				3044.48 Y
	Add 15% CPOH on "Y"				456.67
	TOTAL				3501.15 Z
	Add Cess @ 1% on "Z"				35.01
	Cost of one no.				3536.16
	Say				3536.15

18.20 Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :

18.20.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1360	C.I.mouth, brass ferrule 15 mm dia	each	1.00	140.00	140.00
9988	Carriage of materials and fixing charges	L.S.	40.30	2.12	85.44
	TOTAL				225.44 W
	Add 1 % Water charges on "W"				2.25
	TOTAL				227.69 X
	Add GST on "X" (multiplying factor 0.1405)				31.99
	TOTAL				259.68 Y
	Add 15% CPOH on "Y"				38.95
	TOTAL				298.63 Z
	Add Cess @ 1% on "Z"				2.99
	Cost of one no.				301.62
	Say				301.60

18.20.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1361	C.I.mouth, brass ferrule 20 mm dia	each	1.00	160.00	160.00
9988	Carriage of materials and fixing charges	L.S.	47.19	2.12	100.04
	TOTAL				260.04 W
	Add 1 % Water charges on "W"				2.60
	TOTAL				262.64 X
	Add GST on "X" (multiplying factor 0.1405)				36.90
	TOTAL				299.54 Y
	Add 15% CPOH on "Y"				44.93
	TOTAL				344.48 Z
	Add Cess @ 1% on "Z"				3.44
	Cost of one no.				347.92
	Say				347.90

18.20.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1362	C.I.mouth, brass ferrule 25 mm dia	each	1.00	220.00	220.00
9988	Carriage of materials and fixing charges	L.S.	53.82	2.12	114.10
	TOTAL				334.10 W
	Add 1 % Water charges on "W"				3.34
	TOTAL				337.44 X
	Add GST on "X" (multiplying factor 0.1405)				47.41
	TOTAL				384.85 Y
	Add 15% CPOH on "Y"				57.73
	TOTAL				442.58 Z
	Add Cess @ 1% on "Z"				4.43
	Cost of one no.				447.00
	Say				447.00

18.21 Providing and fixing uplasticised PVC connection pipe with brass unions :
18.21.1 30 cm length
18.21.1.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1687	Unplasticised P.V.C.connection pipe with brass union 30 cm long 15 mm bore	each	1.00	30.00	30.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91
	TOTAL				55.91 W
	Add 1 % Water charges on "W"				0.56
	TOTAL				56.47 X
	Add GST on "X" (multiplying factor 0.1405)				7.93
	TOTAL				64.40 Y
	Add 15% CPOH on "Y"				9.66
	TOTAL				74.06 Z
	Add Cess @ 1% on "Z"				0.74
	Cost of one no.				74.80
	Say				74.80

18.21.1.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1688	Unplasticised P.V.C.connection pipe with brass union 30 cm long 20 mm bore	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91
	TOTAL				60.91 W
	Add 1 % Water charges on "W"				0.61
	TOTAL				61.52 X
	Add GST on "X" (multiplying factor 0.1405)				8.64
	TOTAL				70.16 Y
	Add 15% CPOH on "Y"				10.52
	TOTAL				80.68 Z
	Add Cess @ 1% on "Z"				0.81
	Cost of one no.				81.49
	Say				81.50

18.21.2 45 cm length

18.21.2.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1689	Unplasticised P.V.C.connection pipe with brass union 45 cm long 15 mm bore	each	1.00	35.00	35.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				63.66 W
	Add 1 % Water charges on "W"				0.64
	TOTAL				64.30 X
	Add GST on "X" (multiplying factor 0.1405)				9.03
	TOTAL				73.33 Y
	Add 15% CPOH on "Y"				11.00
	TOTAL				84.33 Z
	Add Cess @ 1% on "Z"				0.84
	Cost of one no.				85.18
	Say				85.20

18.21.2.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1690	Unplasticised P.V.C.connection pipe with brass union 45 cm long 20 mm bore	each	1.00	48.00	48.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				76.66 W
	Add 1 % Water charges on "W"				0.77
	TOTAL				77.43 X
	Add GST on "X" (multiplying factor 0.1405)				10.88
	TOTAL				88.31 Y
	Add 15% CPOH on "Y"				13.25
	TOTAL				101.55 Z
	Add Cess @ 1% on "Z"				1.02
	Cost of one no.				102.57
	Say				102.55

18.22 Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :
18.22.1 100 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1878	Shower rose C.P.brass for 15 to 20 mm inlet 100 mm dia	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				124.33 W
	Add 1 % Water charges on "W"				1.24
	TOTAL				125.57 X
	Add GST on "X" (multiplying factor 0.1405)				17.64
	TOTAL				143.22 Y
	Add 15% CPOH on "Y"				21.48
	TOTAL				164.70 Z
	Add Cess @ 1% on "Z"				1.65
	Cost of one no.				166.35
	Say				166.35

18.22.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1879	Shower rose C.P.brass for 15 to 20 mm inlet 150 mm dia	each	1.00	125.00	125.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				142.09 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.51 X
	Add GST on "X" (multiplying factor 0.1405)				20.16
	TOTAL				163.67 Y
	Add 15% CPOH on "Y"				24.55
	TOTAL				188.22 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of one no.				190.10
	Say				190.10

18.23 Laying in position centrifugally cast (spun) iron S&S or flanged pipes (excluding cost of pipe).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5.14 quintal				
	10 m of 200 mm dia C.I. pipe class 'A'				
	Weight = (2x257) = 514kg = 5.14 quintal				
	LABOUR for laying pipe				
0116	Fitter (grade 1)	day	0.17	784.00	133.28
0117	Assistant Fitter or 2nd class Fitter	day	0.17	714.00	121.38
0114	Beldar	day	1.33	645.00	857.85
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				1146.68 W
	Add 1 % Water charges on "W"				11.47
	TOTAL				1158.15 X
	Add GST on "X" (multiplying factor 0.1405)				162.72
	TOTAL				1320.87 Y
	Add 15% CPOH on "Y"				198.13
	TOTAL				1519.00 Z
	Add Cess @ 1% on "Z"				15.19
	Cost of 5.14 quintal				1534.19
	Cost of one quintal				298.48
	Say				298.50

18.24 Laying in position S&S or flanged C.I. special such as tees, bends, collars, tapers and caps etc.(excluding cost of specials).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 7 quintal				
	10 Nos. Tee 200x150mm Weight				
	= 70x10 = 700kg.				
	LABOUR for laying tee-				
0116	Fitter (grade 1)	day	0.93	784.00	729.12
0117	Assistant Fitter or 2nd class Fitter	day	0.62	714.00	442.68
0114	Beldar	day	2.48	645.00	1599.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	40.17	2.12	85.16
	TOTAL				2856.56 W
	Add 1 % Water charges on "W"				28.57
	TOTAL				2885.13 X
	Add GST on "X" (multiplying factor 0.1405)				405.36
	TOTAL				3290.49 Y
	Add 15% CPOH on "Y"				493.57
	TOTAL				3784.06 Z
	Add Cess @ 1% on "Z"				37.84
	Cost of 7 quintal				3821.90
	Cost of one quintal				545.99
	Say				546.00

18.25 Providing and laying S&S C.I. standard specials such as tees, bends, collars, tapers, caps etc. (Heavy class):

18.25.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
1464	S & S.C.I.standard specials upto 300 mm dia (heavy class)	quintal	1.00	3800.00	3800.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	LABOUR				
18.24	Rate as per item No. 18.24 Of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				4360.57 W
	Add 1 % Water charges on "W-A"				38.15
	TOTAL				4398.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				541.31
	TOTAL				4940.02 Y
	Add 15% CPOH on "Y-A"				659.10
	TOTAL				5599.13 Z
	Add Cess @ 1% on "Z-A"				50.53
	Cost of one quintal				5649.66
	Say				5649.65

18.25.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
1466	S & S.C.I.standard specials over 300 mm dia (heavy class)	quintal	1.00	3800.00	3800.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	For laying				
18.24	Rate as per item No. 18.24 Of				
	SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				4360.57 W
	Add 1 % Water charges on "W-A"				38.15
	TOTAL				4398.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				541.31
	TOTAL				4940.02 Y
	Add 15% CPOH on "Y-A"				659.10
	TOTAL				5599.13 Z
	Add Cess @ 1% on "Z-A"				50.53
	Cost of one quintal				5649.66
	Say				5649.65

18.26 Providing and laying flanged C.I. standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :

18.26.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
1468	Flanged C.I. standard specials upto 300 mm dia(heavy class)	quintal	1.00	5700.00	5700.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	LABOUR				
	For laying				
18.24	Rate as per item No. 18.24 of				
	SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				6260.57 W
	Add 1 % Water charges on "W-A"				57.15
	TOTAL				6317.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				810.93
	TOTAL				7128.64 Y
	Add 15% CPOH on "Y-A"				987.40
	TOTAL				8116.04 Z
	Add Cess @ 1% on "Z-A"				75.70
	Cost of one quintal				8191.74
	Say				8191.75

18.26.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
1470	Flanged C.I. standard specials over 300 mm dia(heavy class)	quintal	1.00	5250.00	5250.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	For laying				
18.24	Rate as per item No. 18.24 of				
	SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				5810.57 W
	Add 1 % Water charges on "W-A"				52.65
	TOTAL				5863.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				747.07
	TOTAL				6610.29 Y
	Add 15% CPOH on "Y-A"				909.64
	TOTAL				7519.93 Z
	Add Cess @ 1% on "Z-A"				69.74
	Cost of one quintal				7589.67
	Say				7589.65

18.27 Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 :

18.27.1 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	100mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 19.820 Kg				
	Weight of 10m pipes 19.820x10 = 198.20 Kg				
7697	S&S Centrifugally (Spun) C.I. Pipe class LA 100mm dia	metre	10.00	857.00	8570.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.10	358.32	35.83
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	1.98	298.50	591.03 A
	TOTAL				9196.86 W
	Add 1 % Water charges on "W-A"				86.06
	TOTAL				9282.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				1221.21
	TOTAL				10504.13 Y
	Add 15% CPOH on "Y-A"				1486.97
	TOTAL				11991.10 Z
	Add Cess @ 1% on "Z-A"				114.00
	Cost of 10 metre				12105.10
	Cost of one metre				1210.51
	Say				1210.50

18.27.2 125 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	125mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 25.820 Kg				
	Weight of 10m pipes 25.820x10 = 258.20 Kg				
7698	S&S Centrifugally (Spun) C.I. Pipe class LA 125mm dia	metre	10.00	1067.00	10670.00
2320	Carriage of Spun iron S & S pipes 125 mm dia	100 metre	0.10	478.64	47.86
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.58	298.50	770.13 A
	TOTAL				11487.99 W
	Add 1 % Water charges on "W-A"				107.18
	TOTAL				11595.17 X
	Add GST on "X-A" (multiplying factor 0.1405)				1520.92
	TOTAL				13116.09 Y
	Add 15% CPOH on "Y-A"				1851.89
	TOTAL				14967.99 Z
	Add Cess @ 1% on "Z-A"				141.98
	Cost of 10 metre				15109.96
	Cost of one metre				1511.00
	Say				1511.00

18.27.3 150 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	150mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 32.180 Kg				
	Weight of 10m pipes 32.180x10 = 321.80 Kg				
7699	S&S Centrifugally (Spun) C.I. Pipe class LA 150mm dia	metre	10.00	1286.00	12860.00
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.10	597.20	59.72
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.22	298.50	961.17 A
	TOTAL				13880.89 W
	Add 1 % Water charges on "W-A"				129.20
	TOTAL				14010.09 X
	Add GST on "X-A" (multiplying factor 0.1405)				1833.37
	TOTAL				15843.46 Y
	Add 15% CPOH on "Y-A"				2232.34
	TOTAL				18075.80 Z
	Add Cess @ 1% on "Z-A"				171.15
	Cost of 10 metre				18246.95
	Cost of one metre				1824.69
	Say				1824.70

18.27.4 200 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	200mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 47.090 Kg					
	Weight of 10m pipes 47.090x10 = 470.90 Kg					
7700	S&S Centrifugally (Spun) C.I. Pipe class LA 200mm dia	metre	10.00	2190.00	21900.00	
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.10	971.45	97.15	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.71	298.50	1405.94	A
	TOTAL				23403.08	W
	Add 1 % Water charges on "W-A"				219.97	
	TOTAL				23623.05	X
	Add GST on "X-A" (multiplying factor 0.1405)				3121.50	
	TOTAL				26744.56	Y
	Add 15% CPOH on "Y-A"				3800.79	
	TOTAL				30545.35	Z
	Add Cess @ 1% on "Z-A"				291.39	
	Cost of 10 metre				30836.74	
	Cost of one metre				3083.67	
	Say				3083.65	

18.27.5 250 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIALS					
	250mm dia. spun iron pipes (in 5.5 m lengths)					
	Weight of 1 m pipes = 63.450 Kg					
	Weight of 10m pipes 63.450x10 = 634.50 Kg					
7701	S&S Centrifugally (Spun) C.I. Pipe class LA 250mm dia	metre	10.00	2857.00	28570.00	
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.10	1380.48	138.05	
	LABOUR for laying					
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.35	298.50	1895.48	A
	TOTAL				30603.52	W
	Add 1 % Water charges on "W-A"				287.08	
	TOTAL				30890.60	X
	Add GST on "X-A" (multiplying factor 0.1405)				4073.82	
	TOTAL				34964.42	Y
	Add 15% CPOH on "Y-A"				4960.34	
	TOTAL				39924.76	Z
	Add Cess @ 1% on "Z-A"				380.29	
	Cost of 10 metre				40305.05	
	Cost of one metre				4030.51	
	Say				4030.50	

18.27.6 300 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	300mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 81.820 Kg				
	Weight of 10m pipes 81.820x10 = 818.20 Kg				
7702	S&S Centrifugally (Spun) C.I. Pipe class LA 300mm dia	metre	10.00	3857.00	38570.00
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.10	1706.30	170.63
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	8.18	298.50	2441.73 A
	TOTAL				41182.36 W
	Add 1 % Water charges on "W-A"				387.41
	TOTAL				41569.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				5497.49
	TOTAL				47067.26 Y
	Add 15% CPOH on "Y-A"				6693.83
	TOTAL				53761.08 Z
	Add Cess @ 1% on "Z-A"				513.19
	Cost of 10 metre				54274.28
	Cost of one metre				5427.43
	Say				5427.45

18.27.7 350 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	350mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 103.10 Kg				
	Weight of 10m pipes 103.10x10 = 1031.00 Kg				
7703	S&S Centrifugally (Spun) C.I. Pipe class LA 350mm dia	metre	10.00	4619.00	46190.00
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.10	2388.82	238.88
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.31	298.50	3077.54 A
	TOTAL				49506.42 W
	Add 1 % Water charges on "W-A"				464.29
	TOTAL				49970.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				6588.49
	TOTAL				56559.20 Y
	Add 15% CPOH on "Y-A"				8022.25
	TOTAL				64581.45 Z
	Add Cess @ 1% on "Z-A"				615.04
	Cost of 10 metre				65196.48
	Cost of one metre				6519.65
	Say				6519.65

18.27.8 400 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	400mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 125.45 Kg				
	Weight of 10m pipes 125.45x10 = 1254.50 Kg				
7704	S&S Centrifugally (Spun) C.I. Pipe class LA 400mm dia	metre	10.00	6095.00	60950.00
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.10	3257.48	325.75
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	12.55	298.50	3746.18 A
	TOTAL				65021.92 W
	Add 1 % Water charges on "W-A"				612.76
	TOTAL				65634.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				8695.34
	TOTAL				74330.02 Y
	Add 15% CPOH on "Y-A"				10587.58
	TOTAL				84917.59 Z
	Add Cess @ 1% on "Z-A"				811.71
	Cost of 10 metre				85729.31
	Cost of one metre				8572.93
	Say				8572.95

18.27.9 450 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	450mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 151.270 Kg				
	Weight of 10m pipes 151.270x10 = 1512.70 Kg				
7705	S&S Centrifugally (Spun) C.I. Pipe class LA 450mm dia	metre	10.00	7381.00	73810.00
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.10	3981.36	398.14
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	15.13	298.50	4516.31 A
	TOTAL				78724.44 W
	Add 1 % Water charges on "W-A"				742.08
	TOTAL				79466.52 X
	Add GST on "X-A" (multiplying factor 0.1405)				10530.51
	TOTAL				89997.03 Y
	Add 15% CPOH on "Y-A"				12822.11
	TOTAL				102819.14 Z
	Add Cess @ 1% on "Z-A"				983.03
	Cost for 10 metre				103802.16
	Cost of one metre				10380.22
	Say				10380.20

18.27.10 500 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	500mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 177.090 Kg				
	Weight of 10m pipes 177.090x10 = 1770.90 Kg				
7706	S&S Centrifugally (Spun) C.I. Pipe class LA 500mm dia	metre	10.00	8571.00	85710.00
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.10	3981.36	398.14
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	17.71	298.50	5286.44 A
	TOTAL				91394.57 W
	Add 1 % Water charges on "W-A"				861.08
	TOTAL				92255.65 X
	Add GST on "X-A" (multiplying factor 0.1405)				12219.18
	TOTAL				104474.83 Y
	Add 15% CPOH on "Y-A"				14878.26
	TOTAL				119353.09 Z
	Add Cess @ 1% on "Z-A"				1140.67
	Cost of 10 metre				120493.75
	Cost of one metre				12049.38
	Say				12049.40

18.27.11 600 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	600mm dia. spun iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 236.000 Kg				
	Weight of 10m pipes 236.000x10 = 2360.00 Kg				
7707	S&S Centrifugally (Spun) C.I. Pipe class LA 600mm dia	metre	10.00	11995.00	119950.00
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.10	5972.04	597.20
	LABOUR for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	23.60	298.50	7044.60 A
	TOTAL				127591.80 W
	Add 1 % Water charges on "W-A"				1205.47
	TOTAL				128797.28 X
	Add GST on "X-A" (multiplying factor 0.1405)				17106.25
	TOTAL				145903.53 Y
	Add 15% CPOH on "Y-A"				20828.84
	TOTAL				166732.37 Z
	Add Cess @ 1% on "Z-A"				1596.88
	Cost of 10 metre				168329.24
	Cost of 1 metre				16832.92
	Say				16832.90

18.28 Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead :

18.28.1 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	1.70	55.00	93.50
	0.17x 10 =1.70 kg				
0761	Fuel wood	quintal	0.28	500.00	140.00
0771	Kerosene oil	litre	0.38	50.00	19.00
9999	Sundries	L.S.	6.76	2.12	14.33
9977	Carriage of materials	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0117	Assistant Fitter or 2nd class Fitter	day	1.00	714.00	714.00
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				3066.13 W
	Add 1 % Water charges on "W"				30.66
	TOTAL				3096.79 X
	Add GST on "X" (multiplying factor 0.1405)				435.10
	TOTAL				3531.89 Y
	Add 15% CPOH on "Y"				529.78
	TOTAL				4061.68 Z
	Add Cess @ 1% on "Z"				40.62
	Cost of 10 joints				4102.29
	Cost of one joint				410.23
	Say				410.25

18.28.2 125 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	2.00	55.00	110.00
	0.20x10=2.00 kg				
0761	Fuel wood	quintal	0.37	500.00	185.00
0771	Kerosene oil	litre	0.76	50.00	38.00
9999	Sundries	L.S.	9.49	2.12	20.12
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				4555.24 W
	Add 1 % Water charges on "W"				45.55
	TOTAL				4600.79 X
	Add GST on "X" (multiplying factor 0.1405)				646.41
	TOTAL				5247.20 Y
	Add 15% CPOH on "Y"				787.08
	TOTAL				6034.28 Z
	Add Cess @ 1% on "Z"				60.34
	Cost of 10 joints				6094.62
	Cost of one joint				609.46
	Say				609.45

18.28.3 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	2.30	55.00	126.50
	0.23x10=2.30 kg				
0761	Fuel wood	quintal	0.42	500.00	210.00
0771	Kerosene oil	litre	0.76	50.00	38.00
9999	Sundries	L.S.	10.79	2.12	22.87
9977	Carriage of materials	L.S.	10.79	2.12	22.87
	LABOUR				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				4602.25 W
	Add 1 % Water charges on "W"				46.02
	TOTAL				4648.27 X
	Add GST on "X" (multiplying				
	factor 0.1405)				653.08
	TOTAL				5301.35 Y
	Add 15% CPOH on "Y"				795.20
	TOTAL				6096.56 Z
	Add Cess @ 1% on "Z"				60.97
	Cost of 10 joints				6157.52
	Cost of one joint				615.75
	Say				615.75

18.28.4 200 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	3.00	55.00	165.00
	0.3x10=3.00 kg				
0761	Fuel wood	quintal	0.56	500.00	280.00
0771	Kerosene oil	litre	0.76	50.00	38.00
9999	Sundries	L.S.	13.52	2.12	28.66
9977	Carriage of materials	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0117	Assistant Fitter or 2nd class Fitter	day	2.00	714.00	1428.00
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				6116.32 W
	Add 1 % Water charges on "W"				61.16
	TOTAL				6177.49 X
	Add GST on "X" (multiplying				
	factor 0.1405)				867.94
	TOTAL				7045.43 Y
	Add 15% CPOH on "Y"				1056.81
	TOTAL				8102.24 Z
	Add Cess @ 1% on "Z"				81.02
	Cost of 10 joints				8183.26
	Cost of one joint				818.33
	Say				818.35

18.28.5 250 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	4.00	55.00	220.00
	0.4x10=4 00 kg				
0761	Fuel wood	quintal	0.65	500.00	325.00
0771	Kerosene oil	litre	1.14	50.00	57.00
9999	Sundries	L.S.	17.55	2.12	37.21
9977	Carriage of materials	L.S.	17.55	2.12	37.21
	LABOUR				
0116	Fitter (grade 1)	day	2.50	784.00	1960.00
0117	Assistant Fitter or 2nd class Fitter	day	2.50	714.00	1785.00
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				7646.41 W
	Add 1 % Water charges on "W"				76.46
	TOTAL				7722.88 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1085.06
	TOTAL				8807.94 Y
	Add 15% CPOH on "Y"				1321.19
	TOTAL				10129.13 Z
	Add Cess @ 1% on "Z"				101.29
	Cost of 10 joints				10230.42
	Cost of one joint				1023.04
	Say				1023.05

18.28.6 300 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	5.40	55.00	297.00
	0.54x10 =5.40 kg				
0761	Fuel wood	quintal	0.75	500.00	375.00
0771	Kerosene oil	litre	1.52	50.00	76.00
9999	Sundries	L.S.	20.28	2.12	42.99
9977	Carriage of materials	L.S.	20.28	2.12	42.99
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	714.00	2142.00
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				9197.99 W
	Add 1 % Water charges on "W"				91.98
	TOTAL				9289.97 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1305.24
	TOTAL				10595.21 Y
	Add 15% CPOH on "Y"				1589.28
	TOTAL				12184.49 Z
	Add Cess @ 1% on "Z"				121.84
	Cost of 10 joints				12306.33
	Cost of one joint				1230.63
	Say				1230.65

18.28.7 350 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	6.20	55.00	341.00	
	0.62x10=6.20 kg					
0761	Fuel wood	quintal	0.93	500.00	465.00	
0771	Kerosene oil	litre	1.70	50.00	85.00	
9999	Sundries	L.S.	24.18	2.12	51.26	
9977	Carriage of materials	L.S.	24.18	2.12	51.26	
	LABOUR					
0116	Fitter (grade 1)	day	3.00	784.00	2352.00	
0117	Assistant Fitter or 2nd class Fitter	day	3.00	714.00	2142.00	
0114	Beldar	day	6.00	645.00	3870.00	
	TOTAL				9357.52	W
	Add 1 % Water charges on "W"				93.58	
	TOTAL				9451.10	X
	Add GST on "X" (multiplying					
	factor 0.1405)				1327.88	
	TOTAL				10778.98	Y
	Add 15% CPOH on "Y"				1616.85	
	TOTAL				12395.82	Z
	Add Cess @ 1% on "Z"				123.96	
	Cost of 10 joints				12519.78	
	Cost of one joint				1251.98	
	Say				1252.00	

18.28.8 400 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1881	Spun yarn	kilogram	7.40	55.00	407.00	
0761	Fuel wood	quintal	1.12	500.00	560.00	
	0.74x10=7.40 kg					
0771	Kerosene oil	litre	1.70	50.00	85.00	
9999	Sundries	L.S.	26.91	2.12	57.05	
9977	Carriage of materials	L.S.	26.91	2.12	57.05	
	LABOUR					
0116	Fitter (grade 1)	day	4.00	784.00	3136.00	
0117	Assistant Fitter or 2nd class Fitter	day	4.00	714.00	2856.00	
0114	Beldar	day	8.00	645.00	5160.00	
	TOTAL				12318.10	W
	Add 1 % Water charges on "W"				123.18	
	TOTAL				12441.28	X
	Add GST on "X" (multiplying					
	factor 0.1405)				1748.00	
	TOTAL				14189.28	Y
	Add 15% CPOH on "Y"				2128.39	
	TOTAL				16317.67	Z
	Add Cess @ 1% on "Z"				163.18	
	Cost of 10 joints				16480.85	
	Cost of one joint				1648.08	
	Say				1648.10	

18.28.9 450 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	7.90	55.00	434.50
	0.79x10=7.90 kg				
0761	Fuel wood	quintal	1.21	500.00	605.00
0771	Kerosene oil	litre	2.27	50.00	113.50
9999	Sundries	L.S.	31.07	2.12	65.87
9977	Carriage of materials	L.S.	31.07	2.12	65.87
	LABOUR				
0116	Fitter (grade 1)	day	4.50	784.00	3528.00
0117	Assistant Fitter or 2nd class Fitter	day	4.50	714.00	3213.00
0114	Beldar	day	9.00	645.00	5805.00
	TOTAL				13830.74 W
	Add 1 % Water charges on "W"				138.31
	TOTAL				13969.04 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1962.65
	TOTAL				15931.69 Y
	Add 15% CPOH on "Y"				2389.75
	TOTAL				18321.45 Z
	Add Cess @ 1% on "Z"				183.21
	Cost of 10 joints				18504.66
	Cost of one joint				1850.47
	Say				1850.45

18.28.10 500 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	8.50	55.00	467.50
	0.85x10=8.50 kg				
0761	Fuel wood	quintal	1.31	500.00	655.00
0771	Kerosene oil	litre	2.27	50.00	113.50
9999	Sundries	L.S.	33.67	2.12	71.38
9977	Carriage of materials	L.S.	33.67	2.12	71.38
	LABOUR				
0116	Fitter (grade 1)	day	4.75	784.00	3724.00
0117	Assistant Fitter or 2nd class Fitter	day	4.75	714.00	3391.50
0114	Beldar	day	9.50	645.00	6127.50
	TOTAL				14621.76 W
	Add 1 % Water charges on "W"				146.22
	TOTAL				14767.98 X
	Add GST on "X" (multiplying				
	factor 0.1405)				2074.90
	TOTAL				16842.88 Y
	Add 15% CPOH on "Y"				2526.43
	TOTAL				19369.31 Z
	Add Cess @ 1% on "Z"				193.69
	Cost of 10 joints				19563.00
	Cost of one joint				1956.30
	Say				1956.30

18.28.11 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1881	Spun yarn	kilogram	10.20	55.00	561.00
	1.02x10=10.20 kg				
0761	Fuel wood	quintal	1.68	500.00	840.00
0771	Kerosene oil	litre	2.84	50.00	142.00
9999	Sundries	L.S.	40.30	2.12	85.44
9977	Carriage of materials	L.S.	40.30	2.12	85.44
	LABOUR				
0116	Fitter (grade 1)	day	6.50	784.00	5096.00
0117	Assistant Fitter or 2nd class Fitter	day	6.50	714.00	4641.00
0114	Beldar	day	13.00	645.00	8385.00
	TOTAL				19835.87 W
	Add 1 % Water charges on "W"				198.36
	TOTAL				20034.23 X
	Add GST on "X" (multiplying factor 0.1405)				2814.81
	TOTAL				22849.04 Y
	Add 15% CPOH on "Y"				3427.36
	TOTAL				26276.40 Z
	Add Cess @ 1% on "Z"				262.76
	Cost of 10 joints				26539.16
	Cost of one joint				2653.92
	Say				2653.90

18.29 Supplying pig lead at site of work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
1397	Pig lead	kilogram	100.00	210.00	21000.00
2341	Carriage of Pig lead	tonne	0.10	145.72	14.57
	TOTAL				21014.57 W
	Add 1 % Water charges on "W"				210.15
	TOTAL				21224.72 X
	Add GST on "X" (multiplying factor 0.1405)				2982.07
	TOTAL				24206.79 Y
	Add 15% CPOH on "Y"				3631.02
	TOTAL				27837.81 Z
	Add Cess @ 1% on "Z"				278.38
	Cost of one quintal				28116.19
	Say				28116.20

18.30 Providing flanged joints to double flanged C.I./ D.I. pipes and specials, including testing of joints :

18.30.1 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1373	Rubber insertions for 80 mm dia pipe joints	each	10.00	16.00	160.00
1956	Bolts and nuts 16 mm dia 60 mm long	each	40.00	11.50	460.00
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0117	Assistant Fitter or 2nd class Fitter	day	0.15	714.00	107.10
0114	Beldar	day	0.80	645.00	516.00
	TOTAL				1366.49 W
	Add 1 % Water charges on "W"				13.66
	TOTAL				1380.15 X
	Add GST on "X" (multiplying factor 0.1405)				193.91
	TOTAL				1574.06 Y
	Add 15% CPOH on "Y"				236.11
	TOTAL				1810.17 Z
	Add Cess @ 1% on "Z"				18.10
	Cost for 10 joints				1828.28
	Cost for one joint				182.83
	Say				182.85

18.30.2 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1374	Rubber insertions for 100 mm dia pipe joints	each	10.00	18.00	180.00
1956	Bolts and nuts 16 mm dia 60 mm long	each	80.00	11.50	920.00
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0117	Assistant Fitter or 2nd class Fitter	day	0.25	714.00	178.50
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				2128.32 W
	Add 1 % Water charges on "W"				21.28
	TOTAL				2149.60 X
	Add GST on "X" (multiplying factor 0.1405)				302.02
	TOTAL				2451.62 Y
	Add 15% CPOH on "Y"				367.74
	TOTAL				2819.36 Z
	Add Cess @ 1% on "Z"				28.19
	Cost for 10 joints				2847.56
	Cost for one joint				284.76
	Say				284.75

18.30.3 125 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1375	Rubber insertions for 125 mm dia pipe joints	each	10.00	20.00	200.00	
1957	Bolts and nuts 16 mm dia 65 mm long	each	80.00	13.00	1040.00	
9977	Carriage of materials	L.S.	4.16	2.12	8.82	
	LABOUR					
0116	Fitter (grade 1)	day	0.25	784.00	196.00	
0117	Assistant Fitter or 2nd class Fitter	day	0.25	714.00	178.50	
0114	Beldar	day	1.00	645.00	645.00	
	TOTAL				2268.32	W
	Add 1 % Water charges on "W"				22.68	
	TOTAL				2291.00	X
	Add GST on "X" (multiplying factor 0.1405)				321.89	
	TOTAL				2612.89	Y
	Add 15% CPOH on "Y"				391.93	
	TOTAL				3004.82	Z
	Add Cess @ 1% on "Z"				30.05	
	Cost for 10 joints				3034.87	
	Cost for one joint				303.49	
	Say				303.50	

18.30.4 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1376	Rubber insertions for 150 mm dia pipe joints	each	10.00	20.00	200.00	
1958	Bolts and nuts 20 mm dia 65 mm long	each	80.00	15.00	1200.00	
9977	Carriage of materials	L.S.	4.16	2.12	8.82	
	LABOUR					
0116	Fitter (grade 1)	day	0.30	784.00	235.20	
0117	Assistant Fitter or 2nd class Fitter	day	0.30	714.00	214.20	
0114	Beldar	day	1.10	645.00	709.50	
	TOTAL				2567.72	W
	Add 1 % Water charges on "W"				25.68	
	TOTAL				2593.40	X
	Add GST on "X" (multiplying factor 0.1405)				364.37	
	TOTAL				2957.77	Y
	Add 15% CPOH on "Y"				443.67	
	TOTAL				3401.43	Z
	Add Cess @ 1% on "Z"				34.01	
	Cost for 10 joints				3435.45	
	Cost for one joint				343.54	
	Say				343.55	

18.30.5 200 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1377	Rubber insertions for 200 mm dia pipe joints	each	10.00	25.00	250.00
1959	Bolts and nuts 20 mm dia 70 mm long	each	80.00	17.50	1400.00
9977	Carriage of materials	L.S.	4.16	2.12	8.82
	LABOUR				
0116	Fitter (grade 1)	day	0.30	784.00	235.20
0117	Assistant Fitter or 2nd class Fitter	day	0.30	714.00	214.20
0114	Beldar	day	1.10	645.00	709.50
	TOTAL				2817.72 W
	Add 1 % Water charges on "W"				28.18
	TOTAL				2845.90 X
	Add GST on "X" (multiplying factor 0.1405)				399.85
	TOTAL				3245.74 Y
	Add 15% CPOH on "Y"				486.86
	TOTAL				3732.61 Z
	Add Cess @ 1% on "Z"				37.33
	Cost for 10 joints				3769.93
	Cost for one joint				376.99
	Say				377.00

18.30.6 250 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1378	Rubber insertions for 250 mm dia pipe joints	each	10.00	40.00	400.00
1960	Bolts and nuts 20 mm dia 75 mm long	each	120.00	17.00	2040.00
9977	Carriage of materials	L.S.	5.33	2.12	11.30
	LABOUR				
0116	Fitter (grade 1)	day	0.40	784.00	313.60
0117	Assistant Fitter or 2nd class Fitter	day	0.40	714.00	285.60
0114	Beldar	day	1.30	645.00	838.50
	TOTAL				3889.00 W
	Add 1 % Water charges on "W"				38.89
	TOTAL				3927.89 X
	Add GST on "X" (multiplying factor 0.1405)				551.87
	TOTAL				4479.76 Y
	Add 15% CPOH on "Y"				671.96
	TOTAL				5151.72 Z
	Add Cess @ 1% on "Z"				51.52
	Cost for 10 joints				5203.24
	Cost for one joint				520.32
	Say				520.30

18.30.7 300 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1379	Rubber insertions for 300 mm dia pipe joints	each	10.00	45.00	450.00	
1960	Bolts and nuts 20 mm dia 75 mm long	each	120.00	17.00	2040.00	
9977	Carriage of materials	L.S.	5.33	2.12	11.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.40	784.00	313.60	
0117	Assistant Fitter or 2nd class Fitter	day	0.40	714.00	285.60	
0114	Beldar	day	1.30	645.00	838.50	
	TOTAL				3939.00	W
	Add 1 % Water charges on "W"				39.39	
	TOTAL				3978.39	X
	Add GST on "X" (multiplying factor 0.1405)				558.96	
	TOTAL				4537.35	Y
	Add 15% CPOH on "Y"				680.60	
	TOTAL				5217.96	Z
	Add Cess @ 1% on "Z"				52.18	
	Cost for 10 joints				5270.14	
	Cost for one joint				527.01	
	Say				527.00	

18.30.8 350 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 joints					
	MATERIAL					
1380	Rubber insertions for 350 mm dia pipe joints	each	10.00	50.00	500.00	
1961	Bolts and nuts 20 mm dia 80 mm long	each	160.00	17.00	2720.00	
9977	Carriage of materials	L.S.	5.33	2.12	11.30	
	LABOUR					
0116	Fitter (grade 1)	day	0.50	784.00	392.00	
0117	Assistant Fitter or 2nd class Fitter	day	0.50	714.00	357.00	
0114	Beldar	day	1.50	645.00	967.50	
	TOTAL				4947.80	W
	Add 1 % Water charges on "W"				49.48	
	TOTAL				4997.28	X
	Add GST on "X" (multiplying factor 0.1405)				702.12	
	TOTAL				5699.40	Y
	Add 15% CPOH on "Y"				854.91	
	TOTAL				6554.30	Z
	Add Cess @ 1% on "Z"				65.54	
	Cost for 10 joints				6619.85	
	Cost for one joint				661.98	
	Say				662.00	

18.30.9 400 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1381	Rubber insertions for 400 mm dia pipe joints	each	10.00	73.00	730.00
1962	Bolts and nuts 24 mm dia 85 mm long	each	160.00	27.00	4320.00
9977	Carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0117	Assistant Fitter or 2nd class Fitter	day	0.50	714.00	357.00
0114	Beldar	day	1.50	645.00	967.50
	TOTAL				6783.59 W
	Add 1 % Water charges on "W"				67.84
	TOTAL				6851.42 X
	Add GST on "X" (multiplying factor 0.1405)				962.62
	TOTAL				7814.05 Y
	Add 15% CPOH on "Y"				1172.11
	TOTAL				8986.16 Z
	Add Cess @ 1% on "Z"				89.86
	Cost for 10 joints				9076.02
	Cost for one joint				907.60
	Say				907.60

18.30.10 450 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1382	Rubber insertions for 450 mm dia pipe joints	each	10.00	92.00	920.00
1962	Bolts and nuts 24 mm dia 85 mm long	each	200.00	27.00	5400.00
9977	Carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0117	Assistant Fitter or 2nd class Fitter	day	0.60	714.00	428.40
0114	Beldar	day	1.70	645.00	1096.50
	TOTAL				8332.39 W
	Add 1 % Water charges on "W"				83.32
	TOTAL				8415.71 X
	Add GST on "X" (multiplying factor 0.1405)				1182.41
	TOTAL				9598.12 Y
	Add 15% CPOH on "Y"				1439.72
	TOTAL				11037.84 Z
	Add Cess @ 1% on "Z"				110.38
	Cost for 10 joints				11148.21
	Cost for one joint				1114.82
	Say				1114.80

18.30.11 500 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1383	Rubber insertions for 500 mm dia pipe joints	each	10.00	110.00	1100.00
1963	Bolts and nuts 24 mm dia 90 mm long	each	200.00	31.00	6200.00
9977	Carriage of materials	L.S.	8.06	2.12	17.09
	LABOUR				
0116	Fitter (grade 1)	day	0.65	784.00	509.60
0117	Assistant Fitter or 2nd class Fitter	day	0.65	714.00	464.10
0114	Beldar	day	1.80	645.00	1161.00
	TOTAL				9451.79 W
	Add 1 % Water charges on "W"				94.52
	TOTAL				9546.31 X
	Add GST on "X" (multiplying factor 0.1405)				1341.26
	TOTAL				10887.56 Y
	Add 15% CPOH on "Y"				1633.13
	TOTAL				12520.70 Z
	Add Cess @ 1% on "Z"				125.21
	Cost of 10 joints				12645.90
	Cost for one joint				1264.59
	Say				1264.60

18.30.12 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
	MATERIAL				
1384	Rubber insertions for 600 mm dia pipe joints	each	10.00	125.00	1250.00
1964	Bolts and nuts 27 mm dia 100 mm long	each	200.00	37.00	7400.00
9977	Carriage of materials	L.S.	9.49	2.12	20.12
	LABOUR				
0116	Fitter (grade 1)	day	0.75	784.00	588.00
0117	Assistant Fitter or 2nd class Fitter	day	0.75	714.00	535.50
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				11083.62 W
	Add 1 % Water charges on "W"				110.84
	TOTAL				11194.45 X
	Add GST on "X" (multiplying factor 0.1405)				1572.82
	TOTAL				12767.28 Y
	Add 15% CPOH on "Y"				1915.09
	TOTAL				14682.37 Z
	Add Cess @ 1% on "Z"				146.82
	Cost for 10 joints				14829.19
	Cost for one joint				1482.92
	Say				1482.90

18.31 Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) :

18.31.1 100 mm diameter

18.31.1.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
1940	C.I.sluice valve (with caps) class I : 100 mm dia	each	10.00	2450.00	24500.00
	Carriage of sluice valves wt.= 44.3x10=443kg= 0.443t. say 0.44t				
2309	Carriage of Cast iron fittings	tonne	0.44	145.72	64.12
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	4.43	546.00	2418.78 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.2	(Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	284.75	5695.00 A
	TOTAL				32677.90 W
	Add 1 % Water charges on "W-A"				245.64
	TOTAL				32923.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				3485.77
	TOTAL				36409.31 Y
	Add 15% CPOH on "Y-A"				4244.33
	TOTAL				40653.64 Z
	Add Cess @ 1% on "Z-A"				325.40
	Cost of 10 valves				40979.04
	Cost of 1 valve				4097.90
	Say				4097.90

18.31.1.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
3311	C.I.sluice valve (with caps) class II : 100 mm dia	each	10.00	2700.00	27000.00
	Carriage of sluice valves 56.3x10=563kg= 0.563t=0.56t				
2309	Carriage of Cast iron fittings	tonne	0.56	145.72	81.60
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	5.63	546.00	3073.98 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.2	(Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	284.75	5695.00 A
	TOTAL				35850.58 W
	Add 1 % Water charges on "W-A"				270.82
	TOTAL				36121.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				3843.01
	TOTAL				39964.41 Y
	Add 15% CPOH on "Y-A"				4679.32
	TOTAL				44643.73 Z
	Add Cess @ 1% on "Z-A"				358.75
	Cost of 10 valves				45002.48
	Cost of 1 valve				4500.25
	Say				4500.25

18.31.2 125 mm diameter

18.31.2.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
1941	C.I.sluice valve (with caps) class I : 125 mm dia	each	10.00	2610.00	26100.00
	Carriage of sluice valves wt. = 56.3x10=563kg = 0.563t. say 0.56t				
2309	Carriage of Cast iron fittings	tonne	0.56	145.72	81.60
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	5.63	546.00	3073.98 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.3	(Rate as per item No.18.30.3 Of SH: Water Supply)	each	20.00	303.50	6070.00 A
	TOTAL				35325.58 W
	Add 1 % Water charges on "W-A"				261.82
	TOTAL				35587.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				3715.30
	TOTAL				39302.70 Y
	Add 15% CPOH on "Y-A"				4523.81
	TOTAL				43826.51 Z
	Add Cess @ 1% on "Z-A"				346.83
	Cost of 10 valves				44173.33
	Cost of 1 valve				4417.33
	Say				4417.35

18.31.2.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
3314	C.I.sluice valve (with caps) class II : 125 mm dia	each	10.00	3300.00	33000.00
	Carriage of sluice valves wt. = 68.3x10=683kg = 0.68t say 0.68t				
2309	Carriage of Cast iron fittings	tonne	0.68	145.72	99.09
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	6.83	546.00	3729.18 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.3	(Rate as per item No.18.30.3 Of SH: Water Supply)	each	20.00	303.50	6070.00 A
	TOTAL				42898.27 W
	Add 1 % Water charges on "W-A"				330.99
	TOTAL				43229.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				4696.93
	TOTAL				47926.19 Y
	Add 15% CPOH on "Y-A"				5719.05
	TOTAL				53645.24 Z
	Add Cess @ 1% on "Z-A"				438.46
	Cost of 10 valves				54083.70
	Cost of 1 valve				5408.37
	Say				5408.35

18.31.3 150 mm diameter

18.31.3.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
1942	C.I.sluice valve (with caps) class I : 150 mm dia	each	10.00	3650.00	36500.00
	Carriage of sluice valves wt. = 72.5x10=725kg = 0.725t. say 0.72t				
2309	Carriage of Cast iron fittings	tonne	0.72	145.72	104.92
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	7.25	546.00	3958.50 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply)	each	20.00	343.55	6871.00 A
	TOTAL				47434.42 W
	Add 1 % Water charges on "W-A"				366.05
	TOTAL				47800.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				5194.42
	TOTAL				52994.89 Y
	Add 15% CPOH on "Y-A"				6324.81
	TOTAL				59319.70 Z
	Add Cess @ 1% on "Z-A"				484.90
	Cost of 10 valves				59804.60
	Cost of 1 valve				5980.46
	Say				5980.45

18.31.3.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
3317	C.I.sluice valve (with caps) class II : 150 mm dia	each	10.00	4100.00	41000.00
	Carriage of sluice valves wt. = 86.5x10=865kg = 0.865t. say 0.865t				
2309	Carriage of Cast iron fittings	tonne	0.865	145.72	126.05
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	8.65	546.00	4722.90 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply)	each	20.00	343.55	6871.00 A
	TOTAL				52719.95 W
	Add 1 % Water charges on "W-A"				411.26
	TOTAL				53131.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				5835.99
	TOTAL				58967.20 Y
	Add 15% CPOH on "Y-A"				7106.00
	TOTAL				66073.20 Z
	Add Cess @ 1% on "Z-A"				544.79
	Cost of 10 valves				66617.99
	Cost of 1 valve				6661.80
	Say				6661.80

18.31.4 200 mm diameter

18.31.4.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
1943	C.I.sluice valve (with caps) class I : 200 mm dia	each	10.00	7600.00	76000.00
	Carriage of sluice valves wt. = 121.5x10=1215kg = 1.215t. say 1.22t				
2309	Carriage of Cast iron fittings	tonne	1.22	145.72	177.78
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	12.15	546.00	6633.90 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.5	(Rate as per item No.18.30.5 Of SH: Water Supply)	each	20.00	377.00	7540.00 A
	TOTAL				90351.68 W
	Add 1 % Water charges on "W-A"				761.78
	TOTAL				91113.46 X
	Add GST on "X-A" (multiplying factor 0.1405)				10810.01
	TOTAL				101923.46 Y
	Add 15% CPOH on "Y-A"				13162.43
	TOTAL				115085.90 Z
	Add Cess @ 1% on "Z-A"				1009.12
	Cost of 10 valves				116095.02
	Cost of 1 valve				11609.50
	Say				11609.50

18.31.4.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
3320	C.I.sluice valve (with caps) class II : 200 mm dia	each	10.00	8900.00	89000.00
	Carriage of sluice valves wt. = 150.5x10=1505 kg = 1.5 t. say 1.5 t				
2309	Carriage of Cast iron fittings	tonne	1.50	145.72	218.58
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	15.05	546.00	8217.30 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.5	(Rate as per item No.18.30.5 Of SH: Water Supply)	each	20.00	377.00	7540.00 A
	TOTAL				104975.88 W
	Add 1 % Water charges on "W-A"				892.19
	TOTAL				105868.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				12660.56
	TOTAL				118528.63 Y
	Add 15% CPOH on "Y-A"				15415.70
	TOTAL				133944.33 Z
	Add Cess @ 1% on "Z-A"				1181.87
	Cost of 10 valves				135126.20
	Cost of 1 valve				13512.62
	Say				13512.60

18.31.5 250 mm diameter
18.31.5.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
1944	C.I.sluice valve (with caps) class I : 250 mm dia	each	10.00	10980.00	109800.00
	Carriage of sluice valves wt. = 179.9x10=1799kg = 1.799t. say 1.80t				
2309	Carriage of Cast iron fittings	tonne	1.80	145.72	262.30
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	17.99	546.00	9822.54 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.6	(Rate as per item No.18.30.6 Of SH: Water Supply)	each	20.00	520.30	10406.00 A
	TOTAL				130290.84 W
	Add 1 % Water charges on "W-A"				1100.62
	TOTAL				131391.46 X
	Add GST on "X-A" (multiplying factor 0.1405)				15618.39
	TOTAL				147009.85 Y
	Add 15% CPOH on "Y-A"				19017.20
	TOTAL				166027.05 Z
	Add Cess @ 1% on "Z-A"				1457.99
	Cost of 10 valves				167485.03
	Cost of 1 valve				16748.50
	Say				16748.50

18.31.5.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
3321	C.I.sluice valve (with caps) class II : 250 mm dia	each	10.00	15000.00	150000.00
	Carriage of sluice valves wt. = 229.9x10=2299kg = 2299t. say 2.30t				
2309	Carriage of Cast iron fittings	tonne	2.30	145.72	335.16
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	22.99	546.00	12552.54 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.6	(Rate as per item No.18.30.6 Of SH: Water Supply)	each	20.00	520.30	10406.00 A
	TOTAL				173293.70 W
	Add 1 % Water charges on "W-A"				1503.35
	TOTAL				174797.05 X
	Add GST on "X-A" (multiplying factor 0.1405)				21333.31
	TOTAL				196130.36 Y
	Add 15% CPOH on "Y-A"				25975.77
	TOTAL				222106.13 Z
	Add Cess @ 1% on "Z-A"				1991.48
	Cost of 10 valves				224097.61
	Cost of 1 valve				22409.76
	Say				22409.75

18.31.6 300 mm diameter
18.31.6.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
1945	C.I.sluice valve (with caps) class I : 300 mm dia	each	10.00	15500.00	155000.00
	Carriage of sluice valves wt. = 242.4x10=2424kg = 2.424t. say 2.42t				
2309	Carriage of Cast iron fittings	tonne	2.42	145.72	352.64
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	24.24	546.00	13235.04 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.7	(Rate as per item No.18.30.7 Of SH: Water Supply)	each	20.00	527.00	10540.00 A
	TOTAL				179127.68 W
	Add 1 % Water charges on "W-A"				1553.53
	TOTAL				180681.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				22045.32
	TOTAL				202726.53 Y
	Add 15% CPOH on "Y-A"				26842.72
	TOTAL				229569.25 Z
	Add Cess @ 1% on "Z-A"				2057.94
	Cost of 10 valves				231627.19
	Cost of 1 valve				23162.72
	Say				23162.70

18.31.6.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sluice valves				
	MATERIAL				
3326	C.I.sluice valve (with caps) class II : 300 mm dia	each	10.00	18500.00	185000.00
	Carriage of sluice valves wt. = 303.4x10=3034kg = 3.304t. Say 3.03 tonne.				
2309	Carriage of Cast iron fittings	tonne	3.03	145.72	441.53
	LABOUR for laying sluice valve				
18.24	(Rate as per item No. 18.24 Of SH: Water Supply)	quintal	30.34	546.00	16565.64 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				
18.30.7	(Rate as per item No.18.30.7 Of SH: Water Supply)	each	20.00	527.00	10540.00 A
	TOTAL				212547.17 W
	Add 1 % Water charges on "W-A"				1854.42
	TOTAL				214401.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				26315.08
	TOTAL				240716.67 Y
	Add 15% CPOH on "Y-A"				32041.65
	TOTAL				272758.32 Z
	Add Cess @ 1% on "Z-A"				2456.53
	Cost of 10 valves				275214.85
	Cost of 1 valve				27521.48
	Say				27521.50

18.32 Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :

18.32.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 0.68x0.68x0.65m=0.301cum.				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	0.30	286.85	86.055 A
2.25	Rate as per item No.2.25	cum	0.30	253.95	76.19 A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 0.68x0.68x0.075m=0.035cum. Say 0.04 cum.				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete work	cum	0.04	5660.45	226.42 A
	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 1.66mx0.115x0.50m=0.095cum. Say 0.10 cum.				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.10	6882.00	688.20 A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 1.20x0.50=0.60sqm 0.30x0.30=0.09sqm. Total =0.69sqm. Say 0.70sqm.				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.70	386.55	270.59 A
1304	Surface box for stop cock (vi)	each	1.00	125.00	125.00
9977	Carriage of C.I. surface box	L.S.	1.43	2.12	3.03
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone aggregate 20mm nominal size) in slab = 0.53mx0.53mx0.075m = 0.02107cum. Less surface box 0.112x0.112x0.076 =(-)0.00094 cum. = 0.0201 cum. Say 0.02cum.				
5.3	Rate as per item No.5.3 SH : R.C.C	cum	0.02	10719.30	214.39 A
	(viii) Less labour for not lifting the materilas upto floor five level				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie (ix)	day	-0.038	645.00	-24.51
9999	Sundries	L.S.	4.16	2.12	8.82
	TOTAL				1674.17 W
	Add 1 % Water charges on "W-A"				1.12
	TOTAL				1675.29 X
	Add GST on "X-A" (multiplying factor 0.1405)				15.94
	TOTAL				1691.23 Y
	Add 15% CPOH on "Y-A"				19.41
	TOTAL				1710.65 Z
	Add Cess @ 1% on "Z-A"				1.49
	Cost of one manhole				1712.13
	Say				1712.15

18.33 Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.33.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21x1.21x1.00m=1.464cum. Say 1.46 cum.				
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	1.46	286.85	418.80 A
2.25	Rate as per item No.2.25 of SH: Earth Work	cum	1.46	253.95	370.77 A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.21x0.1m=0.146cum. Say 0.15 cum.				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.15	5660.45	849.07 A
	(iii) Second class brick work in cement mortar 1: 4(1 Cement : 4coarse sand) in foundations and plinth 3.32mx0.23mx0.75m=0.573cum. Say 0.57 cum.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work (iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.40x0.75=1.80sqm. 0.60x0.60=0.36sqm. Total = 2.16sqm.	cum	0.57	6882.00	3922.74 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing (v) C.I. surface box with hinged cover 100x100x75mm (inside)	sqm	2.16	386.55	834.95 A
1305	Surface box for sluice valve (vi)	each	1.00	210.00	210.00
9977	Carriage of C.I. surface box (vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.06mx1.06mx0.15m = 0.1685 cum. Less surface box 3.142/4xd2x0.18m -- 0.7854x0.156mx0.156mx0.18 = (-)0.0034 cum. = 0.1651 cum. Say 0.17 cum.	L.S.	8.06	2.12	17.09
5.3	Rate as per item No.5.3 Of SH: RCC (viii) Less labour for not lifting the materilas upto floor five level	cum	0.17	10719.30	1822.28 A
0115	Coolie (ix) Mild steel reinforcement for RCC work etc. 0.165cum.x80kg/cum. = 13.2kg	day	-0.32	645.00	-206.40
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work (x) Form work 0.60mx0.60m =0.36sqm.+ 3.32mx0.15m=0.50sqm. = 0.86 sqm.	kg	13.20	88.95	1174.14 A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	0.86	766.55	659.23 A
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				10089.75 W
	Add 1 % Water charges on "W-A"				0.38
	TOTAL				10090.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				5.36
	TOTAL				10095.49 Y
	Add 15% CPOH on "Y-A"				6.53
	TOTAL				10102.02 Z
	Add Cess @ 1% on "Z-A"				0.50
	Cost of one manhole				10102.52
	Say				10102.50

18.34 Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.34.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.51X1.51X1.25 m = 2.85cum.				
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	2.85	286.85	817.5225 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	2.85	253.95	723.76 A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.51x1.51x0.1m=0.228cum. Say 0.23 cum.				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.23	5660.45	1301.90 A
	(iii) Second class brick work in cement foundations and plinth foundations and plinth 4.52mx0.23mx1.00m=1.04cum.				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	1.04	6882.00	7157.28 A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 3.60mx1.00m=3.60sqm 0.90mx0.90m =0.81sqm. Total=4.41sqm.				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.41	386.55	1704.69 A
	(v) C.I. surface box with chained lid.				
1305	Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) Carriage of C.I. surface box	L.S.	8.06	2.12	17.09
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.36mx1.36mx0.15m = 0.2774 cum. Less surface box 0.7854x0.156mx 0.156mx 0.18m = (-)0.0034 cum. = 0.2740 cum. Say 0.27 cum.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.3	Rate as per item No.5.3 Of SH: RCC (viii) Less labour for not lifting the materilas upto floor five level	cum	0.27	10719.30	2894.21 A
0115	Coolie	day	-0.51	645.00	-328.95
	(ix) Mild steel reinforcement for RCC work etc. 0.274cum.x80kg/cum. = 21.92 kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	21.92	88.95	1949.78 A
	(x) Form work 0.90mx0.90m=0.81sqm.+ 4.52mx0.15m = 0.68 sqm. Total= 1.49 sqm.				
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	1.49	766.55	1142.16 A
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				17606.53 W
	Add 1 % Water charges on "W-A"				-0.85
	TOTAL				17605.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				-12.03
	TOTAL				17593.65 Y
	Add 15% CPOH on "Y-A"				-14.65
	TOTAL				17579.00 Z
	Add Cess @ 1% on "Z-A"				-1.12
	Cost of one manhole				17577.88
	Say				17577.90

18.35 Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.35.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber MATERIAL				
	(i) Earth work in excavation including refilling and disposal of surplus earth 1.81X1.81X1.25M				
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	4.10	286.85	1176.09 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2.25	Rate as per item No.2.25 of SH: Earth work (ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.81x1.81x0.1m=0.328cum. Say 0.33 cum.	cum	4.10	253.95	1041.20 A
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work (iii) Second class brick work in cement mortar 1:4 (1 Cement : 4coarse sand) in foundations and plinth 5.72mx0.23mx1.00m=1.316cum. Say 1.32 cum.	cum	0.33	5660.45	1867.95 A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work (iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 4.80mx1.00m=4.80sqm. 1.20mx1.20m=1.44sqm. Total=6.42sqm.	cum	1.32	6882.00	9084.24 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing (v) C.I. surface box with chained lid	sqm	6.42	386.55	2481.65 A
1305	Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) Carriage of C.I. surface box	L.S.	8.06	2.12	17.09
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand : 4 graded stone aggregate 20mm nominal size) in slab = 1.66mx1.66mx0.15m = 0.4133 cum. Less surface box 0.7854x0.156mx 0.156mx0.18m = (-)0.0034 cum. Total= 0.4099 cum. Say 0.41 cum.				
5.3	Rate as per item No.5.3 Of SH: RCC (viii) Less labour for not lifting the materilas upto floor five level	cum	0.41	10719.30	4394.91 A
0115	Coolie (ix) Mild steel reinforcement for RCC slab steel @ 80kg/cum. 0.41cum.x80kg/cum. = 32.80kg.	day	-0.77	645.00	-496.65
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work (x) Form work 1.20mx1.20m=1.44sqm.+ 5.72mx0.15m=0.86 sqm. Total = 2.30sqm.	kg	32.80	88.95	2917.56 A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	2.30	766.55	1763.07 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				24474.18 W
	Add 1 % Water charges on "W-A"				-2.52
	TOTAL				24471.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				-35.83
	TOTAL				24435.83 Y
	Add 15% CPOH on "Y-A"				-43.62
	TOTAL				24392.21 Z
	Add Cess @ 1% on "Z-A"				-3.34
	Cost of one manhole				24388.86
	Say				24388.85

18.36 Constructing masonry Chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.36.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21X1.21X1.00m = 1.464cum. Say 1.46cum.				
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	1.46	286.85	418.80 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	1.46	253.95	370.77 A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.21x0.1m=0.146cum. Say 0.15 cum.				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.15	5660.45	849.07 A
	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 3.32mx0.23mx0.75m=0.573cum. Say 0.57 cum.				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.57	6882.00	3922.74 A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.40mx0.75m=1.80sqm. 0.90mx0.90m =0.36sqm. Total=2.16sqm.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.9.1	Rate as per item no 13.9.1 of SH : Finishing (v) C.I. surface box with chained lid	sqm	2.16	386.55	834.95 A
1305	Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) Carriage of C.I. surface box	L.S.	53.82	2.12	114.10
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.06mx1.06mx0.15m = 0.1685 cum. Less surface box 0.61x0.41mx0.15m= (-)0.0375 cum. = 0.131 cum. Say 0.13 cum.				
5.3	Rate as per item No.5.3 Of SH: RCC (viii) Less labour for not lifting the materilas upto floor five level	cum	0.13	10719.30	1393.51 A
0115	Coolie	day	-0.24	645.00	-154.80
	(ix) Mild steel reinforcement for RCC work etc. 0.131cumx80kg/cum. = 10.48kg.				
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work (x) Form work 0.60mx0.60m=0.36sqm.+ 3.32mx0.15m = 0.50 sqm. Total =0.86 sqm.	kg	10.48	88.95	932.20 A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	0.86	766.55	659.23 A
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				9567.65 W
	Add 1 % Water charges on "W-A"				1.86
	TOTAL				9569.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				26.45
	TOTAL				9595.96 Y
	Add 15% CPOH on "Y-A"				32.20
	TOTAL				9628.16 Z
	Add Cess @ 1% on "Z-A"				2.47
	Cost of one manhole				9630.63
	Say				9630.65

18.37 Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :

18.37.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one chamber MATERIAL (i) Earth work in excavation including refilling and disposal of surplus earth 1.21X1.06X0.85m = 1.09cum.					
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	1.09	286.85	312.67	A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	1.09	253.95	276.81	A
	(ii) Cement concrete 1:5:10 (1 Cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) 1.21x1.06x0.1m=0.128cum. Say 0.13 cum.					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.13	5660.45	735.86	A
	(iii) Second class brick work in cement mortar 1:4 (1 Cement : 4 coarse sand) in foundations and plinth 3.02mx0.23mx0.50m=0.347cum. Say 0.35 cum.					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.35	6882.00	2408.70	A
	(iv) 12mm cement plaster 1:3 (1 Cement : 3 Coarse sand) finished with a floating coat of neat cement. 2.10mx0.50m=1.05sqm. 0.60mx0.45m=0.27sqm. Total=1.32sq					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.32	386.55	510.25	A
	(v) C.I. surface box 400x200x200mm (inside) with locking arrangement					
1307	Surface box for water meter	each	1.00	250.00	250.00	
9977	(vi) Carriage of C.I. surface box	L.S.	13.52	2.12	28.66	
	(vii) Cement concrete 1:2:4 (1 Cement : 2 Coarse sand ; 4 graded stone aggregate 20mm nominal size) in slab = 1.06mx0.91mx0.25m = 0.241 cum. Less surface box 0.42x0.22mx0.2m = (-)0.018 cum. = 0.223 cum. Say 0.22 cum.					
5.3	Rate as per item No.5.3 Of SH: RCC	cum	0.22	10719.30	2358.25	A
	(viii) Less labour for not lifting the materilas upto floor five level					
0115	Coolie	day	-0.41	645.00	-264.45	
	(ix) Mild steel reinforcement for RCC work steel @ 80kg/cum. 0.223cum.x80kg/cum. = 17.84 kg.					

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work (x) Form work 0.60mx0.45m=0.27sqm.+ 3.02mx0.25m=0.76sqm. Total = 1.03sqm.	kg	17.84	88.95	1586.87 A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	1.03	766.55	789.55 A
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				9010.24 W
	Add 1 % Water charges on "W-A"				0.31
	TOTAL				9010.55 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.44
	TOTAL				9014.99 Y
	Add 15% CPOH on "Y-A"				5.41
	TOTAL				9020.40 Z
	Add Cess @ 1% on "Z-A"				0.41
	Cost of one manhole				9020.81
	Say				9020.80

18.38 Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :

18.38.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre Perimeter = 0.0673 metre Area=10x0.0673m = 0.673sqm. Priming coat-				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing Painting two coats excluding priming coat with white paint on new work.	sqm	0.673	55.50	37.35 A
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	0.673	131.45	88.47 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				154.48 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				154.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				158.83 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				163.79 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				164.17
	Cost of one metre				16.42
	Say				16.40

18.38.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Perimeter = 0.0845 metre				
	Area = 10x0.0845 sqm. = 0.845 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	0.845	55.50	46.90 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	0.845	131.45	111.08 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				186.64 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				186.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				190.99 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				195.94 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				196.32
	Cost of one metre				19.63
	Say				19.65

18.38.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Perimeter = 0.1061 metre				
	Area = 10x0.1061 sqm. = 1.061 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	1.061	55.50	58.89 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	1.061	131.45	139.47 A
9999	Add for delay	L.S.	20.28	2.12	42.99
	TOTAL				241.35 W
	Add 1 % Water charges on "W-A"				0.43
	TOTAL				241.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				6.10
	TOTAL				247.88 Y
	Add 15% CPOH on "Y-A"				7.43
	TOTAL				255.31 Z
	Add Cess @ 1% on "Z-A"				0.57
	Cost of 10 metre				255.88
	Cost of one metre				25.59
	Say				25.60

18.38.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Perimeter = 0.1334 metre				
	Area = 10x0.1334 sqm. = 1.334 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	1.334	55.50	74.04 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	1.334	131.45	175.35 A
9999	Add for delay	L.S.	20.28	2.12	42.99
	TOTAL				292.38 W
	Add 1 % Water charges on “W-A”				0.43
	TOTAL				292.81 X
	Add GST on “X-A” (multiplying factor 0.1405)				6.10
	TOTAL				298.92 Y
	Add 15% CPOH on “Y-A”				7.43
	TOTAL				306.34 Z
	Add Cess @ 1% on “Z-A”				0.57
	Cost of 10 metre				306.91
	Cost of one metre				30.69
	Say				30.70

18.38.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Perimeter = 0.1520 metre				
	Area = 10x0.1520 sqm. = 1.520 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	1.52	55.50	84.36 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	1.52	131.45	199.80 A
9999	Add for delay	L.S.	26.91	2.12	57.05
	TOTAL				341.21 W
	Add 1 % Water charges on "W-A"				0.57
	TOTAL				341.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.10
	TOTAL				349.88 Y
	Add 15% CPOH on "Y-A"				9.86
	TOTAL				359.74 Z
	Add Cess @ 1% on "Z-A"				0.76
	Cost of 10 metre				360.49
	Cost of one metre				36.05
	Say				36.05

18.38.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Perimeter = 0.1894 metre				
	Area = 10x0.1894 sqm. = 1.894 sqm.				
	Priming coat-				
13.50.3	Rate as per item no 13.50.3 of				
	SH : Finishing	sqm	1.894	55.50	105.12 A
	Painting two coats excluding priming coat with white paint on new work.				
13.61.1	Rate as per item no 13.61.1 of				
	SH : Finishing	sqm	1.894	131.45	248.97 A
9999	Add for delay	L.S.	26.91	2.12	57.05
	TOTAL				411.13 W
	Add 1 % Water charges on "W-A"				0.57
	TOTAL				411.70 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.10
	TOTAL				419.80 Y
	Add 15% CPOH on "Y-A"				9.86
	TOTAL				429.66 Z
	Add Cess @ 1% on "Z-A"				0.76
	Cost of 10 metre				430.41
	Cost of one metre				43.04
	Say				43.05

18.39 Repainting G.I. pipes and fittings with synthetic enamel white paint with one coat of approved quality :

18.39.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of				
	S.H. Finishing)	sqm	0.673	86.55	58.25 A
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				75.34 W
	Add 1 % Water charges on "W-A"				0.17
	TOTAL				75.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.42
	TOTAL				77.93 Y
	Add 15% CPOH on "Y-A"				2.95
	TOTAL				80.88 Z
	Add Cess @ 1% on "Z-A"				0.23
	Cost of 10 metre				81.11
	Cost of one metre				8.11
	Say				8.10

18.39.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	0.845	86.55	73.13 A
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				90.22 W
	Add 1 % Water charges on "W-A"				0.17
	TOTAL				90.39 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.42
	TOTAL				92.82 Y
	Add 15% CPOH on "Y-A"				2.95
	TOTAL				95.77 Z
	Add Cess @ 1% on "Z-A"				0.23
	Cost of 10 metre				96.00
	Cost of one metre				9.60
	Say				9.60

18.39.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.061	86.55	91.83 A
9999	Add for delay	L.S.	10.79	2.12	22.87
	TOTAL				114.70 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				114.93 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.25
	TOTAL				118.18 Y
	Add 15% CPOH on "Y-A"				3.95
	TOTAL				122.13 Z
	Add Cess @ 1% on "Z-A"				0.30
	Cost of 10 metre				122.43
	Cost of one metre				12.24
	Say				12.25

18.39.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.334	86.55	115.46 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	10.92	2.12	23.15
	TOTAL				138.61 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				138.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.29
	TOTAL				142.12 Y
	Add 15% CPOH on "Y-A"				4.00
	TOTAL				146.12 Z
	Add Cess @ 1% on "Z-A"				0.31
	Cost of 10 metre				146.43
	Cost of one metre				14.64
	Say				14.65

18.39.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.52	86.55	131.56 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				160.22 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				160.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				164.57 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				169.52 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				169.90
	Cost of one metre				16.99
	Say				17.00

18.39.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting one coat with white paint on old work.				
13.99.1	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.894	86.55	163.93 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				192.59 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				192.87 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				196.94 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				201.89 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				202.27
	Cost of one metre				20.23
	Say				20.25

18.40 Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :

18.40.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	0.673	115.10	77.46 A
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				94.55 W
	Add 1 % Water charges on “W-A”				0.17
	TOTAL				94.72 X
	Add GST on “X-A” (multiplying factor 0.1405)				2.42
	TOTAL				97.15 Y
	Add 15% CPOH on “Y-A”				2.95
	TOTAL				100.10 Z
	Add Cess @ 1% on “Z-A”				0.23
	Cost of 10 metre				100.32
	Cost of one metre				10.03
	Say				10.05

18.40.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	0.845	115.10	97.26 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	8.06	2.12	17.09
	TOTAL				114.35 W
	Add 1 % Water charges on "W-A"				0.17
	TOTAL				114.52 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.42
	TOTAL				116.94 Y
	Add 15% CPOH on "Y-A"				2.95
	TOTAL				119.89 Z
	Add Cess @ 1% on "Z-A"				0.23
	Cost of 10 metre				120.12
	Cost of one metre				12.01
	Say				12.00

18.40.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.061	115.10	122.12 A
9999	Add for delay	L.S.	10.79	2.12	22.87
	TOTAL				145.00 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				145.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.25
	TOTAL				148.47 Y
	Add 15% CPOH on "Y-A"				3.95
	TOTAL				152.42 Z
	Add Cess @ 1% on "Z-A"				0.30
	Cost of 10 metre				152.73
	Cost of one metre				15.27
	Say				15.25

18.40.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.334	115.10	153.54 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	10.79	2.12	22.87
	TOTAL				176.42 W
	Add 1 % Water charges on "W-A"				0.23
	TOTAL				176.65 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.25
	TOTAL				179.89 Y
	Add 15% CPOH on "Y-A"				3.95
	TOTAL				183.85 Z
	Add Cess @ 1% on "Z-A"				0.30
	Cost of 10 metre				184.15
	Cost of one metre				18.41
	Say				18.40

18.40.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.52	115.10	174.95 A
9999	Add for delay	L.S.	12.22	2.12	25.91
	TOTAL				200.86 W
	Add 1 % Water charges on "W-A"				0.26
	TOTAL				201.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.68
	TOTAL				204.79 Y
	Add 15% CPOH on "Y-A"				4.48
	TOTAL				209.27 Z
	Add Cess @ 1% on "Z-A"				0.34
	Cost of 10 metre				209.61
	Cost of one metre				20.96
	Say				20.95

18.40.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.894	115.10	218.00 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	12.22	2.12	25.91
	TOTAL				243.91 W
	Add 1 % Water charges on "W-A"				0.26
	TOTAL				244.16 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.68
	TOTAL				247.84 Y
	Add 15% CPOH on "Y-A"				4.48
	TOTAL				252.32 Z
	Add Cess @ 1% on "Z-A"				0.34
	Cost of 10 metre				252.66
	Cost of one metre				25.27
	Say				25.25

18.40.7 65 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	2.387	115.10	274.74 A
9999	Add for delay	L.S.	13.52	2.12	28.66
	TOTAL				303.41 W
	Add 1 % Water charges on "W-A"				0.29
	TOTAL				303.69 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07
	TOTAL				307.76 Y
	Add 15% CPOH on "Y-A"				4.95
	TOTAL				312.71 Z
	Add Cess @ 1% on "Z-A"				0.38
	Cost of 10 metre				313.09
	Cost of one metre				31.31
	Say				31.30

18.40.8 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	Painting with anti-corrosive paint two coats.				
13.65.1	(Rate as per item No.13.65.1 sub-heads finishing)	sqm	2.796	115.10	321.82 A
9999	Add for delay	L.S.	14.82	2.12	31.42
	TOTAL				353.24 W
	Add 1 % Water charges on "W-A"				0.31
	TOTAL				353.55 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.46
	TOTAL				358.01 Y
	Add 15% CPOH on "Y-A"				5.43
	TOTAL				363.44 Z
	Add Cess @ 1% on "Z-A"				0.42
	Cost of 10 metre				363.86
	Cost of one metre				36.39
	Say				36.40

18.41 Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :

18.41.1 15 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 15mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 21.8mm = 246.8mm say 247mm Quantity of sand = 10x0.30x0.247 = 0.744 cum. Less for pipe = 3.142/4(21.8)^{2}x10 = (-)0.004 cum. = 0.74 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.74	2131.25	1577.13 A
	TOTAL				1577.13
	Cost of 10 metre				1577.13
	Cost of one metre				157.71
	Say				157.70

18.41.1A Sub analysis item for sand filling component

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Sub analysis item for sand filling component				
	MATERIAL				
6501	Sand zone V (Jamuna)	cum	1.00	1300.00	1300.00
2335	Carriage of Jamuna sand	cum	1.00	163.93	163.93
	Labour:				
0114	Beldar	day	0.09	645.00	58.05
0115	Coolie	day	0.11	645.00	70.95
	TOTAL				1592.93 W
	Add 1 % Water charges on "W"				15.93
	TOTAL				1608.86 X
	Add GST on "X" (multiplying factor 0.1405)				226.04
	TOTAL				1834.90 Y
	Add 15% CPOH on "Y"				275.24
	TOTAL				2110.14 Z
	Add Cess @ 1% on "Z"				21.10
	Cost of one cum.				2131.24
	Say				2131.25

18.41.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 20mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 27.3mm = 252.3 Say 252mm Quantity of sand = 10x0.30x0.252 = 0.756 cum.+ Less for pipe =3.142/4(27.3)²x10 = (-)0.006cum. = 0.750 cum				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.75	2131.25	1598.44 A
	TOTAL				1598.44
	Cost of 10 metre				1598.44
	Cost of one metre				159.84
	Say				159.85

18.41.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 25mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 34.2mm = 259.2 Say 259mm Quantity of sand = 10x0.30x0.259 = 0.777 cum.+ Less for pipe 3.142/4(34.2)²x10 = (-)0.009cum. = 0.768 Say 0.77 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.77	2131.25	1641.06 A
	TOTAL				1641.06
	Cost of 10 metre				1641.06
	Cost of one metre				164.11
	Say				164.10

18.41.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 32mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 42.9mm = 267.9 Say 268mm Quantity of sand = 10x0.30x0.268 = 0.804 cum.+ Less for pipe 3.142/4(42.9)²x10 = (-)0.014cum. = 0.790 Say 0.79 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.79	2131.25	1683.69 A
	TOTAL				1683.69
	Cost of 10 metre				1683.69
	Cost of one metre				168.37
	Say				168.35

18.41.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 40mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 48.8mm = 273.8 Say 274mm Quantity of sand = 10x0.30x0.274 = 0.82 cum.+ Less for pipe 3.142/4(48.8)²x10 = (-)0.014cum. = 0.801 Say 0.80 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	0.8	2131.25	1705.00 A
	TOTAL				1705.00
	Cost of 10 metre				1705.00
	Cost of one metre				170.50
	Say				170.50

18.41.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 50mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 60.8mm				
	= 285.8 Say 286mm				
	Quantity of sand = 10x0.30x0.286				
	= 0.858 cum.+				
	Less for pipe 3.142/4(60.8)²x10				
	= (-)0.029cum.				
	= 0.829 Say 0.83 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of				
	SH:Water supply	cum	0.83	2131.25	1768.94 A
	TOTAL				1768.94
	Cost of 10 metre				1768.94
	Cost of one metre				176.89
	Say				176.90

18.41.7 65 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 65mm dia. pipe 10 metre long.				
	Width of sand filling = 300mm				
	Depth of sand filling				
	Under the pipe = 75mm+				
	Above the pipe = 150mm+				
	Max. external dia of pipe = 76.6mm				
	= 301.6 Say 302mm				
	Quantity of sand = 10x0.45x0.302				
	= 1.359 cum.+				
	Less for pipe 3.142/4(76.6)²x10				
	= (-)0.046cum.				
	= 1.313 Say 1.31 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of				
	SH:Water supply	cum	1.31	2131.25	2791.94 A
	TOTAL				2791.94
	Cost of 10 metre				2791.94
	Cost of one metre				279.19
	Say				279.20

18.41.8 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 80mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 89.9mm = 314.9 Say 315mm Quantity of sand = 10x0.45x0.315 = 1.418 cum.+ Less for pipe 3.142/4(89.9)²x10 = (-)0.0640cum. = 1.354 Say 1.35 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.35	2131.25	2877.19 A
	TOTAL				2877.19
	Cost of 10 metre				2877.19
	Cost of one metre				287.72
	Say				287.70

18.41.9 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 100mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 115mm = 340mm Quantity of sand = 10x0.45x0.34 = 1.53 cum.+ Less for pipe 3.142/4(0.115)²x10 = (-)0.10cum. = 1.43 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	1.43	2131.25	3047.69 A
	TOTAL				3047.69
	Cost of 10 metre				3047.69
	Cost of one metre				304.77
	Say				304.75

18.41.10 150 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of sand filling alround 150mm dia. pipe 10 metre long. Width of sand filling = 300mm Depth of sand filling Under the pipe = 75mm+ Above the pipe = 150mm+ Max. external dia of pipe = 166.5mm = 391.50mm Say 0.392m Quantity of sand = 10x0.60x0.392 = 2.35 cum.+ Less for pipe 3.142/4(0.167)²x10 = (-)0.22cum. = 2.13 cum.				
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply	cum	2.13	2131.25	4539.56 A
	TOTAL				4539.56
	Cost of 10 metre				4539.56
	Cost of one metre				453.96
	Say				453.95

18.42 Boring with 100 mm diameter casing pipe for hand pump / tubewell, in all soils except ordinary hard rocks requiring blasting, including removing the casing pipe after the hand pump / tube well is lowered and tested :

18.42.1 Up to 6 metres depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6m depth				
	LABOUR For boring and removing the pipe-				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	3.00	645.00	1935.00
0010	Hire charges of Derrick monkey rope and other accessories	day	0.50	750.00	375.00
	Depreciation @ 2% of the cost of casing pipe 6metre @ Rs. per metre				
1472	Casing pipe 100 mm dia	metre	0.12	340.00	40.80
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				2771.46 W
	Add 1 % Water charges on "W"				27.71
	TOTAL				2799.18 X
	Add GST on "X" (multiplying factor 0.1405)				393.28
	TOTAL				3192.46 Y
	Add 15% CPOH on "Y"				478.87
	TOTAL				3671.33 Z
	Add Cess @ 1% on "Z"				36.71
	Cost of 6 metre				3708.04
	Cost of one metre				618.01
	Say				618.00

18.42.2 Beyond 6 m and up to 12 m depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6m depth				
	LABOUR for boring and removing the pipe-				
0116	Fitter (grade 1)	day	0.62	784.00	486.08
0114	Beldar	day	3.50	645.00	2257.50
0010	Hire charges of Derrick monkey rope and other accessories	day	0.62	750.00	465.00
	Depreciation @ 2% of the cost of casing pipe 6metre @ Rs. per metre				
1472	Casing pipe 100 mm dia	metre	0.12	340.00	40.80
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				3278.04 W
	Add 1 % Water charges on "W"				32.78
	TOTAL				3310.82 X
	Add GST on "X" (multiplying factor 0.1405)				465.17
	TOTAL				3775.99 Y
	Add 15% CPOH on "Y"				566.40
	TOTAL				4342.39 Z
	Add Cess @ 1% on "Z"				43.42
	Cost of 6 metre				4385.82
	Cost of one metre				730.97
	Say				730.95

18.42.3 Beyond 12 m and up to 18 m depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6m depth				
	LABOUR				
	For boring and removing the pipe-				
0116	Fitter (grade 1)	day	0.75	784.00	588.00
0114	Beldar	day	4.00	645.00	2580.00
0010	Hire charges of Derrickmonkey rope and other accessories	day	0.75	750.00	562.50
	Depreciation @ 2% of the cost of casing pipe 6metre @ Rs. per metre				
1472	Casing pipe 100 mm dia	metre	0.12	340.00	40.80
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				3799.96 W
	Add 1 % Water charges on "W"				38.00
	TOTAL				3837.96 X
	Add GST on "X" (multiplying factor 0.1405)				539.23
	TOTAL				4377.20 Y
	Add 15% CPOH on "Y"				656.58
	TOTAL				5033.78 Z
	Add Cess @ 1% on "Z"				50.34
	Cost of 6 metre				5084.11
	Cost of one metre				847.35
	Say				847.35

18.43 Providing and placing in position filters of 40 mm diameter G.I. pipe with brass strainer of approved quality.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one strainer 1.5 long				
	MATERIAL				
1882	Strainer brass 40 mm dia 1.5 metre long	each	1.00	625.00	625.00
9977	Carriage to site	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.17	784.00	133.28
0114	Beldar	day	0.17	645.00	109.65
9999	Sundreis including hamp white lead etc.	L.S.	7.15	2.12	15.16
	TOTAL				911.75 W
	Add 1 % Water charges on "W"				9.12
	TOTAL				920.87 X
	Add GST on "X" (multiplying				
	factor 0.1405)				129.38
	TOTAL				1050.25 Y
	Add 15% CPOH on "Y"				157.54
	TOTAL				1207.79 Z
	Add Cess @ 1% on "Z"				12.08
	Cost of 1.5 metre				1219.87
	Cost of one metre				813.24
	Say				813.25

18.44 Providing and fixing to filter and lowering to proper levels 40 mm G.I. pipe for tube well including cleaning and priming the tube well.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for a depth of 10 metre				
	MATERIAL				
1549	G.I. pipes 40 mm dia	metre	10.20	290.00	2958.00
	Carriage of 40mm pipe(36.5kg)				
	Added 2% wastage and fitting				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.03723	145.72	5.43
9999	White lead, hamp and oil etc.	L.S.	6.76	2.12	14.33
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.75	645.00	483.75
9999	Sundries	L.S.	7.25	2.12	15.37
	TOTAL				3735.60 W
	Add 1 % Water charges on "W"				37.36
	TOTAL				3772.95 X
	Add GST on "X" (multiplying				
	factor 0.1405)				530.10
	TOTAL				4303.05 Y
	Add 15% CPOH on "Y"				645.46
	TOTAL				4948.51 Z
	Add Cess @ 1% on "Z"				49.49
	Cost for 10 metre				4998.00
	Cost of one metre				499.80
	Say				499.80

18.45 Providing and placing in position hand pump of approved quality for 40 mm diameter G.I. pipe complete with all accessories.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one pump				
	MATERIAL				
1693	S.C.I. hand pump	each	1.00	700.00	700.00
9977	Carriage	L.S.	13.52	2.12	28.66
	LABOUR				
0116	Fitter (grade 1)	day	0.10	784.00	78.40
0114	Beldar	day	0.10	645.00	64.50
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				880.93 W
	Add 1 % Water charges on "W"				8.81
	TOTAL				889.74 X
	Add GST on "X" (multiplying				
	factor 0.1405)				125.01
	TOTAL				1014.75 Y
	Add 15% CPOH on "Y"				152.21
	TOTAL				1166.96 Z
	Add Cess @ 1% on "Z"				11.67
	Cost for one hand pump				1178.63
	Say				1178.65

18.46 Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :

18.46.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1641	G.I. Union 15 mm nominal bore	each	1.00	35.00	35.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				196.05 W
	Add 1 % Water charges on "W"				1.96
	TOTAL				198.01 X
	Add GST on "X" (multiplying				
	factor 0.1405)				27.82
	TOTAL				225.83 Y
	Add 15% CPOH on "Y"				33.87
	TOTAL				259.70 Z
	Add Cess @ 1% on "Z"				2.60
	Cost for one no.				262.30
	Say				262.30

18.46.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1642	G.I. Union 20 mm nominal bore	each	1.00	55.00	55.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				216.05 W
	Add 1 % Water charges on "W"				2.16
	TOTAL				218.21 X
	Add GST on "X" (multiplying factor 0.1405)				30.66
	TOTAL				248.87 Y
	Add 15% CPOH on "Y"				37.33
	TOTAL				286.20 Z
	Add Cess @ 1% on "Z"				2.86
	Cost for one no.				289.06
	Say				289.05

18.46.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1643	G.I. Union 25 mm nominal bore	each	1.00	115.00	115.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				276.05 W
	Add 1 % Water charges on "W"				2.76
	TOTAL				278.81 X
	Add GST on "X" (multiplying factor 0.1405)				39.17
	TOTAL				317.98 Y
	Add 15% CPOH on "Y"				47.70
	TOTAL				365.68 Z
	Add Cess @ 1% on "Z"				3.66
	Cost for one no.				369.34
	Say				369.35

18.46.4 32 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1644	G.I. Union 32 mm nominal bore	each	1.00	145.00	145.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				306.05 W
	Add 1 % Water charges on "W"				3.06
	TOTAL				309.11 X
	Add GST on "X" (multiplying factor 0.1405)				43.43
	TOTAL				352.54 Y
	Add 15% CPOH on "Y"				52.88
	TOTAL				405.42 Z
	Add Cess @ 1% on "Z"				4.05
	Cost for one no.				409.47
	Say				409.45

18.46.5 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1645	G.I. Union 40 mm nominal bore	each	1.00	230.00	230.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
	TOTAL				391.05 W
	Add 1 % Water charges on "W"				3.91
	TOTAL				394.96 X
	Add GST on "X" (multiplying factor 0.1405)				55.49
	TOTAL				450.45 Y
	Add 15% CPOH on "Y"				67.57
	TOTAL				518.02 Z
	Add Cess @ 1% on "Z"				5.18
	Cost for one no.				523.20
	Say				523.20

18.46.6 50 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1646	G.I. Union 50 mm nominal bore	each	1.00	310.00	310.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75
	TOTAL				528.21 W
	Add 1 % Water charges on "W"				5.28
	TOTAL				533.49 X
	Add GST on "X" (multiplying factor 0.1405)				74.96
	TOTAL				608.45 Y
	Add 15% CPOH on "Y"				91.27
	TOTAL				699.71 Z
	Add Cess @ 1% on "Z"				7.00
	Cost for one no.				706.71
	Say				706.70

18.46.7 65 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1647	G.I. Union 65 mm nominal bore	each	1.00	525.00	525.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75
	TOTAL				743.21 W
	Add 1 % Water charges on "W"				7.43
	TOTAL				750.64 X
	Add GST on "X" (multiplying factor 0.1405)				105.46
	TOTAL				856.11 Y
	Add 15% CPOH on "Y"				128.42
	TOTAL				984.52 Z
	Add Cess @ 1% on "Z"				9.85
	Cost for one no.				994.37
	Say				994.35

18.46.8 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1648	G.I. Union 80mm nominal bore	each	1.00	575.00	575.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75
	TOTAL				793.21 W
	Add 1 % Water charges on "W"				7.93
	TOTAL				801.14 X
	Add GST on "X" (multiplying factor 0.1405)				112.56
	TOTAL				913.70 Y
	Add 15% CPOH on "Y"				137.06
	TOTAL				1050.76 Z
	Add Cess @ 1% on "Z"				10.51
	Cost for one no.				1061.26
	Say				1061.25

18.47 Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws, including excavation, refilling the earth or cutting of wall and making good the same complete wherever required :

18.47.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1641	G.I. Union 15 mm nominal bore	each	1.00	35.00	35.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				510.43 W
	Add 1 % Water charges on "W"				5.10
	TOTAL				515.53 X
	Add GST on "X" (multiplying factor 0.1405)				72.43
	TOTAL				587.97 Y
	Add 15% CPOH on "Y"				88.19
	TOTAL				676.16 Z
	Add Cess @ 1% on "Z"				6.76
	Cost for one no.				682.92
	Say				682.90

18.47.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1642	G.I. Union 20 mm nominal bore	each	1.00	55.00	55.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				530.43 W
	Add 1 % Water charges on "W"				5.30
	TOTAL				535.73 X
	Add GST on "X" (multiplying factor 0.1405)				75.27
	TOTAL				611.00 Y
	Add 15% CPOH on "Y"				91.65
	TOTAL				702.65 Z
	Add Cess @ 1% on "Z"				7.03
	Cost for one no.				709.68
	Say				709.70

18.47.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1643	G.I. Union 25 mm nominal bore	each	1.00	115.00	115.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				590.43 W
	Add 1 % Water charges on "W"				5.90
	TOTAL				596.33 X
	Add GST on "X" (multiplying factor 0.1405)				83.78
	TOTAL				680.12 Y
	Add 15% CPOH on "Y"				102.02
	TOTAL				782.14 Z
	Add Cess @ 1% on "Z"				7.82
	Cost for one no.				789.96
	Say				789.95

18.47.4 32 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1644	G.I. Union 32 mm nominal bore	each	1.00	145.00	145.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				620.43 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.63 X
	Add GST on "X" (multiplying factor 0.1405)				88.04
	TOTAL				714.67 Y
	Add 15% CPOH on "Y"				107.20
	TOTAL				821.88 Z
	Add Cess @ 1% on "Z"				8.22
	Cost for one no.				830.09
	Say				830.10

18.47.5 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1645	G.I. Union 40 mm nominal bore	each	1.00	230.00	230.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0114	Beldar	day	0.33	645.00	212.85
	TOTAL				705.43 W
	Add 1 % Water charges on "W"				7.05
	TOTAL				712.48 X
	Add GST on "X" (multiplying factor 0.1405)				100.10
	TOTAL				812.59 Y
	Add 15% CPOH on "Y"				121.89
	TOTAL				934.47 Z
	Add Cess @ 1% on "Z"				9.34
	Cost for one no.				943.82
	Say				943.80

18.47.6 50 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1646	G.I. Union 50 mm nominal bore	each	1.00	310.00	310.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				956.91 W
	Add 1 % Water charges on "W"				9.57
	TOTAL				966.48 X
	Add GST on "X" (multiplying factor 0.1405)				135.79
	TOTAL				1102.27 Y
	Add 15% CPOH on "Y"				165.34
	TOTAL				1267.61 Z
	Add Cess @ 1% on "Z"				12.68
	Cost for one no.				1280.28
	Say				1280.30

18.47.7 65 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1647	G.I. Union 65 mm nominal bore	each	1.00	525.00	525.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				1171.91 W
	Add 1 % Water charges on "W"				11.72
	TOTAL				1183.63 X
	Add GST on "X" (multiplying factor 0.1405)				166.30
	TOTAL				1349.93 Y
	Add 15% CPOH on "Y"				202.49
	TOTAL				1552.42 Z
	Add Cess @ 1% on "Z"				15.52
	Cost for one no.				1567.94
	Say				1567.95

18.47.8 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
1648	G.I. Union 80mm nominal bore	each	1.00	575.00	575.00
9988	Carriage of materials and sundries	L.S.	1.82	2.12	3.86
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.45	645.00	290.25
	TOTAL				1221.91 W
	Add 1 % Water charges on "W"				12.22
	TOTAL				1234.13 X
	Add GST on "X" (multiplying factor 0.1405)				173.39
	TOTAL				1407.52 Y
	Add 15% CPOH on "Y"				211.13
	TOTAL				1618.65 Z
	Add Cess @ 1% on "Z"				16.19
	Cost for one no.				1634.84
	Say				1634.85

18.48 Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 500 litres				
	MATERIAL				
1649	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	500.00	6.10	3050.00
9977	Carriage to site	L.S.	179.40	2.12	380.33
9999	Placing at terrace	L.S.	89.70	2.12	190.16
	TOTAL				3620.49 W
	Add 1 % Water charges on "W"				36.20
	TOTAL				3656.70 X
	Add GST on "X" (multiplying factor 0.1405)				513.77
	TOTAL				4170.46 Y
	Add 15% CPOH on "Y"				625.57
	TOTAL				4796.03 Z
	Add Cess @ 1% on "Z"				47.96
	Cost for 500 litre				4843.99
	Cost of one litre				9.69
	Say				9.70

18.48A Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no. tank of 500 litres				
	MATERIAL				
1649	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	500.00	6.10	3050.00
9977	Carriage to site	L.S.	179.40	2.12	380.33

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Placing at terrace	L.S.	89.70	2.12	190.16
	TOTAL				3620.49 W
	Add 1 % Water charges on "W"				36.20
	TOTAL				3656.70 X
	Add GST on "X" (multiplying factor 0.1405)				513.77
	TOTAL				4170.46 Y
	Add 15% CPOH on "Y"				625.57
	TOTAL				4796.03 Z
	Add Cess @ 1% on "Z"				47.96
	Cost of 500 liters				4843.99
	Cost of 1 litre				9.69
	Say				9.70

18.49 Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :

18.49.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7257	C.P. Brass bibcock 15 mm	each	1.00	300.00	300.00
9988	Carrige of material and fixing charges	L.S.	11.57	2.12	24.53
	TOTAL				324.53 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				327.77 X
	Add GST on "X" (multiplying factor 0.1405)				46.05
	TOTAL				373.83 Y
	Add 15% CPOH on "Y"				56.07
	TOTAL				429.90 Z
	Add Cess @ 1% on "Z"				4.30
	Cost of 1 no.				434.20
	Say				434.20

18.50 Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.

18.50.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7258	C.P. Brass long nose bibcock 15 mm	each	1.00	500.00	500.00
9988	Carrige of material and fixing charges	L.S.	16.25	2.12	34.45
	TOTAL				534.45 W
	Add 1 % Water charges on "W"				5.34
	TOTAL				539.79 X
	Add GST on "X" (multiplying factor 0.1405)				75.84
	TOTAL				615.64 Y
	Add 15% CPOH on "Y"				92.35
	TOTAL				707.98 Z
	Add Cess @ 1% on "Z"				7.08
	Cost of 1 no.				715.06
	Say				715.05

18.51 Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.

18.51.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7259	C.P. Brass long body bibcock 15 mm	each	1.00	500.00	500.00
9988	Carrige of material and fixing charges	L.S.	13.91	2.12	29.49
	TOTAL				529.49 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				534.78 X
	Add GST on "X" (multiplying factor 0.1405)				75.14
	TOTAL				609.92 Y
	Add 15% CPOH on "Y"				91.49
	TOTAL				701.41 Z
	Add Cess @ 1% on "Z"				7.01
	Cost of 1 no.				708.42
	Say				708.40

18.52 Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.

18.52.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7260	C.P. Brass stop cock (concealed) 15 mm	each	1.00	420.00	420.00
9988	Carrige of material and fixing charges	L.S.	11.57	2.12	24.53
	TOTAL				444.53 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				448.97 X
	Add GST on "X" (multiplying factor 0.1405)				63.08
	TOTAL				512.05 Y
	Add 15% CPOH on "Y"				76.81
	TOTAL				588.86 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				594.75
	Say				594.75

18.53 Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931

18.53.1 15mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7261	C.P. Brass angle valve 15 mm	each	1.00	350.00	350.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage and fixing charges	L.S.	11.31	2.12	23.98
	TOTAL				373.98 W
	Add 1 % Water charges on "W"				3.74
	TOTAL				377.72 X
	Add GST on "X" (multiplying factor 0.1405)				53.07
	TOTAL				430.79 Y
	Add 15% CPOH on "Y"				64.62
	TOTAL				495.40 Z
	Add Cess @ 1% on "Z"				4.95
	Cost of 1 no.				500.36
	Say				500.35

18.53A Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
0593	C.P. Brass Extension Nipple (1/2"x2" size)	each	1.00	40.00	40.00
9999	Sundries	L.S.	2.89	2.12	6.13
	TOTAL				46.13 W
	Add 1 % Water charges on "W"				0.46
	TOTAL				46.59 X
	Add GST on "X" (multiplying factor 0.1405)				6.55
	TOTAL				53.13 Y
	Add 15% CPOH on "Y"				7.97
	TOTAL				61.10 Z
	Add Cess @ 1% on "Z"				0.61
	Cost of 1 no.				61.71
	Say				61.70

18.54 Providing and fixing PTMT bib cock of approved quality and colour.
18.54.1 15mm nominal bore, 86 mm long, weighing not less than 88 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7400	15 mm PTMT bib cock	each	1.00	65.00	65.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				82.09 W
	Add 1 % Water charges on "W"				0.82
	TOTAL				82.91 X
	Add GST on "X" (multiplying factor 0.1405)				11.65
	TOTAL				94.56 Y
	Add 15% CPOH on "Y"				14.18
	TOTAL				108.74 Z
	Add Cess @ 1% on "Z"				1.09
	Cost of 1 no.				109.83
	Say				109.85

18.54.2 15 mm nominal bore, 122mm long, weighing not less than 99 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7401	15 mm PTMT bib cockwith flange (fancy)	each	1.00	90.00	90.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				107.09 W
	Add 1 % Water charges on "W"				1.07
	TOTAL				108.16 X
	Add GST on "X" (multiplying factor 0.1405)				15.20
	TOTAL				123.35 Y
	Add 15% CPOH on "Y"				18.50
	TOTAL				141.86 Z
	Add Cess @ 1% on "Z"				1.42
	Cost of 1 no.				143.28
	Say				143.30

18.54.3 15 mm nominal bore, 165 mm long, weighing not less than 110 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7402	15 mm PTMT bib cock long body with flange	each	1.00	100.00	100.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				117.09 W
	Add 1 % Water charges on "W"				1.17
	TOTAL				118.26 X
	Add GST on "X" (multiplying factor 0.1405)				16.62
	TOTAL				134.87 Y
	Add 15% CPOH on "Y"				20.23
	TOTAL				155.10 Z
	Add Cess @ 1% on "Z"				1.55
	Cost of 1 No..				156.66
	Say				156.65

18.54.4 15 mm nominal bore, 90 mm long, weighing not less than 93 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7859	P.T.M.T. Bib cock with nozzle 15mm	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				127.09 W
	Add 1 % Water charges on "W"				1.27
	TOTAL				128.36 X
	Add GST on "X" (multiplying factor 0.1405)				18.03
	TOTAL				146.39 Y
	Add 15% CPOH on "Y"				21.96
	TOTAL				168.35 Z
	Add Cess @ 1% on "Z"				1.68
	Cost of 1 no.				170.03
	Say				170.05

18.55 Providing and fixing PTMT stop cock of approved quality and colour.

18.55.1 15 mm nominal bore, 86 mm long, weighing not less than 88 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7403	15 mm dia PTMT stop cock (male thread)	each	1.00	60.00	60.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				77.09 W
	Add 1 % Water charges on "W"				0.77
	TOTAL				77.86 X
	Add GST on "X" (multiplying factor 0.1405)				10.94
	TOTAL				88.80 Y
	Add 15% CPOH on "Y"				13.32
	TOTAL				102.12 Z
	Add Cess @ 1% on "Z"				1.02
	Cost of 1 no.				103.14
	Say				103.15

18.55.2 20 mm nominal bore, 89 mm long, weighing not less than 88 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7405	20 mm dia. PTMT stop cock	each	1.00	68.00	68.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				85.09 W
	Add 1 % Water charges on "W"				0.85
	TOTAL				85.94 X
	Add GST on "X" (multiplying factor 0.1405)				12.07
	TOTAL				98.01 Y
	Add 15% CPOH on "Y"				14.70
	TOTAL				112.71 Z
	Add Cess @ 1% on "Z"				1.13
	Cost of 1 no.				113.84
	Say				113.85

18.55.3 Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7861	P.T.M.T. Stop cock (concealed) 15mm	each	1.00	120.00	120.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				137.09 W
	Add 1 % Water charges on "W"				1.37
	TOTAL				138.46 X
	Add GST on "X" (multiplying factor 0.1405)				19.45
	TOTAL				157.91 Y
	Add 15% CPOH on "Y"				23.69
	TOTAL				181.60 Z
	Add Cess @ 1% on "Z"				1.82
	Cost of 1 no.				183.41
	Say				183.40

18.56 Providing and fixing PTMT pillar cock of approved quality and colour.

18.56.1 15 mm nominal bore, 107 mm long, weighing not less than 110 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7406	PTMT pillar cock	each	1.00	115.00	115.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				135.12 W
	Add 1 % Water charges on "W"				1.35
	TOTAL				136.47 X
	Add GST on "X" (multiplying factor 0.1405)				19.17
	TOTAL				155.64 Y
	Add 15% CPOH on "Y"				23.35
	TOTAL				178.99 Z
	Add Cess @ 1% on "Z"				1.79
	Cost of 1 no.				180.78
	Say				180.80

18.56.2 15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7410	PTMT pillar cock (fancy) 15 mm foam flow.	each	1.00	125.00	125.00
9988	Carriage of materials and fixing charges	L.S.	9.49	2.12	20.12
	TOTAL				145.12 W
	Add 1 % Water charges on "W"				1.45
	TOTAL				146.57 X
	Add GST on "X" (multiplying factor 0.1405)				20.59
	TOTAL				167.16 Y
	Add 15% CPOH on "Y"				25.07
	TOTAL				192.24 Z
	Add Cess @ 1% on "Z"				1.92
	Cost of 1 no.				194.16
	Say				194.15

18.57 Providing and fixing PTMT, push cock of approved quality and colour.

18.57.1 15 mm nominal bore, 98 mm long, weighing not less than 75 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7407	PTMT push cock 15 mm dia.	each	1.00	55.00	55.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				72.09 W
	Add 1 % Water charges on "W"				0.72
	TOTAL				72.81 X
	Add GST on "X" (multiplying factor 0.1405)				10.23
	TOTAL				83.04 Y
	Add 15% CPOH on "Y"				12.46
	TOTAL				95.49 Z
	Add Cess @ 1% on "Z"				0.95
	Cost of 1 no.				96.45
	Say				96.45

18.57.2 15 mm nominal bore, 80 mm long, weighing not less than 46 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7408	PTMT push cock 12 mm dia. 20 mm BSP	each	1.00	45.00	45.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				62.09 W
	Add 1 % Water charges on "W"				0.62
	TOTAL				62.71 X
	Add GST on "X" (multiplying factor 0.1405)				8.81
	TOTAL				71.52 Y
	Add 15% CPOH on "Y"				10.73
	TOTAL				82.25 Z
	Add Cess @ 1% on "Z"				0.82
	Cost of 1 no.				83.07
	Say				83.05

18.58 Providing and fixing PTMT grating of approved quality and colour.

18.58.1 Circular type

18.58.1.1 100 mm nominal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7409	PTMT grating 100 mm dia.	each	1.00	16.00	16.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				24.82 W
	Add 1 % Water charges on "W"				0.25
	TOTAL				25.07 X
	Add GST on "X" (multiplying factor 0.1405)				3.52
	TOTAL				28.59 Y
	Add 15% CPOH on "Y"				4.29
	TOTAL				32.88 Z
	Add Cess @ 1% on "Z"				0.33
	Cost of 1 no.				33.21
	Say				33.20

18.58.1.2 125 mm nominal dia with 25 mm waste hole

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7411	125 mm grating withwaste hole	each	1.00	25.00	25.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				33.82 W
	Add 1 % Water charges on "W"				0.34
	TOTAL				34.16 X
	Add GST on "X" (multiplying factor 0.1405)				4.80
	TOTAL				38.96 Y
	Add 15% CPOH on "Y"				5.84
	TOTAL				44.80 Z
	Add Cess @ 1% on "Z"				0.45
	Cost of 1 no.				45.25
	Say				45.25

18.58.2 Rectangular type with openable circular lid

18.58.2.1 150 mm nominal size square 100 mm diameter of the inner hinged round grating

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
7412	Rectangular type with openable circular lid 150 mm size 18 mm high with 100 mm dia. (110 gm)	each	1.00	118.00	118.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.12	8.82
	TOTAL				126.82 W
	Add 1 % Water charges on "W"				1.27
	TOTAL				128.09 X
	Add GST on "X" (multiplying factor 0.1405)				18.00
	TOTAL				146.08 Y
	Add 15% CPOH on "Y"				21.91
	TOTAL				168.00 Z
	Add Cess @ 1% on "Z"				1.68
	Cost of 1 no.				169.68
	Say				169.70

18.59 Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :

18.59.1 50 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 no. double acting air valves				
	MATERIAL				
7415	Double acting air valve 50 mm	each	10.00	3715.00	37150.00
9977	Carriage of air valves	L.S.	26.00	2.12	55.12
9999	Labour for laying double acting air valve	L.S.	39.00	2.12	82.68
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply)	each	10.00	182.85	1828.50 A
	TOTAL				39116.30 W
	Add 1 % Water charges on "W-A"				372.88
	TOTAL				39489.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				5291.33
	TOTAL				44780.50 Y
	Add 15% CPOH on "Y-A"				6442.80
	TOTAL				51223.30 Z
	Add Cess @ 1% on "Z-A"				493.95
	Cost of 10 air valves				51717.25
	Cost of 1 air valve				5171.73
	Say				5171.75

18.59.2 80 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 no. double acting air valves				
	MATERIAL				
7416	Double acting air valve 80 mm	each	10.00	4525.00	45250.00
9977	Carriage of air valves	L.S.	26.00	2.12	55.12
9999	Labour for laying double acting air valve	L.S.	39.00	2.12	82.68
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply)	each	10.00	182.85	1828.50 A
	TOTAL				47216.30 W
	Add 1 % Water charges on "W-A"				453.88
	TOTAL				47670.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				6440.76
	TOTAL				54110.93 Y
	Add 15% CPOH on "Y-A"				7842.37
	TOTAL				61953.30 Z
	Add Cess @ 1% on "Z-A"				601.25
	Cost of 10 air valves				62554.55
	Cost of 1 air valve				6255.45
	Say				6255.45

18.59.3 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 no. double acting air valves				
	MATERIAL				
7417	Double acting air valve 100 mm	each	10.00	5910.00	59100.00
9977	Carriage of air valves	L.S.	26.00	2.12	55.12
9999	Labour for laying double acting air valve	L.S.	52.00	2.12	110.24
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.2	(Rate as per item No.18.30.2 Of SH:Water Supply)	each	10.00	284.75	2847.50 A
	TOTAL				62112.86 W
	Add 1 % Water charges on "W-A"				592.65
	TOTAL				62705.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				8410.05
	TOTAL				71115.56 Y
	Add 15% CPOH on "Y-A"				10240.21
	TOTAL				81355.77 Z
	Add Cess @ 1% on "Z-A"				785.08
	Cost of 10 air valves				82140.86
	Cost of 1 air valve				8214.09
	Say				8214.10

18.60 Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately) :

18.60.1 80 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no. water meter				
	MATERIAL				
7418	Water meter (including testing charges) 80 mm	each	1.00	2030.00	2030.00
9977	Carriage of water meter	L.S.	26.00	2.12	55.12
9999	Labour for laying water meter	L.S.	39.00	2.12	82.68
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply)	each	2.00	182.85	365.70 A
	TOTAL				2533.50 W
	Add 1 % Water charges on "W-A"				21.68
	TOTAL				2555.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				307.62
	TOTAL				2862.80 Y
	Add 15% CPOH on "Y-A"				374.56
	TOTAL				3237.36 Z
	Add Cess @ 1% on "Z-A"				28.72
	Cost of 1 water meter				3266.08
	Say				3266.10

18.60.2 100 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no. water meter				
	MATERIAL				
7419	Water meter (including testing charges)				
	100 mm	each	1.00	3143.00	3143.00
9977	Carriage of water meter	L.S.	26.00	2.12	55.12
9999	Labour for laying water meter	L.S.	52.00	2.12	110.24
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.2	(Rate as per item No.18.30.2)	each	2.00	284.75	569.50 A
	TOTAL				3877.86 W
	Add 1 % Water charges on "W-A"				33.08
	TOTAL				3910.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				469.47
	TOTAL				4380.42 Y
	Add 15% CPOH on "Y-A"				571.64
	TOTAL				4952.05 Z
	Add Cess @ 1% on "Z-A"				43.83
	Cost of 1 water meter				4995.88
	Say				4995.90

18.60.3 150 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no. water meter				
	MATERIAL				
7420	Water meter (including testing charges)				
	150 mm	each	1.00	4765.00	4765.00
9977	Carriage of water meter	L.S.	39.00	2.12	82.68
9999	Labour for laying water meter	L.S.	65.00	2.12	137.80
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply)	each	2.00	343.55	687.10 A
	TOTAL				5672.58 W
	Add 1 % Water charges on "W-A"				49.85
	TOTAL				5722.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				707.46
	TOTAL				6429.90 Y
	Add 15% CPOH on "Y-A"				861.42
	TOTAL				7291.32 Z
	Add Cess @ 1% on "Z-A"				66.04
	Cost of 1 water meter				7357.36
	Say				7357.35

18.60.4 200 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no. water meter				
	MATERIAL				
7421	Water meter (including testing charges)				
	200 mm	each	1.00	5145.00	5145.00
9977	Carriage of water meter	L.S.	52.00	2.12	110.24
9999	Labour for laying water meter	L.S.	104.00	2.12	220.48
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.5	(Rate as per item no 20.47.5 of				
	SH : Water Supply)	each	2.00	377.00	754.00 A
	TOTAL				6229.72 W
	Add 1 % Water charges on "W-A"				54.76
	TOTAL				6284.48 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				777.03
	TOTAL				7061.51 Y
	Add 15% CPOH on "Y-A"				946.13
	TOTAL				8007.64 Z
	Add Cess @ 1% on "Z-A"				72.54
	Cost of 1 water meter				8080.17
	Say				8080.15

18.61 Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS : 2373 :

18.61.1 80 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for on no. dirt box strainer				
	MATERIAL				
7422	Dirt box srainer 80 mm	each	1.00	2680.00	2680.00
9977	Carriage of dirt box strainer	L.S.	26.00	2.12	55.12
9999	Labour for laying dirt box strainer	L.S.	39.00	2.12	82.68
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.1	(Rate as per item no 18.30.1 of				
	SH : Water Supply)	each	2.00	182.85	365.70 A
	TOTAL				3183.50 W
	Add 1 % Water charges on "W-A"				28.18
	TOTAL				3211.68 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				399.86
	TOTAL				3611.54 Y
	Add 15% CPOH on "Y-A"				486.88
	TOTAL				4098.41 Z
	Add Cess @ 1% on "Z-A"				37.33
	Cost of 1 dirt box stainer				4135.74
	Say				4135.75

18.61.2 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no. dirt box stainer				
	MATERIAL				
7423	Dirt box srainer 100 mm	each	1.00	4370.00	4370.00
9977	Carriage of dirt box strainer	L.S.	26.00	2.12	55.12
9999	Labour for laying dirt box strainer	L.S.	52.00	2.12	110.24
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.2	(Rate as per item No.18.30.2 Of SH:Water Supply)	each	2.00	284.75	569.50 A
	TOTAL				5104.86 W
	Add 1 % Water charges on "W-A"				45.35
	TOTAL				5150.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				643.59
	TOTAL				5793.80 Y
	Add 15% CPOH on "Y-A"				783.65
	TOTAL				6577.45 Z
	Add Cess @ 1% on "Z-A"				60.08
	Cost of 1 dirt box stainer				6637.53
	Say				6637.55

18.61.3 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no. dirt box stainer				
	MATERIAL				
7424	Dirt box srainer 150 mm	each	1.00	5540.00	5540.00
9977	Carriage of dirt box strainer	L.S.	39.00	2.12	82.68
9999	Labour for laying dirt box strainer	L.S.	65.00	2.12	137.80
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.4	(Rate as per item No.18.30.4 Of SH:Water Supply)	each	2.00	343.55	687.10 A
	TOTAL				6447.58 W
	Add 1 % Water charges on "W-A"				57.60
	TOTAL				6505.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				817.44
	TOTAL				7322.63 Y
	Add 15% CPOH on "Y-A"				995.33
	TOTAL				8317.95 Z
	Add Cess @ 1% on "Z-A"				76.31
	Cost for 1 dirt box stainer				8394.26
	Say				8394.25

18.61.4 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no. dirt box stainer				
	MATERIAL				
7425	Dirt box srainer 200 mm	each	1.00	7860.00	7860.00
9977	Carriage of dirt box strainer	L.S.	52.00	2.12	110.24
9999	Labour for laying dirt box strainer	L.S.	104.00	2.12	220.48
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				
18.30.5	(Rate as per item no 20.47.5 of SH : Water Supply)	each	2.00	377.00	754.00 A
	TOTAL				8944.72 W
	Add 1 % Water charges on "W-A"				81.91
	TOTAL				9026.63 X
	Add GST on "X-A" (multiplying factor 0.1405)				1162.30
	TOTAL				10188.93 Y
	Add 15% CPOH on "Y-A"				1415.24
	TOTAL				11604.17 Z
	Add Cess @ 1% on "Z-A"				108.50
	Cost for 10 dirt box stainer				11712.67
	Say				11712.65

18.62 Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.

18.62.1 15 mm nominal bore, 105 mm long, weighing not less than 138 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7495	PTMT Ball Cock 15mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	75.00	75.00
9988	Carriage of materials and fixing charges	L.S.	21.58	2.12	45.75
	TOTAL				120.75 W
	Add 1 % Water charges on "W"				1.21
	TOTAL				121.96 X
	Add GST on "X" (multiplying factor 0.1405)				17.13
	TOTAL				139.09 Y
	Add 15% CPOH on "Y"				20.86
	TOTAL				159.96 Z
	Add Cess @ 1% on "Z"				1.60
	Cost of one no.				161.56
	Say				161.55

18.62.2 20 mm nominal bore, 120 mm long, weighing not less than 198 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7496	PTMT Ball Cock 20mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	110.00	110.00
9988	Carriage of materials and fixing charges	L.S.	26.91	2.12	57.05
	TOTAL				167.05 W
	Add 1 % Water charges on "W"				1.67
	TOTAL				168.72 X
	Add GST on "X" (multiplying factor 0.1405)				23.71
	TOTAL				192.42 Y
	Add 15% CPOH on "Y"				28.86
	TOTAL				221.29 Z
	Add Cess @ 1% on "Z"				2.21
	Cost of one no.				223.50
	Say				223.50

18.62.3 25 mm nominal bore, 152mm long, weighing not less than 440 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7497	PTMT Ball Cock 25mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	275.00	275.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				343.35 W
	Add 1 % Water charges on "W"				3.43
	TOTAL				346.78 X
	Add GST on "X" (multiplying factor 0.1405)				48.72
	TOTAL				395.51 Y
	Add 15% CPOH on "Y"				59.33
	TOTAL				454.83 Z
	Add Cess @ 1% on "Z"				4.55
	Cost of one no.				459.38
	Say				459.40

18.62.4 40 mm nominal bore, 206mm long, weighing not less than 690 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7498	PTMT Ball Cock 40mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	420.00	420.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				488.35 W
	Add 1 % Water charges on "W"				4.88
	TOTAL				493.23 X
	Add GST on "X" (multiplying factor 0.1405)				69.30
	TOTAL				562.53 Y
	Add 15% CPOH on "Y"				84.38
	TOTAL				646.91 Z
	Add Cess @ 1% on "Z"				6.47
	Cost of one no.				653.38
	Say				653.40

18.62.5 50 mm nominal bore, 242mm long, weighing not less than 1240 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7499	PTMT Ball Cock 50mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	820.00	820.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.12	68.35
	TOTAL				888.35 W
	Add 1 % Water charges on "W"				8.88
	TOTAL				897.23 X
	Add GST on "X" (multiplying factor 0.1405)				126.06
	TOTAL				1023.29 Y
	Add 15% CPOH on "Y"				153.49
	TOTAL				1176.79 Z
	Add Cess @ 1% on "Z"				11.77
	Cost of one no.				1188.56
	Say				1188.55

18.63 Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7500	PTMT Angle Stop cock with Flenge 15mm	each	1.00	85.00	85.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				102.09 W
	Add 1 % Water charges on "W"				1.02
	TOTAL				103.11 X
	Add GST on "X" (multiplying factor 0.1405)				14.49
	TOTAL				117.59 Y
	Add 15% CPOH on "Y"				17.64
	TOTAL				135.23 Z
	Add Cess @ 1% on "Z"				1.35
	Cost of one no.				136.59
	Say				136.60

18.64 Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7501	PTMT Swiveling shower 15mm	each	1.00	65.00	65.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				79.33 W
	Add 1 % Water charges on "W"				0.79
	TOTAL				80.12 X
	Add GST on "X" (multiplying factor 0.1405)				11.26
	TOTAL				91.38 Y
	Add 15% CPOH on "Y"				13.71
	TOTAL				105.09 Z
	Add Cess @ 1% on "Z"				1.05
	Cost of one no.				106.14
	Say				106.15

18.65 Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no				
	MATERIAL				
7509	PTMT Soap Dish/Holder 138x102x75mm	each	1.00	58.00	58.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.12	14.33
	TOTAL				72.33 W
	Add 1 % Water charges on "W"				0.72
	TOTAL				73.05 X
	Add GST on "X" (multiplying factor 0.1405)				10.26
	TOTAL				83.32 Y
	Add 15% CPOH on "Y"				12.50
	TOTAL				95.82 Z
	Add Cess @ 1% on "Z"				0.96
	Cost of one no				96.77
	Say				96.75

18.66 Providing and laying S&S C.I. Standard specials such as tees, bends, collars tapers and caps etc, suitable for flanged jointing as per IS : 1538 :

18.66.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7708	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing upto 300mm dia	quintal	1.00	5190.00	5190.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of				
	SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				5750.57 W
	Add 1 % Water charges on "W-A"				52.05
	TOTAL				5802.62 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				738.55
	TOTAL				6541.17 Y
	Add 15% CPOH on "Y-A"				899.28
	TOTAL				7440.45 Z
	Add Cess @ 1% on "Z-A"				68.94
	Cost of 1 quintal				7509.39
	Say				7509.40

18.66.2 Above 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7709	S&S Centrifugally (Spun) C.I. Pipe				
	Specials as per IS 1538 suitable for				
	lead jointing over 300mm dia	quintal	1.00	6200.00	6200.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of				
	SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				6760.57 W
	Add 1 % Water charges on "W-A"				62.15
	TOTAL				6822.72 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				881.88
	TOTAL				7704.60 Y
	Add 15% CPOH on "Y-A"				1073.79
	TOTAL				8778.39 Z
	Add Cess @ 1% on "Z-A"				82.32
	Cost of 1 quintal				8860.71
	Say				8860.70

18.67 Providing and laying S&S C.I. Standard specials suitable for mechanical jointing as per IS : 13382 :

18.67.1 Up to 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7710	S&S Centrifugally (Spun) C.I. Pipe				
	specials suitable for mechanical joint				
	as per I.S. 13382 upto 300mm dia	quintal	1.00	8571.00	8571.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for laying				
18.24	Rate as per Item Number 18.24 of				
	SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				9131.57 W
	Add 1 % Water charges on "W-A"				85.86
	TOTAL				9217.43 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1218.34
	TOTAL				10435.76 Y
	Add 15% CPOH on "Y-A"				1483.46
	TOTAL				11919.23 Z
	Add Cess @ 1% on "Z-A"				113.73
	Cost of 1 quintal				12032.96
	Say				12032.95

18.67.2 Above 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7711	S&S Centrifugally (Spun) C.I. Pipe				
	Specials suitabe for mechanical joint				
	as per IS 13382 over 300mm dia	quintal	1.00	9048.00	9048.00
2309	Carriage of Cast iron fittings	tonne	0.10	145.72	14.57
	Labour for Laying				
18.24	Rate as per Item Number 18.24 of				
	SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				9608.57 W
	Add 1 % Water charges on "W-A"				90.63
	TOTAL				9699.20 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1286.02
	TOTAL				10985.22 Y
	Add 15% CPOH on "Y-A"				1565.88
	TOTAL				12551.11 Z
	Add Cess @ 1% on "Z-A"				120.05
	Cost of 1 quintal				12671.16
	Say				12671.15

18.68 Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523 :

18.68.1 Up to 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7682	Ductile Iron K - 12 specials suitable for				
	push on jointing upto 600 mm dia	quintal	1.00	12400.00	12400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2309	Carriage of Cast iron fittings Labour for laying	tonne	0.10	145.72	14.57
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				12960.57 W
	Add 1 % Water charges on "W-A"				124.15
	TOTAL				13084.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				1761.69
	TOTAL				14846.41 Y
	Add 15% CPOH on "Y-A"				2145.06
	TOTAL				16991.47 Z
	Add Cess @ 1% on "Z-A"				164.45
	Cost of 1 quintal				17155.92
	Say				17155.90

18.68.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7683	Ductile Iron K - 12 specials suitable for push on jointing over 600mm dia	quintal	1.00	17200.00	17200.00
2309	Carriage of Cast iron fittings Labour for laying	tonne	0.10	145.72	14.57
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				17760.57 W
	Add 1 % Water charges on "W-A"				172.15
	TOTAL				17932.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				2442.83
	TOTAL				20375.55 Y
	Add 15% CPOH on "Y-A"				2974.43
	TOTAL				23349.98 Z
	Add Cess @ 1% on "Z-A"				228.04
	Cost of 1 quintal				23578.02
	Say				23578.00

18.69 Providing and laying D.I. Specials of Class K - 12 suitable for mechanical jointing as per IS : 9523 :

18.69.1 Up to 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7684	Ductile Iron specials suitable for mechanical jointing as per I.S. 9523 - upto 600mm dia	quintal	1.00	13050.00	13050.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2309	Carriage of Cast iron fittings Labour for laying	tonne	0.10	145.72	14.57
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				13610.57 W
	Add 1 % Water charges on "W-A"				130.65
	TOTAL				13741.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				1853.93
	TOTAL				15595.15 Y
	Add 15% CPOH on "Y-A"				2257.37
	TOTAL				17852.52 Z
	Add Cess @ 1% on "Z-A"				173.07
	Cost of 1 quintal				18025.58
	Say				18025.60

18.69.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 quintal				
	MATERIAL				
7685	Ductile Iron Specials suitable for mechancial jointing as per I.S. 9523 over 600mm dia	quintal	1.00	18750.00	18750.00
2309	Carriage of Cast iron fittings Labour for laying	tonne	0.10	145.72	14.57
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	546.00	546.00 A
	TOTAL				19310.57 W
	Add 1 % Water charges on "W-A"				187.65
	TOTAL				19498.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				2662.79
	TOTAL				22161.00 Y
	Add 15% CPOH on "Y-A"				3242.25
	TOTAL				25403.25 Z
	Add Cess @ 1% on "Z-A"				248.57
	Cost of 1 quintal				25651.83
	Say				25651.85

18.70 Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket :

18.70.1 100 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7666	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 100mm dia	each	50.00	29.00	1450.00
	Labour				
0116	Fitter (grade 1)	day	1.00	784.00	784.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0117	Assistant Fitter or 2nd class Fitter	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				3593.00 W
	Add 1 % Water charges on "W"				35.93
	TOTAL				3628.93 X
	Add GST on "X" (multiplying factor 0.1405)				509.86
	TOTAL				4138.79 Y
	Add 15% CPOH on "Y"				620.82
	TOTAL				4759.61 Z
	Add Cess @ 1% on "Z"				47.60
	Cost of 50 joints				4807.21
	Cost of 1 joint				96.14
	Say				96.15

18.70.2 150 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7668	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 150mm dia	each	50.00	33.00	1650.00
	Labour				
0116	Fitter (grade 1)	day	1.50	784.00	1176.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				5832.00 W
	Add 1 % Water charges on "W"				58.32
	TOTAL				5890.32 X
	Add GST on "X" (multiplying factor 0.1405)				827.59
	TOTAL				6717.91 Y
	Add 15% CPOH on "Y"				1007.69
	TOTAL				7725.60 Z
	Add Cess @ 1% on "Z"				77.26
	Cost of 50 joints				7802.85
	Cost of 1 joint				156.06
	Say				156.05

18.70.3 200 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7669	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 200mm dia	each	50.00	60.00	3000.00
	LABOUR				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0117	Assistant Fitter or 2nd class Fitter	day	2.00	714.00	1428.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				8576.00 W
	Add 1 % Water charges on "W"				85.76
	TOTAL				8661.76 X
	Add GST on "X" (multiplying factor 0.1405)				1216.98
	TOTAL				9878.74 Y
	Add 15% CPOH on "Y"				1481.81
	TOTAL				11360.55 Z
	Add Cess @ 1% on "Z"				113.61
	Cost of 50 joints				11474.15
	Cost of 1 joint				229.48
	Say				229.50

18.70.4 250 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7670	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 250mm dia	each	50.00	70.00	3500.00
	LABOUR				
0116	Fitter (grade 1)	day	2.50	784.00	1960.00
0117	Assistant Fitter or 2nd class Fitter	day	2.50	714.00	1785.00
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				10470.00 W
	Add 1 % Water charges on "W"				104.70
	TOTAL				10574.70 X
	Add GST on "X" (multiplying factor 0.1405)				1485.75
	TOTAL				12060.45 Y
	Add 15% CPOH on "Y"				1809.07
	TOTAL				13869.51 Z
	Add Cess @ 1% on "Z"				138.70
	Cost of 50 joints				14008.21
	Cost of 1 joint				280.16
	Say				280.15

18.70.5 300 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7671	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 300mm dia	each	50.00	100.00	5000.00
	LABOUR				
0116	Fitter (grade 1)	day	3.00	784.00	2352.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	714.00	2142.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				13364.00 W
	Add 1 % Water charges on "W"				133.64
	TOTAL				13497.64 X
	Add GST on "X" (multiplying factor 0.1405)				1896.42
	TOTAL				15394.06 Y
	Add 15% CPOH on "Y"				2309.11
	TOTAL				17703.17 Z
	Add Cess @ 1% on "Z"				177.03
	Cost of 50 joints				17880.20
	Cost of 1 joint				357.60
	Say				357.60

18.70.6 350 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7672	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 350mm dia	each	50.00	116.00	5800.00
	LABOUR				
0116	Fitter (grade 1)	day	3.50	784.00	2744.00
0117	Assistant Fitter or 2nd class Fitter	day	3.50	714.00	2499.00
0114	Beldar	day	7.00	645.00	4515.00
	TOTAL				15558.00 W
	Add 1 % Water charges on "W"				155.58
	TOTAL				15713.58 X
	Add GST on "X" (multiplying factor 0.1405)				2207.76
	TOTAL				17921.34 Y
	Add 15% CPOH on "Y"				2688.20
	TOTAL				20609.54 Z
	Add Cess @ 1% on "Z"				206.10
	Cost of 50 joints				20815.63
	Cost of 1 joint				416.31
	Say				416.30

18.70.7 400 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7673	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 400mm dia	each	50.00	210.00	10500.00
	LABOUR				
0116	Fitter (grade 1)	day	4.00	784.00	3136.00
0117	Assistant Fitter or 2nd class Fitter	day	4.00	714.00	2856.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	8.00	645.00	5160.00
	TOTAL				21652.00 W
	Add 1 % Water charges on "W"				216.52
	TOTAL				21868.52 X
	Add GST on "X" (multiplying factor 0.1405)				3072.53
	TOTAL				24941.05 Y
	Add 15% CPOH on "Y"				3741.16
	TOTAL				28682.20 Z
	Add Cess @ 1% on "Z"				286.82
	Cost of 50 joints				28969.03
	Cost of 1 joint				579.38
	Say				579.40

18.70.8 450 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7674	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 450mm dia	each	50.00	250.00	12500.00
	LABOUR				
0116	Fitter (grade 1)	day	4.50	784.00	3528.00
0117	Assistant Fitter or 2nd class Fitter	day	4.50	714.00	3213.00
0114	Beldar	day	9.00	645.00	5805.00
	TOTAL				25046.00 W
	Add 1 % Water charges on "W"				250.46
	TOTAL				25296.46 X
	Add GST on "X" (multiplying factor 0.1405)				3554.15
	TOTAL				28850.61 Y
	Add 15% CPOH on "Y"				4327.59
	TOTAL				33178.20 Z
	Add Cess @ 1% on "Z"				331.78
	Cost of 50 joints				33509.99
	Cost of 1 joint				670.20
	Say				670.20

18.70.9 500 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7675	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 500mm dia	each	50.00	270.00	13500.00
	LABOUR				
0116	Fitter (grade 1)	day	4.75	784.00	3724.00
0117	Assistant Fitter or 2nd class Fitter	day	4.75	714.00	3391.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	9.50	645.00	6127.50
	TOTAL				26743.00 W
	Add 1 % Water charges on "W"				267.43
	TOTAL				27010.43 X
	Add GST on "X" (multiplying factor 0.1405)				3794.97
	TOTAL				30805.40 Y
	Add 15% CPOH on "Y"				4620.81
	TOTAL				35426.20 Z
	Add Cess @ 1% on "Z"				354.26
	Cost of 50 joints				35780.47
	Cost of 1 joint				715.61
	Say				715.60

18.70.10 600 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7676	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 600mm dia	each	50.00	356.00	17800.00
	LABOUR				
0116	Fitter (grade 1)	day	6.50	784.00	5096.00
0117	Assistant Fitter or 2nd class Fitter	day	6.50	714.00	4641.00
0114	Beldar	day	13.00	645.00	8385.00
	TOTAL				35922.00 W
	Add 1 % Water charges on "W"				359.22
	TOTAL				36281.22 X
	Add GST on "X" (multiplying factor 0.1405)				5097.51
	TOTAL				41378.73 Y
	Add 15% CPOH on "Y"				6206.81
	TOTAL				47585.54 Z
	Add Cess @ 1% on "Z"				475.86
	Cost of 50 joints				48061.40
	Cost of 1 joint				961.23
	Say				961.25

18.70.11 700 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7677	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 700mm dia	each	50.00	510.00	25500.00
	LABOUR				
0116	Fitter (grade 1)	day	7.70	784.00	6036.80
0117	Assistant Fitter or 2nd class Fitter	day	7.70	714.00	5497.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	15.40	645.00	9933.00
	TOTAL				46967.60 W
	Add 1 % Water charges on "W"				469.68
	TOTAL				47437.28 X
	Add GST on "X" (multiplying factor 0.1405)				6664.94
	TOTAL				54102.21 Y
	Add 15% CPOH on "Y"				8115.33
	TOTAL				62217.55 Z
	Add Cess @ 1% on "Z"				622.18
	Cost of 50 joints				62839.72
	Cost of 1 joint				1256.79
	Say				1256.80

18.70.12 750 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7678	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 750mm dia	each	50.00	600.00	30000.00
	LABOUR				
0116	Fitter (grade 1)	day	7.70	784.00	6036.80
0117	Assistant Fitter or 2nd class Fitter	day	7.70	714.00	5497.80
0114	Beldar	day	15.40	645.00	9933.00
	TOTAL				51467.60 W
	Add 1 % Water charges on "W"				514.68
	TOTAL				51982.28 X
	Add GST on "X" (multiplying factor 0.1405)				7303.51
	TOTAL				59285.79 Y
	Add 15% CPOH on "Y"				8892.87
	TOTAL				68178.65 Z
	Add Cess @ 1% on "Z"				681.79
	Cost of 50 joints				68860.44
	Cost of 1 joint				1377.21
	Say				1377.20

18.70.13 800 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7679	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 800mm dia	each	50.00	705.00	35250.00
	LABOUR				
0116	Fitter (grade 1)	day	8.50	784.00	6664.00
0117	Assistant Fitter or 2nd class Fitter	day	8.50	714.00	6069.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	17.00	645.00	10965.00
	TOTAL				58948.00 W
	Add 1 % Water charges on "W"				589.48
	TOTAL				59537.48 X
	Add GST on "X" (multiplying factor 0.1405)				8365.02
	TOTAL				67902.50 Y
	Add 15% CPOH on "Y"				10185.37
	TOTAL				78087.87 Z
	Add Cess @ 1% on "Z"				780.88
	Cost of 50 joints				78868.75
	Cost of 1 joint				1577.37
	Say				1577.35

18.70.14 900 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7680	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 900mm dia	each	50.00	910.00	45500.00
	LABOUR				
0116	Fitter (grade 1)	day	10.00	784.00	7840.00
0117	Assistant Fitter or 2nd class Fitter	day	10.00	714.00	7140.00
0114	Beldar	day	20.00	645.00	12900.00
	TOTAL				73380.00 W
	Add 1 % Water charges on "W"				733.80
	TOTAL				74113.80 X
	Add GST on "X" (multiplying factor 0.1405)				10412.99
	TOTAL				84526.79 Y
	Add 15% CPOH on "Y"				12679.02
	TOTAL				97205.81 Z
	Add Cess @ 1% on "Z"				972.06
	Cost of 50 joints				98177.87
	Cost of 1 joint				1963.56
	Say				1963.55

18.70.15 1000 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 50 Joints				
	MATERIAL				
7681	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 1000mm dia	each	50.00	1080.00	54000.00
	LABOUR				
0116	Fitter (grade 1)	day	11.00	784.00	8624.00
0117	Assistant Fitter or 2nd class Fitter	day	11.00	714.00	7854.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	22.00	645.00	14190.00
	TOTAL				84668.00 W
	Add 1 % Water charges on "W"				846.68
	TOTAL				85514.68 X
	Add GST on "X" (multiplying factor 0.1405)				12014.81
	TOTAL				97529.49 Y
	Add 15% CPOH on "Y"				14629.42
	TOTAL				112158.92 Z
	Add Cess @ 1% on "Z"				1121.59
	Cost of 50 joints				113280.51
	Cost of 1 joint				2265.61
	Say				2265.60

18.71 Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536) :

18.71.1 100 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	100 mm dia. cast iron pipes double flanged = 27.00 Kg				
	Weight of 5 m pipes 27.00x5 = 135.00 Kg				
7712	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 100mm dia	metre	5.00	1310.00	6550.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.05	358.32	17.92
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.35	298.50	402.98 A
	TOTAL				6970.89 W
	Add 1 % Water charges on "W-A"				65.68
	TOTAL				7036.57 X
	Add GST on "X-A" (multiplying factor 0.1405)				932.02
	TOTAL				7968.59 Y
	Add 15% CPOH on "Y-A"				1134.84
	TOTAL				9103.43 Z
	Add Cess @ 1% on "Z-A"				87.00
	Cost of 5 metre				9190.44
	Cost of metre				1838.09
	Say				1838.10

18.71.2 150 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	150 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 44.10 Kg				
	Weight of 5 m pipes = 44.10x5 = 220.50 Kg				
7713	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B				
	conforming to I.S. 1536, - 150mm dia	metre	5.00	2048.00	10240.00
2321	Carriage of Spun iron S & S pipes				
	150 mm dia	100 metre	0.05	597.20	29.86
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	2.21	298.50	659.69 A
	TOTAL				10929.55 W
	Add 1 % Water charges on "W-A"				102.70
	TOTAL				11032.24 X
	Add GST on "X-A" (multiplying factor 0.1405)				1457.34
	TOTAL				12489.59 Y
	Add 15% CPOH on "Y-A"				1774.49
	TOTAL				14264.07 Z
	Add Cess @ 1% on "Z-A"				136.04
	Cost of 5 metre				14400.12
	Cost per metre				2880.02
	Say				2880.00

18.71.3 200 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	200 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 63.50 Kg				
	Weight of 5 m pipes 63.50x5 = 317.50 Kg				
7714	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B				
	conforming to I.S. 1536, - 200mm dia	metre	5.00	3238.00	16190.00
2322	Carriage of Spun iron S & S pipes				
	200 mm dia	100 metre	0.05	971.45	48.57
	Labour for laying				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.18	298.50	949.23 A
	TOTAL				17187.80 W
	Add 1 % Water charges on "W-A"				162.39
	TOTAL				17350.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				2304.33
	TOTAL				19654.52 Y
	Add 15% CPOH on "Y-A"				2805.79
	TOTAL				22460.32 Z
	Add Cess @ 1% on "Z-A"				215.11
	Cost of 5 metre				22675.43
	Cost per metre				4535.09
	Say				4535.10

18.71.4 250 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	250 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 85.30 Kg				
	Weight of 5 m pipes 85.30x5 = 426.50 Kg				
7715	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 250mm dia	metre	5.00	3905.00	19525.00
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.05	1380.48	69.02
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.27	298.50	1274.60 A
	TOTAL				20868.62 W
	Add 1 % Water charges on "W-A"				195.94
	TOTAL				21064.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				2780.49
	TOTAL				23845.05 Y
	Add 15% CPOH on "Y-A"				3385.57
	TOTAL				27230.62 Z
	Add Cess @ 1% on "Z-A"				259.56
	Cost of 5 metre				27490.18
	Cost per metre				5498.04
	Say				5498.05

18.71.5 300 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	300 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 110.00 Kg				
	Weight of 5 m pipes 110.00x5 = 550.00 Kg				
7716	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 300mm dia	metre	5.00	4990.00	24950.00
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.05	1706.30	85.32
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	5.50	298.50	1641.75 A
	TOTAL				26677.07 W
	Add 1 % Water charges on "W-A"				250.35
	TOTAL				26927.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				3552.64
	TOTAL				30480.05 Y
	Add 15% CPOH on "Y-A"				4325.75
	TOTAL				34805.80 Z
	Add Cess @ 1% on "Z-A"				331.64
	Cost of 5 metre				35137.44
	Cost per metre				7027.49
	Say				7027.50

18.71.6 350 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	350 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 135.70 Kg				
	Weight of 5 m pipes 135.70x5 = 678.50 Kg				
7717	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 350mm dia	metre	5.00	6286.00	31430.00
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.05	2388.82	119.44
	Labour for laying				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.79	298.50	2026.82 A
	TOTAL				33576.26 W
	Add 1 % Water charges on "W-A"				315.49
	TOTAL				33891.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				4477.02
	TOTAL				38368.77 Y
	Add 15% CPOH on "Y-A"				5451.29
	TOTAL				43820.07 Z
	Add Cess @ 1% on "Z-A"				417.93
	Cost of 5 metre				44238.00
	Cost per metre				8847.60
	Say				8847.60

18.71.7 400 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	400 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 166.80 Kg				
	Weight of 5 m pipes 166.80x5 = 834.00 Kg				
7718	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 400mm dia	metre	5.00	8143.00	40715.00
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.05	3257.48	162.87
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	8.34	298.50	2489.49 A
	TOTAL				43367.36 W
	Add 1 % Water charges on "W-A"				408.78
	TOTAL				43776.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				5800.77
	TOTAL				49576.92 Y
	Add 15% CPOH on "Y-A"				7063.11
	TOTAL				56640.03 Z
	Add Cess @ 1% on "Z-A"				541.51
	Cost of 5 metre				57181.54
	Cost per metre				11436.31
	Say				11436.30

18.71.8 450 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	450 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 201.60 Kg				
	Weight of 5 m pipes 201.60x5 = 1008.00 Kg				
7719	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 450mm dia	metre	5.00	10381.00	51905.00
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.08	298.50	3008.88 A
	TOTAL				55112.95 W
	Add 1 % Water charges on "W-A"				521.04
	TOTAL				55633.99 X
	Add GST on "X-A" (multiplying factor 0.1405)				7393.83
	TOTAL				63027.82 Y
	Add 15% CPOH on "Y-A"				9002.84
	TOTAL				72030.66 Z
	Add Cess @ 1% on "Z-A"				690.22
	Cost of 5 metre				72720.87
	Cost per metre				14544.17
	Say				14544.15

18.71.9 500 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	500 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 234.80 Kg				
	Weight of 5 m pipes 234.80x5 = 1174.00 Kg				
7720	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 500mm dia	metre	5.00	12914.00	64570.00
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	11.74	298.50	3504.39 A
	TOTAL				68273.46 W
	Add 1 % Water charges on "W-A"				647.69
	TOTAL				68921.15 X
	Add GST on "X-A" (multiplying factor 0.1405)				9191.05
	TOTAL				78112.20 Y
	Add 15% CPOH on "Y-A"				11191.17
	TOTAL				89303.38 Z
	Add Cess @ 1% on "Z-A"				857.99
	Cost of 5 metre				90161.37
	Cost per metre				18032.27
	Say				18032.25

18.71.10 600 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	600 mm dia. cast iron pipes double flanged				
	Weight of 1 m pipes = 315.30 Kg				
	Weight of 5 m pipes 315.30x5 = 1576.50 Kg				
7721	Screwed double flanged centrigually cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 600mm dia	metre	5.00	17905.00	89525.00
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.05	5972.04	298.60
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	15.77	298.50	4707.35 A
	TOTAL				94530.95 W
	Add 1 % Water charges on "W-A"				898.24
	TOTAL				95429.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				12746.42
	TOTAL				108175.60 Y
	Add 15% CPOH on "Y-A"				15520.24
	TOTAL				123695.84 Z
	Add Cess @ 1% on "Z-A"				1189.88
	Cost of 5 metre				124885.72
	Cost per metre				24977.14
	Say				24977.15

18.72 Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :

18.72.1 100 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	100mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 15.39 Kg				
	Weight of 10m pipes 15.39x10 = 153.90 Kg				
7722	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 100mm dia	metre	10.00	800.00	8000.00
2343	Carriage of ductile iron pipes (k7) 100 mm dia	100 metre	0.10	358.32	35.83

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.54	298.50	459.69 A
	TOTAL				8495.52 W
	Add 1 % Water charges on "W-A"				80.36
	TOTAL				8575.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				1140.32
	TOTAL				9716.21 Y
	Add 15% CPOH on "Y-A"				1388.48
	TOTAL				11104.68 Z
	Add Cess @ 1% on "Z-A"				106.45
	Cost of 10 metre				11211.13
	Cost per metre				1121.11
	Say				1121.10

18.72.2 150 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	150 mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 22.750 Kg				
	Weight of 10m pipes 22.750x10 = 227.50 Kg				
7723	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 150mm dia	metre	10.00	1140.00	11400.00
2344	Carriage of cast iron pipes 150 mm dia	100 metre	0.10	597.20	59.72
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.28	298.50	680.58 A
	TOTAL				12140.30 W
	Add 1 % Water charges on "W-A"				114.60
	TOTAL				12254.90 X
	Add GST on "X-A" (multiplying factor 0.1405)				1626.19
	TOTAL				13881.09 Y
	Add 15% CPOH on "Y-A"				1980.08
	TOTAL				15861.17 Z
	Add Cess @ 1% on "Z-A"				151.81
	Cost of 10 metre				16012.97
	Cost per metre				1601.30
	Say				1601.30

18.72.3 200 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	200 mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 30.090 Kg				
	Weight of 10m pipes 30.090x10 = 300.90 Kg				
7724	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 200mm dia	metre	10.00	1400.00	14000.00
2345	Carriage of cast iron pipes 200 mm dia Labour for laying	100 metre	0.10	971.45	97.15
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.01	298.50	898.49 A
	TOTAL				14995.63 W
	Add 1 % Water charges on "W-A"				140.97
	TOTAL				15136.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				2000.46
	TOTAL				17137.06 Y
	Add 15% CPOH on "Y-A"				2435.79
	TOTAL				19572.84 Z
	Add Cess @ 1% on "Z-A"				186.74
	Cost of 10 metre				19759.59
	Cost per metre				1975.96
	Say				1975.95

18.72.4 250 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	250mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 39.310 Kg				
	Weight of 10m pipes 39.310x10 = 393.10 Kg				
7725	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 250mm dia	metre	10.00	1800.00	18000.00
2346	Carriage of cast iron pipes 250 mm dia Labour for laying	100 metre	0.10	1380.48	138.05
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.93	298.50	1173.11 A
	TOTAL				19311.15 W
	Add 1 % Water charges on "W-A"				181.38
	TOTAL				19492.53 X
	Add GST on "X-A" (multiplying factor 0.1405)				2573.88
	TOTAL				22066.41 Y
	Add 15% CPOH on "Y-A"				3134.00
	TOTAL				25200.41 Z
	Add Cess @ 1% on "Z-A"				240.27
	Cost of 10 metre				25440.68
	Cost per metre				2544.07
	Say				2544.05

18.72.5 300 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	300mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 48.400 Kg				
	Weight of 10m pipes 48.400x10				
	= 484.00 Kg				
7726	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 300mm dia	metre	10.00	2250.00	22500.00
2347	Carriage of cast iron pipes 300 mm dia	100 metre	0.10	1706.30	170.63
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	4.84	298.50	1444.74 A
	TOTAL				24115.37 W
	Add 1 % Water charges on "W-A"				226.71
	TOTAL				24342.08 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				3217.08
	TOTAL				27559.15 Y
	Add 15% CPOH on "Y-A"				3917.16
	TOTAL				31476.31 Z
	Add Cess @ 1% on "Z-A"				300.32
	Cost of 10 metre				31776.63
	Cost per metre				3177.66
	Say				3177.65

18.72.6 350 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	350mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 66.020 Kg				
	Weight of 10m pipes 66.020x10				
	= 660.20 Kg				
7727	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 350mm dia	metre	10.00	2650.00	26500.00
2348	Carriage of cast iron pipes 350 mm dia	100 metre	0.10	2388.82	238.88
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	6.60	298.50	1970.10 A
	TOTAL				28708.98 W
	Add 1 % Water charges on "W-A"				267.39
	TOTAL				28976.37 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				3794.38
	TOTAL				32770.75 Y
	Add 15% CPOH on "Y-A"				4620.10
	TOTAL				37390.85 Z
	Add Cess @ 1% on "Z-A"				354.21
	Cost of 10 metre				37745.06
	Cost per metre				3774.51
	Say				3774.50

18.72.7 400 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	400mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 78.280 Kg				
	Weight of 10m pipes 78.280x10				
	= 782.80 Kg				
7728	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 400mm dia	metre	10.00	3175.00	31750.00
2349	Carriage of cast iron pipes 400 mm dia	100 metre	0.10	3257.48	325.75
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	7.83	298.50	2337.26 A
	TOTAL				34413.00 W
	Add 1 % Water charges on "W-A"				320.76
	TOTAL				34733.76 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				4551.71
	TOTAL				39285.47 Y
	Add 15% CPOH on "Y-A"				5542.23
	TOTAL				44827.70 Z
	Add Cess @ 1% on "Z-A"				424.90
	Cost of 10 metre				45252.61
	Cost per metre				4525.26
	Say				4525.25

18.72.8 450 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	450mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 91.410 Kg				
	Weight of 10m pipes 91.410x10				
	= 914.10 Kg				
7729	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 450mm dia	metre	10.00	3852.00	38520.00
2350	Carriage of cast iron pipes 450 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	9.14	298.50	2728.29 A
	TOTAL				41646.43 W
	Add 1 % Water charges on "W-A"				389.18
	TOTAL				42035.61 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				5522.68
	TOTAL				47558.29 Y
	Add 15% CPOH on "Y-A"				6724.50
	TOTAL				54282.78 Z
	Add Cess @ 1% on "Z-A"				515.54
	Cost of 10 metre				54798.33
	Cost per metre				5479.83
	Say				5479.85

18.72.9 500 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	500mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 106.640 Kg				
	Weight of 10m pipes 106.640x10				
	= 1066.40 Kg				
7730	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 500mm dia	metre	10.00	4350.00	43500.00
2351	Carriage of cast iron pipes 500 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	10.66	298.50	3182.01 A
	TOTAL				47080.15 W
	Add 1 % Water charges on "W-A"				438.98
	TOTAL				47519.13 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				6229.36
	TOTAL				53748.49 Y
	Add 15% CPOH on "Y-A"				7584.97
	TOTAL				61333.46 Z
	Add Cess @ 1% on "Z-A"				581.51
	Cost of 10 metre				61914.98
	Cost per metre				6191.50
	Say				6191.50

18.72.10 600 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	600mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 138.61 Kg				
	Weight of 10m pipes 138.61x10				
	= 1386.10 Kg				
7731	Ductile Iron Class K- 7 pipe conforming				
	to I.S. 8329 - 600mm dia	metre	10.00	5600.00	56000.00
2352	Carriage of cast iron pipes 600 mm dia	100 metre	0.10	5972.04	597.20
	Labour for laying				
18.23	Rate same as per item no 18.23 of				
	SH: Water Supply	quintal	13.86	298.50	4137.21 A
	TOTAL				60734.41 W
	Add 1 % Water charges on "W-A"				565.97
	TOTAL				61300.39 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				8031.43
	TOTAL				69331.81 Y
	Add 15% CPOH on "Y-A"				9779.19
	TOTAL				79111.00 Z
	Add Cess @ 1% on "Z-A"				749.74
	Cost of 10 metre				79860.74
	Cost per metre				7986.07
	Say				7986.05

18.72.11 700 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	700mm dia. cast iron pipes					
	(in 5.5 m lengths)					
	Weight of 1 m pipes = 188.92 Kg					
	Weight of 10m pipes 188.92x10					
	= 1889.20 Kg					
7732	Ductile Iron Class K- 7 pipe conforming					
	to I.S. 8329 - 700mm dia	metre	10.00	7300.00	73000.00	
2353	Carriage of cast iron pipes 700 mm dia	100 metre	0.10	5972.04	597.20	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of					
	SH: Water Supply	quintal	18.89	298.50	5638.67	A
	TOTAL				79235.87	W
	Add 1 % Water charges on "W-A"				735.97	
	TOTAL				79971.84	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				10443.81	
	TOTAL				90415.65	Y
	Add 15% CPOH on "Y-A"				12716.55	
	TOTAL				103132.20	Z
	Add Cess @ 1% on "Z-A"				974.94	
	Cost of 10 metre				104107.14	
	Cost per metre				10410.71	
	Say				10410.70	

18.72.12 800 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	800mm dia. cast iron pipes					
	(in 5.5 m lengths)					
	Weight of 1 m pipes = 243.51 Kg					
	Weight of 10m pipes 243.51x10					
	= 2435.10 Kg					
7733	Ductile Iron Class K- 7 pipe conforming					
	to I.S. 8329 - 800mm dia	metre	10.00	9100.00	91000.00	
2355	Carriage of cast iron pipes 800 mm dia	100 metre	0.10	5972.04	597.20	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of					
	SH: Water Supply	quintal	24.35	298.50	7268.48	A
	TOTAL				98865.68	W
	Add 1 % Water charges on "W-A"				915.97	
	TOTAL				99781.65	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				12998.10	
	TOTAL				112779.75	Y
	Add 15% CPOH on "Y-A"				15826.69	
	TOTAL				128606.44	Z
	Add Cess @ 1% on "Z-A"				1213.38	
	Cost of 10 metre				129819.82	
	Cost per metre				12981.98	
	Say				12982.00	

18.72.13 900 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	900 mm dia. cast iron pipes					
	(in 5.5 m lengths)					
	Weight of 1 m pipes = 282.74 Kg					
	Weight of 10m pipes 282.74x10					
	= 2827.40 Kg					
7734	Ductile Iron Class K- 7 pipe conforming					
	to I.S. 8329 - 900mm dia	metre	10.00	11800.00	118000.00	
2356	Carriage of cast iron pipes 900 mm dia	100 metre	0.10	8958.06	895.81	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of					
	SH: Water Supply	quintal	28.27	298.50	8438.60	A
	TOTAL				127334.40	W
	Add 1 % Water charges on "W-A"				1188.96	
	TOTAL				128523.36	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				16871.91	
	TOTAL				145395.27	Y
	Add 15% CPOH on "Y-A"				20543.50	
	TOTAL				165938.77	Z
	Add Cess @ 1% on "Z-A"				1575.00	
	Cost of 10 metre				167513.77	
	Cost per metre				16751.38	
	Say				16751.40	

18.72.14 1000 mm dia Ductile Iron Class K-7 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
	1000 mm dia. cast iron pipes					
	(in 5.5 m lengths)					
	Weight of 1 m pipes = 348.23 Kg					
	Weight of 10m pipes 348.23x10					
	= 3482.30 Kg					
7735	Ductile Iron Class K- 7 pipe conforming					
	to I.S. 8329 - 1000mm dia	metre	10.00	12300.00	123000.00	
2357	Carriage of cast iron pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41	
	Labour for laying					
18.23	Rate as per Item Number 18.23 of					
	SH: Water Supply	quintal	34.82	298.50	10393.77	A
	TOTAL				134588.18	W
	Add 1 % Water charges on "W-A"				1241.94	
	TOTAL				135830.12	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				17623.81	
	TOTAL				153453.93	Y
	Add 15% CPOH on "Y-A"				21459.02	
	TOTAL				174912.95	Z
	Add Cess @ 1% on "Z-A"				1645.19	
	Cost of 10 metre				176558.15	
	Cost per metre				17655.81	
	Say				17655.80	

18.72.15 100 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	100mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 17.76 Kg				
	Weight of 10m pipes 17.76x10				
	= 177.60 Kg				
7651	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 100mm dia	metre	10.00	765.00	7650.00
2319	Carriage of Spun iron S & S pipes				
	100 mm dia	100 metre	0.10	358.32	35.83
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	1.776	298.50	530.14 A
	TOTAL				8215.97 W
	Add 1 % Water charges on "W-A"				76.86
	TOTAL				8292.83 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1090.66
	TOTAL				9383.48 Y
	Add 15% CPOH on "Y-A"				1328.00
	TOTAL				10711.49 Z
	Add Cess @ 1% on "Z-A"				101.81
	Cost of 10 metre				10813.30
	Cost per metre				1081.33
	Say				1081.35

18.72.16 150 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	150 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 26.27 Kg				
	Weight of 10m pipes 26.27x10				
	= 262.70 Kg				
7652	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 150mm dia	metre	10.00	1150.00	11500.00
2321	Carriage of Spun iron S & S pipes				
	150 mm dia	100 metre	0.10	597.20	59.72
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	2.627	298.50	784.16 A
	TOTAL				12343.88 W
	Add 1 % Water charges on "W-A"				115.60
	TOTAL				12459.48 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1640.38
	TOTAL				14099.86 Y
	Add 15% CPOH on "Y-A"				1997.35
	TOTAL				16097.21 Z
	Add Cess @ 1% on "Z-A"				153.13
	Cost of 10 metre				16250.34
	Cost per metre				1625.03
	Say				1625.05

18.72.17 200 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	200 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 36.15 Kg				
	Weight of 10m pipes 36.15x10				
	= 361.50 Kg				
7653	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 200mm dia	metre	10.00	1575.00	15750.00
2322	Carriage of Spun iron S & S pipes				
	200 mm dia	100 metre	0.10	971.45	97.15
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	3.615	298.50	1079.08 A
	TOTAL				16926.22 W
	Add 1 % Water charges on "W-A"				158.47
	TOTAL				17084.69 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				2248.79
	TOTAL				19333.48 Y
	Add 15% CPOH on "Y-A"				2738.16
	TOTAL				22071.64 Z
	Add Cess @ 1% on "Z-A"				209.93
	Cost of 10 metre				22281.57
	Cost per metre				2228.16
	Say				2228.15

18.72.18 250 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	250mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 48.00 Kg				
	Weight of 10m pipes 48.00x10				
	= 480.00 Kg				
7654	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 250mm dia	metre	10.00	2200.00	22000.00
2323	Carriage of Spun iron S & S pipes				
	250 mm dia	100 metre	0.10	1380.48	138.05
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	4.80	298.50	1432.80 A
	TOTAL				23570.85 W
	Add 1 % Water charges on "W-A"				221.38
	TOTAL				23792.23 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				3141.50
	TOTAL				26933.73 Y
	Add 15% CPOH on "Y-A"				3825.14
	TOTAL				30758.87 Z
	Add Cess @ 1% on "Z-A"				293.26
	Cost of 10 metre				31052.13
	Cost per metre				3105.21
	Say				3105.20

18.72.19 300 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	300mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 60.490 Kg				
	Weight of 10m pipes 60.490x10				
	= 604.90 Kg				
7655	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 300mm dia	metre	10.00	2750.00	27500.00
2324	Carriage of Spun iron S & S pipes				
	300 mm dia	100 metre	0.10	1706.30	170.63
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	6.049	298.50	1805.63 A
	TOTAL				29476.26 W
	Add 1 % Water charges on "W-A"				276.71
	TOTAL				29752.96 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				3926.60
	TOTAL				33679.56 Y
	Add 15% CPOH on "Y-A"				4781.09
	TOTAL				38460.65 Z
	Add Cess @ 1% on "Z-A"				366.55
	Cost of 10 metre				38827.20
	Cost per metre				3882.72
	Say				3882.70

18.72.20 350 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	350mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 79.730 Kg				
	Weight of 10m pipes 79.730x10				
	= 797.30 Kg				
7656	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 350mm dia	metre	10.00	3350.00	33500.00
2325	Carriage of Spun iron S & S pipes				
	350 mm dia	100 metre	0.10	2388.82	238.88
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	7.973	298.50	2379.94 A
	TOTAL				36118.82 W
	Add 1 % Water charges on "W-A"				337.39
	TOTAL				36456.21 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				4787.72
	TOTAL				41243.93 Y
	Add 15% CPOH on "Y-A"				5829.60
	TOTAL				47073.53 Z
	Add Cess @ 1% on "Z-A"				446.94
	Cost of 10 metre				47520.46
	Cost per metre				4752.05
	Say				4752.05

18.72.21 400 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	400mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 94.800 Kg				
	Weight of 10m pipes 94.800x10				
	= 948.00 Kg				
7657	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 400mm dia	metre	10.00	4300.00	43000.00
2326	Carriage of Spun iron S & S pipes				
	400 mm dia	100 metre	0.10	3257.48	325.75
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	9.48	298.50	2829.78 A
	TOTAL				46155.53 W
	Add 1 % Water charges on "W-A"				433.26
	TOTAL				46588.79 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				6148.14
	TOTAL				52736.93 Y
	Add 15% CPOH on "Y-A"				7486.07
	TOTAL				60223.00 Z
	Add Cess @ 1% on "Z-A"				573.93
	Cost of 10 metre				60796.93
	Cost per metre				6079.69
	Say				6079.70

18.72.22 450 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	450mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 110.970 Kg				
	Weight of 10m pipes 110.970x10				
	= 1109.70 Kg				
7658	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 450mm dia	metre	10.00	5000.00	50000.00
2327	Carriage of Spun iron S & S pipes				
	450 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	11.097	298.50	3312.45 A
	TOTAL				53710.59 W
	Add 1 % Water charges on "W-A"				503.98
	TOTAL				54214.57 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				7151.75
	TOTAL				61366.32 Y
	Add 15% CPOH on "Y-A"				8708.08
	TOTAL				70074.40 Z
	Add Cess @ 1% on "Z-A"				667.62
	Cost of 10 metre				70742.02
	Cost per metre				7074.20
	Say				7074.20

18.72.23 500 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	500mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 129.480 Kg				
	Weight of 10m pipes 129.480x10				
	= 1294.80 Kg				
7659	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 500mm dia	metre	10.00	6270.00	62700.00
2328	Carriage of Spun iron S & S pipes				
	500 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	12.948	298.50	3864.98 A
	TOTAL				66963.11 W
	Add 1 % Water charges on "W-A"				630.98
	TOTAL				67594.10 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				8953.94
	TOTAL				76548.04 Y
	Add 15% CPOH on "Y-A"				10902.46
	TOTAL				87450.50 Z
	Add Cess @ 1% on "Z-A"				835.86
	Cost of 10 metre				88286.35
	Cost per metre				8828.64
	Say				8828.65

18.72.24 600 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	600mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 168.680 Kg				
	Weight of 10m pipes 168.680x10				
	= 1686.80 Kg				
7660	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 600mm dia	metre	10.00	7560.00	75600.00
2329	Carriage of Spun iron S & S pipes				
	600mm dia	100 metre	0.10	5972.04	597.20
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	16.868	298.50	5035.10 A
	TOTAL				81232.30 W
	Add 1 % Water charges on "W-A"				761.97
	TOTAL				81994.27 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				10812.76
	TOTAL				92807.04 Y
	Add 15% CPOH on "Y-A"				13165.79
	TOTAL				105972.83 Z
	Add Cess @ 1% on "Z-A"				1009.38
	Cost of 10 metre				106982.21
	Cost per metre				10698.22
	Say				10698.20

18.72.25 700 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	700mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 217.540 Kg				
	Weight of 10m pipes 217.540x10				
	= 2175.40 Kg				
7661	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 700mm dia	metre	10.00	10500.00	105000.00
2330	Carriage of C.I. pipes 500 mm dia	100 metre	0.10	3981.36	398.14
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	21.754	298.50	6493.57 A
	TOTAL				111891.71 W
	Add 1 % Water charges on "W-A"				1053.98
	TOTAL				112945.69 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				14956.52
	TOTAL				127902.21 Y
	Add 15% CPOH on "Y-A"				18211.30
	TOTAL				146113.50 Z
	Add Cess @ 1% on "Z-A"				1396.20
	Cost of 10 metre				147509.70
	Cost per metre				14750.97
	Say				14750.95

18.72.26 750 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	750mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 242.600 Kg				
	Weight of 10m pipes 242.600x10				
	= 2426.00 Kg				
7662	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 750mm dia	metre	10.00	11350.00	113500.00
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	24.26	298.50	7241.61 A
	TOTAL				121637.42 W
	Add 1 % Water charges on "W-A"				1143.96
	TOTAL				122781.37 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				16233.34
	TOTAL				139014.71 Y
	Add 15% CPOH on "Y-A"				19765.97
	TOTAL				158780.68 Z
	Add Cess @ 1% on "Z-A"				1515.39
	Cost of 10 metre				160296.07
	Cost per metre				16029.61
	Say				16029.60

18.72.27 800 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	800 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 267.100 Kg				
	Weight of 10m pipes 267.100x10				
	= 2671.00 Kg				
7663	Ductile Iron class K - 9 pipe Conforming				
	to I.S. 8329 - 800mm dia	metre	10.00	11450.00	114500.00
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	26.71	298.50	7972.94 A
	TOTAL				123667.34 W
	Add 1 % Water charges on "W-A"				1156.94
	TOTAL				124824.29 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				16417.61
	TOTAL				141241.90 Y
	Add 15% CPOH on "Y-A"				19990.35
	TOTAL				161232.25 Z
	Add Cess @ 1% on "Z-A"				1532.59
	Cost of 10 metre				162764.84
	Cost per metre				16276.48
	Say				16276.50

18.72.28 900 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	900 mm dia. cast iron pipes				
	(in 5.5 m lengths)				
	Weight of 1 m pipes = 321.290 Kg				
	Weight of 10m pipes 321.290x10				
	= 3212.90 Kg				
7664	Ductile Iron class K - 9 pipe				
	Conforming to I.S. 8329 - 900mm dia	metre	10.00	13900.00	139000.00
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	0.10	11944.08	1194.41
	Labour for laying				
18.23	Rate as per Item Number 18.23 of				
	SH: Water Supply	quintal	32.129	298.50	9590.51 A
	TOTAL				149784.91 W
	Add 1 % Water charges on "W-A"				1401.94
	TOTAL				151186.86 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				19894.29
	TOTAL				171081.15 Y
	Add 15% CPOH on "Y-A"				24223.60
	TOTAL				195304.74 Z
	Add Cess @ 1% on "Z-A"				1857.14
	Cost of 10 metre				197161.88
	Cost per metre				19716.19
	Say				19716.20

18.72.29 1000 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
	1000 mm dia. cast iron pipes (in 5.5 m lengths)				
	Weight of 1 m pipes = 380.190 Kg				
	Weight of 10m pipes 380.190x10 = 3801.90 Kg				
7665	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 - 1000mm dia	metre	10.00	15550.00	155500.00
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	1194.41
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	38.019	298.50	11348.67 A
	TOTAL				168043.08 W
	Add 1 % Water charges on "W-A"				1566.94
	TOTAL				169610.02 X
	Add GST on "X-A" (multiplying factor 0.1405)				22235.72
	TOTAL				191845.74 Y
	Add 15% CPOH on "Y-A"				27074.56
	TOTAL				218920.30 Z
	Add Cess @ 1% on "Z-A"				2075.72
	Cost of 10 metre				220996.02
	Cost per metre				22099.60
	Say				22099.60

18.73 Providing and laying Double Flanged (Screwed/ Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS : 8329 :

18.73.1 100 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	100 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 21.700 Kg				
	Weight of 5 m pipes 21.700x5 = 108.50 Kg				
7686	Ductile Iron Pipe Class K-9 flanges and welding 100mm dia	metre	5.00	1100.00	5500.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.05	358.32	17.92
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.09	298.50	325.37 A
	TOTAL				5843.28 W
	Add 1 % Water charges on "W-A"				55.18
	TOTAL				5898.46 X
	Add GST on "X-A" (multiplying factor 0.1405)				783.02
	TOTAL				6681.48 Y
	Add 15% CPOH on "Y-A"				953.42
	TOTAL				7634.90 Z
	Add Cess @ 1% on "Z-A"				73.10
	Cost of 5 metre				7707.99
	Cost per metre				1541.60
	Say				1541.60

18.73.2 150 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	150 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 32.600 Kg				
	Weight of 5 m pipes 32.600x5 = 163.00 Kg				
7687	Ductile Iron Pipe Class K-9 flanges and welding 150 dia	metre	5.00	1650.00	8250.00
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.05	597.20	29.86
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.63	298.50	486.56 A
	TOTAL				8766.42 W
	Add 1 % Water charges on "W-A"				82.80
	TOTAL				8849.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				1174.95
	TOTAL				10024.17 Y
	Add 15% CPOH on "Y-A"				1430.64
	TOTAL				11454.81 Z
	Add Cess @ 1% on "Z-A"				109.68
	Cost of 5 metre				11564.49
	Cost per metre				2312.90
	Say				2312.90

18.73.3 200 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	200 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 44.200 Kg				
	Weight of 5 m pipes 44.200x5 = 221.00 Kg				
7688	Ductile Iron Pipe Class K-9 flanges and welding 200mm dia	metre	5.00	2075.00	10375.00
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.05	971.45	48.57
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.21	298.50	659.69 A
	TOTAL				11083.26 W
	Add 1 % Water charges on "W-A"				104.24
	TOTAL				11187.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				1479.16
	TOTAL				12666.65 Y
	Add 15% CPOH on "Y-A"				1801.04
	TOTAL				14467.70 Z
	Add Cess @ 1% on "Z-A"				138.08
	Cost of 5 metre				14605.78
	Cost per metre				2921.16
	Say				2921.15

18.73.4 250 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	250 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 59.400 Kg				
	Weight of 5 m pipes 59.400x5 = 297.00 Kg				
7689	Ductile Iron Pipe Class K-9 flanges and welding 250mm dia	metre	5.00	2950.00	14750.00
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	0.05	1380.48	69.02
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.97	298.50	886.55 A
	TOTAL				15705.57 W
	Add 1 % Water charges on "W-A"				148.19
	TOTAL				15853.76 X
	Add GST on "X-A" (multiplying factor 0.1405)				2102.89
	TOTAL				17956.65 Y
	Add 15% CPOH on "Y-A"				2560.52
	TOTAL				20517.17 Z
	Add Cess @ 1% on "Z-A"				196.31
	Cost of 5 metre				20713.48
	Cost per metre				4142.70
	Say				4142.70

18.73.5 300 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	300 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 76.400 Kg				
	Weight of 5 m pipes 76.400x5 = 382.00 Kg				
7690	Ductile Iron Pipe Class K-9 flanges and welding 300mm dia	metre	5.00	3790.00	18950.00
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	0.05	1706.30	85.32
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	3.82	298.50	1140.27 A
	TOTAL				20175.59 W
	Add 1 % Water charges on "W-A"				190.35
	TOTAL				20365.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				2701.21
	TOTAL				23067.14 Y
	Add 15% CPOH on "Y-A"				3289.03
	TOTAL				26356.18 Z
	Add Cess @ 1% on "Z-A"				252.16
	Cost of 5 metre				26608.33
	Cost per metre				5321.67
	Say				5321.65

18.73.6 350 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	350 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 91.400 Kg				
	Weight of 5 m pipes 91.400x5 = 457.00 Kg				
7691	Ductile Iron Pipe Class K-9 flanges and welding 350mm dia	metre	5.00	4780.00	23900.00
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	0.05	2388.82	119.44
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	4.57	298.50	1364.15 A
	TOTAL				25383.59 W
	Add 1 % Water charges on "W-A"				240.19
	TOTAL				25623.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				3408.48
	TOTAL				29032.26 Y
	Add 15% CPOH on "Y-A"				4150.22
	TOTAL				33182.48 Z
	Add Cess @ 1% on "Z-A"				318.18
	Cost of 5 metre				33500.66
	Cost per metre				6700.13
	Say				6700.15

18.73.7 400 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	400 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 108.100 Kg				
	Weight of 5 m pipes 108.100x5 = 540.50 Kg				
7692	Ductile Iron Pipe Class K-9 flanges and welding 400mm dia	metre	5.00	6150.00	30750.00
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	0.05	3257.48	162.87
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	5.40	298.50	1611.90 A
	TOTAL				32524.77 W
	Add 1 % Water charges on "W-A"				309.13
	TOTAL				32833.90 X
	Add GST on "X-A" (multiplying factor 0.1405)				4386.69
	TOTAL				37220.59 Y
	Add 15% CPOH on "Y-A"				5341.30
	TOTAL				42561.90 Z
	Add Cess @ 1% on "Z-A"				409.50
	Cost of 5 metre				42971.40
	Cost per metre				8594.28
	Say				8594.30

18.73.8 450 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	450 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 127.800 Kg				
	Weight of 5 m pipes 127.800x5 = 639.00 Kg				
7693	Ductile Iron Pipe Class K-9 flanges and welding 450mm dia	metre	5.00	6453.00	32265.00
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	6.39	298.50	1907.42 A
	TOTAL				34371.48 W
	Add 1 % Water charges on "W-A"				324.64
	TOTAL				34696.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				4606.81
	TOTAL				39302.94 Y
	Add 15% CPOH on "Y-A"				5609.33
	TOTAL				44912.27 Z
	Add Cess @ 1% on "Z-A"				430.05
	Cost of 5 metre				45342.31
	Cost per metre				9068.46
	Say				9068.45

18.73.9 500 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	500 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 147.900 Kg				
	Weight of 5 m pipes 147.900x5 = 739.50 Kg				
7694	Ductile Iron Pipe Class K-9 flanges and welding 500mm dia	metre	5.00	9180.00	45900.00
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	7.40	298.50	2208.90 A
	TOTAL				48307.97 W
	Add 1 % Water charges on "W-A"				460.99
	TOTAL				48768.96 X
	Add GST on "X-A" (multiplying factor 0.1405)				6541.69
	TOTAL				55310.65 Y
	Add 15% CPOH on "Y-A"				7965.26
	TOTAL				63275.91 Z
	Add Cess @ 1% on "Z-A"				610.67
	Cost of 5 metre				63886.58
	Cost per metre				12777.32
	Say				12777.30

18.73.10 600 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	600 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 198.900 Kg				
	Weight of 5 m pipes 198.900x5 = 994.50 Kg				
7695	Ductile Iron Pipe Class K-9 flanges and welding 600mm dia	metre	5.00	12150.00	60750.00
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	0.05	5972.04	298.60
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	9.95	298.50	2970.08 A
	TOTAL				64018.68 W
	Add 1 % Water charges on "W-A"				610.49
	TOTAL				64629.16 X
	Add GST on "X-A" (multiplying factor 0.1405)				8663.10
	TOTAL				73292.26 Y
	Add 15% CPOH on "Y-A"				10548.33
	TOTAL				83840.59 Z
	Add Cess @ 1% on "Z-A"				808.71
	Cost of 5 metre				84649.30
	Cost per metre				16929.86
	Say				16929.85

18.73.11 700 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5 metre				
	MATERIAL				
	700 mm dia. ductile iron pipes double flanged				
	Weight of 1 m pipes = 254.900 Kg				
	Weight of 5 m pipes 254.900x5 = 1274.50 Kg				
7696	Ductile Iron Pipe Class K-9 flanges and welding 700mm dia	metre	5.00	14370.00	71850.00
2330	Carriage of C.I. pipes 500 mm dia	100 metre	0.05	3981.36	199.07
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	12.75	298.50	3805.88 A
	TOTAL				75854.94 W
	Add 1 % Water charges on "W-A"				720.49
	TOTAL				76575.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				10224.12
	TOTAL				86799.56 Y
	Add 15% CPOH on "Y-A"				12449.05
	TOTAL				99248.61 Z
	Add Cess @ 1% on "Z-A"				954.43
	Cost of 5 metre				100203.04
	Cost per metre				20040.61
	Say				20040.60

18.74 Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour.

18.74.1 15 mm nominal bore with 30cm length

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7862	15 mm nominal bore and 30 cm length PVC connection pipe with P.T.M.T. Nuts	each	1.00	38.00	38.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.12	25.91
	TOTAL				63.91 W
	Add 1 % Water charges on "W"				0.64
	TOTAL				64.55 X
	Add GST on "X" (multiplying factor 0.1405)				9.07
	TOTAL				73.61 Y
	Add 15% CPOH on "Y"				11.04
	TOTAL				84.66 Z
	Add Cess @ 1% on "Z"				0.85
	Cost of one no.				85.50
	Say				85.50

18.74.2 15 mm nominal bore with 45 cm length

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7863	15 mm nominal bore and 45 cm length PVC connection pipe with P.T.M.T. Nuts	each	1.00	52.00	52.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.12	28.66
	TOTAL				80.66 W
	Add 1 % Water charges on "W"				0.81
	TOTAL				81.47 X
	Add GST on "X" (multiplying factor 0.1405)				11.45
	TOTAL				92.92 Y
	Add 15% CPOH on "Y"				13.94
	TOTAL				106.85 Z
	Add Cess @ 1% on "Z"				1.07
	Cost of one no.				107.92
	Say				107.90

18.75 Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.

18.75.1 15 mm nominal bore, weighing not less than 32 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7864	P.T.M.T. extension nipple 15mm	each	1.00	25.00	25.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	3.38	2.12	7.17
	TOTAL				32.17 W
	Add 1 % Water charges on "W"				0.32
	TOTAL				32.49 X
	Add GST on "X" (multiplying factor 0.1405)				4.56
	TOTAL				37.05 Y
	Add 15% CPOH on "Y"				5.56
	TOTAL				42.61 Z
	Add Cess @ 1% on "Z"				0.43
	Cost of one no.				43.04
	Say				43.05

18.75.2 20 mm nominal bore, weighing not less than 40 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7865	P.T.M.T. extension nipple 20mm	each	1.00	50.00	50.00
9988	Carriage of materials and fixing charges	L.S.	3.38	2.12	7.17
	TOTAL				57.17 W
	Add 1 % Water charges on "W"				0.57
	TOTAL				57.74 X
	Add GST on "X" (multiplying factor 0.1405)				8.11
	TOTAL				65.85 Y
	Add 15% CPOH on "Y"				9.88
	TOTAL				75.73 Z
	Add Cess @ 1% on "Z"				0.76
	Cost of one no.				76.48
	Say				76.50

18.75.3 25mm nominal bore, weighing not less than 62 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7866	P.T.M.T. extension nipple 25mm	each	1.00	68.00	68.00
9988	Carriage of materials and fixing charges	L.S.	3.38	2.12	7.17
	TOTAL				75.17 W
	Add 1 % Water charges on "W"				0.75
	TOTAL				75.92 X
	Add GST on "X" (multiplying factor 0.1405)				10.67
	TOTAL				86.58 Y
	Add 15% CPOH on "Y"				12.99
	TOTAL				99.57 Z
	Add Cess @ 1% on "Z"				1.00
	Cost of one no.				100.57
	Say				100.55

18.76 Cutting holes up to 30x30 cm in walls including making good the same:

18.76.1 With common burnt clay F.P.S. (non modular) bricks

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 holes Size 30x30 cm in 34 cm wall Labour for cutting holes					
0123	Mason (brick layer) 1st class	day	0.16	784.00	125.44	
0124	Mason (brick layer) 2nd class	day	0.16	714.00	114.24	
0114	Beldar	day	1.25	645.00	806.25	
	Brick work with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) 10x0.30x0.30x0.344m = 0.309 cum Less 33% for pipe etc. = (-) 0.102 cum = 0.207 cum Say 0.21 cum					
6.4.1	Rate as per item No 6.4.1 of SH :- Brick work.	cum	0.21	8512.10	1787.54	A
	12 mm cement plaster 1:4 (1 cement : 4 coarse sand) 10x2x0.3x0.3m = 1.80 sqm Les 33% for pipe etc. = (-) 0.59 sqm = 1.21 sqm Say 1.20 sqm					
13.4.1	(Rate as per item no 13.4.1 of SH : Finishing)	sqm	1.20	307.25	368.70	A
9999	Add for delay	L.S.	16.12	2.12	34.17	
9999	Sundries	L.S.	8.06	2.12	17.09	
	TOTAL				3253.43	W
	Add 1 % Water charges on "W-A"				10.97	
	TOTAL				3264.40	X
	Add GST on "X-A" (multiplying factor 0.1405)				155.70	
	TOTAL				3420.10	Y
	Add 15% CPOH on "Y-A"				189.58	
	TOTAL				3609.68	Z
	Add Cess @ 1% on "Z-A"				14.53	
	Cost of 10 holes				3624.21	
	Cost of 1 hole				362.42	
	Say				362.40	

18.77 Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 holes Average size 15x15x15 cm Labour for cutting holes				
0123	Mason (brick layer) 1st class	day	0.83	784.00	650.72
0124	Mason (brick layer) 2nd class	day	0.83	714.00	592.62

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.67	645.00	1077.15
	Cement concrete 1:2:4 (1 cement : 2 coarse sand ; 4 graded stone aggregate 20 mm nominal size) 10x0.15x0.15x0.15 m = 0.033 cum				
	Les 33% for pipe etc. = (-) 0.011 cum = 0.022 cum Say 0.0.02 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work	cum	0.02	7365.15	147.30 A
9999	Finishing top and bottom and making the holes leak proof	L.S.	121.16	2.12	256.86
9999	Add for delay	L.S.	40.30	2.12	85.44
9999	Sundries	L.S.	21.58	2.12	45.75
	TOTAL				2855.84 W
	Add 1 % Water charges on "W-A"				27.09
	TOTAL				2882.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				384.35
	TOTAL				3267.28 Y
	Add 15% CPOH on "Y-A"				468.00
	TOTAL				3735.27 Z
	Add Cess @ 1% on "Z-A"				35.88
	Cost of 10 holes				3771.15
	Cost of 1 hole				377.12
	Say				377.10

18.78 Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	Labour for making chases				
0123	Mason (brick layer) 1st class	day	0.25	784.00	196.00
0124	Mason (brick layer) 2nd class	day	0.25	714.00	178.50
0114	Beldar	day	1.00	645.00	645.00
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.075x0.075x10 m = 0.05625 cum				
	Les 33% for pipe etc. = (-) 0.01856 cum = 0.03769 cum Say 0.04 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.04	8843.45	353.74 A
	TOTAL				1373.24 W
	Add 1 % Water charges on "W-A"				10.20
	TOTAL				1383.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				144.67
	TOTAL				1528.11 Y
	Add 15% CPOH on "Y-A"				176.16
	TOTAL				1704.26 Z
	Add Cess @ 1% on "Z-A"				13.51
	Cost of 10 metre				1717.77
	Cost of 1 metre				171.78
	Say				171.80

18.79 Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) including disposal of malba.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metres					
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.2x0.2x10 m = 0.40 cum					
	Les for pipe 3.14x(0.15)²/4x10 = (-) 0.177 cum					
	= 0.223 cum Say 0.22 cum					
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.22	8843.45	1945.56	A
9999	Disposal of malba	L.S.	13.52	2.12	28.66	
	TOTAL				1974.22	W
	Add 1 % Water charges on "W-A"				0.29	
	TOTAL				1974.51	X
	Add GST on "X-A" (multiplying factor 0.1405)				4.07	
	TOTAL				1978.58	Y
	Add 15% CPOH on "Y-A"				4.95	
	TOTAL				1983.53	Z
	Add Cess @ 1% on "Z-A"				0.38	
	Cost of 10 metre				1983.91	
	Cost of 1 metre				198.39	
	Say				198.40	

18.80 Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.

18.80.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
	Bleaching powder 3x3.14/4x(80/10)²x(100x100)/1000x 0.5 gms = 754.28 gms Say 0.008 q					
1301	Bleaching powder	quintal	0.008	1800.00	14.40	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	784.00	258.72	
0114	Beldar	day	1.31	645.00	844.95	
9999	Sundries including testing of samples	L.S.	9.88	2.12	20.95	
	TOTAL				1139.02	W
	Add 1 % Water charges on "W"				11.39	
	TOTAL				1150.41	X
	Add GST on "X" (multiplying factor 0.1405)				161.63	
	TOTAL				1312.04	Y
	Add 15% CPOH on "Y"				196.81	
	TOTAL				1508.84	Z
	Add Cess @ 1% on "Z"				15.09	
	Cost of 100 metre				1523.93	
	Say				1523.95	

18.80.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(100/10)²x(100x100)/1000x				
	0.5 gms = 1178.57 gms Say 0.012 q				
1301	Bleaching powder	quintal	0.012	1800.00	21.60
	LABOUR				
0116	Fitter (grade 1)	day	0.49	784.00	384.16
0114	Beldar	day	1.64	645.00	1057.80
9999	Sundries including testing of samples	L.S.	13.52	2.12	28.66
	TOTAL				1492.22 W
	Add 1 % Water charges on "W"				14.92
	TOTAL				1507.14 X
	Add GST on "X" (multiplying				
	factor 0.1405)				211.75
	TOTAL				1718.90 Y
	Add 15% CPOH on "Y"				257.83
	TOTAL				1976.73 Z
	Add Cess @ 1% on "Z"				19.77
	Cost of 100 metre				1996.50
	Say				1996.50

18.80.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(125/10)²x(100x100)/1000x				
	0.5 gms = 1841.52 gms Say 0.018 q				
1301	Bleaching powder	quintal	0.018	1800.00	32.40
	LABOUR				
0116	Fitter (grade 1)	day	0.66	784.00	517.44
0114	Beldar	day	1.97	645.00	1270.65
9999	Sundries including testing of samples	L.S.	17.94	2.12	38.03
	TOTAL				1858.52 W
	Add 1 % Water charges on "W"				18.59
	TOTAL				1877.11 X
	Add GST on "X" (multiplying				
	factor 0.1405)				263.73
	TOTAL				2140.84 Y
	Add 15% CPOH on "Y"				321.13
	TOTAL				2461.97 Z
	Add Cess @ 1% on "Z"				24.62
	Cost of 100 metre				2486.59
	Say				2486.60

18.80.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(150/10)²x(100x100)/1000x 0.5 gms = 2651 gms Say 0.027 q				
1301	Bleaching powder	quintal	0.027	1800.00	48.60
	LABOUR				
0116	Fitter (grade 1)	day	0.82	784.00	642.88
0114	Beldar	day	2.30	645.00	1483.50
9999	Sundries including testing of samples	L.S.	22.88	2.12	48.51
	TOTAL				2223.49 W
	Add 1 % Water charges on "W"				22.23
	TOTAL				2245.72 X
	Add GST on "X" (multiplying factor 0.1405)				315.52
	TOTAL				2561.24 Y
	Add 15% CPOH on "Y"				384.19
	TOTAL				2945.43 Z
	Add Cess @ 1% on "Z"				29.45
	Cost of 100 metre				2974.89
	Say				2974.90

18.80.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(200/10)²x(100x100)/1000x 0.5 gms = 4712.39 gms Say 0.047 q				
1301	Bleaching powder	quintal	0.047	1800.00	84.60
	LABOUR				
0116	Fitter (grade 1)	day	1.15	784.00	901.60
0114	Beldar	day	2.95	645.00	1902.75
9999	Sundries including testing of samples	L.S.	31.46	2.12	66.70
	TOTAL				2955.65 W
	Add 1 % Water charges on "W"				29.56
	TOTAL				2985.20 X
	Add GST on "X" (multiplying factor 0.1405)				419.42
	TOTAL				3404.62 Y
	Add 15% CPOH on "Y"				510.69
	TOTAL				3915.32 Z
	Add Cess @ 1% on "Z"				39.15
	Cost of 100 metre				3954.47
	Say				3954.45

18.80.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(250/10)²x(100x100)/1000x				
	0.5 gms = 7363.10 gms Say 0.074 q				
1301	Bleaching powder	quintal	0.074	1800.00	133.20
	LABOUR				
0116	Fitter (grade 1)	day	1.48	784.00	1160.32
0114	Beldar	day	3.61	645.00	2328.45
9999	Sundries including testing of samples	L.S.	40.30	2.12	85.44
	TOTAL				3707.41 W
	Add 1 % Water charges on "W"				37.07
	TOTAL				3744.48 X
	Add GST on "X" (multiplying				
	factor 0.1405)				526.10
	TOTAL				4270.58 Y
	Add 15% CPOH on "Y"				640.59
	TOTAL				4911.17 Z
	Add Cess @ 1% on "Z"				49.11
	Cost of 100 metre				4960.28
	Say				4960.30

18.80.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(300/10)²x(100x100)/1000x				
	0.5 gms = 10602.88 gms Say 0.106 q				
1301	Bleaching powder	quintal	0.106	1800.00	190.80
	LABOUR				
0116	Fitter (grade 1)	day	1.64	784.00	1285.76
0114	Beldar	day	3.94	645.00	2541.30
9999	Sundries including testing of samples	L.S.	44.46	2.12	94.26
	TOTAL				4112.12 W
	Add 1 % Water charges on "W"				41.12
	TOTAL				4153.24 X
	Add GST on "X" (multiplying				
	factor 0.1405)				583.53
	TOTAL				4736.77 Y
	Add 15% CPOH on "Y"				710.51
	TOTAL				5447.28 Z
	Add Cess @ 1% on "Z"				54.47
	Cost of 100 metre				5501.75
	Say				5501.75

18.80.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(350/10)²x(100x100)/1000x				
	0.5 gms = 14431.70 gms Say 0.144 q				
1301	Bleaching powder	quintal	0.144	1800.00	259.20
	LABOUR				
0116	Fitter (grade 1)	day	1.80	784.00	1411.20
0114	Beldar	day	4.27	645.00	2754.15
9999	Sundries including testing of samples	L.S.	48.36	2.12	102.52
	TOTAL				4527.07 W
	Add 1 % Water charges on "W"				45.27
	TOTAL				4572.34 X
	Add GST on "X" (multiplying				
	factor 0.1405)				642.41
	TOTAL				5214.76 Y
	Add 15% CPOH on "Y"				782.21
	TOTAL				5996.97 Z
	Add Cess @ 1% on "Z"				59.97
	Cost of 100 metre				6056.94
	Say				6056.95

18.80.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(400/10)²x(100x100)/1000x				
	0.5 gms = 18849.60 gms Say 0.189 q				
1301	Bleaching powder	quintal	0.189	1800.00	340.20
	LABOUR				
0116	Fitter (grade 1)	day	1.97	784.00	1544.48
0114	Beldar	day	4.59	645.00	2960.55
9999	Sundries including testing of samples	L.S.	53.82	2.12	114.10
	TOTAL				4959.33 W
	Add 1 % Water charges on "W"				49.59
	TOTAL				5008.92 X
	Add GST on "X" (multiplying				
	factor 0.1405)				703.75
	TOTAL				5712.68 Y
	Add 15% CPOH on "Y"				856.90
	TOTAL				6569.58 Z
	Add Cess @ 1% on "Z"				65.70
	Cost of 100 metre				6635.27
	Say				6635.25

18.80.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(450/10)²x(100x100)/1000x				
	0.5 gms = 23856.50 gms Say 0.239 q				
1301	Bleaching powder	quintal	0.239	1800.00	430.20
	LABOUR				
0116	Fitter (grade 1)	day	2.13	784.00	1669.92
0114	Beldar	day	4.92	645.00	3173.40
9999	Sundries including testing of samples	L.S.	58.24	2.12	123.47
	TOTAL				5396.99 W
	Add 1 % Water charges on "W"				53.97
	TOTAL				5450.96 X
	Add GST on "X" (multiplying				
	factor 0.1405)				765.86
	TOTAL				6216.82 Y
	Add 15% CPOH on "Y"				932.52
	TOTAL				7149.34 Z
	Add Cess @ 1% on "Z"				71.49
	Cost of 100 metre				7220.83
	Say				7220.85

18.80.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(500/10)²x(100x100)/1000x				
	0.5 gms = 29452.40 gms Say 0.295 q				
1301	Bleaching powder	quintal	0.295	1800.00	531.00
	LABOUR				
0116	Fitter (grade 1)	day	2.30	784.00	1803.20
0114	Beldar	day	5.25	645.00	3386.25
9999	Sundries including testing of samples	L.S.	63.7	2.12	135.04
	TOTAL				5855.49 W
	Add 1 % Water charges on "W"				58.55
	TOTAL				5914.05 X
	Add GST on "X" (multiplying				
	factor 0.1405)				830.92
	TOTAL				6744.97 Y
	Add 15% CPOH on "Y"				1011.75
	TOTAL				7756.72 Z
	Add Cess @ 1% on "Z"				77.57
	Cost of 100 metre				7834.29
	Say				7834.30

18.80.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	3x3.14/4x(600/10)²x(100x100)/1000x				
	0.5 gms = 42411.5 gms Say 0.424 q				
1301	Bleaching powder	quintal	0.424	1800.00	763.20
	LABOUR				
0116	Fitter (grade 1)	day	2.62	784.00	2054.08
0114	Beldar	day	5.91	645.00	3811.95
9999	Sundries including testing of samples	L.S.	71.37	2.12	151.30
	TOTAL				6780.53 W
	Add 1 % Water charges on "W"				67.81
	TOTAL				6848.34 X
	Add GST on "X" (multiplying				
	factor 0.1405)				962.19
	TOTAL				7810.53 Y
	Add 15% CPOH on "Y"				1171.58
	TOTAL				8982.11 Z
	Add Cess @ 1% on "Z"				89.82
	Cost of 100 metre				9071.93
	Say				9071.95

18.81 Extra for every operation of disinfecting the C.I. main by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, including getting the samples of water tested in the municipal laboratory :

18.81.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.003	1800.00	5.40
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.49	645.00	316.05
9999	Sundries including testing of samples	L.S.	4.42	2.12	9.37
	TOTAL				417.06 W
	Add 1 % Water charges on "W"				4.17
	TOTAL				421.23 X
	Add GST on "X" (multiplying				
	factor 0.1405)				59.18
	TOTAL				480.41 Y
	Add 15% CPOH on "Y"				72.06
	TOTAL				552.48 Z
	Add Cess @ 1% on "Z"				5.52
	Cost of 100 metre				558.00
	Say				558.00

18.81.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.004	1800.00	7.20
	LABOUR				
0116	Fitter (grade 1)	day	0.16	784.00	125.44
0114	Beldar	day	0.57	645.00	367.65
9999	Sundries including testing of samples	L.S.	4.42	2.12	9.37
	TOTAL				509.66 W
	Add 1 % Water charges on "W"				5.10
	TOTAL				514.76 X
	Add GST on "X" (multiplying				
	factor 0.1405)				72.32
	TOTAL				587.08 Y
	Add 15% CPOH on "Y"				88.06
	TOTAL				675.14 Z
	Add Cess @ 1% on "Z"				6.75
	Cost of 100 metre				681.89
	Say				681.90

18.81.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.006	1800.00	10.80
	LABOUR				
0116	Fitter (grade 1)	day	0.22	784.00	172.48
0114	Beldar	day	0.66	645.00	425.70
9999	Sundries including testing of samples	L.S.	5.46	2.12	11.58
	TOTAL				620.56 W
	Add 1 % Water charges on "W"				6.21
	TOTAL				626.76 X
	Add GST on "X" (multiplying				
	factor 0.1405)				88.06
	TOTAL				714.82 Y
	Add 15% CPOH on "Y"				107.22
	TOTAL				822.04 Z
	Add Cess @ 1% on "Z"				8.22
	Cost of 100 metre				830.26
	Say				830.25

18.81.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.009	1800.00	16.20
	LABOUR				
0116	Fitter (grade 1)	day	0.27	784.00	211.68

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.74	645.00	477.30
9999	Sundries including testing of samples	L.S.	7.15	2.12	15.16
	TOTAL				720.34 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.54 X
	Add GST on "X" (multiplying factor 0.1405)				102.22
	TOTAL				829.76 Y
	Add 15% CPOH on "Y"				124.46
	TOTAL				954.23 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 100 metre				963.77
	Say				963.75

18.81.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.016	1800.00	28.80
	LABOUR				
0116	Fitter (grade 1)	day	0.58	784.00	454.72
0114	Beldar	day	0.90	645.00	580.50
9999	Sundries including testing of samples	L.S.	9.88	2.12	20.95
	TOTAL				1084.97 W
	Add 1 % Water charges on "W"				10.85
	TOTAL				1095.82 X
	Add GST on "X" (multiplying factor 0.1405)				153.96
	TOTAL				1249.78 Y
	Add 15% CPOH on "Y"				187.47
	TOTAL				1437.24 Z
	Add Cess @ 1% on "Z"				14.37
	Cost of 100 metre				1451.62
	Say				1451.60

18.81.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.025	1800.00	45.00
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0114	Beldar	day	1.10	645.00	709.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including testing of samples	L.S.	10.79	2.12	22.87
	TOTAL				1247.77 W
	Add 1 % Water charges on "W"				12.48
	TOTAL				1260.25 X
	Add GST on "X" (multiplying factor 0.1405)				177.07
	TOTAL				1437.32 Y
	Add 15% CPOH on "Y"				215.60
	TOTAL				1652.92 Z
	Add Cess @ 1% on "Z"				16.53
	Cost of 100 metre				1669.44
	Say				1669.45

18.81.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.035	1800.00	63.00
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0114	Beldar	day	1.30	645.00	838.50
9999	Sundries including testing of samples	L.S.	13.52	2.12	28.66
	TOTAL				1400.56 W
	Add 1 % Water charges on "W"				14.01
	TOTAL				1414.57 X
	Add GST on "X" (multiplying factor 0.1405)				198.75
	TOTAL				1613.31 Y
	Add 15% CPOH on "Y"				242.00
	TOTAL				1855.31 Z
	Add Cess @ 1% on "Z"				18.55
	Cost of 100 metre				1873.87
	Say				1873.85

18.81.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.048	1800.00	86.40
	LABOUR				
0116	Fitter (grade 1)	day	0.70	784.00	548.80
0114	Beldar	day	1.50	645.00	967.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including testing of samples	L.S.	16.12	2.12	34.17
	TOTAL				1636.87 W
	Add 1 % Water charges on "W"				16.37
	TOTAL				1653.24 X
	Add GST on "X" (multiplying factor 0.1405)				232.28
	TOTAL				1885.52 Y
	Add 15% CPOH on "Y"				282.83
	TOTAL				2168.35 Z
	Add Cess @ 1% on "Z"				21.68
	Cost of 100 metre				2190.04
	Say				2190.05

18.81.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.063	1800.00	113.40
	LABOUR				
0116	Fitter (grade 1)	day	0.80	784.00	627.20
0114	Beldar	day	1.70	645.00	1096.50
9999	Sundries including testing of samples	L.S.	17.94	2.12	38.03
	TOTAL				1875.13 W
	Add 1 % Water charges on "W"				18.75
	TOTAL				1893.88 X
	Add GST on "X" (multiplying factor 0.1405)				266.09
	TOTAL				2159.97 Y
	Add 15% CPOH on "Y"				324.00
	TOTAL				2483.97 Z
	Add Cess @ 1% on "Z"				24.84
	Cost of 100 metre				2508.81
	Say				2508.80

18.81.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.08	1800.00	144.00
	LABOUR				
0116	Fitter (grade 1)	day	0.90	784.00	705.60
0114	Beldar	day	1.90	645.00	1225.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including testing of samples	L.S.	20.67	2.12	43.82
	TOTAL				2118.92 W
	Add 1 % Water charges on "W"				21.19
	TOTAL				2140.11 X
	Add GST on "X" (multiplying factor 0.1405)				300.69
	TOTAL				2440.80 Y
	Add 15% CPOH on "Y"				366.12
	TOTAL				2806.91 Z
	Add Cess @ 1% on "Z"				28.07
	Cost of 100 metre				2834.98
	Say				2835.00

18.81.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.098	1800.00	176.40
	LABOUR				
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0114	Beldar	day	2.10	645.00	1354.50
9999	Sundries including testing of samples	L.S.	23.27	2.12	49.33
	TOTAL				2364.23 W
	Add 1 % Water charges on "W"				23.64
	TOTAL				2387.87 X
	Add GST on "X" (multiplying factor 0.1405)				335.50
	TOTAL				2723.37 Y
	Add 15% CPOH on "Y"				408.51
	TOTAL				3131.88 Z
	Add Cess @ 1% on "Z"				31.32
	Cost of 100 metre				3163.20
	Say				3163.20

18.81.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
1301	Bleaching powder	quintal	0.141	1800.00	253.80
	LABOUR				
0116	Fitter (grade 1)	day	1.20	784.00	940.80
0114	Beldar	day	2.50	645.00	1612.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including testing of samples	L.S.	26.00	2.12	55.12
	TOTAL				2862.22 W
	Add 1 % Water charges on "W"				28.62
	TOTAL				2890.84 X
	Add GST on "X" (multiplying factor 0.1405)				406.16
	TOTAL				3297.01 Y
	Add 15% CPOH on "Y"				494.55
	TOTAL				3791.56 Z
	Add Cess @ 1% on "Z"				37.92
	Cost of 100 metre				3829.47
	Say				3829.45

18.82 Dismantling old C.I. pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks, including stacking of pipes at site lead up to 50 metre:

18.82.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x55x0.75 m=16.61 cum				
	Deduct for pipe 1x40.26x3.14/ 4x(0.098)² =(-) 0.30 cum				
	Total= 16.31 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.31	286.85	4678.52 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.31	253.95	4141.92 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.373	500.00	186.50
0771	Kerosene oil	litre	0.379	50.00	18.95
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	0.50	714.00	357.00
0114	Beldar	day	4.00	645.00	2580.00
9988	Sundries and carriage	L.S.	53.82	2.12	114.10
	TOTAL				12077.00 W
	Add 1 % Water charges on "W-A"				32.57
	TOTAL				12109.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				462.12
	TOTAL				12571.68 Y
	Add 15% CPOH on "Y-A"				562.69
	TOTAL				13134.37 Z
	Add Cess @ 1% on "Z-A"				43.14
	Cost of 40.26 metre				13177.51
	Cost of one metre				327.31
	Say				327.30

18.82.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth					
	1x40.26x55x0.75 m=16.61 cum					
	Deduct for pipe 1x40.26x3.14/ 4x(0.118)² =(-) 0.44 cum					
	Total= 16.17 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.17	286.85	4638.36	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.17	253.95	4106.37	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	0.466	500.00	233.00	
0771	Kerosene oil	litre	0.379	50.00	18.95	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	0.63	714.00	449.82	
0114	Beldar	day	4.50	645.00	2902.50	
9988	Sundries and carriage	L.S.	53.82	2.12	114.10	
	TOTAL				12463.10	W
	Add 1 % Water charges on "W-A"				37.18	
	TOTAL				12500.29	X
	Add GST on "X-A" (multiplying factor 0.1405)				527.66	
	TOTAL				13027.94	Y
	Add 15% CPOH on "Y-A"				642.48	
	TOTAL				13670.42	Z
	Add Cess @ 1% on "Z-A"				49.26	
	Cost of 40.26 metre				13719.68	
	Cost of one metre				340.78	
	Say				340.80	

18.82.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth					
	1x40.26x55x0.75 m=16.61 cum					
	Deduct for pipe 1x40.26x3.14/ 4x(0.144)² =(-) 0.65 cum					
	Total= 15.96 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	15.96	286.85	4578.13	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	15.96	253.95	4053.04 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.559	500.00	279.50
0771	Kerosene oil	litre	0.568	50.00	28.40
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	0.75	714.00	535.50
0114	Beldar	day	5.00	645.00	3225.00
9988	Sundries and carriage	L.S.	53.82	2.12	114.10
	TOTAL				12813.67 W
	Add 1 % Water charges on "W-A"				41.82
	TOTAL				12855.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				593.52
	TOTAL				13449.01 Y
	Add 15% CPOH on "Y-A"				722.68
	TOTAL				14171.68 Z
	Add Cess @ 1% on "Z-A"				55.41
	Cost of 40.26 metre				14227.09
	Cost of one metre				353.38
	Say				353.40

18.82.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x55x0.75 m=16.61 cum				
	Deduct for pipe 1x40.26x3.14/ $4x(0.17)^2$ =(-) 0.91 cum				
	Total= 15.70 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	15.70	286.85	4503.55 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	15.70	253.95	3987.02 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.653	500.00	326.50
0771	Kerosene oil	litre	0.568	50.00	28.40
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	0.88	714.00	628.32
0114	Beldar	day	5.50	645.00	3547.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Sundries and carriage	L.S.	67.21	2.12	142.49
	TOTAL				13163.77 W
	Add 1 % Water charges on "W-A"				46.73
	TOTAL				13210.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				663.15
	TOTAL				13873.65 Y
	Add 15% CPOH on "Y-A"				807.46
	TOTAL				14681.11 Z
	Add Cess @ 1% on "Z-A"				61.91
	Cost of 40.26 metre				14743.02
	Cost of one metre				366.20
	Say				366.20

18.82.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x60x0.75 m=18.12 cum				
	Deduct for pipe 1x40.26x3.14/ 4x(0.222)² =(-) 1.56 cum				
	Total= 16.56 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.56	286.85	4750.24 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.56	253.95	4205.41 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	0.84	500.00	420.00
0771	Kerosene oil	litre	0.7576	50.00	37.88
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	1.10	714.00	785.40
0114	Beldar	day	6.50	645.00	4192.50
9988	Sundries and carriage	L.S.	67.21	2.12	142.49
	TOTAL				14533.91 W
	Add 1 % Water charges on "W-A"				55.78
	TOTAL				14589.70 X
	Add GST on "X-A" (multiplying factor 0.1405)				791.58
	TOTAL				15381.28 Y
	Add 15% CPOH on "Y-A"				963.84
	TOTAL				16345.12 Z
	Add Cess @ 1% on "Z-A"				73.89
	Cost of 40.26 metre				16419.02
	Cost of one metre				407.82
	Say				407.80

18.82.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth					
	1x40.26x.65x0.75 m=19.63 cum					
	Deduct for pipe 1x40.26x3.14/ 4x(0.274)² =(-) 2.37 cum					
	Total= 17.26 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.26	286.85	4951.03	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.26	253.95	4383.18	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.026	500.00	513.00	
0771	Kerosene oil	litre	1.1365	50.00	56.83	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	1.30	714.00	928.20	
0114	Beldar	day	7.50	645.00	4837.50	
9988	Sundries and carriage	L.S.	80.73	2.12	171.15	
	TOTAL				15840.88	W
	Add 1 % Water charges on "W-A"				65.07	
	TOTAL				15905.95	X
	Add GST on "X-A" (multiplying factor 0.1405)				923.33	
	TOTAL				16829.28	Y
	Add 15% CPOH on "Y-A"				1124.26	
	TOTAL				17953.54	Z
	Add Cess @ 1% on "Z-A"				86.19	
	Cost of 40.26 metre				18039.73	
	Cost of one metre				448.08	
	Say				448.10	

18.82.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth					
	1x40.26x.70x0.75 m=21.14 cum					
	Deduct for pipe 1x40.26x3.14/ 4x(0.326)² =(-) 3.36 cum					
	Total= 17.79 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.79	286.85	5103.06	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2.25	(Rate as per item No.2.25 of SH Earth work) Breaking lead caulked joints, blocks and stacking	cum	17.79	253.95	4517.77 A
	MATERIAL				
0761	Fuel wood	quintal	1.12	500.00	560.00
0771	Kerosene oil	litre	1.515	50.00	75.75
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	1.50	714.00	1071.00
0114	Beldar	day	8.50	645.00	5482.50
9988	Sundries and carriage	L.S.	94.12	2.12	199.53
	TOTAL				17009.62 W
	Add 1 % Water charges on "W-A"				73.89
	TOTAL				17083.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				1048.51
	TOTAL				18132.01 Y
	Add 15% CPOH on "Y-A"				1276.68
	TOTAL				19408.69 Z
	Add Cess @ 1% on "Z-A"				97.88
	Cost of 40.26 metre				19506.56
	Cost of one metre				484.51
	Say				484.50

18.82.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.26 m or 11 nos. joints. Earth work in excavation for dismantling pipes including refilling of excavated earth 1x40.26x.75x0.75 m=22.65 cum Deduct for pipe 1x40.26x3.14/ 4x$(0.378)^2$ =(-) 4.51 cum Total= 18.14 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.14	286.85	5203.46 A
2.25	(Rate as per item No.2.25 of SH Earth work) Breaking lead caulked joints, blocks and stacking	cum	18.14	253.95	4606.65 A
	MATERIAL				
0761	Fuel wood	quintal	1.213	500.00	606.50
0771	Kerosene oil	litre	1.515	50.00	75.75
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	1.75	714.00	1249.50
0114	Beldar	day	9.50	645.00	6127.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Sundries and carriage	L.S.	107.64	2.12	228.20
	TOTAL				18097.56 W
	Add 1 % Water charges on "W-A"				82.87
	TOTAL				18180.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				1176.03
	TOTAL				19356.46 Y
	Add 15% CPOH on "Y-A"				1431.95
	TOTAL				20788.42 Z
	Add Cess @ 1% on "Z-A"				109.78
	Cost of 40.26 metre				20898.20
	Cost of one metre				519.08
	Say				519.10

18.82.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x.80x0.75 m=24.16 cum				
	Deduct for pipe 1x40.26x3.14/ 4x(0.429)² =(-) 5.93 cum				
	Total= 18.23 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.23	286.85	5229.28 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.23	253.95	4629.51 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.306	500.00	653.00
0771	Kerosene oil	litre	1.894	50.00	94.70
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	2.00	714.00	1428.00
0114	Beldar	day	10.50	645.00	6772.50
9988	Sundries and carriage	L.S.	121.03	2.12	256.58
	TOTAL				19063.57 W
	Add 1 % Water charges on "W-A"				92.05
	TOTAL				19155.62 X
	Add GST on "X-A" (multiplying factor 0.1405)				1306.20
	TOTAL				20461.82 Y
	Add 15% CPOH on "Y-A"				1590.46
	TOTAL				22052.28 Z
	Add Cess @ 1% on "Z-A"				121.93
	Cost of 40.26 metre				22174.21
	Cost of one metre				550.78
	Say				550.80

18.82.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth					
	1x40.26x.85x0.75 m=25.67 cum					
	Deduct for pipe 1x40.26x3.14/ 4x(0.48)² =(-) 7.29 cum					
	Total= 18.38 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.38	286.85	5272.30	A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.38	253.95	4667.60	A
	Breaking lead caulked joints, blocks and stacking					
	MATERIAL					
0761	Fuel wood	quintal	1.40	500.00	700.00	
0771	Kerosene oil	litre	2.273	50.00	113.65	
	LABOUR					
0117	Assistant Fitter or 2nd class Fitter	day	2.25	714.00	1606.50	
0114	Beldar	day	11.50	645.00	7417.50	
9988	Sundries and carriage	L.S.	134.55	2.12	285.25	
	TOTAL				20062.80	W
	Add 1 % Water charges on "W-A"				101.23	
	TOTAL				20164.03	X
	Add GST on "X-A" (multiplying factor 0.1405)				1436.49	
	TOTAL				21600.52	Y
	Add 15% CPOH on "Y-A"				1749.09	
	TOTAL				23349.61	Z
	Add Cess @ 1% on "Z-A"				134.10	
	Cost of 40.26 metre				23483.71	
	Cost of one metre				583.30	
	Say				583.30	

18.82.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 40.26 m or 11 nos. joints.					
	Earth work in excavation for dismantling pipes including refilling of excavated earth					
	1x40.26x.90x0.75 m=27.18 cum					
	Deduct for pipe 1x40.26x3.14/ 4x(0.532)² =(-) 8.94 cum					
	Total= 18.24 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	18.24	286.85	5232.14	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.24	253.95	4632.05 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.492	500.00	746.00
0771	Kerosene oil	litre	2.652	50.00	132.60
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	2.50	714.00	1785.00
0114	Beldar	day	12.50	645.00	8062.50
9988	Sundries and carriage	L.S.	147.94	2.12	313.63
	TOTAL				20903.92 W
	Add 1 % Water charges on "W-A"				110.40
	TOTAL				21014.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				1566.59
	TOTAL				22580.92 Y
	Add 15% CPOH on "Y-A"				1907.51
	TOTAL				24488.42 Z
	Add Cess @ 1% on "Z-A"				146.24
	Cost of 40.26 metre				24634.67
	Cost of one metre				611.89
	Say				611.90

18.82.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.26 m or 11 nos. joints.				
	Earth work in excavation for dismantling pipes including refilling of excavated earth				
	1x40.26x1.00x0.75 m=30.20 cum				
	Deduct for pipe 1x40.26x3.14/ $4x(0.635)^2$ =(-) 12.76 cum				
	Total= 17.44 cum				
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	17.44	286.85	5002.66 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.44	253.95	4428.89 A
	Breaking lead caulked joints, blocks and stacking				
	MATERIAL				
0761	Fuel wood	quintal	1.68	500.00	840.00
0771	Kerosene oil	litre	3.41	50.00	170.50
	LABOUR				
0117	Assistant Fitter or 2nd class Fitter	day	3.00	714.00	2142.00
0114	Beldar	day	14.50	645.00	9352.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Sundries and carriage	L.S.	174.85	2.12	370.68
	TOTAL				22307.23 W
	Add 1 % Water charges on "W-A"				128.76
	TOTAL				22435.99 X
	Add GST on "X-A" (multiplying factor 0.1405)				1827.12
	TOTAL				24263.11 Y
	Add 15% CPOH on "Y-A"				2224.73
	TOTAL				26487.85 Z
	Add Cess @ 1% on "Z-A"				170.56
	Cost of 40.26 metre				26658.41
	Cost of one metre				662.16
	Say				662.15

18.83 Labour for cutting C.I. pipe with steel saw.

18.83.1 80 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.06	784.00	47.04
0114	Beldar	day	0.06	645.00	38.70
9999	Sundries	L.S.	1.82	2.12	3.86
	TOTAL				89.60 W
	Add 1 % Water charges on "W"				0.90
	TOTAL				90.49 X
	Add GST on "X" (multiplying factor 0.1405)				12.71
	TOTAL				103.21 Y
	Add 15% CPOH on "Y"				15.48
	TOTAL				118.69 Z
	Add Cess @ 1% on "Z"				1.19
	Cost of each cut				119.88
	Say				119.90

18.83.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	784.00	62.72
0114	Beldar	day	0.08	645.00	51.60
9999	Sundries	L.S.	2.73	2.12	5.79
	TOTAL				120.11 W
	Add 1 % Water charges on "W"				1.20
	TOTAL				121.31 X
	Add GST on "X" (multiplying factor 0.1405)				17.04
	TOTAL				138.35 Y
	Add 15% CPOH on "Y"				20.75
	TOTAL				159.11 Z
	Add Cess @ 1% on "Z"				1.59
	Cost of each cut				160.70
	Say				160.70

18.83.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.11	784.00	86.24
0114	Beldar	day	0.11	645.00	70.95
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				166.56 W
	Add 1 % Water charges on "W"				1.67
	TOTAL				168.23 X
	Add GST on "X" (multiplying factor 0.1405)				23.64
	TOTAL				191.86 Y
	Add 15% CPOH on "Y"				28.78
	TOTAL				220.64 Z
	Add Cess @ 1% on "Z"				2.21
	Cost of each cut				222.85
	Say				222.85

18.83.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.15	784.00	117.60
0114	Beldar	day	0.15	645.00	96.75
9999	Sundries	L.S.	5.33	2.12	11.30
	TOTAL				225.65 W
	Add 1 % Water charges on "W"				2.26
	TOTAL				227.91 X
	Add GST on "X" (multiplying factor 0.1405)				32.02
	TOTAL				259.93 Y
	Add 15% CPOH on "Y"				38.99
	TOTAL				298.92 Z
	Add Cess @ 1% on "Z"				2.99
	Cost of each cut				301.91
	Say				301.90

18.83.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.20	784.00	156.80
0114	Beldar	day	0.20	645.00	129.00
9999	Sundries	L.S.	7.15	2.12	15.16
	TOTAL				300.96 W
	Add 1 % Water charges on "W"				3.01
	TOTAL				303.97 X
	Add GST on "X" (multiplying factor 0.1405)				42.71
	TOTAL				346.68 Y
	Add 15% CPOH on "Y"				52.00
	TOTAL				398.68 Z
	Add Cess @ 1% on "Z"				3.99
	Cost of each cut				402.66
	Say				402.65

18.83.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.25	784.00	196.00
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				374.34 W
	Add 1 % Water charges on "W"				3.74
	TOTAL				378.08 X
	Add GST on "X" (multiplying factor 0.1405)				53.12
	TOTAL				431.20 Y
	Add 15% CPOH on "Y"				64.68
	TOTAL				495.88 Z
	Add Cess @ 1% on "Z"				4.96
	Cost of each cut				500.84
	Say				500.85

18.83.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.30	784.00	235.20
0114	Beldar	day	0.30	645.00	193.50
9999	Sundries	L.S.	9.88	2.12	20.95
	TOTAL				449.65 W
	Add 1 % Water charges on "W"				4.50
	TOTAL				454.14 X
	Add GST on "X" (multiplying factor 0.1405)				63.81
	TOTAL				517.95 Y
	Add 15% CPOH on "Y"				77.69
	TOTAL				595.64 Z
	Add Cess @ 1% on "Z"				5.96
	Cost of each cut				601.60
	Say				601.60

18.83.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.35	784.00	274.40
0114	Beldar	day	0.35	645.00	225.75
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				523.02 W
	Add 1 % Water charges on "W"				5.23
	TOTAL				528.26 X
	Add GST on "X" (multiplying factor 0.1405)				74.22
	TOTAL				602.47 Y
	Add 15% CPOH on "Y"				90.37
	TOTAL				692.85 Z
	Add Cess @ 1% on "Z"				6.93
	Cost of each cut				699.77
	Say				699.75

18.83.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.40	784.00	313.60
0114	Beldar	day	0.40	645.00	258.00
9999	Sundries	L.S.	12.48	2.12	26.46
	TOTAL				598.06 W
	Add 1 % Water charges on "W"				5.98
	TOTAL				604.04 X
	Add GST on "X" (multiplying factor 0.1405)				84.87
	TOTAL				688.91 Y
	Add 15% CPOH on "Y"				103.34
	TOTAL				792.24 Z
	Add Cess @ 1% on "Z"				7.92
	Cost of each cut				800.16
	Say				800.15

18.83.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.45	784.00	352.80
0114	Beldar	day	0.45	645.00	290.25
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				671.71 W
	Add 1 % Water charges on "W"				6.72
	TOTAL				678.43 X
	Add GST on "X" (multiplying factor 0.1405)				95.32
	TOTAL				773.75 Y
	Add 15% CPOH on "Y"				116.06
	TOTAL				889.81 Z
	Add Cess @ 1% on "Z"				8.90
	Cost of each cut				898.71
	Say				898.70

18.83.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	15.21	2.12	32.25
	TOTAL				746.75 W
	Add 1 % Water charges on "W"				7.47
	TOTAL				754.21 X
	Add GST on "X" (multiplying factor 0.1405)				105.97
	TOTAL				860.18 Y
	Add 15% CPOH on "Y"				129.03
	TOTAL				989.21 Z
	Add Cess @ 1% on "Z"				9.89
	Cost of each cut				999.10
	Say				999.10

18.83.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
	LABOUR				
0116	Fitter (grade 1)	day	0.60	784.00	470.40
0114	Beldar	day	0.60	645.00	387.00
9999	Sundries	L.S.	16.12	2.12	34.17
	TOTAL				891.57 W
	Add 1 % Water charges on "W"				8.92
	TOTAL				900.49 X
	Add GST on "X" (multiplying factor 0.1405)				126.52
	TOTAL				1027.01 Y
	Add 15% CPOH on "Y"				154.05
	TOTAL				1181.06 Z
	Add Cess @ 1% on "Z"				11.81
	Cost of each cut				1192.87
	Say				1192.85

18.84 Providing & fixing chrome plated brass battery based infrared sensor operated pillar cock, having foam flow technology.

18.84.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
3327	15 mm Battery Based Sensor Pillar Cock	each	1.00	6000.00	6000.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.12	17.09
	TOTAL				6017.09 W
	Add 1 % Water charges on "W"				60.17
	TOTAL				6077.26 X
	Add GST on "X" (multiplying factor 0.1405)				853.85
	TOTAL				6931.11 Y
	Add 15% CPOH on "Y"				1039.67
	TOTAL				7970.78 Z
	Add Cess @ 1% on "Z"				79.71
	Cost of one no.				8050.49
	Say				8050.50

18.85 Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer-in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Exposed on wall

18.85.1 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8779	SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	10.00	140.00	1400.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00301	145.72	0.44
	Add 3% for pipe inserted into fitting and wastage etc. on P				42.00
	3xP / 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	Add 2% for special T&P and sundries etc. on P				28.00
	2 xP / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				2631.89 W
	Add 1 % Water charges on "W"				26.32
	TOTAL				2658.21 X
	Add GST on "X" (multiplying factor 0.1405)				373.48
	TOTAL				3031.68 Y
	Add 15% CPOH on "Y"				454.75
	TOTAL				3486.44 Z
	Add Cess @ 1% on "Z"				34.86
	Cost of 10 metre				3521.30
	Cost of 1 metre				352.13
	Say				352.15

18.85.2 22.22 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	10.00	250.00	2500.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00529	145.72	0.77
	Add 3% for pipe inserted into fitting and wastage etc. on P				75.00
	3 xP/ 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	Add 2% for special T&P and sundries etc. on P				50.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				3787.22 W
	Add 1 % Water charges on "W"				37.87
	TOTAL				3825.09 X
	Add GST on "X" (multiplying factor 0.1405)				537.43
	TOTAL				4362.52 Y
	Add 15% CPOH on "Y"				654.38
	TOTAL				5016.89 Z
	Add Cess @ 1% on "Z"				50.17
	Cost of 10 metre				5067.06
	Cost of 1 metre				506.71
	Say				506.70

18.85.3 28.58 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8781	SS pipe 304 grades with press fit technology as per JIS 3448 standard 28.58 mm outer dia	metre	10.00	310.00	3100.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00687	145.72	1.00
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				93.00
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				62.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				4420.48 W
	Add 1 % Water charges on "W"				44.20
	TOTAL				4464.69 X
	Add GST on "X" (multiplying factor 0.1405)				627.29
	TOTAL				5091.97 Y
	Add 15% CPOH on "Y"				763.80
	TOTAL				5855.77 Z
	Add Cess @ 1% on "Z"				58.56
	Cost of 10 metre				5914.33
	Cost of 1 metre				591.43
	Say				591.45

18.85.4 34.00 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8782	SS pipe 304 grades with press fit technology as per JIS 3448 standard 34.00 mm outer dia	metre	10.00	439.50	4395.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0098	145.72	1.43
	Add 3% for pipe inserted into fitting and wastage etc. on P				131.85
	3xP/ 100				
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P				87.90
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5780.66 W
	Add 1 % Water charges on "W"				57.81
	TOTAL				5838.46 X
	Add GST on "X" (multiplying factor 0.1405)				820.30
	TOTAL				6658.77 Y
	Add 15% CPOH on "Y"				998.82
	TOTAL				7657.58 Z
	Add Cess @ 1% on "Z"				76.58
	Cost of 10 metre				7734.16
	Cost of 1 metre				773.42
	Say				773.40

18.85.5 42.70 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8783	SS pipe 304 grades with press fit technology as per JIS 3448 standard 42.70 mm outer dia	metre	10.00	450.00	4500.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0124	145.72	1.81
	Add 3% for pipe inserted into fitting and wastage etc. on P				135.00
	3xP/ 100				
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	Add 2% for special T&P and sundries etc. on P				90.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				5893.77 W
	Add 1 % Water charges on "W"				58.94
	TOTAL				5952.70 X
	Add GST on "X" (multiplying factor 0.1405)				836.35
	TOTAL				6789.06 Y
	Add 15% CPOH on "Y"				1018.36
	TOTAL				7807.42 Z
	Add Cess @ 1% on "Z"				78.07
	Cost of 10 metre				7885.49
	Cost of 1 metre				788.55
	Say				788.55

18.85.6 48.60 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8701	SS pipe 304 grades with press fit technology as per JIS 3448 standard 48.60 mm outer dia	metre	10.00	620.00	6200.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0142	145.72	2.07
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				186.00
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				124.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				7679.03 W
	Add 1 % Water charges on "W"				76.79
	TOTAL				7755.82 X
	Add GST on "X" (multiplying factor 0.1405)				1089.69
	TOTAL				8845.51 Y
	Add 15% CPOH on "Y"				1326.83
	TOTAL				10172.34 Z
	Add Cess @ 1% on "Z"				101.72
	Cost of 10 metre				10274.06
	Cost of 1 metre				1027.41
	Say				1027.40

18.85A Providing and fixing Stainless Steel pipe and fitting of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer-in-charge. (The pipe length inserted in the fitting shall not be measured for payment)
Internal work - Exposed on wall

18.85A.1 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3862	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 15 mm outer dia	metre	10.00	310.00	3100.00	P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003472	145.72	0.51	
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP / 100				93.00	
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79	
	Add 2% for special T&P and sundries etc. on P 2 xP / 100				62.00	
	LABOUR					
0116	Fitter (grade 1)	day	0.33	784.00	258.72	
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24	
0114	Beldar	day	0.66	645.00	425.70	
	TOTAL				4416.95	W
	Add 1 % Water charges on "W"				44.17	
	TOTAL				4461.12	X
	Add GST on "X" (multiplying factor 0.1405)				626.79	
	TOTAL				5087.91	Y
	Add 15% CPOH on "Y"				763.19	
	TOTAL				5851.10	Z
	Add Cess @ 1% on "Z"				58.51	
	Cost of 10 metre				5909.61	
	Cost of 1 metre				590.96	
	Say				590.95	

18.85A.2 22 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 metre					
	MATERIAL					
3863	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 22 mm outer dia	metre	10.00	500.00	5000.00	P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00619	145.72	0.90
	Add 3% for pipe inserted into fitting and wastage etc. on P				150.00
	3 xP/ 100				
9999	Cement, sand and grit	L.S.	2.73	2.12	5.79
	Add 2% for special T&P and sundries etc. on P				100.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				6412.35 W
	Add 1 % Water charges on "W"				64.12
	TOTAL				6476.47 X
	Add GST on "X" (multiplying factor 0.1405)				909.94
	TOTAL				7386.42 Y
	Add 15% CPOH on "Y"				1107.96
	TOTAL				8494.38 Z
	Add Cess @ 1% on "Z"				84.94
	Cost of 10 metre				8579.32
	Cost of 1 metre				857.93
	Say				857.95

18.85A.3 28 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
3864	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards				
	28 mm outer dia	metre	10.00	650.00	6500.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00798	145.72	1.16
	Add 3% for pipe inserted into fitting and wastage etc. on P				195.00
	3xP/ 100				
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P				130.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				7990.64 W
	Add 1 % Water charges on "W"				79.91
	TOTAL				8070.55 X
	Add GST on "X" (multiplying factor 0.1405)				1133.91
	TOTAL				9204.46 Y
	Add 15% CPOH on "Y"				1380.67
	TOTAL				10585.13 Z
	Add Cess @ 1% on "Z"				105.85
	Cost of 10 metre				10690.98
	Cost of 1 metre				1069.10
	Say				1069.10

18.85A.4 35 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
3865	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards				
	35 mm outer dia	metre	10.00	945.00	9450.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.01246	145.72	1.82
	Add 3% for pipe inserted into fitting and wastage etc. on P				283.50
	3xP/ 100				
9999	Cement, sand and grit	L.S.	4.16	2.12	8.82
	Add 2% for special T&P and sundries etc. on P				189.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				11088.79 W
	Add 1 % Water charges on "W"				110.89
	TOTAL				11199.68 X
	Add GST on "X" (multiplying factor 0.1405)				1573.56
	TOTAL				12773.24 Y
	Add 15% CPOH on "Y"				1915.99
	TOTAL				14689.22 Z
	Add Cess @ 1% on "Z"				146.89
	Cost of 10 metre				14836.12
	Cost of 1 metre				1483.61
	Say				1483.60

18.85A.5 42 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
3866	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 42 mm outer dia	metre	10.00	1160.00	11600.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0151	145.72	2.20
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				348.00
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				232.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				13349.16 W
	Add 1 % Water charges on "W"				133.49
	TOTAL				13482.65 X
	Add GST on "X" (multiplying factor 0.1405)				1894.31
	TOTAL				15376.96 Y
	Add 15% CPOH on "Y"				2306.54
	TOTAL				17683.51 Z
	Add Cess @ 1% on "Z"				176.84
	Cost of 10 metre				17860.34
	Cost of 1 metre				1786.03
	Say				1786.05

18.85A.6 54 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
3867	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 54 mm outer dia	metre	10.00	1500.00	15000.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.01953	145.72	2.85
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				450.00
9999	Cement, sand and grit	L.S.	5.33	2.12	11.30
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				300.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.70
	TOTAL				16919.81 W
	Add 1 % Water charges on "W"				169.20
	TOTAL				17089.00 X
	Add GST on "X" (multiplying factor 0.1405)				2401.01
	TOTAL				19490.01 Y
	Add 15% CPOH on "Y"				2923.50
	TOTAL				22413.51 Z
	Add Cess @ 1% on "Z"				224.14
	Cost of 10 metre				22637.64
	Cost of 1 metre				2263.76
	Say				2263.75

18.86 Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment)

Internal work - Concealed Pipe

18.86.1 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8779	SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	10.00	140.00	1400.00 P
	Add 3% for pipe inserted into fitting and wastage etc. on P				42.00
	3xP/ 100				
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00301	145.72	0.44
	Making chases upto 7.5x7.5 cm.in walls and making good the same				
18.78	Rate as per Item No.18.78 of SH:WATER SUPPLY	metre	10.00	171.80	1718 A
	Add 2% for special T&P and sundries etc. on P				28.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				4344.10 W
	Add 1 % Water charges on "W-A"				26.26
	TOTAL				4370.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				372.66
	TOTAL				4743.02 Y
	Add 15% CPOH on "Y-A"				453.75
	TOTAL				5196.77 Z
	Add Cess @ 1% on "Z-A"				34.79
	Cost of 10 metre				5231.56
	Cost of 1 metre				523.16
	Say				523.15

18.86.2 22.22 mm Outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	10.00	250.00	2500.00 P
	Add 3% for pipe inserted into fitting and wastage etc. on P				75.00
	3xP/ 100				
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00529	145.72	0.77
	Making chases upto 7.5x7.5 cm.in walls and making good the same				
18.78	Rate as per Item No.18.78 of SH: WATER SUPPLY	metre	10.00	171.80	1718 A
	Add 2% for special T&P and sundries etc. on P				50.00
	2xP/ 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				5499.43 W
	Add 1 % Water charges on "W-A"				37.81
	TOTAL				5537.25 X
	Add GST on "X-A" (multiplying factor 0.1405)				536.60
	TOTAL				6073.85 Y
	Add 15% CPOH on "Y-A"				653.38
	TOTAL				6727.23 Z
	Add Cess @ 1% on "Z-A"				50.09
	Cost of 10 metre				6777.32
	Cost of 1 metre				677.73
	Say				677.75

18.86A Providing and fixing Stainless Steel pipe and fitting of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment)
Internal work - Concealed Pipe

18.86A.1 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
3862	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 15 mm outer dia	metre	10.00	310.00	3100.00 P
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100			.	93.00
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.003472	145.72	0.51
	Making chases upto 7.5x7.5 cm.in walls and making good the same				
18.78	Rate as per Item No.18.78 of SH:WATER SUPPLY	metre	10.00	171.80	1718 A
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				62.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				6129.17 W
	Add 1 % Water charges on "W-A"				44.11
	TOTAL				6173.28 X
	Add GST on "X" (multiplying factor 0.1405)				625.97
	TOTAL				6799.24 Y
	Add 15% CPOH on "Y-A"				762.19
	TOTAL				7561.43 Z
	Add Cess @ 1% on "Z-A"				58.43
	Cost of 10 metre				7619.87
	Cost of 1 metre				761.99
	Say				762.00

18.86A.2 22 mm Outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
3863	SS pipe 316L grade as per IS 6911:2017 with press fit technology conforming to EN-10312 standards 22 mm outer dia	metre	10.00	500.00	5000.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 3% for pipe inserted into fitting and wastage etc. on P 3xP/ 100				150.00
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00619	145.72	0.90
	Making chases upto 7.5x7.5 cm. in walls and making good the same				
18.78	Rate as per Item No.18.78 of SH: WATER SUPPLY	metre	10.00	171.80	1718 A
	Add 2% for special T&P and sundries etc. on P 2xP/ 100				100.00
	LABOUR				
0116	Fitter (grade 1)	day	0.33	784.00	258.72
0117	Assistant Fitter or 2nd class Fitter	day	0.66	714.00	471.24
0114	Beldar	day	0.66	645.00	425.7
	TOTAL				8124.56 W
	Add 1 % Water charges on "W-A"				64.07
	TOTAL				8188.63 X
	Add GST on "X" (multiplying factor 0.1405)				909.12
	TOTAL				9097.75 Y
	Add 15% CPOH on "Y-A"				1106.96
	TOTAL				10204.71 Z
	Add Cess @ 1% on "Z-A"				84.87
	Cost of 10 metre				10289.58
	Cost of 1 metre				1028.96
	Say				1028.95

18.87 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Coupling/Socket

18.87.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8702	Coupling/Socket fittings for 15.88 mm outer dia SS pipe	each	1.00	60.00	60.00
	TOTAL				60.00 W
	Add 1 % Water charges on "W"				0.60
	TOTAL				60.60 X
	Add GST on "X" (multiplying factor 0.1405)				8.51
	TOTAL				69.11 Y
	Add 15% CPOH on "Y"				10.37
	TOTAL				79.48 Z
	Add Cess @ 1% on "Z"				0.79
	Cost of 1 no.				80.28
	Say				80.30

18.87.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8786	Coupling/Socket fittings for 22.22 mm outer dia SS pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65

18.87.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8787	Coupling/Socket fittings for 28.58 mm outer dia SS pipe	each	1.00	96.25	96.25
	TOTAL				96.25 W
	Add 1 % Water charges on "W"				0.96
	TOTAL				97.21 X
	Add GST on "X" (multiplying factor 0.1405)				13.66
	TOTAL				110.87 Y
	Add 15% CPOH on "Y"				16.63
	TOTAL				127.50 Z
	Add Cess @ 1% on "Z"				1.28
	Cost of 1 no.				128.78
	Say				128.80

18.87.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8788	Coupling/Socket fittings for 34.00 mm outer dia SS pipe	each	1.00	135.00	135.00
	TOTAL				135.00 W
	Add 1 % Water charges on "W"				1.35
	TOTAL				136.35 X
	Add GST on "X" (multiplying factor 0.1405)				19.16
	TOTAL				155.51 Y
	Add 15% CPOH on "Y"				23.33
	TOTAL				178.83 Z
	Add Cess @ 1% on "Z"				1.79
	Cost of 1 no.				180.62
	Say				180.60

18.87.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8789	Coupling/Socket fittings for 42.70 mm outer dia SS pipe	each	1.00	160.00	160.00
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70
	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05

18.87.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8790	Coupling/Socket fittings for 48.60 mm outer dia SS pipe	each	1.00	180.00	180.00
	TOTAL				180.00 W
	Add 1 % Water charges on "W"				1.80
	TOTAL				181.80 X
	Add GST on "X" (multiplying factor 0.1405)				25.54
	TOTAL				207.34 Y
	Add 15% CPOH on "Y"				31.10
	TOTAL				238.44 Z
	Add Cess @ 1% on "Z"				2.38
	Cost of 1 no.				240.83
	Say				240.85

18.87A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Coupling/Socket

18.87A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3868	Coupling/Socket fittings for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	215.00	215.00 215.00 W 2.15 217.15 X 30.51 247.66 Y 37.15 284.81 Z 2.85 287.66 287.65

18.87A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3869	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 22 mm outer dia SS pipe of grade 316 L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	270.00	270.00 270.00 W 2.70 272.70 X 38.31 311.01 Y 46.65 357.67 Z 3.58 361.24 361.25

18.87A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3870	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	315.00	315.00 315.00 W 3.15 318.15 X 44.70 362.85 Y 54.43 417.28 Z 4.17 421.45 421.45

18.87A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3871	Coupling/Socket fittings for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	395.00	395.00
	TOTAL				395.00 W
	Add 1 % Water charges on "W"				3.95
	TOTAL				398.95 X
	Add GST on "X" (multiplying factor 0.1405)				56.05
	TOTAL				455.00 Y
	Add 15% CPOH on "Y"				68.25
	TOTAL				523.25 Z
	Add Cess @ 1% on "Z"				5.23
	Cost of 1 no.				528.49
	Say				528.50

18.87A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3872	Coupling/Socket fittings for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	535.00	535.00
	TOTAL				535.00 W
	Add 1 % Water charges on "W"				5.35
	TOTAL				540.35 X
	Add GST on "X" (multiplying factor 0.1405)				75.92
	TOTAL				616.27 Y
	Add 15% CPOH on "Y"				92.44
	TOTAL				708.71 Z
	Add Cess @ 1% on "Z"				7.09
	Cost of 1 no.				715.80
	Say				715.80

18.87A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3873	Coupling/Socket fittings for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	640.00	640.00
	TOTAL				640.00 W
	Add 1 % Water charges on "W"				6.40
	TOTAL				646.40 X
	Add GST on "X" (multiplying factor 0.1405)				90.82
	TOTAL				737.22 Y
	Add 15% CPOH on "Y"				110.58
	TOTAL				847.80 Z
	Add Cess @ 1% on "Z"				8.48
	Cost of 1 no.				856.28
	Say				856.30

18.88 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per dirction of Engineer-in-charge.

Reducer

18.88.1 For 22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8791	Reducer for 22.22 mm X 15.88 mm outer Dia SS pipe	each	1.00	108.50	108.50
	TOTAL				108.50 W
	Add 1 % Water charges on "W"				1.09
	TOTAL				109.59 X
	Add GST on "X" (multiplying factor 0.1405)				15.40
	TOTAL				124.98 Y
	Add 15% CPOH on "Y"				18.75
	TOTAL				143.73 Z
	Add Cess @ 1% on "Z"				1.44
	Cost of 1 no.				145.17
	Say				145.15

18.88.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8792	Reducer for 28.58 mm X 15.88 mm outer Dia SS pipe	each	1.00	152.50	152.50
	TOTAL				152.50 W
	Add 1 % Water charges on "W"				1.53
	TOTAL				154.03 X
	Add GST on "X" (multiplying factor 0.1405)				21.64
	TOTAL				175.67 Y
	Add 15% CPOH on "Y"				26.35
	TOTAL				202.02 Z
	Add Cess @ 1% on "Z"				2.02
	Cost of 1 no.				204.04
	Say				204.05

18.88.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8793	Reducer for 28.58 mm X 22.22 mm outer Dia SS pipe	each	1.00	161.50	161.50
	TOTAL				161.50 W
	Add 1 % Water charges on "W"				1.62
	TOTAL				163.12 X
	Add GST on "X" (multiplying factor 0.1405)				22.92
	TOTAL				186.03 Y
	Add 15% CPOH on "Y"				27.90
	TOTAL				213.94 Z
	Add Cess @ 1% on "Z"				2.14
	Cost of 1 no.				216.08
	Say				216.10

18.88.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8794	Reducer for 34.00 mm X 15.88 mm outer Dia SS pipe	each	1.00	200.00	200.00
	TOTAL				200.00 W
	Add 1 % Water charges on "W"				2.00
	TOTAL				202.00 X
	Add GST on "X" (multiplying factor 0.1405)				28.38
	TOTAL				230.38 Y
	Add 15% CPOH on "Y"				34.56
	TOTAL				264.94 Z
	Add Cess @ 1% on "Z"				2.65
	Cost of 1 no.				267.59
	Say				267.60

18.88.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8795	Reducer for 34.00 mm X 22.22 mm outer Dia SS pipe	each	1.00	210.00	210.00
	TOTAL				210.00 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.10 X
	Add GST on "X" (multiplying factor 0.1405)				29.80
	TOTAL				241.90 Y
	Add 15% CPOH on "Y"				36.29
	TOTAL				278.19 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1 no.				280.97
	Say				280.95

18.88.6 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8796	Reducer for 34.00 mm X 28.58 mm outer Dia SS pipe	each	1.00	210.00	210.00
	TOTAL				210.00 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.10 X
	Add GST on "X" (multiplying factor 0.1405)				29.80
	TOTAL				241.90 Y
	Add 15% CPOH on "Y"				36.29
	TOTAL				278.19 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1 no.				280.97
	Say				280.95

18.88.7 For 42.70 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8797	Reducer for 42.70 mm X 15.88 mm outer Dia SS pipe	each	1.00	375.00	375.00
	TOTAL				375.00 W
	Add 1 % Water charges on "W"				3.75
	TOTAL				378.75 X
	Add GST on "X" (multiplying factor 0.1405)				53.21
	TOTAL				431.96 Y
	Add 15% CPOH on "Y"				64.79
	TOTAL				496.76 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 1 no.				501.73
	Say				501.75

18.88.8 For 42.70 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8798	Details of cost for 1 no. MATERIAL Reducer for 42.70 mm X 22.22 mm outer Dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	375.00	375.00 375.00 W 3.75 378.75 X 53.21 431.96 Y 64.79 496.76 Z 4.97 501.73 501.75

18.88.9 For 42.70 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8799	Details of cost for 1 no. MATERIAL Reducer for 42.70 mm X 28.58 mm outer Dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	390.00	390.00 390.00 W 3.90 393.90 X 55.34 449.24 Y 67.39 516.63 Z 5.17 521.80 521.80

18.88.10 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8800	Details of cost for 1 no. MATERIAL Reducer for 42.70 mm X 34.00 mm outer Dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	390.00	390.00 390.00 W 3.90 393.90 X 55.34 449.24 Y 67.39 516.63 Z 5.17 521.80 521.80

18.88.11 For 48.60 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8801	Details of cost for 1 no. MATERIAL Reducer for 48.60 mm X 15.88 mm outer Dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	425.00	425.00 425.00 W 4.25 429.25 X 60.31 489.56 Y 73.43 562.99 Z 5.63 568.62 568.60

18.88.12 For 48.60 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8802	Details of cost for 1 no. MATERIAL Reducer for 48.60 mm X 22.22 mm outer Dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	425.00	425.00 425.00 W 4.25 429.25 X 60.31 489.56 Y 73.43 562.99 Z 5.63 568.62 568.60

18.88.13 For 48.60 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8803	Details of cost for 1 no. MATERIAL Reducer for 48.60 mm X 28.58 mm outer Dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	425.00	425.00 425.00 W 4.25 429.25 X 60.31 489.56 Y 73.43 562.99 Z 5.63 568.62 568.60

18.88.14 For 48.60 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8804	Reducer for 48.60 mm X 34.00 mm outer Dia SS pipe	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60

18.88.15 For 48.60 mm x 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8805	Reducer for48.60 mm X 42.70 mm outer Dia SS pipe	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60

18.88A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per dirction of Engineer-in-charge.

Reducer

18.88A.1 For 22mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3874	Reducer for 22mm x 15 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	255.00	255.00
	TOTAL				255.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				2.55
	TOTAL				257.55 X
	Add GST on "X" (multiplying factor 0.1405)				36.19
	TOTAL				293.74 Y
	Add 15% CPOH on "Y"				44.06
	TOTAL				337.80 Z
	Add Cess @ 1% on "Z"				3.38
	Cost of 1 no.				341.17
	Say				341.15

18.88A.2 For 28 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3875	Reducer for 28 mm X 15 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	310.00	310.00
	TOTAL				310.00 W
	Add 1 % Water charges on "W"				3.10
	TOTAL				313.10 X
	Add GST on "X" (multiplying factor 0.1405)				43.99
	TOTAL				357.09 Y
	Add 15% CPOH on "Y"				53.56
	TOTAL				410.65 Z
	Add Cess @ 1% on "Z"				4.11
	Cost of 1 no.				414.76
	Say				414.75

18.88A.3 For 28 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3876	Reducer for 28 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	375.00	375.00
	TOTAL				375.00 W
	Add 1 % Water charges on "W"				3.75
	TOTAL				378.75 X
	Add GST on "X" (multiplying factor 0.1405)				53.21
	TOTAL				431.96 Y
	Add 15% CPOH on "Y"				64.79
	TOTAL				496.76 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 1 no.				501.73
	Say				501.75

18.88A.4 For 35 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3877	Reducer for 35 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	380.00	380.00
	TOTAL				380.00 W
	Add 1 % Water charges on "W"				3.80
	TOTAL				383.80 X
	Add GST on "X" (multiplying factor 0.1405)				53.92
	TOTAL				437.72 Y
	Add 15% CPOH on "Y"				65.66
	TOTAL				503.38 Z
	Add Cess @ 1% on "Z"				5.03
	Cost of 1 no.				508.42
	Say				508.40

18.88A.5 For 35 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3878	Reducer for 35 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	470.00	470.00
	TOTAL				470.00 W
	Add 1 % Water charges on "W"				4.70
	TOTAL				474.70 X
	Add GST on "X" (multiplying factor 0.1405)				66.70
	TOTAL				541.40 Y
	Add 15% CPOH on "Y"				81.21
	TOTAL				622.60 Z
	Add Cess @ 1% on "Z"				6.23
	Cost of 1 no.				628.83
	Say				628.85

18.88A.6 For 42 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3879	Reducer for 42 mm x 22 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	605.00	605.00
	TOTAL				605.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				6.05
	TOTAL				611.05 X
	Add GST on "X" (multiplying factor 0.1405)				85.85
	TOTAL				696.90 Y
	Add 15% CPOH on "Y"				104.54
	TOTAL				801.44 Z
	Add Cess @ 1% on "Z"				8.01
	Cost of 1 no.				809.45
	Say				809.45

18.88A.7 For 42 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3880	Reducer for 42 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.03 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20

18.88A.8 For 42 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3881	Reducer for 42 mm x 35 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	720.00	720.00
	TOTAL				720.00 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.20 X
	Add GST on "X" (multiplying factor 0.1405)				102.17
	TOTAL				829.37 Y
	Add 15% CPOH on "Y"				124.41
	TOTAL				953.78 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 1 no.				963.32
	Say				963.30

18.88A.9 For 54 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3882	Reducer for 54 mm x 28 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	835.00	835.00
	TOTAL				835.00 W
	Add 1 % Water charges on "W"				8.35
	TOTAL				843.35 X
	Add GST on "X" (multiplying factor 0.1405)				118.49
	TOTAL				961.84 Y
	Add 15% CPOH on "Y"				144.28
	TOTAL				1106.12 Z
	Add Cess @ 1% on "Z"				11.06
	Cost of 1 no.				1117.18
	Say				1117.20

18.88A.10 For 54 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3883	Reducer for 54 mm x 35 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	990.00	990.00
	TOTAL				990.00 W
	Add 1 % Water charges on "W"				9.90
	TOTAL				999.90 X
	Add GST on "X" (multiplying factor 0.1405)				140.49
	TOTAL				1140.39 Y
	Add 15% CPOH on "Y"				171.06
	TOTAL				1311.44 Z
	Add Cess @ 1% on "Z"				13.11
	Cost of 1 no.				1324.56
	Say				1324.55

18.88A.11 For 54 mm x 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3884	Reducer for 54 mm x 42 mm outer Dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1030.00	1030.00
	TOTAL				1030.00 W
	Add 1 % Water charges on "W"				10.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				1040.30 X
	Add GST on "X" (multiplying factor 0.1405)				146.16
	TOTAL				1186.46 Y
	Add 15% CPOH on "Y"				177.97
	TOTAL				1364.43 Z
	Add Cess @ 1% on "Z"				13.64
	Cost of 1 no.				1378.08
	Say				1378.10

18.89 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Slip Coupling/ Socket

18.89.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8806	Slip Coupling / Socket 15.88 mm outer dia SS pipe	each	1.00	55.00	55.00
	TOTAL				55.00 W
	Add 1 % Water charges on "W"				0.55
	TOTAL				55.55 X
	Add GST on "X" (multiplying factor 0.1405)				7.80
	TOTAL				63.35 Y
	Add 15% CPOH on "Y"				9.50
	TOTAL				72.86 Z
	Add Cess @ 1% on "Z"				0.73
	Cost of 1 no.				73.59
	Say				73.60

18.89.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8807	Slip Coupling / Socket 22.22 mm outer dia SS pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65

18.89.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8808	Slip Coupling / Socket 28.58 mm outer dia SS pipe	each	1.00	95.00	95.00
	TOTAL				95.00 W
	Add 1 % Water charges on "W"				0.95
	TOTAL				95.95 X
	Add GST on "X" (multiplying factor 0.1405)				13.48
	TOTAL				109.43 Y
	Add 15% CPOH on "Y"				16.41
	TOTAL				125.85 Z
	Add Cess @ 1% on "Z"				1.26
	Cost of 1 no.				127.10
	Say				127.10

18.89.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8809	Slip Coupling / Socket 34.00 mm outer dia SS pipe	each	1.00	135.00	135.00
	TOTAL				135.00 W
	Add 1 % Water charges on "W"				1.35
	TOTAL				136.35 X
	Add GST on "X" (multiplying factor 0.1405)				19.16
	TOTAL				155.51 Y
	Add 15% CPOH on "Y"				23.33
	TOTAL				178.83 Z
	Add Cess @ 1% on "Z"				1.79
	Cost of 1 no.				180.62
	Say				180.60

18.89.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8810	Slip Coupling / Socket 42.70 mm outer dia SS pipe	each	1.00	160.00	160.00
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70
	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05

18.89.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8811	Slip Coupling / Socket 48.60 mm outer dia SS pipe	each	1.00	175.00	175.00
	TOTAL				175.00 W
	Add 1 % Water charges on "W"				1.75
	TOTAL				176.75 X
	Add GST on "X" (multiplying factor 0.1405)				24.83
	TOTAL				201.58 Y
	Add 15% CPOH on "Y"				30.24
	TOTAL				231.82 Z
	Add Cess @ 1% on "Z"				2.32
	Cost of 1 no.				234.14
	Say				234.15

18.89A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Sleeve/Slip Coupling/ Socket

18.89A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3885	Sleeve/ Slip Coupling / Socket 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	375.00	375.00
	TOTAL				375.00 W
	Add 1 % Water charges on "W"				3.75
	TOTAL				378.75 X
	Add GST on "X" (multiplying factor 0.1405)				53.21
	TOTAL				431.96 Y
	Add 15% CPOH on "Y"				64.79
	TOTAL				496.76 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 1 no.				501.73
	Say				501.75

18.89A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3886	Details of cost for 1 no. MATERIAL Sleeve/ Slip Coupling / Socket 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	450.00	450.00 450.00 W 4.50 454.50 X 63.86 518.36 Y 77.75 596.11 Z 5.96 602.07 602.05

18.89A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3887	Details of cost for 1 no. MATERIAL Sleeve/ Slip Coupling / Socket 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	520.00	520.00 520.00 W 5.20 525.20 X 73.79 598.99 Y 89.85 688.84 Z 6.89 695.73 695.75

18.89A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3888	Details of cost for 1 no. MATERIAL Sleeve/ Slip Coupling / Socket 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W"	each	1.00	580.00	580.00 580.00 W 5.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				585.80 X
	Add GST on "X" (multiplying factor 0.1405)				82.30
	TOTAL				668.10 Y
	Add 15% CPOH on "Y"				100.22
	TOTAL				768.32 Z
	Add Cess @ 1% on "Z"				7.68
	Cost of 1 no.				776.00
	Say				776.00

18.89A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3889	Sleeve/ Slip Coupling / Socket 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	670.00	670.00
	TOTAL				670.00 W
	Add 1 % Water charges on "W"				6.70
	TOTAL				676.70 X
	Add GST on "X" (multiplying factor 0.1405)				95.08
	TOTAL				771.78 Y
	Add 15% CPOH on "Y"				115.77
	TOTAL				887.54 Z
	Add Cess @ 1% on "Z"				8.88
	Cost of 1 no.				896.42
	Say				896.40

18.89A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3890	Sleeve/ Slip Coupling / Socket 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	955.00	955.00
	TOTAL				955.00 W
	Add 1 % Water charges on "W"				9.55
	TOTAL				964.55 X
	Add GST on "X" (multiplying factor 0.1405)				135.52
	TOTAL				1100.07 Y
	Add 15% CPOH on "Y"				165.01
	TOTAL				1265.08 Z
	Add Cess @ 1% on "Z"				12.65
	Cost of 1 no.				1277.73
	Say				1277.75

18.90 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Elbow 90°

18.90.1 For 15.88mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8812	Elbow 90° for 15.88 mm outer dia SS pipe	each	1.00	65.00	65.00
	TOTAL				65.00 W
	Add 1 % Water charges on "W"				0.65
	TOTAL				65.65 X
	Add GST on "X" (multiplying factor 0.1405)				9.22
	TOTAL				74.87 Y
	Add 15% CPOH on "Y"				11.23
	TOTAL				86.10 Z
	Add Cess @ 1% on "Z"				0.86
	Cost of 1 no.				86.97
	Say				86.95

18.90.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8813	Elbow 90° for 22.22 mm outer dia SS pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65

18.90.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8814	Elbow 90° for 28.58 mm outer dia SS pipe	each	1.00	105.00	105.00
	TOTAL				105.00 W
	Add 1 % Water charges on "W"				1.05
	TOTAL				106.05 X
	Add GST on "X" (multiplying factor 0.1405)				14.90
	TOTAL				120.95 Y
	Add 15% CPOH on "Y"				18.14
	TOTAL				139.09 Z
	Add Cess @ 1% on "Z"				1.39
	Cost of 1 no.				140.48
	Say				140.50

18.90.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8815	Elbow 90° for 34.00 mm outer dia SS pipe	each	1.00	120.00	120.00
	TOTAL				120.00 W
	Add 1 % Water charges on "W"				1.20
	TOTAL				121.20 X
	Add GST on "X" (multiplying factor 0.1405)				17.03
	TOTAL				138.23 Y
	Add 15% CPOH on "Y"				20.73
	TOTAL				158.96 Z
	Add Cess @ 1% on "Z"				1.59
	Cost of 1 no.				160.55
	Say				160.55

18.90.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8816	Elbow 90° for 42.70 mm outer dia SS pipe	each	1.00	130.00	130.00
	TOTAL				130.00 W
	Add 1 % Water charges on "W"				1.30
	TOTAL				131.30 X
	Add GST on "X" (multiplying factor 0.1405)				18.45
	TOTAL				149.75 Y
	Add 15% CPOH on "Y"				22.46
	TOTAL				172.21 Z
	Add Cess @ 1% on "Z"				1.72
	Cost of 1 no.				173.93
	Say				173.95

18.90.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8817	Elbow 90° for 48.60 mm outer dia SS pipe	each	1.00	160.00	160.00
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70
	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05

18.90A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Elbow 90°

18.90A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3891	Elbow 90° for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	305.00	305.00
	TOTAL				305.00 W
	Add 1 % Water charges on "W"				3.05
	TOTAL				308.05 X
	Add GST on "X" (multiplying factor 0.1405)				43.28
	TOTAL				351.33 Y
	Add 15% CPOH on "Y"				52.70
	TOTAL				404.03 Z
	Add Cess @ 1% on "Z"				4.04
	Cost of 1 no.				408.07
	Say				408.05

18.90A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3892	Details of cost for 1 no. MATERIAL Elbow 90° for 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	430.00	430.00 430.00 W 4.30 434.30 X 61.02 495.32 Y 74.30 569.62 Z 5.70 575.31 575.30

18.90A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3893	Details of cost for 1 no. MATERIAL Elbow 90° for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	575.00	575.00 575.00 W 5.75 580.75 X 81.60 662.35 Y 99.35 761.70 Z 7.62 769.31 769.30

18.90A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3894	Details of cost for 1 no. MATERIAL Elbow 90° for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W"	each	1.00	940.00	940.00 940.00 W 9.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				949.40 X
	Add GST on "X" (multiplying factor 0.1405)				133.39
	TOTAL				1082.79 Y
	Add 15% CPOH on "Y"				162.42
	TOTAL				1245.21 Z
	Add Cess @ 1% on "Z"				12.45
	Cost of 1 no.				1257.66
	Say				1257.65

18.90A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3895	Elbow 90° for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1520.00	1520.00
	TOTAL				1520.00 W
	Add 1 % Water charges on "W"				15.20
	TOTAL				1535.20 X
	Add GST on "X" (multiplying factor 0.1405)				215.70
	TOTAL				1750.90 Y
	Add 15% CPOH on "Y"				262.63
	TOTAL				2013.53 Z
	Add Cess @ 1% on "Z"				20.14
	Cost of 1 no.				2033.67
	Say				2033.65

18.90A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3896	Elbow 90° for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2010.00	2010.00
	TOTAL				2010.00 W
	Add 1 % Water charges on "W"				20.10
	TOTAL				2030.10 X
	Add GST on "X" (multiplying factor 0.1405)				285.23
	TOTAL				2315.33 Y
	Add 15% CPOH on "Y"				347.30
	TOTAL				2662.63 Z
	Add Cess @ 1% on "Z"				26.63
	Cost of 1 no.				2689.25
	Say				2689.25

18.91 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Elbow 90°

18.91.1 For22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8818	Reducing Elbow 90° for 22.22 mm X 15.88 mm outer dia SS pipe	each	1.00	150.00	150.00
	TOTAL				150.00 W
	Add 1 % Water charges on "W"				1.50
	TOTAL				151.50 X
	Add GST on "X" (multiplying factor 0.1405)				21.29
	TOTAL				172.79 Y
	Add 15% CPOH on "Y"				25.92
	TOTAL				198.70 Z
	Add Cess @ 1% on "Z"				1.99
	Cost of 1 no.				200.69
	Say				200.70

18.91.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8819	Reducing Elbow 90° for 28.58 mm X 15.88 mm outer dia SS pipe	each	1.00	210.00	210.00
	TOTAL				210.00 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.10 X
	Add GST on "X" (multiplying factor 0.1405)				29.80
	TOTAL				241.90 Y
	Add 15% CPOH on "Y"				36.29
	TOTAL				278.19 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1 no.				280.97
	Say				280.95

18.91.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8820	Reducing Elbow 90° for 28.58 mm X 22.22 mm outer dia SS pipe	each	1.00	250.00	250.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				250.00 W
	Add 1 % Water charges on "W"				2.50
	TOTAL				252.50 X
	Add GST on "X" (multiplying factor 0.1405)				35.48
	TOTAL				287.98 Y
	Add 15% CPOH on "Y"				43.20
	TOTAL				331.17 Z
	Add Cess @ 1% on "Z"				3.31
	Cost of 1 no.				334.48
	Say				334.50

18.91.4 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8821	Reducing Elbow 90° for 34.00 mm X 22.22 mm outer dia SS pipe	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70

18.91.5 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8822	Reducing Elbow 90° for 34.00 mm X 28.58 mm outer dia SS pipe	each	1.00	350.00	350.00
	TOTAL				350.00 W
	Add 1 % Water charges on "W"				3.50
	TOTAL				353.50 X
	Add GST on "X" (multiplying factor 0.1405)				49.67
	TOTAL				403.17 Y
	Add 15% CPOH on "Y"				60.48
	TOTAL				463.64 Z
	Add Cess @ 1% on "Z"				4.64
	Cost of 1 no.				468.28
	Say				468.30

18.91.6 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8823	Details of cost for 1 no. MATERIAL Reducing Elbow 90° for 42.70 mm X 34.00 mm outer dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	190.00	190.00 190.00 W 1.90 191.90 X 26.96 218.86 Y 32.83 251.69 Z 2.52 254.21 254.20

18.92 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Equal Tee

18.92.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8824	Details of cost for 1 no. MATERIAL Equal Tee for 15.88 mm outer dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	175.00	175.00 175.00 W 1.75 176.75 X 24.83 201.58 Y 30.24 231.82 Z 2.32 234.14 234.15

18.92.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8825	Details of cost for 1 no. MATERIAL Equal Tee for 22.22 mm outer dia SS pipe	each	1.00	250.00	250.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				250.00 W
	Add 1 % Water charges on "W"				2.50
	TOTAL				252.50 X
	Add GST on "X" (multiplying factor 0.1405)				35.48
	TOTAL				287.98 Y
	Add 15% CPOH on "Y"				43.20
	TOTAL				331.17 Z
	Add Cess @ 1% on "Z"				3.31
	Cost of 1 no.				334.48
	Say				334.50

18.92.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8826	Equal Tee for 28.58 mm outer dia SS pipe	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70

18.92.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8827	Equal Tee for 34.00 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70

18.92.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8828	Equal Tee for 42.70 mm outer dia SS pipe	each	1.00	695.00	695.00
	TOTAL				695.00 W
	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X
	Add GST on "X" (multiplying factor 0.1405)				98.62
	TOTAL				800.57 Y
	Add 15% CPOH on "Y"				120.09
	TOTAL				920.66 Z
	Add Cess @ 1% on "Z"				9.21
	Cost of 1 no.				929.87
	Say				929.85

18.92.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8829	Equal Tee for 48.60 mm outer dia SS pipe	each	1.00	915.00	915.00
	TOTAL				915.00 W
	Add 1 % Water charges on "W"				9.15
	TOTAL				924.15 X
	Add GST on "X" (multiplying factor 0.1405)				129.84
	TOTAL				1053.99 Y
	Add 15% CPOH on "Y"				158.10
	TOTAL				1212.09 Z
	Add Cess @ 1% on "Z"				12.12
	Cost of 1 no.				1224.21
	Say				1224.20

18.92A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Equal Tee

18.92A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3897	Equal Tee for 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	500.00	500.00
	TOTAL				500.00 W
	Add 1 % Water charges on "W"				5.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				505.00 X
	Add GST on "X" (multiplying factor 0.1405)				70.95
	TOTAL				575.95 Y
	Add 15% CPOH on "Y"				86.39
	TOTAL				662.35 Z
	Add Cess @ 1% on "Z"				6.62
	Cost of 1 no.				668.97
	Say				668.95

18.92A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3898	Equal Tee for 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	585.00	585.00
	TOTAL				585.00 W
	Add 1 % Water charges on "W"				5.85
	TOTAL				590.85 X
	Add GST on "X" (multiplying factor 0.1405)				83.01
	TOTAL				673.86 Y
	Add 15% CPOH on "Y"				101.08
	TOTAL				774.94 Z
	Add Cess @ 1% on "Z"				7.75
	Cost of 1 no.				782.69
	Say				782.70

18.92A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3899	Equal Tee for 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	720.00	720.00
	TOTAL				720.00 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.20 X
	Add GST on "X" (multiplying factor 0.1405)				102.17
	TOTAL				829.37 Y
	Add 15% CPOH on "Y"				124.41
	TOTAL				953.78 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 1 no.				963.32
	Say				963.30

18.92A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3900	Equal Tee for 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.92A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3901	Equal Tee for 42 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1250.00	1250.00
	TOTAL				1250.00 W
	Add 1 % Water charges on "W"				12.50
	TOTAL				1262.50 X
	Add GST on "X" (multiplying factor 0.1405)				177.38
	TOTAL				1439.88 Y
	Add 15% CPOH on "Y"				215.98
	TOTAL				1655.86 Z
	Add Cess @ 1% on "Z"				16.56
	Cost of 1 no.				1672.42
	Say				1672.40

18.92A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3902	Equal Tee for 54 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1500.00	1500.00
	TOTAL				1500.00 W
	Add 1 % Water charges on "W"				15.00
	TOTAL				1515.00 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				212.86
	TOTAL				1727.86 Y
	Add 15% CPOH on "Y"				259.18
	TOTAL				1987.04 Z
	Add Cess @ 1% on "Z"				19.87
	Cost of 1 no.				2006.91
	Say				2006.90

18.93 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Tee

18.93.1 For 22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8830	Reducing Tee for 22.22 mm X 15.88 mm outer dia SS	each	1.00	185.00	185.00
	TOTAL				185.00 W
	Add 1 % Water charges on "W"				1.85
	TOTAL				186.85 X
	Add GST on "X" (multiplying factor 0.1405)				26.25
	TOTAL				213.10 Y
	Add 15% CPOH on "Y"				31.97
	TOTAL				245.07 Z
	Add Cess @ 1% on "Z"				2.45
	Cost of 1 no.				247.52
	Say				247.50

18.93.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8831	Reducing Tee for 28.58 mm X 15.88 mm outer dia SS pipe	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00

18.93.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8832	Reducing Tee for 28.58 mm X				
	22.22 mm outer dia SS pipe	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying				
	factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00

18.93.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8833	Reducing Tee for 34.00 mm X				
	15.88 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying				
	factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70

18.93.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8834	Reducing Tee for 34.00 mm X				
	22.22 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying				
	factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70

18.93.6 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8835	Reducing Tee for 34.00 mm X 28.58 mm outer dia SS pipe	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70

18.93.7 For 42.70 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8836	Reducing Tee for 42.70 mm X 15.88 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20

18.93.8 For 42.70 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8837	Reducing Tee for 42.70 mm X 22.22 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20

18.93.8 For 42.70 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8837	Reducing Tee for 42.70 mm X 22.22 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20

18.93.9 For 42.70 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8838	Reducing Tee for 42.70 mm X 28.58 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20

18.93.10 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8839	Reducing Tee for 42.70 mm X 34.00 mm outer dia SS pipe	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20

18.93.11 For 48.60 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8840	Details of cost for 1 no. MATERIAL Reducing Tee for 48.60 mm X 15.88 mm outer dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	895.00	895.00 895.00 W 8.95 903.95 X 127.00 1030.95 Y 154.64 1185.60 Z 11.86 1197.45 1197.45

18.93.12 For 48.60 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8841	Details of cost for 1 no. MATERIAL Reducing Tee for 48.60 mm X 22.22 mm outer dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	895.00	895.00 895.00 W 8.95 903.95 X 127.00 1030.95 Y 154.64 1185.60 Z 11.86 1197.45 1197.45

18.93.13 For 48.60 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8842	Details of cost for 1 no. MATERIAL Reducing Tee for 48.60 mm X 28.58 mm outer dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	895.00	895.00 895.00 W 8.95 903.95 X 127.00 1030.95 Y 154.64 1185.60 Z 11.86 1197.45 1197.45

18.93.14 For 48.60 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8843	Details of cost for 1 no. MATERIAL Reducing Tee for 48.60mm X 34.00 mm outer dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	895.00	895.00 895.00 W 8.95 903.95 X 127.00 1030.95 Y 154.64 1185.60 Z 11.86 1197.45 1197.45

18.93.15 For 48.60 mm x 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8844	Details of cost for 1 no. MATERIAL Reducing Tee for 48.60mm X 42.70mm outer dia SS pipe TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	895.00	895.00 895.00 W 8.95 903.95 X 127.00 1030.95 Y 154.64 1185.60 Z 11.86 1197.45 1197.45

18.93A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Reducing Tee

18.93A.1 For 22 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3903	Details of cost for 1 no. MATERIAL Reducing Tee for 22 mm x 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL	each	1.00	575.00	575.00 575.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				5.75
	TOTAL				580.75 X
	Add GST on "X" (multiplying factor 0.1405)				81.60
	TOTAL				662.35 Y
	Add 15% CPOH on "Y"				99.35
	TOTAL				761.70 Z
	Add Cess @ 1% on "Z"				7.62
	Cost of 1 no.				769.31
	Say				769.30

18.93A.2 For 28 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3904	Reducing Tee for 28 mm X 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	715.00	715.00
	TOTAL				715.00 W
	Add 1 % Water charges on "W"				7.15
	TOTAL				722.15 X
	Add GST on "X" (multiplying factor 0.1405)				101.46
	TOTAL				823.61 Y
	Add 15% CPOH on "Y"				123.54
	TOTAL				947.15 Z
	Add Cess @ 1% on "Z"				9.47
	Cost of 1 no.				956.63
	Say				956.65

18.93A.3 For 28 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3905	Reducing Tee for 28 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.93A.4 For 35 mm x 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3906	Reducing Tee for 35 mm X 15 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	900.00	900.00
	TOTAL				900.00 W
	Add 1 % Water charges on "W"				9.00
	TOTAL				909.00 X
	Add GST on "X" (multiplying factor 0.1405)				127.71
	TOTAL				1036.71 Y
	Add 15% CPOH on "Y"				155.51
	TOTAL				1192.22 Z
	Add Cess @ 1% on "Z"				11.92
	Cost of 1 no.				1204.14
	Say				1204.15

18.93A.5 For 35 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3907	Reducing Tee for 35 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85

18.93A.6 For 35 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3908	Reducing Tee for 35 mm X 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	915.00	915.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				915.00 W
	Add 1 % Water charges on "W"				9.15
	TOTAL				924.15 X
	Add GST on "X" (multiplying factor 0.1405)				129.84
	TOTAL				1053.99 Y
	Add 15% CPOH on "Y"				158.10
	TOTAL				1212.09 Z
	Add Cess @ 1% on "Z"				12.12
	Cost of 1 no.				1224.21
	Say				1224.20

18.93A.7 For 42 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3909	Reducing Tee for 42 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1280.00	1280.00
	TOTAL				1280.00 W
	Add 1 % Water charges on "W"				12.80
	TOTAL				1292.80 X
	Add GST on "X" (multiplying factor 0.1405)				181.64
	TOTAL				1474.44 Y
	Add 15% CPOH on "Y"				221.17
	TOTAL				1695.60 Z
	Add Cess @ 1% on "Z"				16.96
	Cost of 1 no.				1712.56
	Say				1712.55

18.93A.8 For 42 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3910	Reducing Tee for 42 mm X 28 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1265.00	1265.00
	TOTAL				1265.00 W
	Add 1 % Water charges on "W"				12.65
	TOTAL				1277.65 X
	Add GST on "X" (multiplying factor 0.1405)				179.51
	TOTAL				1457.16 Y
	Add 15% CPOH on "Y"				218.57
	TOTAL				1675.73 Z
	Add Cess @ 1% on "Z"				16.76
	Cost of 1 no.				1692.49
	Say				1692.50

18.93A.9 For 42 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3911	Reducing Tee for 42 mm X 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1290.00	1290.00
	TOTAL				1290.00 W
	Add 1 % Water charges on "W"				12.90
	TOTAL				1302.90 X
	Add GST on "X" (multiplying factor 0.1405)				183.06
	TOTAL				1485.96 Y
	Add 15% CPOH on "Y"				222.89
	TOTAL				1708.85 Z
	Add Cess @ 1% on "Z"				17.09
	Cost of 1 no.				1725.94
	Say				1725.95

18.93A.10 For 54 mm x 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3912	Reducing Tee for 54 mm X 22 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1500.00	1500.00
	TOTAL				1500.00 W
	Add 1 % Water charges on "W"				15.00
	TOTAL				1515.00 X
	Add GST on "X" (multiplying factor 0.1405)				212.86
	TOTAL				1727.86 Y
	Add 15% CPOH on "Y"				259.18
	TOTAL				1987.04 Z
	Add Cess @ 1% on "Z"				19.87
	Cost of 1 no.				2006.91
	Say				2006.90

18.93A.11 For 54 mm x 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3913	Reducing Tee for 54 mm X 28 mm outer dia SS pipe of grade 316 conforming to IS 6911:2017	each	1.00	1540.00	1540.00
	TOTAL				1540.00 W
	Add 1 % Water charges on "W"				15.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				1555.40 X
	Add GST on "X" (multiplying factor 0.1405)				218.53
	TOTAL				1773.93 Y
	Add 15% CPOH on "Y"				266.09
	TOTAL				2040.02 Z
	Add Cess @ 1% on "Z"				20.40
	Cost of 1 no.				2060.42
	Say				2060.40

18.93A.12 For 54 mm x 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3914	Reducing Tee for 54 mm X 35 mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1550.00	1550.00
	TOTAL				1550.00 W
	Add 1 % Water charges on "W"				15.50
	TOTAL				1565.50 X
	Add GST on "X" (multiplying factor 0.1405)				219.95
	TOTAL				1785.45 Y
	Add 15% CPOH on "Y"				267.82
	TOTAL				2053.27 Z
	Add Cess @ 1% on "Z"				20.53
	Cost of 1 no.				2073.80
	Say				2073.80

18.93A.13 For 54 mm x 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3915	Reducing Tee for 54mm X 42mm outer dia SS pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1570.00	1570.00
	TOTAL				1570.00 W
	Add 1 % Water charges on "W"				15.70
	TOTAL				1585.70 X
	Add GST on "X" (multiplying factor 0.1405)				222.79
	TOTAL				1808.49 Y
	Add 15% CPOH on "Y"				271.27
	TOTAL				2079.76 Z
	Add Cess @ 1% on "Z"				20.80
	Cost of 1 no.				2100.56
	Say				2100.55

18.94 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Thread Tee

18.94.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8845	Stainless steel Male thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	185.00	185.00
	TOTAL				185.00 W
	Add 1 % Water charges on "W"				1.85
	TOTAL				186.85 X
	Add GST on "X" (multiplying factor 0.1405)				26.25
	TOTAL				213.10 Y
	Add 15% CPOH on "Y"				31.97
	TOTAL				245.07 Z
	Add Cess @ 1% on "Z"				2.45
	Cost of 1 no.				247.52
	Say				247.50

18.94.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8846	Stainless steel Male thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65

18.94.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8847	Stainless steel Male thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say				2.15 217.15 X 30.51 247.66 Y 37.15 284.81 Z 2.85 287.66 287.65

18.94.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no. MATERIAL				
8848	Stainless steel Male thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	295.00	295.00 295.00 W 2.95 297.95 X 41.86 339.81 Y 50.97 390.78 Z 3.91 394.69 394.70

18.94.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no. MATERIAL				
8849	Stainless steel Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	295.00	295.00 295.00 W 2.95 297.95 X 41.86 339.81 Y 50.97 390.78 Z 3.91 394.69 394.70

18.94.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8850	Stainless steel Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost of 1 no.				394.69
	Say				394.70

18.94.7 For 34.00 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8851	Stainless steel Male thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15

18.94.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8852	Stainless steel Male thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15

18.94.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8853	Stainless steel Male thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15

18.94.10 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8854	Stainless steel Male thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	465.00	465.00
	TOTAL				465.00 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.65 X
	Add GST on "X" (multiplying factor 0.1405)				65.99
	TOTAL				535.64 Y
	Add 15% CPOH on "Y"				80.35
	TOTAL				615.98 Z
	Add Cess @ 1% on "Z"				6.16
	Cost of 1 no.				622.14
	Say				622.15

18.94.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8855	Stainless steel Male thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.94.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8856	Stainless steel Male thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.94.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8857	Stainless steel Male thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.94.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8858	Stainless steel Male thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.94.15 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8859	Stainless steel Male thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.94.16 For 48.60 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8860	Stainless steel Male thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.94.17 For 48.60 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8861	Stainless steel Male thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.94.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8862	Stainless steel Male thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.94.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8863	Stainless steel Male thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.94.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8864	Stainless steel Male thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.94.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8865	Stainless steel Male thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.95 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Tee

18.95.1 For 15.88 mm outer dia x15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8866	Stainless steel Female thread Tee for 15.88 mm outer dia X 15 mm nominal dia hreaded each 1.00 185.00 185.00				
	TOTAL				185.00 W
	Add 1 % Water charges on "W"				1.85
	TOTAL				186.85 X
	Add GST on "X" (multiplying factor 0.1405)				26.25
	TOTAL				213.10 Y
	Add 15% CPOH on "Y"				31.97
	TOTAL				245.07 Z
	Add Cess @ 1% on "Z"				2.45
	Cost of 1 no.				247.52
	Say				247.50

18.95.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8867	Stainless steel Female thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	205.00	205.00
	TOTAL				205.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				2.05
	TOTAL				207.05 X
	Add GST on "X" (multiplying factor 0.1405)				29.09
	TOTAL				236.14 Y
	Add 15% CPOH on "Y"				35.42
	TOTAL				271.56 Z
	Add Cess @ 1% on "Z"				2.72
	Cost of 1 no.				274.28
	Say				274.30

18.95.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8868	Stainless steel Female thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	205.00	205.00
	TOTAL				205.00 W
	Add 1 % Water charges on "W"				2.05
	TOTAL				207.05 X
	Add GST on "X" (multiplying factor 0.1405)				29.09
	TOTAL				236.14 Y
	Add 15% CPOH on "Y"				35.42
	TOTAL				271.56 Z
	Add Cess @ 1% on "Z"				2.72
	Cost of 1 no.				274.28
	Say				274.30

18.95.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8869	Stainless steel Female thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	1.00	275.00	275.00
	TOTAL				275.00 W
	Add 1 % Water charges on "W"				2.75
	TOTAL				277.75 X
	Add GST on "X" (multiplying factor 0.1405)				39.02
	TOTAL				316.77 Y
	Add 15% CPOH on "Y"				47.52
	TOTAL				364.29 Z
	Add Cess @ 1% on "Z"				3.64
	Cost of 1 no.				367.93
	Say				367.95

18.95.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8870	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	275.00	275.00 275.00 W 2.75 277.75 X 39.02 316.77 Y 47.52 364.29 Z 3.64 367.93 367.95

18.95.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8871	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	275.00	275.00 275.00 W 2.75 277.75 X 39.02 316.77 Y 47.52 364.29 Z 3.64 367.93 367.95

18.95.7 For 34.00 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8872	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL	each	1.00	445.00	445.00 445.00 W 4.45 449.45 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				595.38
	Say				595.40

18.95.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8873	Stainless steel Female thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	1.00	445.00	445.00
	TOTAL				445.00 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				449.45 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				595.38
	Say				595.40

18.95.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8874	Stainless steel Female thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	445.00	445.00
	TOTAL				445.00 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				449.45 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				595.38
	Say				595.40

18.95.10 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8875	Stainless steel Female thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	445.00	445.00
	TOTAL				445.00 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				449.45 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.60 Y
	Add 15% CPOH on "Y"				76.89
	TOTAL				589.49 Z
	Add Cess @ 1% on "Z"				5.89
	Cost of 1 no.				595.38
	Say				595.40

18.95.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8876	Stainless steel Female thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55

18.95.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8877	Stainless steel Female thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55

18.95.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8878	Stainless steel Female thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55

18.95.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8879	Stainless steel Female thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	700.00	700.00
	TOTAL				700.00 W
	Add 1 % Water charges on "W"				7.00
	TOTAL				707.00 X
	Add GST on "X" (multiplying factor 0.1405)				99.33
	TOTAL				806.33 Y
	Add 15% CPOH on "Y"				120.95
	TOTAL				927.28 Z
	Add Cess @ 1% on "Z"				9.27
	Cost of 1 no.				936.56
	Say				936.55

18.95.15 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8880	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	700.00	700.00 700.00 W 7.00 707.00 X 99.33 806.33 Y 120.95 927.28 Z 9.27 936.56 936.55

18.95.16 For 48.60 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8881	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	905.00	905.00 905.00 W 9.05 914.05 X 128.42 1042.47 Y 156.37 1198.85 Z 11.99 1210.83 1210.85

18.95.17 For 48.60 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8882	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL	each	1.00	905.00	905.00 905.00 W 9.05 914.05 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85

18.95.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8883	Stainless steel Female thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85

18.95.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8884	Stainless steel Female thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85

18.95.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8885	Stainless steel Female thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85

18.95.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8886	Stainless steel Female thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	905.00	905.00
	TOTAL				905.00 W
	Add 1 % Water charges on "W"				9.05
	TOTAL				914.05 X
	Add GST on "X" (multiplying factor 0.1405)				128.42
	TOTAL				1042.47 Y
	Add 15% CPOH on "Y"				156.37
	TOTAL				1198.85 Z
	Add Cess @ 1% on "Z"				11.99
	Cost of 1 no.				1210.83
	Say				1210.85

18.95A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Tee

18.95A.1 For 15 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3916	Stainless steel Female thread Tee for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	IS 6911:2017 and conforming to EN-10312	each	1.00	560.00	560.00
	TOTAL				560.00 W
	Add 1 % Water charges on "W"				5.60
	TOTAL				565.60 X
	Add GST on "X" (multiplying factor 0.1405)				79.47
	TOTAL				645.07 Y
	Add 15% CPOH on "Y"				96.76
	TOTAL				741.83 Z
	Add Cess @ 1% on "Z"				7.42
	Cost of 1 no.				749.25
	Say				749.25

18.95A.2 For 22mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3917	Stainless steel Female thread Tee for 22 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	615.00	615.00
	TOTAL				615.00 W
	Add 1 % Water charges on "W"				6.15
	TOTAL				621.15 X
	Add GST on "X" (multiplying factor 0.1405)				87.27
	TOTAL				708.42 Y
	Add 15% CPOH on "Y"				106.26
	TOTAL				814.68 Z
	Add Cess @ 1% on "Z"				8.15
	Cost of 1 no.				822.83
	Say				822.85

18.95A.3 For 22mm outer dia x 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3918	Stainless steel Female thread Tee for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	690.00	690.00
	TOTAL				690.00 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.90 X
	Add GST on "X" (multiplying factor 0.1405)				97.91

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				794.81 Y
	Add 15% CPOH on "Y"				119.22
	TOTAL				914.04 Z
	Add Cess @ 1% on "Z"				9.14
	Cost of 1 no.				923.18
	Say				923.20

18.95A.4 For 28 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3919	Stainless steel Female thread Tee for 28 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	730.00	730.00
	TOTAL				730.00 W
	Add 1 % Water charges on "W"				7.30
	TOTAL				737.30 X
	Add GST on "X" (multiplying factor 0.1405)				103.59
	TOTAL				840.89 Y
	Add 15% CPOH on "Y"				126.13
	TOTAL				967.02 Z
	Add Cess @ 1% on "Z"				9.67
	Cost of 1 no.				976.69
	Say				976.70

18.95A.5 For 28 mm outer dia x 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3920	Stainless steel Female thread Tee for 28 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	755.00	755.00
	TOTAL				755.00 W
	Add 1 % Water charges on "W"				7.55
	TOTAL				762.55 X
	Add GST on "X" (multiplying factor 0.1405)				107.14
	TOTAL				869.69 Y
	Add 15% CPOH on "Y"				130.45
	TOTAL				1000.14 Z
	Add Cess @ 1% on "Z"				10.00
	Cost of 1 no.				1010.14
	Say				1010.15

18.95A.6 For 28 mm outer dia x 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3921	Stainless steel Female thread Tee for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	840.00	840.00
	TOTAL				840.00 W
	Add 1 % Water charges on "W"				8.40
	TOTAL				848.40 X
	Add GST on "X" (multiplying factor 0.1405)				119.20
	TOTAL				967.60 Y
	Add 15% CPOH on "Y"				145.14
	TOTAL				1112.74 Z
	Add Cess @ 1% on "Z"				11.13
	Cost of 1 no.				1123.87
	Say				1123.85

18.95A.7 For 35 mm outer dia x 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3922	Stainless steel Female thread Tee for 35 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	845.00	845.00
	TOTAL				845.00 W
	Add 1 % Water charges on "W"				8.45
	TOTAL				853.45 X
	Add GST on "X" (multiplying factor 0.1405)				119.91
	TOTAL				973.36 Y
	Add 15% CPOH on "Y"				146.00
	TOTAL				1119.36 Z
	Add Cess @ 1% on "Z"				11.19
	Cost of 1 no.				1130.56
	Say				1130.55

18.95A.8 For 35 mm outer dia x 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3923	Stainless steel Female thread Tee for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1159.00	1159.00
	TOTAL				1159.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				11.59
	TOTAL				1170.59 X
	Add GST on "X" (multiplying factor 0.1405)				164.47
	TOTAL				1335.06 Y
	Add 15% CPOH on "Y"				200.26
	TOTAL				1535.32 Z
	Add Cess @ 1% on "Z"				15.35
	Cost of 1 no.				1550.67
	Say				1550.65

18.95A.9 For 42 mm outer dia x 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3924	Stainless steel Female thread Tee for 42 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1346.00	1346.00
	TOTAL				1346.00 W
	Add 1 % Water charges on "W"				13.46
	TOTAL				1359.46 X
	Add GST on "X" (multiplying factor 0.1405)				191.00
	TOTAL				1550.46 Y
	Add 15% CPOH on "Y"				232.57
	TOTAL				1783.03 Z
	Add Cess @ 1% on "Z"				17.83
	Cost of 1 no.				1800.86
	Say				1800.85

18.95A.10 For 54 mm outer dia x 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3925	Stainless steel Female thread Tee for 54 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1920.00	1920.00
	TOTAL				1920.00 W
	Add 1 % Water charges on "W"				19.20
	TOTAL				1939.20 X
	Add GST on "X" (multiplying factor 0.1405)				272.46
	TOTAL				2211.66 Y
	Add 15% CPOH on "Y"				331.75
	TOTAL				2543.41 Z
	Add Cess @ 1% on "Z"				25.43
	Cost of 1 no.				2568.84
	Say				2568.85

18.95A.11 For 54 mm outer dia x 2'' nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3926	Stainless steel Female thread Tee for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2307.00	2307.00
	TOTAL				2307.00 W
	Add 1 % Water charges on "W"				23.07
	TOTAL				2330.07 X
	Add GST on "X" (multiplying factor 0.1405)				327.37
	TOTAL				2657.44 Y
	Add 15% CPOH on "Y"				398.62
	TOTAL				3056.06 Z
	Add Cess @ 1% on "Z"				30.56
	Cost of 1 no.				3086.62
	Say				3086.60

18.96 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Connector/ Adapter

18.96.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8887	Stainless steel Female threaded Connector/Adapter for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	195.00	195.00
	TOTAL				195.00 W
	Add 1 % Water charges on "W"				1.95
	TOTAL				196.95 X
	Add GST on "X" (multiplying factor 0.1405)				27.67
	TOTAL				224.62 Y
	Add 15% CPOH on "Y"				33.69
	TOTAL				258.31 Z
	Add Cess @ 1% on "Z"				2.58
	Cost of 1 no.				260.90
	Say				260.90

18.96.2 For 22.22 mm outer dia x 15 mmnominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8888	Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	230.00	230.00 230.00 W 2.30 232.30 X 32.64 264.94 Y 39.74 304.68 Z 3.05 307.73 307.75

18.96.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8889	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 22.22 mm outer dia X 20 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	240.00	240.00 240.00 W 2.40 242.40 X 34.06 276.46 Y 41.47 317.93 Z 3.18 321.11 321.10

18.96.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8890	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 15 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	277.00	277.00 277.00 W 2.77 279.77 X 39.31 319.08 Y 47.86 366.94 Z 3.67 370.61 370.60

18.96.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8891	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	290.00	290.00 290.00 W 2.90 292.90 X 41.15 334.05 Y 50.11 384.16 Z 3.84 388.00 388.00

18.96.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8892	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	355.00	355.00 355.00 W 3.55 358.55 X 50.38 408.93 Y 61.34 470.27 Z 4.70 474.97 474.95

18.96.7 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8893	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL	each	1.00	410.00	410.00 410.00 W 4.10 414.10 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				58.18
	TOTAL				472.28 Y
	Add 15% CPOH on "Y"				70.84
	TOTAL				543.12 Z
	Add Cess @ 1% on "Z"				5.43
	Cost of 1 no.				548.55
	Say				548.55

18.96.8 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8894	Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	540.00	540.00
	TOTAL				540.00 W
	Add 1 % Water charges on "W"				5.40
	TOTAL				545.40 X
	Add GST on "X" (multiplying factor 0.1405)				76.63
	TOTAL				622.03 Y
	Add 15% CPOH on "Y"				93.30
	TOTAL				715.33 Z
	Add Cess @ 1% on "Z"				7.15
	Cost of 1 no.				722.49
	Say				722.50

18.96.9 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8895	Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	595.00	595.00
	TOTAL				595.00 W
	Add 1 % Water charges on "W"				5.95
	TOTAL				600.95 X
	Add GST on "X" (multiplying factor 0.1405)				84.43
	TOTAL				685.38 Y
	Add 15% CPOH on "Y"				102.81
	TOTAL				788.19 Z
	Add Cess @ 1% on "Z"				7.88
	Cost of 1 no.				796.07
	Say				796.05

18.96.10 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8896	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	695.00	695.00
	TOTAL				695.00 W
	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X
	Add GST on "X" (multiplying factor 0.1405)				98.62
	TOTAL				800.57 Y
	Add 15% CPOH on "Y"				120.09
	TOTAL				920.66 Z
	Add Cess @ 1% on "Z"				9.21
	Cost of 1 no.				929.87
	Say				929.85

18.96.11 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8897	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	845.00	845.00
	TOTAL				845.00 W
	Add 1 % Water charges on "W"				8.45
	TOTAL				853.45 X
	Add GST on "X" (multiplying factor 0.1405)				119.91
	TOTAL				973.36 Y
	Add 15% CPOH on "Y"				146.00
	TOTAL				1119.36 Z
	Add Cess @ 1% on "Z"				11.19
	Cost of 1 no.				1130.56
	Say				1130.55

18.96.12 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8898	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	975.00	975.00
	TOTAL				975.00 W
	Add 1 % Water charges on "W"				9.75
	TOTAL				984.75 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				138.36
	TOTAL				1123.11 Y
	Add 15% CPOH on "Y"				168.47
	TOTAL				1291.57 Z
	Add Cess @ 1% on "Z"				12.92
	Cost of 1 no.				1304.49
	Say				1304.50

18.96A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Thread Connector/ Adapter

18.96A.1 For 15 mm outer dia x 1/2" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3927	Stainless steel Female threaded Connector/Adapter for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	440.00	440.00
	TOTAL				440.00 W
	Add 1 % Water charges on "W"				4.40
	TOTAL				444.40 X
	Add GST on "X" (multiplying factor 0.1405)				62.44
	TOTAL				506.84 Y
	Add 15% CPOH on "Y"				76.03
	TOTAL				582.86 Z
	Add Cess @ 1% on "Z"				5.83
	Cost of 1 no.				588.69
	Say				588.70

18.96A.2 For 22 mm outer dia x 1/2" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3928	Stainless steel Female threaded Connector/Adapter for 22 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	495.00	495.00
	TOTAL				495.00 W
	Add 1 % Water charges on "W"				4.95
	TOTAL				499.95 X
	Add GST on "X" (multiplying factor 0.1405)				70.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				570.19 Y
	Add 15% CPOH on "Y"				85.53
	TOTAL				655.72 Z
	Add Cess @ 1% on "Z"				6.56
	Cost of 1 no.				662.28
	Say				662.30

18.96A.3 For 22 mm outer dia x 3/4" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3929	Stainless steel Female threaded Connector/Adapter for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	580.00	580.00
	TOTAL				580.00 W
	Add 1 % Water charges on "W"				5.80
	TOTAL				585.80 X
	Add GST on "X" (multiplying factor 0.1405)				82.30
	TOTAL				668.10 Y
	Add 15% CPOH on "Y"				100.22
	TOTAL				768.32 Z
	Add Cess @ 1% on "Z"				7.68
	Cost of 1 no.				776.00
	Say				776.00

18.96A.4 For 28 mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3930	Stainless steel Female threaded Connector/Adapter for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	955.00	955.00
	TOTAL				955.00 W
	Add 1 % Water charges on "W"				9.55
	TOTAL				964.55 X
	Add GST on "X" (multiplying factor 0.1405)				135.52
	TOTAL				1100.07 Y
	Add 15% CPOH on "Y"				165.01
	TOTAL				1265.08 Z
	Add Cess @ 1% on "Z"				12.65
	Cost of 1 no.				1277.73
	Say				1277.75

18.96A.5 For 35 mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3931	Stainless steel Female threaded Connector/Adapter for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1020.00	1020.00
	TOTAL				1020.00 W
	Add 1 % Water charges on "W"				10.20
	TOTAL				1030.20 X
	Add GST on "X" (multiplying factor 0.1405)				144.74
	TOTAL				1174.94 Y
	Add 15% CPOH on "Y"				176.24
	TOTAL				1351.18 Z
	Add Cess @ 1% on "Z"				13.51
	Cost of 1 no.				1364.70
	Say				1364.70

18.96A.6 For 42 mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3932	Stainless steel Female threaded Connector/Adapter for 42 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1565.00	1565.00
	TOTAL				1565.00 W
	Add 1 % Water charges on "W"				15.65
	TOTAL				1580.65 X
	Add GST on "X" (multiplying factor 0.1405)				222.08
	TOTAL				1802.73 Y
	Add 15% CPOH on "Y"				270.41
	TOTAL				2073.14 Z
	Add Cess @ 1% on "Z"				20.73
	Cost of 1 no.				2093.87
	Say				2093.85

18.96A.7 For 54 mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3933	Stainless steel Female threaded Connector/Adapter for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2400.00	2400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				2400.00 W
	Add 1 % Water charges on "W"				24.00
	TOTAL				2424.00 X
	Add GST on "X" (multiplying factor 0.1405)				340.57
	TOTAL				2764.57 Y
	Add 15% CPOH on "Y"				414.69
	TOTAL				3179.26 Z
	Add Cess @ 1% on "Z"				31.79
	Cost of 1 no.				3211.05
	Say				3211.05

18.97 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Thread Connector/ Adapter

18.97.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8899	Stainless steel Male threaded Connector/ Adapter for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	195.00	195.00
	TOTAL				195.00 W
	Add 1 % Water charges on "W"				1.95
	TOTAL				196.95 X
	Add GST on "X" (multiplying factor 0.1405)				27.67
	TOTAL				224.62 Y
	Add 15% CPOH on "Y"				33.69
	TOTAL				258.31 Z
	Add Cess @ 1% on "Z"				2.58
	Cost of 1 no.				260.90
	Say				260.90

18.97.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8900	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	230.00	230.00
	TOTAL				230.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				2.30
	TOTAL				232.30 X
	Add GST on "X" (multiplying factor 0.1405)				32.64
	TOTAL				264.94 Y
	Add 15% CPOH on "Y"				39.74
	TOTAL				304.68 Z
	Add Cess @ 1% on "Z"				3.05
	Cost of 1 no.				307.73
	Say				307.75

18.97.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8901	Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 20mm nominal dia threaded	each	1.00	255.00	255.00
	TOTAL				255.00 W
	Add 1 % Water charges on "W"				2.55
	TOTAL				257.55 X
	Add GST on "X" (multiplying factor 0.1405)				36.19
	TOTAL				293.74 Y
	Add 15% CPOH on "Y"				44.06
	TOTAL				337.80 Z
	Add Cess @ 1% on "Z"				3.38
	Cost of 1 no.				341.17
	Say				341.15

18.97.4 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8902	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 20 mm nominal dia threaded	each	1.00	325.00	325.00
	TOTAL				325.00 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				328.25 X
	Add GST on "X" (multiplying factor 0.1405)				46.12
	TOTAL				374.37 Y
	Add 15% CPOH on "Y"				56.16
	TOTAL				430.52 Z
	Add Cess @ 1% on "Z"				4.31
	Cost of 1 no.				434.83
	Say				434.85

18.97.5 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8903	Stainless steel Male threaded Connector/Adapter for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	325.00	325.00
	TOTAL				325.00 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				328.25 X
	Add GST on "X" (multiplying factor 0.1405)				46.12
	TOTAL				374.37 Y
	Add 15% CPOH on "Y"				56.16
	TOTAL				430.52 Z
	Add Cess @ 1% on "Z"				4.31
	Cost of 1 no.				434.83
	Say				434.85

18.97.6 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8904	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 25 mm nominal dia threaded	each	1.00	475.00	475.00
	TOTAL				475.00 W
	Add 1 % Water charges on "W"				4.75
	TOTAL				479.75 X
	Add GST on "X" (multiplying factor 0.1405)				67.40
	TOTAL				547.15 Y
	Add 15% CPOH on "Y"				82.07
	TOTAL				629.23 Z
	Add Cess @ 1% on "Z"				6.29
	Cost of 1 no.				635.52
	Say				635.50

18.97.7 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8905	Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	565.00	565.00
	TOTAL				565.00 W
	Add 1 % Water charges on "W"				5.65
	TOTAL				570.65 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				80.18
	TOTAL				650.83 Y
	Add 15% CPOH on "Y"				97.62
	TOTAL				748.45 Z
	Add Cess @ 1% on "Z"				7.48
	Cost of 1 no.				755.93
	Say				755.95

18.97.8 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8906	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	649.00	649.00
	TOTAL				649.00 W
	Add 1 % Water charges on "W"				6.49
	TOTAL				655.49 X
	Add GST on "X" (multiplying factor 0.1405)				92.10
	TOTAL				747.59 Y
	Add 15% CPOH on "Y"				112.14
	TOTAL				859.72 Z
	Add Cess @ 1% on "Z"				8.60
	Cost of 1 no.				868.32
	Say				868.30

18.97.9 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8907	Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	730.00	730.00
	TOTAL				730.00 W
	Add 1 % Water charges on "W"				7.30
	TOTAL				737.30 X
	Add GST on "X" (multiplying factor 0.1405)				103.59
	TOTAL				840.89 Y
	Add 15% CPOH on "Y"				126.13
	TOTAL				967.02 Z
	Add Cess @ 1% on "Z"				9.67
	Cost of 1 no.				976.69
	Say				976.70

18.97.10 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8908	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	850.00	850.00
	TOTAL				850.00 W
	Add 1 % Water charges on "W"				8.50
	TOTAL				858.50 X
	Add GST on "X" (multiplying factor 0.1405)				120.62
	TOTAL				979.12 Y
	Add 15% CPOH on "Y"				146.87
	TOTAL				1125.99 Z
	Add Cess @ 1% on "Z"				11.26
	Cost of 1 no.				1137.25
	Say				1137.25

18.97.11 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8909	Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 50 nominal dia threaded	each	1.00	1140.00	1140.00
	TOTAL				1140.00 W
	Add 1 % Water charges on "W"				11.40
	TOTAL				1151.40 X
	Add GST on "X" (multiplying factor 0.1405)				161.77
	TOTAL				1313.17 Y
	Add 15% CPOH on "Y"				196.98
	TOTAL				1510.15 Z
	Add Cess @ 1% on "Z"				15.10
	Cost of 1 no.				1525.25
	Say				1525.25

18.97A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Thread Connector/ Adapter

18.97A.1 For 15 mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3934	Stainless steel Male threaded Connector/ Adapter for 15 mm outer				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	405.00	405.00
	TOTAL				405.00 W
	Add 1 % Water charges on "W"				4.05
	TOTAL				409.05 X
	Add GST on "X" (multiplying factor 0.1405)				57.47
	TOTAL				466.52 Y
	Add 15% CPOH on "Y"				69.98
	TOTAL				536.50 Z
	Add Cess @ 1% on "Z"				5.36
	Cost of 1 no.				541.86
	Say				541.85

18.97A.2 For 22 mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3935	Stainless steel Male threaded Connector/ Adapter for 22 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20

18.97A.3 For 22 mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3936	Stainless steel Male threaded Connector/ Adapter for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	505.00	505.00
	TOTAL				505.00 W
	Add 1 % Water charges on "W"				5.05
	TOTAL				510.05 X
	Add GST on "X" (multiplying				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	factor 0.1405)				71.66
	TOTAL				581.71 Y
	Add 15% CPOH on "Y"				87.26
	TOTAL				668.97 Z
	Add Cess @ 1% on "Z"				6.69
	Cost of 1 no.				675.66
	Say				675.65

18.97A.4 For 28 mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3937	Stainless steel Male threaded Connector/ Adapter for 28 mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	665.00	665.00
	TOTAL				665.00 W
	Add 1 % Water charges on "W"				6.65
	TOTAL				671.65 X
	Add GST on "X" (multiplying factor 0.1405)				94.37
	TOTAL				766.02 Y
	Add 15% CPOH on "Y"				114.90
	TOTAL				880.92 Z
	Add Cess @ 1% on "Z"				8.81
	Cost of 1 no.				889.73
	Say				889.75

18.97A.5 For 35 mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3938	Stainless steel Male threaded Connector/ Adapter for 35 mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	970.00	970.00
	TOTAL				970.00 W
	Add 1 % Water charges on "W"				9.70
	TOTAL				979.70 X
	Add GST on "X" (multiplying factor 0.1405)				137.65
	TOTAL				1117.35 Y
	Add 15% CPOH on "Y"				167.60
	TOTAL				1284.95 Z
	Add Cess @ 1% on "Z"				12.85
	Cost of 1 no.				1297.80
	Say				1297.80

18.97A.6 For 42 mm outer dia X 1-1/2"nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3939	Stainless steel Male threaded Connector/ Adapter for 42 mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1415.00	1415.00
	TOTAL				1415.00 W
	Add 1 % Water charges on "W"				14.15
	TOTAL				1429.15 X
	Add GST on "X" (multiplying factor 0.1405)				200.80
	TOTAL				1629.95 Y
	Add 15% CPOH on "Y"				244.49
	TOTAL				1874.44 Z
	Add Cess @ 1% on "Z"				18.74
	Cost of 1 no.				1893.18
	Say				1893.20

18.97A.7 For 54 mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3940	Stainless steel Male threaded Connector/ Adapter for 54 mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1895.00	1895.00
	TOTAL				1895.00 W
	Add 1 % Water charges on "W"				18.95
	TOTAL				1913.95 X
	Add GST on "X" (multiplying factor 0.1405)				268.91
	TOTAL				2182.86 Y
	Add 15% CPOH on "Y"				327.43
	TOTAL				2510.29 Z
	Add Cess @ 1% on "Z"				25.10
	Cost of 1 no.				2535.39
	Say				2535.40

18.98 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Valve Connector

18.98.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8910	Details of cost for 1 no. MATERIAL Stainless steel Valve Connector for 15.88 mm outer dia X 15 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	235.00	235.00 235.00 W 2.35 237.35 X 33.35 270.70 Y 40.60 311.30 Z 3.11 314.42 314.40

18.98.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8911	Details of cost for 1 no. MATERIAL Stainless steel Valve Connector for 22.22 mm outer dia X 15 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	280.00	280.00 280.00 W 2.80 282.80 X 39.73 322.53 Y 48.38 370.91 Z 3.71 374.62 374.60

18.98.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8912	Details of cost for 1 no. MATERIAL Stainless steel Valve Connector for 22.22 mm outer dia X 20 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL	each	1.00	310.00	310.00 310.00 W 3.10 313.10 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				43.99
	TOTAL				357.09 Y
	Add 15% CPOH on "Y"				53.56
	TOTAL				410.65 Z
	Add Cess @ 1% on "Z"				4.11
	Cost of 1 no.				414.76
	Say				414.75

18.98.4 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8913	Stainless steel Valve Connector for 28.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	425.00	425.00
	TOTAL				425.00 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.25 X
	Add GST on "X" (multiplying factor 0.1405)				60.31
	TOTAL				489.56 Y
	Add 15% CPOH on "Y"				73.43
	TOTAL				562.99 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 1 no.				568.62
	Say				568.60

18.98.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8914	Stainless steel Valve Connector for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	645.00	645.00
	TOTAL				645.00 W
	Add 1 % Water charges on "W"				6.45
	TOTAL				651.45 X
	Add GST on "X" (multiplying factor 0.1405)				91.53
	TOTAL				742.98 Y
	Add 15% CPOH on "Y"				111.45
	TOTAL				854.43 Z
	Add Cess @ 1% on "Z"				8.54
	Cost of 1 no.				862.97
	Say				862.95

18.98.6 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8915	Stainless steel Valve Connector for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	880.00	880.00
	TOTAL				880.00 W
	Add 1 % Water charges on "W"				8.80
	TOTAL				888.80 X
	Add GST on "X" (multiplying factor 0.1405)				124.88
	TOTAL				1013.68 Y
	Add 15% CPOH on "Y"				152.05
	TOTAL				1165.73 Z
	Add Cess @ 1% on "Z"				11.66
	Cost of 1 no.				1177.39
	Say				1177.40

18.98.7 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8916	Stainless steel Valve Connector for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	1210.00	1210.00
	TOTAL				1210.00 W
	Add 1 % Water charges on "W"				12.10
	TOTAL				1222.10 X
	Add GST on "X" (multiplying factor 0.1405)				171.71
	TOTAL				1393.81 Y
	Add 15% CPOH on "Y"				209.07
	TOTAL				1602.88 Z
	Add Cess @ 1% on "Z"				16.03
	Cost of 1 no.				1618.90
	Say				1618.90

18.99 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Threaded Elbow 90°

18.99.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8917	SS Female Threaded Elbow 90° for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	160.00	160.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				160.00 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				161.60 X
	Add GST on "X" (multiplying factor 0.1405)				22.70
	TOTAL				184.30 Y
	Add 15% CPOH on "Y"				27.65
	TOTAL				211.95 Z
	Add Cess @ 1% on "Z"				2.12
	Cost of 1 no.				214.07
	Say				214.05

18.99.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8918	Stainless steel Female Threaded Elbow 90° for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65

18.99.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8919	Stainless steel Female Threaded Elbow 90° for 22.22 mm outer dia X 20 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost of 1 no.				287.66
	Say				287.65

18.99.4 For 25.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8920	Stainless steel Female Threaded Elbow 90° for 25.58 mm outer dia X 25 mm nominal dia threaded	each	1.00	215.00	215.00
	TOTAL				215.00 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				217.15 X
	Add GST on "X" (multiplying factor 0.1405)				30.51
	TOTAL				247.66 Y
	Add 15% CPOH on "Y"				37.15
	TOTAL				284.81 Z
	Add Cess @ 1% on "Z"				2.85
	Cost for 1 no.				287.66
	Say				287.65

18.99.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8921	Stainless steel Female Threaded Elbow 90° for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	295.00	295.00
	TOTAL				295.00 W
	Add 1 % Water charges on "W"				2.95
	TOTAL				297.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.86
	TOTAL				339.81 Y
	Add 15% CPOH on "Y"				50.97
	TOTAL				390.78 Z
	Add Cess @ 1% on "Z"				3.91
	Cost for 1 no.				394.69
	Say				394.70

18.99.6 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8922	Stainless steel Female Threaded Elbow 90° for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20

18.99.7 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8923	Stainless steel Female Threaded Elbow 90° for 42.70 mm outer dia X 40 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20

18.99.8 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8924	Stainless steel Female Threaded Elbow 90° for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	710.00	710.00
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.99.9 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8925	Stainless steel Female Threaded Elbow 90° for 48.60 mm outer dia X 50 mm nominal dia threaded each				
	1.00 710.00 710.00				
	TOTAL				710.00 W
	Add 1 % Water charges on "W"				7.10
	TOTAL				717.10 X
	Add GST on "X" (multiplying factor 0.1405)				100.75
	TOTAL				817.85 Y
	Add 15% CPOH on "Y"				122.68
	TOTAL				940.53 Z
	Add Cess @ 1% on "Z"				9.41
	Cost of 1 no.				949.94
	Say				949.95

18.99A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Threaded Elbow 90°

18.99A.1 For 15 mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3941	Stainless steel Female Threaded Elbow 90° for 15 mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	640.00	640.00
	TOTAL				640.00 W
	Add 1 % Water charges on "W"				6.40
	TOTAL				646.40 X
	Add GST on "X" (multiplying factor 0.1405)				90.82
	TOTAL				737.22 Y
	Add 15% CPOH on "Y"				110.58
	TOTAL				847.80 Z
	Add Cess @ 1% on "Z"				8.48
	Cost of 1 no.				856.28
	Say				856.30

18.99A.2 For 22 mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3942	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	860.00	860.00 860.00 W 8.60 868.60 X 122.04 990.64 Y 148.60 1139.23 Z 11.39 1150.63 1150.65

18.99A.3 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3943	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312 TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost for 1 no. Say	each	1.00	1180.00	1180.00 1180.00 W 11.80 1191.80 X 167.45 1359.25 Y 203.89 1563.14 Z 15.63 1578.77 1578.75

18.99A.4 For 35mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3944	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 35mm outer dia X 1-1/4"				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1917.00	1917.00
	TOTAL				1917.00 W
	Add 1 % Water charges on "W"				19.17
	TOTAL				1936.17 X
	Add GST on "X" (multiplying factor 0.1405)				272.03
	TOTAL				2208.20 Y
	Add 15% CPOH on "Y"				331.23
	TOTAL				2539.43 Z
	Add Cess @ 1% on "Z"				25.39
	Cost for 1 no.				2564.83
	Say				2564.85

18.99A.5 For 42mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3945	Stainless steel Female Threaded Elbow 90° for 42mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2088.00	2088.00
	TOTAL				2088.00 W
	Add 1 % Water charges on "W"				20.88
	TOTAL				2108.88 X
	Add GST on "X" (multiplying factor 0.1405)				296.30
	TOTAL				2405.18 Y
	Add 15% CPOH on "Y"				360.78
	TOTAL				2765.95 Z
	Add Cess @ 1% on "Z"				27.66
	Cost of 1 no.				2793.61
	Say				2793.60

18.99A.6 For 54mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3946	Stainless steel Female Threaded Elbow 90° for 54mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	3227.00	3227.00
	TOTAL				3227.00 W
	Add 1 % Water charges on "W"				32.27
	TOTAL				3259.27 X
	Add GST on "X" (multiplying factor 0.1405)				457.93

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				3717.20 Y
	Add 15% CPOH on "Y"				557.58
	TOTAL				4274.78 Z
	Add Cess @ 1% on "Z"				42.75
	Cost of 1 no.				4317.52
	Say				4317.50

18.100 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Threaded Elbow 90°

18.100.1 For 15.88 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8926	Stainless steel Male Threaded Elbow 90° for 15.88 mm outer dia X 15 mm nominal dia threaded	each	1.00	195.00	195.00
	TOTAL				195.00 W
	Add 1 % Water charges on "W"				1.95
	TOTAL				196.95 X
	Add GST on "X" (multiplying factor 0.1405)				27.67
	TOTAL				224.62 Y
	Add 15% CPOH on "Y"				33.69
	TOTAL				258.31 Z
	Add Cess @ 1% on "Z"				2.58
	Cost of 1 no.				260.90
	Say				260.90

18.100.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8927	Stainless steel Male Threaded Elbow 90° for 22.22 mm outer dia X 15 mm nominal dia threaded	each	1.00	225.00	225.00
	TOTAL				225.00 W
	Add 1 % Water charges on "W"				2.25
	TOTAL				227.25 X
	Add GST on "X" (multiplying factor 0.1405)				31.93
	TOTAL				259.18 Y
	Add 15% CPOH on "Y"				38.88
	TOTAL				298.06 Z
	Add Cess @ 1% on "Z"				2.98
	Cost of 1 no.				301.04
	Say				301.05

18.100.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8928	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 22.22 mm outer dia X 20 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	225.00	225.00 225.00 W 2.25 227.25 X 31.93 259.18 Y 38.88 298.06 Z 2.98 301.04 301.05

18.100.4 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8929	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 28.58 mm outer dia X 25 mm nominal dia threaded TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say	each	1.00	225.00	225.00 225.00 W 2.25 227.25 X 31.93 259.18 Y 38.88 298.06 Z 2.98 301.04 301.05

18.100.5 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8930	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 34.00 mm outer dia X 25 mm nominal dia threaded TOTAL Add 1 % Water charges on "W"	each	1.00	290.00	290.00 290.00 W 2.90

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00

18.100.6 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8931	Stainless steel Male Threaded Elbow 90° for 34.00 mm outer dia X 32 mm nominal dia threaded	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00

18.100.7 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8932	Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X 32 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20

18.100.8 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8933	Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X40 mm nominal dia threaded	each	1.00	480.00	480.00
	TOTAL				480.00 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.80 X
	Add GST on "X" (multiplying factor 0.1405)				68.11
	TOTAL				552.91 Y
	Add 15% CPOH on "Y"				82.94
	TOTAL				635.85 Z
	Add Cess @ 1% on "Z"				6.36
	Cost of 1 no.				642.21
	Say				642.20

18.100.9 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8934	Stainless steel Male Threaded Elbow 90° for 48.60 mm outer dia X 40 mm nominal dia threaded	each	1.00	695.00	695.00
	TOTAL				695.00 W
	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X
	Add GST on "X" (multiplying factor 0.1405)				98.62
	TOTAL				800.57 Y
	Add 15% CPOH on "Y"				120.09
	TOTAL				920.66 Z
	Add Cess @ 1% on "Z"				9.21
	Cost of 1 no.				929.87
	Say				929.85

18.100.10 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8935	Stainless steel Male Threaded Elbow 90° for 48.60 mm outer dia X 50 mm nominal dia threaded	each	1.00	695.00	695.00
	TOTAL				695.00 W
	Add 1 % Water charges on "W"				6.95
	TOTAL				701.95 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 1 no. Say				98.62 800.57 Y 120.09 920.66 Z 9.21 929.87 929.85

18.100.A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Male Threaded Elbow 90°

18.100A.1 For 15mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no. MATERIAL				
3947	Stainless steel Male Threaded Elbow 90° for 15mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	525.00	525.00
	TOTAL				525.00 W
	Add 1 % Water charges on "W"				5.25
	TOTAL				530.25 X
	Add GST on "X" (multiplying factor 0.1405)				74.50
	TOTAL				604.75 Y
	Add 15% CPOH on "Y"				90.71
	TOTAL				695.46 Z
	Add Cess @ 1% on "Z"				6.95
	Cost of 1 no.				702.42
	Say				702.40

18.100A.2 For 22mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no. MATERIAL				
3948	Stainless steel Male Threaded Elbow 90° for 22mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	790.00	790.00
	TOTAL				790.00 W
	Add 1 % Water charges on "W"				7.90
	TOTAL				797.90 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				112.10
	TOTAL				910.00 Y
	Add 15% CPOH on "Y"				136.50
	TOTAL				1046.51 Z
	Add Cess @ 1% on "Z"				10.47
	Cost of 1 no.				1056.97
	Say				1056.95

18.100A.3 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3949	Stainless steel Male Threaded Elbow 90° for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1045.00	1045.00
	TOTAL				1045.00 W
	Add 1 % Water charges on "W"				10.45
	TOTAL				1055.45 X
	Add GST on "X" (multiplying factor 0.1405)				148.29
	TOTAL				1203.74 Y
	Add 15% CPOH on "Y"				180.56
	TOTAL				1384.30 Z
	Add Cess @ 1% on "Z"				13.84
	Cost of 1 no.				1398.14
	Say				1398.15

18.100A.4 For 35mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3950	Stainless steel Male Threaded Elbow 90° for 35mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1440.00	1440.00
	TOTAL				1440.00 W
	Add 1 % Water charges on "W"				14.40
	TOTAL				1454.40 X
	Add GST on "X" (multiplying factor 0.1405)				204.34
	TOTAL				1658.74 Y
	Add 15% CPOH on "Y"				248.81
	TOTAL				1907.55 Z
	Add Cess @ 1% on "Z"				19.08
	Cost of 1 no.				1926.63
	Say				1926.65

18.100A.5 For 42mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3951	Stainless steel Male Threaded Elbow 90° for 42mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2635.00	2635.00
	TOTAL				2635.00 W
	Add 1 % Water charges on "W"				26.35
	TOTAL				2661.35 X
	Add GST on "X" (multiplying factor 0.1405)				373.92
	TOTAL				3035.27 Y
	Add 15% CPOH on "Y"				455.29
	TOTAL				3490.56 Z
	Add Cess @ 1% on "Z"				34.91
	Cost of 1 no.				3525.47
	Say				3525.45

18.100A.6 For 54mm outer dia X 2" mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3952	Stainless steel Male Threaded Elbow 90° for 54mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2998.00	2998.00
	TOTAL				2998.00 W
	Add 1 % Water charges on "W"				29.98
	TOTAL				3027.98 X
	Add GST on "X" (multiplying factor 0.1405)				425.43
	TOTAL				3453.41 Y
	Add 15% CPOH on "Y"				518.01
	TOTAL				3971.42 Z
	Add Cess @ 1% on "Z"				39.71
	Cost of 1 no.				4011.14
	Say				4011.15

18.101 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Cap

18.101.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8936	Stainless steel Cap for 15.88 mm outer dia pipe	each	1.00	48.00	48.00
	TOTAL				48.00 W
	Add 1 % Water charges on "W"				0.48
	TOTAL				48.48 X
	Add GST on "X" (multiplying factor 0.1405)				6.81
	TOTAL				55.29 Y
	Add 15% CPOH on "Y"				8.29
	TOTAL				63.59 Z
	Add Cess @ 1% on "Z"				0.64
	Cost of 1 no.				64.22
	Say				64.20

18.101.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8937	Stainless steel Cap for 22.22 mm outer dia pipe	each	1.00	70.00	70.00
	TOTAL				70.00 W
	Add 1 % Water charges on "W"				0.70
	TOTAL				70.70 X
	Add GST on "X" (multiplying factor 0.1405)				9.93
	TOTAL				80.63 Y
	Add 15% CPOH on "Y"				12.10
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z"				0.93
	Cost of 1 no.				93.66
	Say				93.65

18.101.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8938	Stainless steel Cap for 28.58 mm outer dia pipe	each	1.00	90.00	90.00
	TOTAL				90.00 W
	Add 1 % Water charges on "W"				0.90
	TOTAL				90.90 X
	Add GST on "X" (multiplying factor 0.1405)				12.77
	TOTAL				103.67 Y
	Add 15% CPOH on "Y"				15.55
	TOTAL				119.22 Z
	Add Cess @ 1% on "Z"				1.19
	Cost of 1 no.				120.41
	Say				120.40

18.101.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8939	Stainless steel Cap for 34.00 mm outer dia pipe	each	1.00	175.00	175.00
	TOTAL				175.00 W
	Add 1 % Water charges on "W"				1.75
	TOTAL				176.75 X
	Add GST on "X" (multiplying factor 0.1405)				24.83
	TOTAL				201.58 Y
	Add 15% CPOH on "Y"				30.24
	TOTAL				231.82 Z
	Add Cess @ 1% on "Z"				2.32
	Cost of 1 no.				234.14
	Say				234.15

18.101.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8940	Stainless steel Cap for 42.70 mm outer dia pipe	each	1.00	250.00	250.00
	TOTAL				250.00 W
	Add 1 % Water charges on "W"				2.50
	TOTAL				252.50 X
	Add GST on "X" (multiplying factor 0.1405)				35.48
	TOTAL				287.98 Y
	Add 15% CPOH on "Y"				43.20
	TOTAL				331.17 Z
	Add Cess @ 1% on "Z"				3.31
	Cost of 1 no.				334.48
	Say				334.50

18.101.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8941	Stainless steel Cap for 48.60 mm outer dia pipe	each	1.00	325.00	325.00
	TOTAL				325.00 W
	Add 1 % Water charges on "W"				3.25
	TOTAL				328.25 X
	Add GST on "X" (multiplying factor 0.1405)				46.12
	TOTAL				374.37 Y
	Add 15% CPOH on "Y"				56.16
	TOTAL				430.52 Z
	Add Cess @ 1% on "Z"				4.31
	Cost of 1 no.				434.83
	Say				434.85

18.101A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.
Cap

18.101A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3953	Stainless steel Cap for 15 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	320.00	320.00
	TOTAL				320.00 W
	Add 1 % Water charges on "W"				3.20
	TOTAL				323.20 X
	Add GST on "X" (multiplying factor 0.1405)				45.41
	TOTAL				368.61 Y
	Add 15% CPOH on "Y"				55.29
	TOTAL				423.90 Z
	Add Cess @ 1% on "Z"				4.24
	Cost of 1 no.				428.14
	Say				428.15

18.101A.2 For 22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3954	Stainless steel Cap for 22 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	415.00	415.00
	TOTAL				415.00 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				419.15 X
	Add GST on "X" (multiplying factor 0.1405)				58.89
	TOTAL				478.04 Y
	Add 15% CPOH on "Y"				71.71
	TOTAL				549.75 Z
	Add Cess @ 1% on "Z"				5.50
	Cost of 1 no.				555.24
	Say				555.25

18.101A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3955	Stainless steel Cap for 28 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	515.00	515.00
	TOTAL				515.00 W
	Add 1 % Water charges on "W"				5.15
	TOTAL				520.15 X
	Add GST on "X" (multiplying factor 0.1405)				73.08
	TOTAL				593.23 Y
	Add 15% CPOH on "Y"				88.98
	TOTAL				682.22 Z
	Add Cess @ 1% on "Z"				6.82
	Cost of 1 no.				689.04
	Say				689.05

18.101A.4 For 35 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3956	Stainless steel Cap for 35 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	720.00	720.00
	TOTAL				720.00 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.20 X
	Add GST on "X" (multiplying factor 0.1405)				102.17
	TOTAL				829.37 Y
	Add 15% CPOH on "Y"				124.41
	TOTAL				953.78 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 1 no.				963.32
	Say				963.30

18.101A.5 For 42 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3957	Stainless steel Cap for 42 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1565.00	1565.00
	TOTAL				1565.00 W
	Add 1 % Water charges on "W"				15.65
	TOTAL				1580.65 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				222.08
	TOTAL				1802.73 Y
	Add 15% CPOH on "Y"				270.41
	TOTAL				2073.14 Z
	Add Cess @ 1% on "Z"				20.73
	Cost of 1 no.				2093.87
	Say				2093.85

18.101A.6 For 54 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3958	Stainless steel Cap for 54 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1720.00	1720.00
	TOTAL				1720.00 W
	Add 1 % Water charges on "W"				17.20
	TOTAL				1737.20 X
	Add GST on "X" (multiplying factor 0.1405)				244.08
	TOTAL				1981.28 Y
	Add 15% CPOH on "Y"				297.19
	TOTAL				2278.47 Z
	Add Cess @ 1% on "Z"				22.78
	Cost of 1 no.				2301.25
	Say				2301.25

18.102 Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Pipe Bridge

18.102.1 For 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8942	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	1.00	220.00	220.00
	TOTAL				220.00 W
	Add 1 % Water charges on "W"				2.20
	TOTAL				222.20 X
	Add GST on "X" (multiplying factor 0.1405)				31.22
	TOTAL				253.42 Y
	Add 15% CPOH on "Y"				38.01
	TOTAL				291.43 Z
	Add Cess @ 1% on "Z"				2.91
	Cost of 1 no.				294.35
	Say				294.35

18.102.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8943	Stainless steel Pipe Bridge for 15.88 mm outer dia pipe	each	1.00	290.00	290.00
	TOTAL				290.00 W
	Add 1 % Water charges on "W"				2.90
	TOTAL				292.90 X
	Add GST on "X" (multiplying factor 0.1405)				41.15
	TOTAL				334.05 Y
	Add 15% CPOH on "Y"				50.11
	TOTAL				384.16 Z
	Add Cess @ 1% on "Z"				3.84
	Cost of 1 no.				388.00
	Say				388.00

18.102.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
8944	Stainless steel Pipe Bridge for 28.58 mm outer dia pipe	each	1.00	415.00	415.00
	TOTAL				415.00 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				419.15 X
	Add GST on "X" (multiplying factor 0.1405)				58.89
	TOTAL				478.04 Y
	Add 15% CPOH on "Y"				71.71
	TOTAL				549.75 Z
	Add Cess @ 1% on "Z"				5.50
	Cost for 1 no.				555.24
	Say				555.25

18.102A Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Pipe Bridge

18.102A.1 For 15 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3959	Stainless steel Pipe Bridge for 15 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	415.00	415.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				415.00 W
	Add 1 % Water charges on "W"				4.15
	TOTAL				419.15 X
	Add GST on "X" (multiplying factor 0.1405)				58.89
	TOTAL				478.04 Y
	Add 15% CPOH on "Y"				71.71
	TOTAL				549.75 Z
	Add Cess @ 1% on "Z"				5.50
	Cost of 1 no.				555.24
	Say				555.25

18.102A.3 For 28 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3961	Stainless steel Pipe Bridge for 28 mm outer dia pipe of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1526.00	1526.00
	TOTAL				1526.00 W
	Add 1 % Water charges on "W"				15.26
	TOTAL				1541.26 X
	Add GST on "X" (multiplying factor 0.1405)				216.55
	TOTAL				1757.81 Y
	Add 15% CPOH on "Y"				263.67
	TOTAL				2021.48 Z
	Add Cess @ 1% on "Z"				20.21
	Cost for 1 no.				2041.69
	Say				2041.70

18.103 Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Male Union

18.103.1 For 15mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3962	Stainless steel Male Union for 15mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	885.00	885.00
	TOTAL				885.00 W
	Add 1 % Water charges on "W"				8.85
	TOTAL				893.85 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				125.59
	TOTAL				1019.44 Y
	Add 15% CPOH on "Y"				152.92
	TOTAL				1172.35 Z
	Add Cess @ 1% on "Z"				11.72
	Cost of 1 no.				1184.07
	Say				1184.05

18.103.2 For 22mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3963	Stainless steel Male Union for 22mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	895.00	895.00
	TOTAL				895.00 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.95 X
	Add GST on "X" (multiplying factor 0.1405)				127.00
	TOTAL				1030.95 Y
	Add 15% CPOH on "Y"				154.64
	TOTAL				1185.60 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of 1 no.				1197.45
	Say				1197.45

18.103.3 For 22mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3964	Stainless steel Male Union for 22mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1025.00	1025.00
	TOTAL				1025.00 W
	Add 1 % Water charges on "W"				10.25
	TOTAL				1035.25 X
	Add GST on "X" (multiplying factor 0.1405)				145.45
	TOTAL				1180.70 Y
	Add 15% CPOH on "Y"				177.11
	TOTAL				1357.81 Z
	Add Cess @ 1% on "Z"				13.58
	Cost of 1 no.				1371.39
	Say				1371.40

18.103.4 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3965	Stainless steel Male Union for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1805.00	1805.00
	TOTAL				1805.00 W
	Add 1 % Water charges on "W"				18.05
	TOTAL				1823.05 X
	Add GST on "X" (multiplying factor 0.1405)				256.14
	TOTAL				2079.19 Y
	Add 15% CPOH on "Y"				311.88
	TOTAL				2391.07 Z
	Add Cess @ 1% on "Z"				23.91
	Cost of 1 no.				2414.98
	Say				2415.00

18.103.5 For 35mm outer dia X 1-1/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3966	Stainless steel Male Union for 35mm outer dia X 1-1/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1885.00	1885.00
	TOTAL				1885.00 W
	Add 1 % Water charges on "W"				18.85
	TOTAL				1903.85 X
	Add GST on "X" (multiplying factor 0.1405)				267.49
	TOTAL				2171.34 Y
	Add 15% CPOH on "Y"				325.70
	TOTAL				2497.04 Z
	Add Cess @ 1% on "Z"				24.97
	Cost of 1 no.				2522.01
	Say				2522.00

18.103.6 For 42mm outer dia X 1-1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3967	Stainless steel Male Union for 42mm outer dia X 1-1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	2130.00	2130.00
	TOTAL				2130.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				21.30
	TOTAL				2151.30 X
	Add GST on "X" (multiplying factor 0.1405)				302.26
	TOTAL				2453.56 Y
	Add 15% CPOH on "Y"				368.03
	TOTAL				2821.59 Z
	Add Cess @ 1% on "Z"				28.22
	Cost of 1 no.				2849.81
	Say				2849.80

18.103.7 For 54mm outer dia X 2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3968	Stainless steel Male Union for 54mm outer dia X 2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	3680.00	3680.00
	TOTAL				3680.00 W
	Add 1 % Water charges on "W"				36.80
	TOTAL				3716.80 X
	Add GST on "X" (multiplying factor 0.1405)				522.21
	TOTAL				4239.01 Y
	Add 15% CPOH on "Y"				635.85
	TOTAL				4874.86 Z
	Add Cess @ 1% on "Z"				48.75
	Cost of 1 no.				4923.61
	Say				4923.60

18.104 Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Union

18.104.1 For 22 mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3969	Stainless steel Female Union for 22 mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	950.00	950.00
	TOTAL				950.00 W
	Add 1 % Water charges on "W"				9.50
	TOTAL				959.50 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				134.81
	TOTAL				1094.31 Y
	Add 15% CPOH on "Y"				164.15
	TOTAL				1258.46 Z
	Add Cess @ 1% on "Z"				12.58
	Cost of 1 no.				1271.04
	Say				1271.05

18.104.2 For 28mm outer dia X 1" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3970	Stainless steel Female Union for 28mm outer dia X 1" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	1280.00	1280.00
	TOTAL				1280.00 W
	Add 1 % Water charges on "W"				12.80
	TOTAL				1292.80 X
	Add GST on "X" (multiplying factor 0.1405)				181.64
	TOTAL				1474.44 Y
	Add 15% CPOH on "Y"				221.17
	TOTAL				1695.60 Z
	Add Cess @ 1% on "Z"				16.96
	Cost of 1 no.				1712.56
	Say				1712.55

18.105 Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.

Female Transition Elbow / FTE

18.105.1 For 15mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3971	Stainless steel Female Transition Elbow / FTE for 15mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	649.00	649.00
	TOTAL				649.00 W
	Add 1 % Water charges on "W"				6.49
	TOTAL				655.49 X
	Add GST on "X" (multiplying factor 0.1405)				92.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				747.59 Y
	Add 15% CPOH on "Y"				112.14
	TOTAL				859.72 Z
	Add Cess @ 1% on "Z"				8.60
	Cost of 1 no.				868.32
	Say				868.30

18.105.2 For 22mm outer dia X 1/2" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3972	Stainless steel Female Transition Elbow / FTE for 22mm outer dia X 1/2" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	900.00	900.00
	TOTAL				900.00 W
	Add 1 % Water charges on "W"				9.00
	TOTAL				909.00 X
	Add GST on "X" (multiplying factor 0.1405)				127.71
	TOTAL				1036.71 Y
	Add 15% CPOH on "Y"				155.51
	TOTAL				1192.22 Z
	Add Cess @ 1% on "Z"				11.92
	Cost of 1 no.				1204.14
	Say				1204.15

18.105.3 For 22mm outer dia X 3/4" nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no.				
	MATERIAL				
3973	Stainless steel Female Transition Elbow / FTE for 22mm outer dia X 3/4" nominal dia threaded of grade 316L as per IS 6911:2017 and conforming to EN-10312	each	1.00	870.00	870.00
	TOTAL				870.00 W
	Add 1 % Water charges on "W"				8.70
	TOTAL				878.70 X
	Add GST on "X" (multiplying factor 0.1405)				123.46
	TOTAL				1002.16 Y
	Add 15% CPOH on "Y"				150.32
	TOTAL				1152.48 Z
	Add Cess @ 1% on "Z"				11.52
	Cost of 1 no.				1164.01
	Say				1164.00

SUB HEAD : 19.0

DRAINAGE

19.1 Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :

19.1.1 100 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
1854	Stoneware pipes grade A (60 cm long)				
	100 mm dia	each	55.00	70.00	3850.00
	Added 10% allowance for breakage				
2224	Carriage of S.W. pipes 100 mm dia	100 metre	0.33	218.58	72.13
	Added 10% allowance for breakage				
	Cement for 50 joints = 0.019 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.019	5000.00	95.00
2209	Carriage of Cement	tonne	0.019	145.72	2.77
0983	Fine sand (zone IV)	cum	0.01	900.00	9.00
2261	Carriage of Fine sand (1 part badarpur				
	sand : 2 parts jamuna sand)	cum	0.01	163.93	1.64
1881	Spun yarn	kilogram	4.50	55.00	247.50
	or plain gaskin @ 0.09 kg per joint				
	= 0.09x50 = 4.50 kg				
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.00	784.00	784.00
0124	Mason (brick layer) 2nd class	day	1.00	714.00	714.00
0114	Beldar	day	3.00	645.00	1935.00
0101	Bhisti	day	1.00	714.00	714.00
	TOTAL				8425.04 W
	Add 1 % Water charges on "W"				84.25
	TOTAL				8509.29 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1195.56
	TOTAL				9704.84 Y
	Add 15% CPOH on "Y"				1455.73
	TOTAL				11160.57 Z
	Add Cess @ 1% on "Z"				111.61
	Cost of 30 metre				11272.18
	Cost of 1 metre				375.74
	Say				375.75

19.1.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
1855	Stoneware pipes grade A (60 cm long)				
	150 mm dia	each	55.00	125.00	6875.00
	Added 10% allowance for breakage				
2225	Carriage of S.W. pipes 150 mm dia	100 metre	0.33	437.15	144.26
	Added 10% allowance for breakage				
	Cement of 50 joints = 0.036 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.036	5000.00	180.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2209	Carriage of Cement	tonne	0.036	145.72	5.25
0983	Fine sand (zone IV)	cum	0.019	900.00	17.10
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.019	163.93	3.11
1881	Spun yarn or plain gaskin @ 0.18 kg per joint = 0.18x50 = 9 kg	kilogram	9.00	55.00	495.00
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.50	784.00	1176.00
0124	Mason (brick layer) 2nd class	day	1.50	714.00	1071.00
0114	Beldar	day	4.00	645.00	2580.00
0101	Bhisti	day	1.00	714.00	714.00
	TOTAL				13260.72 W
	Add 1 % Water charges on "W"				132.61
	TOTAL				13393.33 X
	Add GST on "X" (multiplying factor 0.1405)				1881.76
	TOTAL				15275.09 Y
	Add 15% CPOH on "Y"				2291.26
	TOTAL				17566.35 Z
	Add Cess @ 1% on "Z"				175.66
	Cost of 30 metre				17742.02
	Cost of 1 metre				591.40
	Say				591.40

19.1.3 200 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
1856	Stoneware pipes grade A (60 cm long) 200 mm dia	each	55.00	200.00	11000.00
	Added 10% allowance for breakage				
2226	Carriage of S.W. pipes 200 mm dia	100 metre	0.33	728.59	240.43
	Added 10% allowance for breakage				
	Cement of 50 joints = 0.053 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.053	5000.00	265.00
2209	Carriage of Cement	tonne	0.053	145.72	7.72
0983	Fine sand (zone IV)	cum	0.028	900.00	25.20
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.028	163.93	4.59
1881	Spun yarn or plain gaskin @ 0.24 kg per joint = 0.24x50 =12.00 kg	kilogram	12.00	55.00	660.00
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.75	784.00	1372.00
0124	Mason (brick layer) 2nd class	day	1.75	714.00	1249.50
0114	Beldar	day	4.50	645.00	2902.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	1.25	714.00	892.50
	TOTAL				18619.45 W
	Add 1 % Water charges on "W"				186.19
	TOTAL				18805.64 X
	Add GST on "X" (multiplying factor 0.1405)				2642.19
	TOTAL				21447.84 Y
	Add 15% CPOH on "Y"				3217.18
	TOTAL				24665.01 Z
	Add Cess @ 1% on "Z"				246.65
	Cost of 30 metre				24911.66
	Cost of 1 metre				830.39
	Say				830.40

19.1.4 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
1858	Stoneware pipes grade A (60 cm long) 250 mm dia	each	55.00	350.00	19250.00
	Added 10% allowance for breakage				
2228	Carriage of S.W. pipes 250 mm dia	100 metre	0.33	1249.01	412.17
	Added 10% allowance for breakage				
	Cement of 50 joints = 0.094 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.094	5000.00	470.00
2209	Carriage of Cement	tonne	0.094	145.72	13.70
0983	Fine sand (zone IV)	cum	0.05	900.00	45.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.05	163.93	8.20
1881	Spun yarn or plain gaskin @ 0.30 kg per joint = 0.30x50= 15.00 kg	kilogram	15.00	55.00	825.00
	LABOUR				
0123	Mason (brick layer) 1st class	day	2.25	784.00	1764.00
0124	Mason (brick layer) 2nd class	day	2.25	714.00	1606.50
0114	Beldar	day	5.50	645.00	3547.50
0101	Bhisti	day	1.50	714.00	1071.00
	TOTAL				29013.07 W
	Add 1 % Water charges on "W"				290.13
	TOTAL				29303.20 X
	Add GST on "X" (multiplying factor 0.1405)				4117.10
	TOTAL				33420.30 Y
	Add 15% CPOH on "Y"				5013.04
	TOTAL				38433.34 Z
	Add Cess @ 1% on "Z"				384.33
	Cost of 30 metre				38817.68
	Cost of 1 metre				1293.92
	Say				1293.90

19.1.5 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
1859	Stoneware pipes grade A (60 cm long) 300 mm dia	each	55.00	525.00	28875.00
	Added 10% allowance for breakage				
2229	Carriage of S.W. pipes 300 mm dia	100 metre	0.33	1561.26	515.22
	Added 10% allowance for breakage				
	Cement of 50 joints = 0.125 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.125	5000.00	625.00
2209	Carriage of Cement	tonne	0.125	145.72	18.22
0983	Fine sand (zone IV)	cum	0.075	900.00	67.50
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.075	163.93	12.29
1881	Spun yarn or plain gaskin @ 0.36 kg / joint = 0.36x50 =18.00 kg	kilogram	18.00	55.00	990.00
	LABOUR				
0123	Mason (brick layer) 1st class	day	2.50	784.00	1960.00
0124	Mason (brick layer) 2nd class	day	2.50	714.00	1785.00
0114	Beldar	day	6.00	645.00	3870.00
0101	Bhisti	day	1.50	714.00	1071.00
	TOTAL				39789.23 W
	Add 1 % Water charges on "W"				397.89
	TOTAL				40187.12 X
	Add GST on "X" (multiplying factor 0.1405)				5646.29
	TOTAL				45833.41 Y
	Add 15% CPOH on "Y"				6875.01
	TOTAL				52708.42 Z
	Add Cess @ 1% on "Z"				527.08
	Cost of 30 metre				53235.50
	Cost of 1 metre				1774.52
	Say				1774.50

19.2 Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :

19.2.1 100 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W^2 / 4) - (3.14 x D^2 / 4) = W^2 x (0.5 + 3.14 / 8) - (3.14 x D^2 / 4) Where W = D + X D = 100 + 12 + 12 = 124 mm or 12.4 cm X = 300 mm as trench depth is less than 1200 mm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	W = 12.4 + 30 = 42.4 Area= 42.4^2 x (0.5 + 3.14/ 8) - (3.14 x 12.4^2/4) = 1484 sqcm = 0.1484 sqm Say 0.148 sqm For 10 m length qty. of concrete reqd. = 1.48 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost of metre Say	cum	1.48	6050.65	8954.96 A 8954.96 895.50 895.50

19.2.2 150 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W^2 / 4)- (3.14 x D^2 / 4) = W^2 x (0.5 + 3.14 / 8) - (3.14 x D^2 / 4) Where W = D + X D = 150 + 16 + 16 = 182 mm or 18.2 cm X = 300 mm as trench depth is less than 1200 mm W = 18.2 + 30 = 48.2 Area = 48.2^2 x (0.5 + 3.14/ 8) - (3.14 x 18.2 ^{2}/4) = 1807.66 sqcm = 0.1808 sqm. Say 0.181 sqm For 10 m length qty. of concrete reqd. = 1.81 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost of metre Say	cum	1.81	6050.65	10951.68 A 10951.68 1095.17 1095.15

19.2.3 200 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W^2 / 4)- (3.14 x D^2 / 4) = W^2 x (0.5 + 3.14 / 8) - (3.14 x D^2 / 4) Where W = D + X D = 200 + 17 + 17 = 234 mm or 23.4 cm X = 300 mm as trench depth is less than 1200 mm W = 23.4 + 30 = 53.4 Area = 53.4^2 x (0.5 + 3.14 / 8) - (3.14 x 23.4^2/4)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	= 2115 sqcm = 0.2115 sqm Say 0.211 sqm For 10 m length qty. of concrete reqd. = 2.11 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost of metre Say	cum	2.11	6050.65	12766.87 A 12766.87 1276.69 1276.70

19.2.4 250 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre Area = W x W/2 + ½ x (3.14 x W^2 / 4)-(3.14 x D^2 / 4) = W^2 x (0.5 + 3.14 / 8) - (3.14 x D^2 / 4) Where W = D + X D = 250 + 20 + 20 = 290 mm or 29.0 cm X = 300 mm as trench depth is less than 1200 mm W = 29 + 30 = 59 Area= 59^2 x (0.5 + 3.14/ 8) - (3.14 x 29^2/4) = 2447 sqcm = 0.2447 sqm. Say 0.244 sqm For 10 m length qty. of concrete reqd. = 2.44 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost of metre Say	cum	2.44	6050.65	14763.59 A 14763.59 1476.36 1476.35

19.3 Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :

19.3.1 100 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metres Area = WxD1 + 2x½xR Cot QxR - [R^2/2(3.14/2-Q)] - (3.14/2)R^2 = WD1 + R^2(Cot Q) - R^2(3.14/2 - Q) -(3.14/2)R^2 = WD1+R^2(cot Q-3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 100 + 12 + 12 = 124 mm W = 124 + 300 = 424 mm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	D1 = Depth = 100 + (½ x 124) = 162 mm R = 62 mm Sin Q = (2x62)/424 = 0.292 therefor Q = 17°0' Hence Tan Q = 0.3057 Area = 424 x 162 + (62)² (Cot Q - 3.14 + Q) = [68688 + 3844 (1/0.3057 - 180° + 17°0')] sqmm = [68688 + 3844 (3.27 - 163°0' x 3.14/180)] sqmm = (68688 + 3844 x 0.43) sqmm = (68688 + 1652.92) sqmm = 70340.92 sqmm Say 70341 sqmm or 0.070341 sqm For 10 m length qty. of concrete reqd. = 0.07034x10 = 0.7034 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost per metre Say	cum	0.7034	6050.65	4256.03 A 4256.03 425.60 425.60

19.3.2 150 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q) - (3.14/2)R² = WD1 + R²(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 150 + 16+ 16 = 182 mm W = 182 + 300 = 482 mm D1 = Depth = 150 + (½ x 182) = 241 mm R = 91 mm Sin Q = (2x91)/482 = 0.3776 therefor Q = 22°12' Hence Tan Q = 0.4081 Area = 482 x 241 + (91)² (Cot Q - 3.14 + Q) = [116162 + 8281 (1/0.4081 - 180° + 22°12')] sqmm = [116162 + 8281 (2.45 - 157°48' x 3.14/180)] sqmm = [116162 + 8281 x (2.45-2.75)] sqmm = [116162 + 8281 x (-0.30)] sqmm = (116162 - 2484.3) sqmm = 113677.7 sqmm Say 113677.7 sqmm or 0.1136777 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	For 10 m length qty. of concrete reqd. = 0.1136777x10 = 1.136777 cum. Say 1.14 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.14	6050.65	6897.74 A
	Cost of 10 metres				6897.74
	Cost per metre				689.77
	Say				689.75

19.3.3 200 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R^2/2(3.14/2-Q)] - (3.14/2)R^2 = WD1 + R^2(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 200+ 17 + 17 = 234 mm W = 234 + 300 = 534 mm D1 = Depth = 150 + (½ x 234) = 267 mm R = 117 mm Sin Q = (2x117)/534 = 0.4382 therefor Q= 26°0' Hence Tan Q = 0.4877 Area = 534 x 267 + $(117)^2$ (Cot Q - 3.14 + Q) = [142578 + 13689 (1/0.4877 - 180° + 26°0')] sqmm = [142578 + 13689 (2.05 - 154°0' x 3.14/180)] sqmm = [142578 + 13689 x (2.05-2.69)] sqmm = [142578 + 13689 x (-0.64)] sqmm = (142578 - 8760.96) sqmm = 133817.04 sqmm Say 133817 sqmm or 0.134 sqm For 10 m length qty. of concrete reqd. = 0.134x10 = 1.34 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work	cum	1.34	6050.65	8107.87 A
	Cost of 10 metres				8107.87
	Cost per metre				810.79
	Say				810.80

19.3.4 250 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q) - (3.14/2)R2 = WD1 + R²(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 250 + 20 + 20 = 290 mm W = 290 + 300 = 590 mm D1 = Depth = 150 + (½ x 290) = 295 mm R = 145 mm Sin Q = (2x145)/590 = 0.49154 therefor Q = 29°26' Hence Tan Q = 0.5635 Area = 590 x 295 + (145)² (Cot Q - 3.14 + Q) = [174050 + 21025 (1/0.5635 - 180° + 29°26')] sqmm = [174050 + 21025 (1.77 - 150°34' x 3.14/180)] sqmm = [174050 + 21025 x (1.77-2.63)] sqmm = [174050 + 21025 x (-0.86)] sqmm = (174050 - 18081.5) sqmm = 155968.5 sqmm Say 155968 sqmm or 0.156 sqm For 10 m length qty. of concrete reqd. = 0.156x10 = 1.56 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost per metre Say	cum	1.56	6050.65	9439.01 A 9439.01 943.90 943.90

19.3.5 300 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre length pipe Area = WxD1 + 2x½xR Cot QxR - [R²/2(3.14/2-Q)] - (3.14/2)R² = WD1 + R²(Cot Q) - R²(3.14/2 - Q)- (3.14/2)R2 = WD1 + R²(Cot Q - 3.14 + Q) Where Sin Q = [R/(W/2)] = 2R/W W = D + X ; X = 300 mm, D = 300 + 25 + 25 = 350 mm W = 350 + 300 = 650 mm D1 = Depth = 150 + (½ x 350) = 325 mm R = 175 mm Sin Q = (2x175)/650 = 0.5385 therefor Q = 32°34'				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Hence Tan Q = 0.6387 Area = 650 x 325 + $(175)^2$ (Cot Q - 3.14 + Q) = [211250 + 30625 (1/0.6387 - 180°+ 32°34')] sqmm = [211250 + 30625 (1.566 - 147°26' x 3.14/180)] sqmm = [211250 + 30625 x (1.566-2.571)] sqmm = [211250 + 30625 x (-1.005)] sqmm = [211250 - 30778.13) sqmm = 180471.87 sqmm Say 0.180 sqm For 10 m length qty. of concrete reqd. = 0.180x10 = 1.80 cum				
4.1.10	Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost per metre Say	cum	1.80	6050.65	10891.17 A 10891.17 1089.12 1089.10

19.4 Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:

19.4.1 100x100 mm size P type

19.4.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of one gully tarp				
1900	S.W. gully trap P type 100x100 mm	each	1.00	115.00	115.00
1364	C.I. grating 100x100 mm	each	1.00	40.00	40.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.345÷3x[0.09+0.01+(0.09x0.01)1/2] = 0.015 cum 3.14/4x$(0.124)^2$x0.47 = 0.006 cum Total= 0.021 cum Net quantity 0.107 cum (-) 0.021 cum = 0.086 cum say 0.09 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Brick work with 7.5 class designation brick in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum. say 0.13 cum	cum	0.09	5660.45	509.44 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum	cum	0.13	6882.00	894.66 A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.358x(1.20+0.40)] = 0.286 sqm. say 0.29 sqm	cum	0.008	9375.20	75.00 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	386.55	112.10 A
	TOTAL				2235.74 W
	Add 1 % Water charges on "W-A"				6.45
	TOTAL				2242.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				91.46
	TOTAL				2333.65 Y
	Add 15% CPOH on "Y-A"				111.37
	TOTAL				2445.02 Z
	Add Cess @ 1% on "Z-A"				8.54
	Cost of each				2453.56
	Say				2453.55

19.4.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detaila of cost of one gully tarp				
1900	S.W. gully trap P type 100x100 mm	each	1.00	115.00	115.00
1364	C.I. grating 100x100 mm	each	1.00	40.00	40.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.345÷3x[0.09+0.01+(0.09x0.01)1/2] = 0.015 cum 3.14/4x(0.124)²x0.47 = 0.006 cum Total = 0.021 cum Net quantity 0.107 cum (-) 0.021 cum = 0.086 cum say 0.09 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) cement mortar 1:4 (1 cement :4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum	cum	0.09	5660.45	509.44 A
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum	cum	0.13	6528.70	848.73 A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.358x(1.20+0.40)] = 0.286 sqm say 0.29 sqm	cum	0.008	9375.20	75.00 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	386.55	112.10 A
	TOTAL				2189.81 W
	Add 1 % Water charges on "W-A"				6.45
	TOTAL				2196.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				91.46
	TOTAL				2287.72 Y
	Add 15% CPOH on "Y-A"				111.37
	TOTAL				2399.09 Z
	Add Cess @ 1% on "Z-A"				8.54
	Cost of each				2407.63
	Say				2407.65

19.4.2 150 x 100 mm size P type

19.4.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of one gully tarp				
1902	S.W. gully trap P type 150x100 mm	each	1.00	155.00	155.00
1366	C.I. grating 150x150 mm	each	1.00	55.00	55.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total =0.107 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Deduct: 0.322÷3x[0.09+0.023+(0.09x0.023)1/2] = 0.017 cum 3.14/4x(0.124)²x0.485 = 0.006 cum Total = 0.023 cum Net quantity 0.107 cum (-) 0.023 cum = 0.084 cum say 0.08 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Brick work with 75 class designation brick in cement mortar 1:4 (1 cement :4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum	cum	0.08	5660.45	452.84 A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum	cum	0.13	6882.00	894.66 A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.337x(1.20+0.60)] = 0.303 sqm. say 0.30 sqm	cum	0.008	9375.20	75.00 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.30	386.55	115.97 A
	TOTAL				2238.00 W
	Add 1 % Water charges on "W-A"				7.00
	TOTAL				2245.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				99.27
	TOTAL				2344.27 Y
	Add 15% CPOH on "Y-A"				120.87
	TOTAL				2465.14 Z
	Add Cess @ 1% on "Z-A"				9.27
	Cost of each				2474.40
	Say				2474.40

19.4.2.2 With sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of one gully tarp				
1902	S.W. gully trap P type 150x100 mm	each	1.00	155.00	155.00
1366	C.I. grating 150x150 mm	each	1.00	55.00	55.00
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total =0.107 cum Deduct: 0.322÷3x[0.09+0.023+(0.09x0.023)1/2] = 0.017 cum 3.14/4x(0.124)²x0.485 = 0.006 cum Total= 0.023 cum Net quantity 0.107 cum (-) 0.023 cum = 0.084 cum say 0.08 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	5660.45	452.84 A
	Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	6528.70	848.73 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m = 0.008 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.337x(1.20+0.60)] = 0.303 sqm. say 0.30 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.30	386.55	115.97 A
	TOTAL				2192.07 W
	Add 1 % Water charges on "W-A"				7.00
	TOTAL				2199.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				99.27
	TOTAL				2298.34 Y
	Add 15% CPOH on "Y-A"				120.87
	TOTAL				2419.21 Z
	Add Cess @ 1% on "Z-A"				9.27
	Cost of each				2428.47
	Say				2428.45

19.4.3 180x150 mm size P type

19.4.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of one gully tarp				
1904	S.W. gully trap P type 180x150 mm	each	1.00	230.00	230.00
1367	C.I. grating 180x180 mm	each	1.00	65.00	65.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00
9977	Carriage of materials	L.S.	4.50	2.12	9.54
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.155÷3x[0.09+0.032+(0.09x0.032)1/2] = 0.008 cum 3.14/4x(0.182)²x0.70 =0.018 cum Total= 0.026 cum Net quantity 0.107 cum (-) 0.026 cum = 0.081 cum say 0.08 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	5660.45	452.84 A
	Brick work with 7.5 class designation brick in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum. say 0.13 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	6882.00	894.66 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m =0.008 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.166x(1.20+0.72)] = 0.159 sqm say 0.16 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	386.55	61.85 A
	TOTAL				2268.89 W
	Add 1 % Water charges on "W-A"				7.85
	TOTAL				2276.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				111.33
	TOTAL				2388.06 Y
	Add 15% CPOH on "Y-A"				135.56
	TOTAL				2523.62 Z
	Add Cess @ 1% on "Z-A"				10.39
	Cost of each				2534.01
	Say				2534.00

19.4.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one gully tarp					
1904	S.W. gully trap P type 180x150 mm	each	1.00	230.00	230.00	
1367	C.I. grating 180x180 mm	each	1.00	65.00	65.00	
1352	C.I. cover and frame 300x300 mm inside	each	1.00	480.00	480.00	
9977	Carriage of materials	L.S.	4.50	2.12	9.54	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.68x0.68x0.10 m = 0.046 cum Concrete around trap 0.30x0.30x0.675 m = 0.061 cum Total=0.107 cum Deduct: 0.155÷3x[0.09+0.032+(0.09x0.032)1/2] = 0.008 cum 3.14/4x(0.182)²x0.70 =0.018 cum Total= 0.026 cum Net quantity 0.107 cum (-) 0.026 cum = 0.081 cum say 0.08 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.08	5660.45	452.84	A
	Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement : 4 coarse sand) 1.66x0.115x0.675 m = 0.129 cum say 0.13 cum					
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	6528.70	848.73	A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 1.66x0.115x0.04 m =0.008 cum					
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.008	9375.20	75.00	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement : [1/2x0.166x(1.20+0.72)] = 0.159 sqm say0.16 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	386.55	61.85	A
	TOTAL				2222.96	W
	Add 1 % Water charges on "W-A"				7.85	
	TOTAL				2230.80	X
	Add GST on "X-A" (multiplying factor 0.1405)				111.33	
	TOTAL				2342.13	Y
	Add 15% CPOH on "Y-A"				135.56	
	TOTAL				2477.69	Z
	Add Cess @ 1% on "Z-A"				10.39	
	Cost of each				2488.08	
	Say				2488.10	

19.5 Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 50 m lead and disposal of unserviceable materials into municipal dumps :

19.5.1 100 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.36	645.00	232.20
	TOTAL				548.25 W
	Add 1 % Water charges on "W"				5.48
	TOTAL				553.73 X
	Add GST on "X" (multiplying				
	factor 0.1405)				77.80
	TOTAL				631.53 Y
	Add 15% CPOH on "Y"				94.73
	TOTAL				726.26 Z
	Add Cess @ 1% on "Z"				7.26
	Cost of 10 metres				733.52
	Cost of 1 metre				73.35
	Say				73.35

19.5.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.45	645.00	290.25
	TOTAL				606.30 W
	Add 1 % Water charges on "W"				6.06
	TOTAL				612.36 X
	Add GST on "X" (multiplying				
	factor 0.1405)				86.04
	TOTAL				698.40 Y
	Add 15% CPOH on "Y"				104.76
	TOTAL				803.16 Z
	Add Cess @ 1% on "Z"				8.03
	Cost of 10 metres				811.19
	Cost of 1 metre				81.12
	Say				81.10

19.5.3 200 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.51	645.00	328.95
	TOTAL				645.00 W
	Add 1 % Water charges on "W"				6.45
	TOTAL				651.45 X
	Add GST on "X" (multiplying factor 0.1405)				91.53
	TOTAL				742.98 Y
	Add 15% CPOH on "Y"				111.45
	TOTAL				854.43 Z
	Add Cess @ 1% on "Z"				8.54
	Cost of 10 metres				862.97
	Cost of 1 metre				86.30
	Say				86.30

19.5.4 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.57	645.00	367.65
	TOTAL				683.70 W
	Add 1 % Water charges on "W"				6.84
	TOTAL				690.54 X
	Add GST on "X" (multiplying factor 0.1405)				97.02
	TOTAL				787.56 Y
	Add 15% CPOH on "Y"				118.13
	TOTAL				905.69 Z
	Add Cess @ 1% on "Z"				9.06
	Cost of 10 metres				914.75
	Cost of 1 metre				91.47
	Say				91.45

19.5.5 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.49	645.00	316.05
0115	Coolie	day	0.63	645.00	406.35
	TOTAL				722.40 W
	Add 1 % Water charges on "W"				7.22
	TOTAL				729.62 X
	Add GST on "X" (multiplying factor 0.1405)				102.51
	TOTAL				832.14 Y
	Add 15% CPOH on "Y"				124.82
	TOTAL				956.96 Z
	Add Cess @ 1% on "Z"				9.57
	Cost of 10 metres				966.53
	Cost of 1 metre				96.65
	Say				96.65

19.5.6 350 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.60	645.00	387.00
0115	Coolie	day	0.69	645.00	445.05
	TOTAL				832.05 W
	Add 1 % Water charges on "W"				8.32
	TOTAL				840.37 X
	Add GST on "X" (multiplying factor 0.1405)				118.07
	TOTAL				958.44 Y
	Add 15% CPOH on "Y"				143.77
	TOTAL				1102.21 Z
	Add Cess @ 1% on "Z"				11.02
	Cost of 10 metres				1113.23
	Cost of 1 metre				111.32
	Say				111.30

19.5.7 400 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.75	645.00	483.75
	TOTAL				909.45 W
	Add 1 % Water charges on "W"				9.09
	TOTAL				918.54 X
	Add GST on "X" (multiplying factor 0.1405)				129.06
	TOTAL				1047.60 Y
	Add 15% CPOH on "Y"				157.14
	TOTAL				1204.74 Z
	Add Cess @ 1% on "Z"				12.05
	Cost of 10 metres				1216.79
	Cost of 1 metre				121.68
	Say				121.70

19.5.8 450 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	LABOUR				
0114	Beldar	day	0.66	645.00	425.70
0115	Coolie	day	0.81	645.00	522.45
	TOTAL				948.15 W
	Add 1 % Water charges on "W"				9.48
	TOTAL				957.63 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				134.55
	TOTAL				1092.18 Y
	Add 15% CPOH on "Y"				163.83
	TOTAL				1256.01 Z
	Add Cess @ 1% on "Z"				12.56
	Cost of 10 metres				1268.57
	Cost of 1 metre				126.86
	Say				126.85

19.6 Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :

19.6.1 100 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1700	R.C.C. pipes NP2 class 100 mm dia (in 2 m. length = 5 Nos.)	metre	10.00	210.00	2100.00
1714	R.C.C. collars NP2 class 100 mm dia 5 Nos.	each	5.00	35.00	175.00
2275	Carriage of R.C.C. pipes 100 mm dia	100 metre	0.10	358.32	35.83
	Cement of 5 joints = 5x0.00065 = 0.00325 cum = 0.0048 t say 0.005 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.005	5000.00	25.00
2209	Carriage of Cement	tonne	0.005	145.72	0.73
	Fine sand for 5 joint = 0.0013x5 = 0.0065 cum = 0.006 cum				
0983	Fine sand (zone IV)	cum	0.006	900.00	5.40
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.006	163.93	0.98
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.32	784.00	250.88
0124	Mason (brick layer) 2nd class	day	0.32	714.00	228.48
0114	Beldar	day	0.63	645.00	406.35
0101	Bhisti	day	0.16	714.00	114.24
	TOTAL				3342.89 W
	Add 1 % Water charges on "W"				33.43
	TOTAL				3376.32 X
	Add GST on "X" (multiplying factor 0.1405)				474.37
	TOTAL				3850.70 Y
	Add 15% CPOH on "Y"				577.60
	TOTAL				4428.30 Z
	Add Cess @ 1% on "Z"				44.28
	Cost of 10 metres				4472.58
	Cost of 1 metre				447.26
	Say				447.25

19.6.2 150 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1701	R.C.C. pipes NP2 class 150 mm dia (in 2 m. length = 5 Nos.)	metre	10.00	220.00	2200.00
1715	R.C.C. collars NP2 class 150 mm dia 5 Nos.	each	5.00	37.00	185.00
2281	Carriage of R.C.C. pipes 150 mm dia	100 metre	0.10	597.20	59.72
	Cement of 5 joints = 5x0.0008 = 0.004 cum = 0.006 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.006	5000.00	30.00
2209	Carriage of Cement	tonne	0.006	145.72	0.87
	Fine sand for 5 joint = 0.0016x5 = 0.008 cum				
0983	Fine sand (zone IV)	cum	0.008	900.00	7.20
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.008	163.93	1.31
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.39	784.00	305.76
0124	Mason (brick layer) 2nd class	day	0.39	714.00	278.46
0114	Beldar	day	0.78	645.00	503.10
0101	Bhisti	day	0.16	714.00	114.24
	TOTAL				3685.67 W
	Add 1 % Water charges on "W"				36.86
	TOTAL				3722.52 X
	Add GST on "X" (multiplying factor 0.1405)				523.01
	TOTAL				4245.54 Y
	Add 15% CPOH on "Y"				636.83
	TOTAL				4882.37 Z
	Add Cess @ 1% on "Z"				48.82
	Cost of 10 metres				4931.19
	Cost of 1 metre				493.12
	Say				493.10

19.6.3 250 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1702	R.C.C. pipes NP2 class 250 mm dia (in 2 m. length = 5 Nos.)	metre	10.00	365.00	3650.00
1716	R.C.C. collars NP2 class 250 mm dia 5 Nos.	each	5.00	55.00	275.00
2287	Carriage of R.C.C. pipes 250 mm dia	100 metre	0.10	1380.48	138.05
	Cement of 5 joints = 5x0.0012 = 0.006 cum = 0.009tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.009	5000.00	45.00
2209	Carriage of Cement	tonne	0.009	145.72	1.31
	Fine sand for 5 joint = 0.0024x5 = 0.012 cum				
0983	Fine sand (zone IV)	cum	0.012	900.00	10.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.012	163.93	1.97

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.54	784.00	423.36
0124	Mason (brick layer) 2nd class	day	0.54	714.00	385.56
0114	Beldar	day	1.50	645.00	967.50
0101	Bhisti	day	0.23	714.00	164.22
	TOTAL				6062.77 W
	Add 1 % Water charges on "W"				60.63
	TOTAL				6123.39 X
	Add GST on "X" (multiplying factor 0.1405)				860.34
	TOTAL				6983.73 Y
	Add 15% CPOH on "Y"				1047.56
	TOTAL				8031.29 Z
	Add Cess @ 1% on "Z"				80.31
	Cost of 10 metres				8111.60
	Cost of 1 metre				811.16
	Say				811.15

19.6.4 300 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1703	R.C.C. pipes NP2 class 300 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	450.00	4500.00
1717	R.C.C. collars NP2 class 300 mm dia 4 Nos.	each	4.00	56.00	224.00
2290	Carriage of R.C.C. pipes 300 mm dia Cement of 4 joints = 4x0.00185 = 0.0074 cum = 0.011 tonne	100 metre	0.10	1706.30	170.63
0367	Portland Cement (OPC-43 grade)	tonne	0.011	5000.00	55.00
2209	Carriage of Cement	tonne	0.011	145.72	1.60
	Fine sand for 4 joint = 0.0037x4 = 0.0148 say 0.015cum				
0983	Fine sand (zone IV)	cum	0.015	900.00	13.50
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.015	163.93	2.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.59	784.00	462.56
0124	Mason (brick layer) 2nd class	day	0.59	714.00	421.26
0114	Beldar	day	1.16	645.00	748.20
0101	Bhisti	day	0.20	714.00	142.80
	TOTAL				6742.01 W
	Add 1 % Water charges on "W"				67.42
	TOTAL				6809.43 X
	Add GST on "X" (multiplying factor 0.1405)				956.73
	TOTAL				7766.16 Y
	Add 15% CPOH on "Y"				1164.92
	TOTAL				8931.08 Z
	Add Cess @ 1% on "Z"				89.31
	Cost of 10 metres				9020.39
	Cost of 1 metre				902.04
	Say				902.05

19.6.5 450 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1704	R.C.C. pipes NP2 class 450 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	775.00	7750.00
1718	R.C.C. collars NP2 class 450 mm dia 4 Nos.	each	4.00	110.00	440.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	398.14
	Cement of 4 joints = 4x0.0041 = 0.0164 cum = 0.024 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.024	5000.00	120.00
2209	Carriage of Cement	tonne	0.024	145.72	3.50
	Fine sand for 4 joint = 0.0082x4 = 0.033 cum				
0983	Fine sand (zone IV)	cum	0.033	900.00	29.70
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	163.93	5.41
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.75	784.00	588.00
0124	Mason (brick layer) 2nd class	day	0.75	714.00	535.50
0114	Beldar	day	1.50	645.00	967.50
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				11073.36 W
	Add 1 % Water charges on "W"				110.73
	TOTAL				11184.10 X
	Add GST on "X" (multiplying factor 0.1405)				1571.37
	TOTAL				12755.46 Y
	Add 15% CPOH on "Y"				1913.32
	TOTAL				14668.78 Z
	Add Cess @ 1% on "Z"				146.69
	Cost of 10 metres				14815.47
	Cost of 1 metre				1481.55
	Say				1481.55

19.6.6 500 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1705	R.C.C. pipes NP2 class 500 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	950.00	9500.00
1719	R.C.C. collars NP2 class 500 mm dia 4 Nos.	each	4.00	120.00	480.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	398.14
	Cement of 4 joints = 4x0.0045 = 0.018 cum = 0.026 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.026	5000.00	130.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2209	Carriage of Cement Fine sand for 4 joints = 0.0089x4 = 0.0356 cum = 0.036 cum	tonne	0.026	145.72	3.79
0983	Fine sand (zone IV)	cum	0.036	900.00	32.40
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand) LABOUR	cum	0.036	163.93	5.90
0123	Mason (brick layer) 1st class	day	0.81	784.00	635.04
0124	Mason (brick layer) 2nd class	day	0.81	714.00	578.34
0114	Beldar	day	1.62	645.00	1044.90
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				13044.13 W
	Add 1 % Water charges on "W"				130.44
	TOTAL				13174.57 X
	Add GST on "X" (multiplying factor 0.1405)				1851.03
	TOTAL				15025.59 Y
	Add 15% CPOH on "Y"				2253.84
	TOTAL				17279.43 Z
	Add Cess @ 1% on "Z"				172.79
	Cost of 10 metres				17452.23
	Cost of 1 metre				1745.22
	Say				1745.20

19.6.7 600 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre MATERIAL				
1706	R.C.C. pipes NP2 class 600 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1150.00	11500.00
1720	R.C.C. collars NP2 class 600 mm dia 4 Nos.	each	4.00	145.00	580.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia Cement of 4 joints = 4x0.0054 = 0.0216 cum = 0.032 tonne	100 metre	0.10	5972.04	597.20
0367	Portland Cement (OPC-43 grade)	tonne	0.032	5000.00	160.00
2209	Carriage of Cement Fine sand for 4 joints = 0.0108x4 = 0.043 cum	tonne	0.032	145.72	4.66
0983	Fine sand (zone IV)	cum	0.043	900.00	38.70
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand) LABOUR	cum	0.043	163.93	7.05
0123	Mason (brick layer) 1st class	day	0.92	784.00	721.28
0124	Mason (brick layer) 2nd class	day	0.92	714.00	656.88
0114	Beldar	day	1.83	645.00	1180.35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				15681.75 W
	Add 1 % Water charges on "W"				156.82
	TOTAL				15838.56 X
	Add GST on "X" (multiplying factor 0.1405)				2225.32
	TOTAL				18063.88 Y
	Add 15% CPOH on "Y"				2709.58
	TOTAL				20773.46 Z
	Add Cess @ 1% on "Z"				207.73
	Cost of 10 metres				20981.20
	Cost of 1 metre				2098.12
	Say				2098.10

19.6.8 700 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1707	R.C.C. pipes NP2 class 700 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1500.00	15000.00
1721	R.C.C. collars NP2 class 700 mm dia 4 Nos.	each	4.00	160.00	640.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	597.20
	Cement of 4 joints = 4x0.0062 = 0.0248 cum = 0.037 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.037	5000.00	185.00
2209	Carriage of Cement	tonne	0.037	145.72	5.39
	Fine sand for 4 joints = 0.0124x4 = 0.0496 cum = 0.05 cum				
0983	Fine sand (zone IV)	cum	0.05	900.00	45.00
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.05	163.93	8.20
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.03	784.00	807.52
0124	Mason (brick layer) 2nd class	day	1.03	714.00	735.42
0114	Beldar	day	2.06	645.00	1328.70
0101	Bhisti	day	0.42	714.00	299.88
	TOTAL				19652.31 W
	Add 1 % Water charges on "W"				196.52
	TOTAL				19848.84 X
	Add GST on "X" (multiplying factor 0.1405)				2788.76
	TOTAL				22637.60 Y
	Add 15% CPOH on "Y"				3395.64
	TOTAL				26033.24 Z
	Add Cess @ 1% on "Z"				260.33
	Cost of 10 metres				26293.57
	Cost of 1 metre				2629.36
	Say				2629.35

19.6.9 800 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1709	R.C.C. pipes NP2 class 800 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	1825.00	18250.00
1723	R.C.C. collars NP2 class 800 mm dia 4 Nos.	each	4.00	225.00	900.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	597.20
	Cement of 4 joints = 4x0.0072 = 0.0288 cum = 0.042 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.042	5000.00	210.00
2209	Carriage of Cement	tonne	0.042	145.72	6.12
	Fine sand for 4 joints = 0.0143x4 = 0.0572 cum = 0.057 cum				
0983	Fine sand (zone IV)	cum	0.057	900.00	51.30
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.057	163.93	9.34
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.14	784.00	893.76
0124	Mason (brick layer) 2nd class	day	1.14	714.00	813.96
0114	Beldar	day	2.28	645.00	1470.60
0101	Bhisti	day	0.42	714.00	299.88
	TOTAL				23502.17 W
	Add 1 % Water charges on "W"				235.02
	TOTAL				23737.19 X
	Add GST on "X" (multiplying factor 0.1405)				3335.08
	TOTAL				27072.27 Y
	Add 15% CPOH on "Y"				4060.84
	TOTAL				31133.10 Z
	Add Cess @ 1% on "Z"				311.33
	Cost of 10 metres				31444.44
	Cost of1 metre				3144.44
	Say				3144.45

19.6.10 900 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1710	R.C.C. pipes NP2 class 900 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	2550.00	25500.00
1724	R.C.C. collars NP2 class 900 mm dia 4 Nos.	each	4.00	240.00	960.00
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81
	Cement of 4 joints = 4x0.0082 = 0.0328 cum = 0.0488 t Say 0.049				
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5000.00	245.00
2209	Carriage of Cement	tonne	0.049	145.72	7.14
	Fine sand for 4 joints = 0.0164x4 = 0.066 cum				
0983	Fine sand (zone IV)	cum	0.066	900.00	59.40
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.066	163.93	10.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.25	784.00	980.00
0124	Mason (brick layer) 2nd class	day	1.25	714.00	892.50
0114	Beldar	day	3.00	645.00	1935.00
0101	Bhisti	day	0.50	714.00	357.00
	TOTAL				31842.67 W
	Add 1 % Water charges on "W"				318.43
	TOTAL				32161.09 X
	Add GST on "X" (multiplying factor 0.1405)				4518.63
	TOTAL				36679.73 Y
	Add 15% CPOH on "Y"				5501.96
	TOTAL				42181.68 Z
	Add Cess @ 1% on "Z"				421.82
	Cost of 10 metres				42603.50
	Cost of 1 metre				4260.35
	Say				4260.35

19.6.11 1000 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1711	R.C.C. pipes NP2 class 1000 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	2950.00	29500.00
1725	R.C.C. collars NP2 class 1000 mm dia 4 Nos.	each	4.00	295.00	1180.00
2332	Carriage of R.C.C. pipes 1000 mm dia Cement of 4 joints = 4x0.0092 = 0.0368 cum = 0.055 tonne	100 metre	0.10	11944.08	1194.41
0367	Portland Cement (OPC-43 grade)	tonne	0.055	5000.00	275.00
2209	Carriage of Cement	tonne	0.055	145.72	8.01
	Fine sand for 4 joints = 0.0185x4 = 0.074 cum				
0983	Fine sand (zone IV)	cum	0.074	900.00	66.60
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.074	163.93	12.13
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.36	784.00	1066.24
0124	Mason (brick layer) 2nd class	day	1.36	714.00	971.04
0114	Beldar	day	4.33	645.00	2792.85
0101	Bhisti	day	0.50	714.00	357.00
	TOTAL				37423.28 W
	Add 1 % Water charges on "W"				374.23
	TOTAL				37797.52 X
	Add GST on "X" (multiplying factor 0.1405)				5310.55
	TOTAL				43108.07 Y
	Add 15% CPOH on "Y"				6466.21
	TOTAL				49574.28 Z
	Add Cess @ 1% on "Z"				495.74
	Cost of 10 metres				50070.02
	Cost of 1 metre				5007.00
	Say				5007.00

19.6.12 1100 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1712	R.C.C. pipes NP2 class 1100 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	3250.00	32500.00
1726	R.C.C. collars NP2 class 1100 mm dia 4 Nos.	each	4.00	315.00	1260.00
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	0.10	11944.08	1194.41
	Cement of 4 joints = 4x0.0103 =0.0412 cum = 0.061 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.061	5000.00	305.00
2209	Carriage of Cement	tonne	0.061	145.72	8.89
	Fine sand for 4 joints = 0.0206x4 = 0.0824 cum = 0.082 cum				
0983	Fine sand (zone IV)	cum	0.082	900.00	73.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.082	163.93	13.44
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.47	784.00	1152.48
0124	Mason (brick layer) 2nd class	day	1.47	714.00	1049.58
0114	Beldar	day	6.30	645.00	4063.50
0101	Bhisti	day	0.60	714.00	428.40
	TOTAL				42049.50 W
	Add 1 % Water charges on "W"				420.49
	TOTAL				42469.99 X
	Add GST on "X" (multiplying factor 0.1405)				5967.03
	TOTAL				48437.03 Y
	Add 15% CPOH on "Y"				7265.55
	TOTAL				55702.58 Z
	Add Cess @ 1% on "Z"				557.03
	Cost of 10 metress				56259.61
	Cost of 1 metre				5625.96
	Say				5625.95

19.6.13 1200 mm dia. R.C.C. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
	MATERIAL				
1713	R.C.C. pipes NP2 class 1200 mm dia (in 2.5 m. length = 4 Nos.)	metre	10.00	3575.00	35750.00
1727	R.C.C. collars NP2 class 1200 mm dia 4 Nos.	each	4.00	375.00	1500.00
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	1194.41
	Cement of 4 joints = 4x0.0114 = 0.0456 cum = 0.068 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.068	5000.00	340.00
2209	Carriage of Cement	tonne	0.068	145.72	9.91
	Fine sand for 4 joints = 0.0229x4 = 0.0916 cum = 0.092 cum				
0983	Fine sand (zone IV)	cum	0.092	900.00	82.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.092	163.93	15.08

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.59	784.00	1246.56
0124	Mason (brick layer) 2nd class	day	1.59	714.00	1135.26
0114	Beldar	day	8.67	645.00	5592.15
0101	Bhisti	day	0.67	714.00	478.38
	TOTAL				47344.55 W
	Add 1 % Water charges on "W"				473.45
	TOTAL				47817.99 X
	Add GST on "X" (multiplying factor 0.1405)				6718.43
	TOTAL				54536.42 Y
	Add 15% CPOH on "Y"				8180.46
	TOTAL				62716.89 Z
	Add Cess @ 1% on "Z"				627.17
	Cost of 10 metres				63344.05
	Cost of 1 metre				6334.41
	Say				6334.40

19.7 Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :

19.7.1 Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :

19.7.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.51x1.41x0.20 m = 0.426 cum Say 0.43 cum				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.43	6326.05	2720.20 A
	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x0.35 m = 0.348 cum Less for pipe $2x3.14x(0.15m)^2x0.23m$ = (-) 0.008 cum Total = 0.340 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum = 0.16 cum	cum	0.34	6882.00	2339.88 A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40mx0.05m = 0.17 sqm 2x½x0.80x0.10m = 0.08 sqm Total= 0.25 sqm	cum	0.16	7365.15	1178.42 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum = 0.215 cum Say 0.22 cum	sqm	0.25	386.55	96.64 A
5.3	Rate as per item no 5.3 of SH : RCC Work Less labour for not lifting the materilas upto floor five level	cum	0.22	10719.30	2358.25 A
0115	Coolie Mild steel reinforcement for slab : 0.22 cum @ 48.06 kg/cum = 10.57 kg	day	-0.41	645.00	-264.45
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work Form work = 0.90x0.80 = 0.72 sqm Less cover = 0.61x0.455m = (-) 0.278 sqm = 0.442 sqm Say 0.44 sqm	kg	10.57	88.95	940.20 A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR Extra labour for making channel :	sqm	0.44	766.55	337.28 A
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
0124	Mason (brick layer) 2nd class	day	0.06	714.00	42.84
1354	Rectangular cover 455x610 mm with frame (low duty) (inside)	each	1.00	1400.00	1400.00
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.12	14.33
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				11253.63 W
	Add 1 % Water charges on "W-A"				12.83
	TOTAL				11266.45 X
	Add GST on "X-A" (multiplying factor 0.1405)				182.03
	TOTAL				11448.48 Y
	Add 15% CPOH on "Y-A"				221.64
	TOTAL				11670.13 Z
	Add Cess @ 1% on "Z-A"				16.99
	Cost of each				11687.12
	Say				11687.10

19.7.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole				
	Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)				
	1.51x1.41x0.20 m = 0.426 cum				
	Say 0.43 cum				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.43	6326.05	2720.20 A
	Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand)				
	4.32x0.23x0.35 m = 0.348 cum				
	Less for pipe 2x3.14x$(0.15m)^2$x0.23m = (-) 0.008 cum				
	Total= 0.340 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.34	6528.70	2219.76 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching				
	2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum				
	Less for pipe 1x0.90x3.14/4x$(0.15m)^2$ = (-) 0.02 cum				
	Total= 0.16 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.16	7365.15	1178.42 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement				
	3.40mx0.05m = 0.17 sqm				
	2x½x0.80x0.10m = 0.08 sqm				
	Total= 0.25 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.25	386.55	96.64 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum = 0.215 cum Say 0.22 cum					
5.3	Rate as per item no 5.3 of SH : RCC Work Less labour for not lifting the materilas upto floor five level	cum	0.22	10719.30	2358.25	A
0115	Coolie	day	-0.41	645.00	-264.45	
	Mild steel reinforcement for slab : 0.22 cum @ 48.06 kg/cum = 10.57 kg					
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work Form work = 0.90x0.80 = 0.72 sqm = 0.442 sqm Say 0.44 sqm Less cover = 0.61x0.455m = (-) 0.278 sqm	kg	10.57	88.95	940.20	A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR Extra labour for making channel :	sqm	0.44	766.55	337.28	A
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04	
0124	Mason (brick layer) 2nd class	day	0.06	714.00	42.84	
1354	Rectangular cover 455x610 mm with frame (low duty) (inside)	each	1.00	1400.00	1400.00	
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.12	14.33	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33	
9999	Sundries	L.S.	13.52	2.12	28.66	
	TOTAL				11133.51	W
	Add 1 % Water charges on "W-A"				12.83	
	TOTAL				11146.33	X
	Add GST on "X-A" (multiplying factor 0.1405)				182.03	
	TOTAL				11328.36	Y
	Add 15% CPOH on "Y-A"				221.64	
	TOTAL				11550.00	Z
	Add Cess @ 1% on "Z-A"				16.99	
	Cost of each				11567.00	
	Say				11567.00	

19.7.2 Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :

19.7.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6326.05	3479.33 A
	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.80 m = 0.942 cum Less for pipe 2x3.14x(0.15m)²x0.23m =(-) 0.008 cum Total= 0.934 cum Say 0.93 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.93	6882.00	6400.26 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2) x (0.30+0.20)/2 = 2.70 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum Total= 0.249 cum say 0.25				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.25	7365.15	1841.29 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.50m = 2.10 sqm 2x½x0.90x0.10m = 0.09 sqm = 2.19 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.19	386.55	846.54 A
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Less for cover 0.7854x(0.50)²x0.15m = (-) 0.029 cum = 0.31 cum				
5.3	Rate as per item no 5.3 of SH : RCC Work	cum	0.31	10719.30	3322.98 A
	Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.58	645.00	-374.10
	Mild steel reinforcement for slab : 0.31 cum @ 80.09 kg/cum = 24.83 kg	kg	24.83	88.95	2208.63 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work Form work = 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.50)² = (-) 0.196 sqm = 0.884 sqm Say 0.88 sqm				
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.88	766.55	674.56 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
1356	500 mm dia cover with frame (medium duty)	each	1.00	4400.00	4400.00
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.12	14.33
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				22983.27 W
	Add 1 % Water charges on "W-A"				42.10
	TOTAL				23025.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				597.37
	TOTAL				23622.75 Y
	Add 15% CPOH on "Y-A"				727.37
	TOTAL				24350.12 Z
	Add Cess @ 1% on "Z-A"				55.77
	Cost of each				24405.88
	Say				24405.90

19.7.2.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6326.05	3479.33 A
	Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.80 m = 0.942 cum Less for pipe 2x3.14x(0.15m)²x0.23m = (-) 0.008 cum = 0.934 cum Say 0.93 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching 2x1.20x(0.90/2) x (0.30+0.20)/2 = 2.70 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25	cum	0.93	6528.70	6071.69 A
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.50m = 2.10 sqm 2x½x0.90x0.10m = 0.09sqm = 2.19 sqm	cum	0.25	7365.15	1841.29 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Less for cover 0.7854x(0.50)²x0.15m = (-) 0.029 cum = 0.31 cum	sqm cum	2.19 0.31	386.55 10719.30	846.54 A 3322.98 A
5.3	Rate as per item no 5.3 of SH : RCC Work Less labour for not lifting the materilas upto floor five level				
0115	Coolie Mild steel reinforcement for slab : 0.31 cum @ 80.09 kg/cum = 24.83 kg	day	-0.58	645.00	-374.10
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work Form work = 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.50)² = (-) 0.196 sqm = 0.884 sqm Say 0.88 sqm	kg	24.83	88.95	2208.63 A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR Extra labour for making channel :	sqm	0.88	766.55	674.56 A
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
1356	500 mm dia cover with frame (medium duty)	each	1.00	4400.00	4400.00
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.12	14.33
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				22654.71 W
	Add 1 % Water charges on "W-A"				42.10
	TOTAL				22696.80 X
	Add GST on "X-A" (multiplying factor 0.1405)				597.37
	TOTAL				23294.18 Y
	Add 15% CPOH on "Y-A"				727.37
	TOTAL				24021.55 Z
	Add Cess @ 1% on "Z-A"				55.77
	Cost of each				24077.31
	Say				24077.30

19.7.3 Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg) :

19.7.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole				
	MATERIAL				
	Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)				
	1.81x1.51x0.20 m = 0.547 cum				
	Say 0.55 cum				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6326.05	3479.33 A
	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand)				
	5.12x0.23x0.65 m = 0.765 cum				
	1x0.56x0.23x0.15 m = 0.019 cum				
	1x0.79x0.23x0.15 = 0.027 cum				
	= 0.811 cum				
	Less for pipe $2x3.14x(0.15m)^2x0.23m$				
	= (-) 0.008 cum				
	= 0.803 cum Say 0.80 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.80	6882.00	5505.60 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching				
	2x1.20x(0.90/2)x(0.30+0.20)/2				
	= 0.27 cum				
	Less for pipe $1.20x3.14/4x(0.15m)^2$				
	= (-) 0.021 cum				
	= 0.249 cum say 0.25				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20mx0.35m = 1.47 sqm 2x0.56x0.15 m = 0.17 sqm 2x½x0.90x0.10m = 0.09 sqm For fixing cover 0.96x0.96 m =0.922 sqm = 2.652 sqm Less cover $3.14/4x(0.56)^2$ = (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm	cum	0.25	7365.15	1841.29 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Add extra concreting 1x(0.56+0.79)x 0.15x0.15 m = 0.03 cum Total= 0.369 cum Less for cover $0.7854x(0.56)^2x0.15m$ = (-) 0.037 cum = 0.332 cum Say 0.33 cum	sqm	2.41	386.55	931.59 A
5.3	Rate as per item no 5.3 of SH : RCC Work Less labour for not lifting the materilas upto floor five level	cum	0.33	10719.30	3537.37 A
0115	Coolie Steel reinforcement for slab @ 80.09 Kg/cum For 0.33 cum = 26.43 kg.	day	-0.62	645.00	-399.90
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work Form work inside area of man-hole 1.20x0.90 = 1.08 sqm Less cover = $3.14/4x(0.56)^2$ = (-) 0.246 sqm = 0.834 sqm Say 0.83 sqm	kg	26.43	88.95	2350.95 A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR Extra labour for making channel :	sqm	0.83	766.55	636.24 A
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
3860	560 mm dia cover with frame (Heavy duty)	each	1.00	9100.00	9100.00
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.12	28.66
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				27188.28 W
	Add 1 % Water charges on "W-A"				89.06
	TOTAL				27277.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				1263.80
	TOTAL				28541.14 Y
	Add 15% CPOH on "Y-A"				1538.82
	TOTAL				30079.95 Z
	Add Cess @ 1% on "Z-A"				117.98
	Cost of each				30197.93
	Say				30197.95

19.7.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole				
	MATERIAL				
	Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)				
	1.81x1.51x0.20 m = 0.547 cum				
	Say 0.55 cum				
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.55	6326.05	3479.33 A
	sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement : 4 coarse sand)				
	5.12x0.23x0.65 m = 0.765 cum				
	1x0.56x0.23x0.15 m = 0.019 cum				
	1x0.79x0.23x0.15 = 0.027 cum				
	Total= 0.811 cum				
	Less for pipe 2x3.14x$(0.15m)^2$x 0.23m = (-) 0.008 cum				
	= 0.803 cum Say 0.80 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.80	6528.70	5222.96 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching				
	2x1.20x(0.90/2)x(0.30+0.20)/2 = 0.27 cum				
	Less for pipe 1.20x3.14/4x$(0.15m)^2$ = (-) 0.021 cum				
	= 0.249 cum say 0.25				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.25	7365.15	1841.29 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement				
	4.20mx0.35m = 1.47 sqm				
	2x0.56x0.15 m = 0.17 sqm				
	2x½x0.90x0.10m = 0.09 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	For fixing cover 0.96x0.96 m =0.922 sqm Total= 2.652 sqm Less cover 3.14/4x(0.56)² = (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.41	386.55	931.59	A
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Add extra concreting 1x(0.56+0.79)x 0.15x0.15 m = 0.03 cum = 0.369 cum Less for cover 0.7854x(0.56)²x0.15m = (-) 0.037 cum = 0.332 cum Say 0.33 cum					
5.3	Rate as per item no 5.3 of SH : RCC Work	cum	0.33	10719.30	3537.37	A
	Less labour for not lifting the materilas upto floor five level					
0115	Coolie	day	-0.62	645.00	-399.90	
	Steel reinforcement for slab @ 80.09 Kg/cum For 0.33 cum = 26.43 kg					
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	26.43	88.95	2350.95	A
	Form work inside area of man-hole 1.20x0.90 = 1.08 sqm Less cover = 3.14/4x(0.56)² = (-) 0.246 sqm = 0.834 sqm Say 0.83 sqm					
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.83	766.55	636.24	A
	LABOUR Extra labour for making channel :					
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72	
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12	
3860	560 mm dia cover with frame (Heavy duty)	each	1.00	9100.00	9100.00	
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.12	28.66	
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.12	14.33	
9999	Sundries	L.S.	20.28	2.12	42.99	
	TOTAL				26905.64	W
	Add 1 % Water charges on "W-A"				89.06	
	TOTAL				26994.70	X
	Add GST on "X-A" (multiplying factor 0.1405)				1263.80	
	TOTAL				28258.50	Y
	Add 15% CPOH on "Y-A"				1538.82	
	TOTAL				29797.31	Z
	Add Cess @ 1% on "Z-A"				117.98	
	Cost of each				29915.29	
	Say				29915.30	

19.8 Extra for depth for manholes :

19.8.1 Size 90x80 cm

19.8.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre MATERIAL Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x1.0 m = 0.994 cum Say 0.99 cum				
6.1.1	Rate as per item no. 6.1.1 of S.H : brick work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40x1 m = 3.40 sqm	cum	0.99	6882.00	6813.18 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	386.55	1314.27 A
	TOTAL				8127.45
	Cost for one metre				8127.45
	Say				8127.45

19.8.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre MATERIAL Brick work with modular extruded brunt fly ash clay sewer bricks conforming to IS : 4885 in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x1.0 m = 0.994 cum Say 0.99 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40x1 m = 3.40 sqm	cum	0.99	6528.70	6463.41 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	386.55	1314.27 A
	TOTAL				7777.68
	Cost for one metre				7777.68
	Say				7777.70

19.8.2 Size 120x90 cm

19.8.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre MATERIAL Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement 4: coarse sand) 5.12x0.23x1.0 m = 1.178 cum Say 1.18 cum				
6.1.1	Rate as per item no. 6.1.1 of S.H : brick work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20x1 m = 4.20 sqm	cum	1.18	6882.00	8120.76 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.20	386.55	1623.51 A
	TOTAL				9744.27
	Cost for one metre				9744.27
	Say				9744.25

19.8.2.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre MATERIAL Brick work with modular extruded brunt fly ash clay sewer bricks conforming to IS :4885 in cement mortar 1:4 (1 cement: 4 coarse sand) 5.12x0.23x1.0 m = 1.178 cum Say 1.18 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20x1 m = 4.20 sqm	cum	1.18	6528.70	7703.87 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.20	386.55	1623.51 A
	TOTAL				9327.38
	Cost for one metre				9327.38
	Say				9327.40

19.9 Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.9.1 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :

19.9.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 1.67x1.67x0.225 m = 0.63 cum				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.14x0.074x0.23 = 0.061 3.14x(1.14+0.79)/2x0.711x0.23 = 0.496 Total= 0.557 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total= 0.026 cum Net quantity 0.557-0.026 = 0.531 Say 0.53	cum	0.63	6670.25	4202.26 A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum	cum	0.53	6882.00	3647.46 A
6.9	Rate as per item no 6.9 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(0.91+0.82)²x0.20 = 0.118 cum [(2x8.133)/360]x(4/3)x3.14x(0.45)³ =0.017 cum Total = 0.135 cum Less pipe : 0.91x3.14/4x(0.15)2² = (-) 0.016 cum = 0.119 cum Say 0.12 cum	cum	0.02	13378.10	267.56 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate : 20 mm nominal size) For fixing cover : 3.14/4 x d^2 x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m = (-) 0.037 cum Total = 0.086 cum Say 0.09 cum	cum	0.12	7365.15	883.82 A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(0.80+0.56)/2x0.49 = 1.05 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(0.80)²/4-0.80x0.15+0.80x½x 3.14x0.15 = 0.57 sqm Total= 1.75 sqm	cum	0.09	9375.20	843.77 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.75	386.55	676.46 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
0124	Mason (brick layer) 2nd class	day	0.06	714.00	42.84
	S.F.R.C cover				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.9	2.12	35.83
	TOTAL				11541.64 W
	Add 1 % Water charges on "W-A"				10.20
	TOTAL				11551.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				144.79
	TOTAL				11696.63 Y
	Add 15% CPOH on "Y-A"				176.30
	TOTAL				11872.93 Z
	Add Cess @ 1% on "Z-A"				13.52
	Cost of one manhole				11886.45
	Say				11886.45

19.9.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate: 40 mm nominal size) 1.67x1.67x0.225 m = 0.63 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.14x0.074x0.23 = 0.061 3.14x(1.14+0.79)/2x0.711x0.23 = 0.496 = 0.557 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total= 0.026 cum Net quantity 0.557-0.026 = 0.531 Say 0.53	cum	0.63	6670.25	4202.26 A
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded brunt fly ash clay sewer bricks conforming to IS : 4885 in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum	cum	0.53	6528.70	3460.21 A
6.37	Rate as per item No 6.37 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(0.91+0.82)²x0.20 = 0.118 cum [(2x8.133)/360]x(4/3)x3.14x(0.45)³ =0.017 cum Total= 0.135 cum Less pipe : 0.91x3.14/4x(0.15)² = (-) 0.016 cum Total= 0.119 cum Say 0.12 cum	cum	0.02	11763.25	235.27 A
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m = (-) 0.037 cum Total = 0.086 cum Say 0.09 cum	cum	0.12	7365.15	883.82 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(0.80+0.56)/2x0.49 = 1.05 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(0.80)²/4-0.80x0.15+0.80x½x3.14x 0.15 = 0.57 sqm Total= 1.75 sqm	cum	0.09	9375.20	843.77 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.75	386.55	676.46 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.06	784.00	47.04
0124	Mason (brick layer) 2nd class	day	0.06	714.00	42.84
	S.F.R.C cover				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.90	2.12	35.83
	TOTAL				11322.10 W
	Add 1 % Water charges on "W-A"				10.20
	TOTAL				11332.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				144.79
	TOTAL				11477.09 Y
	Add 15% CPOH on "Y-A"				176.30
	TOTAL				11653.38 Z
	Add Cess @ 1% on "Z-A"				13.52
	Cost of one manhole				11666.90
	Say				11666.90

19.10 Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m

19.10.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost of 0.76 m depth Brick work in foundation with 7.5 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand)				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone 20mm nominal size)	cum	0.63	6882.00	4335.66 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work 12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with neat cement.	cum	0.01	7365.15	73.65 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.33	386.55	900.66 A
	Cost for 0.76 metre				5309.97
	Cost for 1.00 metre				6986.81
	Say				6986.80

19.10.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost of 0.76 m extra depth Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand)				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone 20mm nominal size)	cum	0.63	6528.70	4113.08 A
4.1.3	Rate as per item no 4.1.3 of SH : Concrete Work 12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement.	cum	0.01	7365.15	73.65 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.33	386.55	900.66 A
	Cost for 0.76 metre				5087.39
	Cost for 1.00 metre				6693.94
	Say				6693.95

19.11 Constructing brick masonry circular manhole 1.22 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.11.1 1.68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :

19.11.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total= 1.320 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total = 0.026 cum Net quantity 1.320-0.026 = 1.294 Say 1.29 cum	cum	1.18	6670.25	7870.90 A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 coarse sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum	cum	1.29	6882.00	8877.78 A
6.9	Rate as per item no 6.9 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum Total= 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Total= 0.2554 cum Say 0.26 cum	cum	0.02	13378.10	267.56 A
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : (-) = 0.037 cum Total= 0.086 cum Say 0.09 cum	cum	0.26	7365.15	1914.94 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.136+0.56)/2x1.216 = 3.241 sqm 3.14x0.56x0.075 = 0.13 sqm 3.14x(1.136)²/4-1.136x1/2x3.14x0.15 = 1.112 sqm Total= 4.483 sqm Say 4.48 sqm	cum	0.09	9375.20	843.77 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.48	386.55	1731.74 A
	LABOUR				
	Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
	S.F.R.C manhole cover				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.9	2.12	35.83
	TOTAL				22586.92 W
	Add 1 % Water charges on "W-A"				10.80
	TOTAL				22597.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				153.29
	TOTAL				22751.02 Y
	Add 15% CPOH on "Y-A"				186.65
	TOTAL				22937.67 Z
	Add Cess @ 1% on "Z-A"				14.31
	Cost of one manhole				22951.97
	Say				22951.95

19.11.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 40 mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total = 1.320	cum	1.18	6670.25	7870.90 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.230x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.230 = 0.008 cum Total= 0.026 cum Net quantity 1.320-0.026 = 1.294 Say 1.29 cum				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	1.29	6528.70	8422.02 A
	Brick work in arches with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:3 (1 cement : 3 fine sand) 2x½x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum				
6.37	Rate as per item No 6.37 of SH : Brick Work	cum	0.02	11763.25	235.27 A
	Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum Total= 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Total= 0.2554 cum Say 0.26 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Work	cum	0.26	7365.15	1914.94 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : = (-) 0.037 cum Total= 0.086 cum Say 0.09 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete	cum	0.09	9375.20	843.77 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.136+0.56)/2x1.216 = 3.241 sqm 3.14x0.56x0.075 = 0.13 sqm 3.14x(1.136)²/4-1.136x1/2x3.14x0.15 = 1.112 sqm Total= 4.483 sqm Say 4.48 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	4.48	386.55	1731.74 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
	S.F.R.C manhole cover and frame				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame -				
	H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.9	2.12	35.83
	TOTAL				22098.87 W
	Add 1 % Water charges on "W-A"				10.80
	TOTAL				22109.67 X
	Add GST on "X-A" (multiplying factor 0.1405)				153.29
	TOTAL				22262.96 Y
	Add 15% CPOH on "Y-A"				186.65
	TOTAL				22449.61 Z
	Add Cess @ 1% on "Z-A"				14.31
	Cost of one manhole				22463.92
	Say				22463.90

19.12 Extra depth for circular type manhole 1.22 m internal dia (at bottom) beyond 1.68 m to 2.29 m :

19.12.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost of 0.61 m extra depth Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.66	6882.00	4542.12 A
	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement.				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.56	386.55	989.57 A
	Cost for 0.61 metre				5531.69
	Cost for 1.00 metre				9068.34
	Say				9068.35

19.12.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost of 0.61 m extra depth Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work 12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement.	cum	0.66	6528.70	4308.94 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.56	386.55	989.57 A
	Cost for 0.61 metre				5298.51
	Cost for 1.00 metre				8686.08
	Say				8686.10

19.13 Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :

19.13.1 2.30 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :

19.13.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 2.74x2.74x0.30 m = 2.25 cum				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.98x0.25x0.46 = 0.716 cum 3.14x(1.98+0.905)/2x0.345x1.93 = 3.019 cum Total = 3.735 cum Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.46x0.10 m = 0.036 cum 2x3.14/4x$(0.15)^2$x0.460 = 0.016 cum Total= 0.052 cum Net quantity 3.735-0.052 = 3.683 cum Say 3.68 cum	cum	2.25	6670.25	15008.06 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 coarse sand) 2x1/2x3.14x0.25 m x0.460x0.10 m = 0.036 cum Say 0.04 cum	cum	3.68	6882.00	25325.76	A
6.9	Rate as per item no 6.9 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : $3.14/4x(1.52)^2x0.20$ = 0.363 cum $[(2x8.133)/360]x(4/3)x3.14x(0.76)^3$ =0.083 cum Total= 0.446 cum Less pipe :$1.52x3.14/4x(0.15)^2$(-) = 0.027 cum Total= 0.419 cum Say 0.42 cum	cum	0.04	13378.10	535.12	A
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d^2 x thickness $3.14/4x(1.020)^2x0.15$ m =0.123 cum Less cover $3.14/4x(0.28)^2$ x 0.15 m : = (-) 0.037 cum Total= 0.086 cum Say 0.09 cum	cum	0.42	7365.15	3093.36	A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.454+0.56)/2x1.799 = 5.694 sqm 3.14x0.56x0.075 = 0.13 sqm Benching $3.14x(1.454)^2/4$-1.454x0.15+1.454x1/2x 3.14x0.15 =1.786 sqm Total= 7.61 sqm	cum	0.09	9375.20	843.77	A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	7.61	386.55	2941.65	A
	LABOUR Extra labour for making channel :					
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40	
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40	
	S.F.R.C cover					
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00	
9977	CARRIAGE	L.S.	6.89	2.12	14.61	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries TOTAL Add 1 % Water charges on "W-A" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y-A" TOTAL Add Cess @ 1% on "Z-A" Cost of one manhole Say	L.S.	16.90	2.12	35.83 48827.96 W 10.80 48838.76 X 153.29 48992.05 Y 186.65 49178.70 Z 14.31 49193.01 49193.00

19.13.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 manhole MATERIAL Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) 2.74x2.74x0.30 m = 2.25 cum				
4.1.6	Rate as per item no 4.1.6 of SH : Concrete Work Brick work with bricks modular extruded brunt fly ash clay sewer bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.98x0.25x0.46 = 0.716 cum 3.14x(1.98+0.905)/2x0.345x1.93 = 3.019 cum Total= 3.735 cum Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.46x0.10 m = 0.036 cum 2x3.14/4x(0.15)²x0.460 = 0.016 cum Total= 0.052 cum Net quantity 3.735-0.052 = 3.683 cum Say 3.68 cum	cum	2.25	6670.25	15008.06 A
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:3 (1 cement : 3 fine sand) 2x1/2x3.14x0.25 m x0.460x0.10 m = 0.036 cum Say 0.04 cum	cum	3.68	6528.70	24025.62 A
6.37	Rate as per item No 6.37 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	0.04	11763.25	470.53 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	For benching : 3.14/4x(1.52)²x0.20 = 0.363 cum [(2x8.133)/360]x(4/3)x3.14x(0.76)³ =0.083 cum Total= 0.446 cum Less pipe :1.52x3.14/4x(0.15)²(-) = 0.027 cum = 0.419 cum Say 0.42 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For fixing cover : 3.14/4 x d² x thickness 3.14/4x(1.020)²x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : = (-) 0.037 cum Net Quantity= 0.086 cum Say 0.09 cum	cum	0.42	7365.15	3093.36 A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.14x(1.454+0.56)/2x1.799 = 5.694 sqm 3.14x0.56x0.075 = 0.13 sqm Benching 3.14x(1.454)²/4-1.454x0.15+1.454x1/2x 3.14x0.15 =1.786 sqm Total= 7.61 sqm	cum	0.09	9375.20	843.77 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	7.61	386.55	2941.65 A
	LABOUR Extra labour for making channel :				
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
0124	Mason (brick layer) 2nd class	day	0.10	714.00	71.40
	S.F.R.C cover				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00
9977	CARRIAGE	L.S.	6.89	2.12	14.61
9999	Sundries	L.S.	16.90	2.12	35.83
	TOTAL				47463.22 W
	Add 1 % Water charges on "W-A"				10.80
	TOTAL				47474.02 X
	Add GST on "X-A" (multiplying factor 0.1405)				153.29
	TOTAL				47627.31 Y
	Add 15% CPOH on "Y-A"				186.65
	TOTAL				47813.96 Z
	Add Cess @ 1% on "Z-A"				14.31
	Cost of one manhole				47828.27
	Say				47828.25

19.14 Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m :

19.14.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost of 1.88 m extra depth Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement: 4 coarse sand)				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	5.26	6882.00	36199.32 A
	12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	8.99	386.55	3475.08 A
	Cost for 1.88 metre				39674.40
	Cost for 1.00 metre				21103.41
	Say				21103.40

19.14.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost of 1.88 m extra depth Brick work with modular extruded brunt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement: 4 coarse sand)				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	5.26	6528.70	34340.96 A
	12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	8.99	386.55	3475.08 A
	Cost for 1.88 metre				37816.05
	Cost for 1.00 metre				20114.92
	Say				20114.90

19.15 Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :

19.15.1 With 20x20 mm square bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one M.S foot rests MATERIAL M.S. 20 mm square bar 0.75 m @ 3.137 kg/m = 0.024				
1006	Mild steel square bars	quintal	0.024	4850.00	116.40
9988	Carriage, painting, and other sundries	L.S.	1.82	2.12	3.86
	LABOUR for fabrication				
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR for fixing M.S. foot rests				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68
0124	Mason (brick layer) 2nd class	day	0.02	714.00	14.28
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				353.74 W
	Add 1 % Water charges on "W-A"				3.18
	TOTAL				356.93 X
	Add GST on "X-A" (multiplying factor 0.1405)				45.18
	TOTAL				402.10 Y
	Add 15% CPOH on "Y-A"				55.01
	TOTAL				457.11 Z
	Add Cess @ 1% on "Z-A"				4.22
	Cost for 1 no.				461.33
	Say				461.35

19.15.2 With 20 mm diameter round bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one M.S foot rests				
	MATERIAL				
	M.S. round brass20 mm dia 0.75 m @ 2.47kg/m = 0.018 q				
1003	Mild steel round bar above 12 mm dia	quintal	0.018	4750.00	85.50
9988	Carriage,painting, and other sundries	L.S.	1.82	2.12	3.86
	Labour for fabrication				
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate : 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68
0124	Mason (brick layer) 2nd class	day	0.02	714.00	14.28
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				322.84 W
	Add 1 % Water charges on "W-A"				2.87
	TOTAL				325.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				40.79
	TOTAL				366.51 Y
	Add 15% CPOH on "Y-A"				49.67
	TOTAL				416.18 Z
	Add Cess @ 1% on "Z-A"				3.81
	Cost for 1 no.				419.99
	Say				420.00

19.16 Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7354	Plastic encapsuled M.S. foot rest 30x20x15 cm	each	1.00	110.00	110.00
9988	Carriage and other sundries	L.S.	1.82	2.12	3.86
	Cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) (0.30x0.20x0.15 = 0.009 cum)				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.009	8843.45	79.59 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68
0124	Mason (brick layer) 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				384.18 W
	Add 1 % Water charges on "W-A"				3.05
	TOTAL				387.23 X
	Add GST on "X-A" (multiplying factor 0.1405)				43.22
	TOTAL				430.45 Y
	Add 15% CPOH on "Y-A"				52.63
	TOTAL				483.08 Z
	Add Cess @ 1% on "Z-A"				4.03
	Cost for 1 no.				487.11
	Say				487.10

19.17 Replacement of M.S. foot rests in manholes including dismantling concrete blocks and fixing with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size):

19.17.1 With 20x20 mm square bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one M.S foot rests				
	MATERIAL				
	M.S. 20 mm square bar 0.75 m @ 3.137 kg/m =0.024 q				
1006	Mild steel square bars	quintal	0.024	4850.00	116.40
9988	Carriage,painting, and other sundries	L.S.	1.82	2.12	3.86
	Labour for fabrication				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR for dismantling old forts rest cutting holes and fixing new M.S. foot rests				
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.1	645.00	64.50
	TOTAL				430.93 W
	Add 1 % Water charges on "W-A"				3.96
	TOTAL				434.89 X
	Add GST on "X-A" (multiplying factor 0.1405)				56.13
	TOTAL				491.02 Y
	Add 15% CPOH on "Y-A"				68.35
	TOTAL				559.37 Z
	Add Cess @ 1% on "Z-A"				5.24
	Cost for 1 no.				564.61
	Say				564.60

19.17.2 With 20 mm diameter round bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one M.S foot rests MATERIAL				
	M.S. roumd bars 20 mm dia 0.75 m @ 2.47 kg/m =0.018 q				
1003	Mild steel round bar above 12 mm dia	quintal	0.018	4750.00	85.50
9988	Carriage,painting, and other sundries	L.S.	1.82	2.12	3.86
	Labour for fabrication				
0103	Blacksmith 2nd class	day	0.10	714.00	71.40
0114	Beldar	day	0.10	645.00	64.50
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 0.20x0.20x0.10 m = 0.004 cum				
4.2.5	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8843.45	35.37 A
	LABOUR for dismantling old forts rest cutting holes and fixing new M.S. foot rests				
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				400.03 W
	Add 1 % Water charges on "W-A"				3.65
	TOTAL				403.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				51.75
	TOTAL				455.43 Y
	Add 15% CPOH on "Y-A"				63.01
	TOTAL				518.43 Z
	Add Cess @ 1% on "Z-A"				4.83
	Cost for 1 no.				523.26
	Say				523.25

19.18 Supplying and fixing C.I. cover without frame for manholes :

19.18.1 455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cover				
	MATERIAL				
1355	Rectangular cover 455x610mm without frame (low duty)	each	1.00	910.00	910.00
9977	Carriage of C.I. Manhole cover	L.S.	7.15	2.12	15.16
	LABOUR				
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				1002.56 W
	Add 1 % Water charges on "W"				10.03
	TOTAL				1012.58 X
	Add GST on "X" (multiplying factor 0.1405)				142.27
	TOTAL				1154.85 Y
	Add 15% CPOH on "Y"				173.23
	TOTAL				1328.08 Z
	Add Cess @ 1% on "Z"				13.28
	Cost for 1 cover				1341.36
	Say				1341.35

19.18.2 500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cover				
	MATERIAL				
1357	500 mm dia cover without frame (medium duty)	each	1.00	2300.00	2300.00
9977	Carriage of C.I. cover	L.S.	13.47	2.12	28.56

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				2405.96 W
	Add 1 % Water charges on "W"				24.06
	TOTAL				2430.02 X
	Add GST on "X" (multiplying factor 0.1405)				341.42
	TOTAL				2771.43 Y
	Add 15% CPOH on "Y"				415.71
	TOTAL				3187.15 Z
	Add Cess @ 1% on "Z"				31.87
	Cost for 1 no.				3219.02
	Say				3219.00

19.18.3 560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cover				
	MATERIAL				
3861	560 mm dia cover without frame (Heavy duty)	each	1.00	5100.00	5100.00
9977	Carriage of C.I. cover	L.S.	16.12	2.12	34.17
	LABOUR				
0114	Beldar	day	0.12	645.00	77.40
	TOTAL				5211.57 W
	Add 1 % Water charges on "W"				52.12
	TOTAL				5263.69 X
	Add GST on "X" (multiplying factor 0.1405)				739.55
	TOTAL				6003.24 Y
	Add 15% CPOH on "Y"				900.49
	TOTAL				6903.72 Z
	Add Cess @ 1% on "Z"				69.04
	Cost for 1 no.				6972.76
	Say				6972.75

19.19 Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality

19.19.1 L D- 2.5

19.19.1.1 Rectangular shape 600x450 mm internal dimensions

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7130	Rectangular shape 600x450 mm precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	675.00	675.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 1.00x0.85x0.15 = 0.1275 cum Less cover with frame 0.85x0.70x0.15 = (-) 0.0893 cum = 0.0382 cum Say 0.04 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.04	7365.15	294.61 A
9977	Carriage of R.C.C cover with frame	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				1012.60 W
	Add 1 % Water charges on "W-A"				7.18
	TOTAL				1019.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				101.89
	TOTAL				1121.67 Y
	Add 15% CPOH on "Y-A"				124.06
	TOTAL				1245.73 Z
	Add Cess @ 1% on "Z-A"				9.51
	Cost for 1 no.				1255.24
	Say				1255.25

19.19.1.2 Square shape 450 mm internal dimensions

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7131	Square shape 450x450 mm precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	575.00	575.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 0.725x0.725x0.15 = 0.0788 cum Less cover with frame 0.575x0.575x0.15 = (-) 0.0496 cum = 0.0292 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				838.95 W
	Add 1 % Water charges on "W-A"				6.18
	TOTAL				845.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				87.70
	TOTAL				932.82 Y
	Add 15% CPOH on "Y-A"				106.78
	TOTAL				1039.60 Z
	Add Cess @ 1% on "Z-A"				8.19
	Cost for 1 no.				1047.79
	Say				1047.80

19.19.1.3 Circular shape 450 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7132	Circular shape 450 mm dia precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	575.00	575.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	3.14/4x(0.775)²x0.15 = 0.0708 cum				
	Less cover with frame				
	3.14/4x(0.625)²x0.15 = (-) 0.0460 cum				
	= 0.0248 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				838.95 W
	Add 1 % Water charges on "W-A"				6.18
	TOTAL				845.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				87.70
	TOTAL				932.82 Y
	Add 15% CPOH on "Y-A"				106.78
	TOTAL				1039.60 Z
	Add Cess @ 1% on "Z-A"				8.19
	Cost for 1 no.				1047.79
	Say				1047.80

19.19.2 M D - 10
19.19.2.1 Square shape 450 mm internal dimension

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7133	Rectangular shape 500x500 mm precast R.C.C. manhole cover with frame - M.D. - 10	each	1.00	670.00	670.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	0.95x0.95x0.15 = 0.1354 cum				
	Less cover with frame				
	0.80x0.80x0.15 = (-) 0.096 cum				
	= 0.0394 cum Say 0.04 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.04	7365.15	294.61 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				1014.21 W
	Add 1 % Water charges on "W-A"				7.20
	TOTAL				1021.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				102.12
	TOTAL				1123.53 Y
	Add 15% CPOH on "Y-A"				124.34
	TOTAL				1247.86 Z
	Add Cess @ 1% on "Z-A"				9.53
	Cost for 1 no.				1257.40
	Say				1257.40

19.19.2.2 Circular shape 500 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7134	Circular shape 500 mm dia precast R.C.C. manhole cover with frame - M.D. - 10	each	1.00	575.00	575.00
9977	Carriage of manhole cover	L.S.	6.76	2.12	14.33
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)				
	$3.14/4x(0.95)^2x0.15$ = 0.1064 cum				
	Less cover with frame				
	$3.14/4x(0.8)^2x0.15$ = (-) 0.0754 cum				
	= 0.031 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				845.56 W
	Add 1 % Water charges on "W-A"				6.25
	TOTAL				851.81 X
	Add GST on "X-A" (multiplying factor 0.1405)				88.63
	TOTAL				940.44 Y
	Add 15% CPOH on "Y-A"				107.92
	TOTAL				1048.37 Z
	Add Cess @ 1% on "Z-A"				8.27
	Cost for 1 no.				1056.64
	Say				1056.65

19.19.3 H D - 20

19.19.3.1 Circular shape 560 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no.				
	MATERIAL				
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	1.00	880.00	880.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of manhole cover Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 3.14/4x(1.05)²x0.15 = 0.1299 cum Less cover with frame 3.14/4x(0.9)²x0.15 = (-) 0.0955 cum = 0.0344 cum Say 0.03 cum	L.S.	13.52	2.12	28.66
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				1172.61 W
	Add 1 % Water charges on "W-A"				9.52
	TOTAL				1182.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				135.04
	TOTAL				1317.17 Y
	Add 15% CPOH on "Y-A"				164.43
	TOTAL				1481.60 Z
	Add Cess @ 1% on "Z-A"				12.61
	Cost for 1 no.				1494.21
	Say				1494.20

19.19.4 EHD - 35

19.19.4.1 Circular shape 560 mm internal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one no. MATERIAL				
7136	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - E.H.D. - 35	each	1.00	1170.00	1170.00
9977	Carriage of manhole cover Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 3.14/4x(1.05)²x0.15 = 0.1299 cum Less cover with frame 3.14/4x(0.9)²x0.15 = (-) 0.0955 cum = 0.0344 cum Say 0.03 cum	L.S.	13.52	2.12	28.66
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				1462.61 W
	Add 1 % Water charges on "W-A"				12.42
	TOTAL				1475.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				176.20
	TOTAL				1651.22 Y
	Add 15% CPOH on "Y-A"				214.54
	TOTAL				1865.76 Z
	Add Cess @ 1% on "Z-A"				16.45
	Cost for 1 no.				1882.21
	Say				1882.20

19.20 Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cover				
	MATERIAL				
1353	C.I.cover without frame 300x300mm inside i.e.cover of 4.50 kg	each	1.00	477.00	477.00
9988	Carriage for cover	L.S.	2.70	2.12	5.72
	LABOUR				
0114	Beldar	day	0.03	645.00	19.35
	TOTAL				502.07 W
	Add 1 % Water charges on "W"				5.02
	TOTAL				507.09 X
	Add GST on "X" (multiplying factor 0.1405)				71.25
	TOTAL				578.34 Y
	Add 15% CPOH on "Y"				86.75
	TOTAL				665.09 Z
	Add Cess @ 1% on "Z"				6.65
	Cost for 1 cover				671.74
	Say				671.75

19.21 Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :

19.21.1 For pipes 100 to 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one connection				
	MATERIAL				
	cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) = 0.30x0.30x0.23 m = 0.0207 cum				
	Less pipe = 1/2x3.14x0.23x0.23x0.23 = 0.0096 cum				
	= 0.0111 cum Say 0.01 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete	cum	0.01	7365.15	73.65 A
	12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement 2x0.35x0.35 =0.25sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.25	386.55	96.64 A
	LABOUR				
	(For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.)				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.25	645.00	161.25
9999	Add for delay sundries etc.	L.S.	20.15	2.12	42.72
	TOTAL				554.02 W
	Add 1 % Water charges on "W-A"				3.84
	TOTAL				557.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				54.45
	TOTAL				612.31 Y
	Add 15% CPOH on "Y-A"				66.30
	TOTAL				678.61 Z
	Add Cess @ 1% on "Z-A"				5.08
	Cost for 1 connection				683.69
	Say				683.70

19.21.2 For pipes 250 to 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one connection				
	MATERIAL				
	Cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) = 0.35x0.35x0.30 m = 0.037 cum				
	Less pipe = 1/2x3.14x0.30x0.30x 0.30 = 0.021 cum				
	= 0.016 cum Say 0.02 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.02	7365.15	147.30 A
	12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement				
	2x0.40x0.40 =0.32 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.32	386.55	123.70 A
	LABOUR				
	(For cutting holes average size 30x 30 cm in 23 cm thick wall and making channel etc.)				
0123	Mason (brick layer) 1st class	day	0.12	784.00	94.08
0124	Mason (brick layer) 2nd class	day	0.12	714.00	85.68
0114	Beldar	day	0.25	645.00	161.25
9999	Add for delay sundries etc.	L.S.	20.67	2.12	43.82
	TOTAL				655.83 W
	Add 1 % Water charges on "W-A"				3.85
	TOTAL				659.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				54.61
	TOTAL				714.29 Y
	Add 15% CPOH on "Y-A"				66.49
	TOTAL				780.78 Z
	Add Cess @ 1% on "Z-A"				5.10
	Cost for 1 connection				785.88
	Say				785.90

19.21.3 For pipes 350 to 450 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one connection				
	MATERIAL				
	Cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) = 0.50x0.50x0.30 m = 0.075 cum				
	Less pipe = 1/2x3.14x0.45x0.45x 0.30 = 0.048 cum				
	= 0.027 cum Say 0.03 cum				
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	7365.15	220.95 A
	12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement				
	2x0.55x0.55 =0.605 sqm Say 0.60 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.60	386.55	231.93 A
	LABOUR				
	(For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.)				
0123	Mason (brick layer) 1st class	day	0.16	784.00	125.44
0124	Mason (brick layer) 2nd class	day	0.16	714.00	114.24
0114	Beldar	day	0.33	645.00	212.85
9999	Add for delay sundries etc.	L.S.	26.91	2.12	57.05
	TOTAL				962.46 W
	Add 1 % Water charges on "W-A"				5.10
	TOTAL				967.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				72.31
	TOTAL				1039.87 Y
	Add 15% CPOH on "Y-A"				88.05
	TOTAL				1127.92 Z
	Add Cess @ 1% on "Z-A"				6.75
	Cost for 1 connection				1134.67
	Say				1134.65

19.22 Providing sand cast iron drop connection externally for 60 cm drop from branch sewer line to main sewer manhole including inspection and cleaning eye with chain and lid, sand cast iron drop pipe and bend encased all-round with cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) with all centering and shuttering required, cutting holes in walls and making good with brick work in cement mortar 1:4 (1 cement : 4 coarse sand) plastered with cement mortar 1:3 (1 cement : 3 coarse sand) on inside of the manhole wall, lead caulked joints between sand cast iron pipes and fittings, stiff cement mortar 1:1 (1 cement : 1 fine sand) joints between sand cast iron tee and S.W. pipe, making required channels complete as per standard design and specifications :

19.22.1 100 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one drop connection				
	MATERIAL				
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia	each	0.55556	1135.00	630.56
	= 38+30+33 =101 cm say 1 metre				
	Length of pipe = 1m. Hence, Qty = 1 /1.8 =0.55556 Nos				
9977	Carriage of pipe	L.S.	1.43	2.12	3.03
	Cutting charges				
18.83.2	Rate as per item no 18.83.2 of SH: Water supply	each cut	3.00	160.70	482.10 A
1336	Clearing eye with chain and lid 100 mm dia	each	1.00	44.00	44.00
1621	S.C.I. plain bend 100 mm dia	each	1.00	280.00	280.00
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	1.00	405.00	405.00
	Brick work in cement mortar 1:4 (1 cement : 4 coarse sand)				
	0.20x0.20x0.23 = 0.009 cum				
	Less pipe 1/2x3.14x0.10x0.10x0.23 = 0.002 cum				
	Net Qty= 0.009 - 0.002 = 0.007 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.007	6882.00	48.17 A
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				
	0.40x0.45x1.05 m = 0.189 cum				
	0.40x0.25x0.40 = 0.040 cum				
	Total= 0.229 cum				
	Less pipe portion				
	1/2x3.14x0.10x0.10x1.50 = 0.012 cum				
	Toothing portion				
	2x0.40x0.05x0.10 m = 0.004 cum				
	= 0.016 cum				
	Net Qty= 0.229-0.016 = 0.213 cum				
	Say 0.21 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.21	5660.45	1188.69 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement				
	1x0.25x0.25 m = 0.0625 Say 0.06 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.06	386.55	23.19 A
	Providing lead caulked joints to 100 mm diameter pipe and special				
12.39.1	Rate as per item no. 12.39.1 of SH : Roofing	each	4.00	444.05	1776.20 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Providing joint to S.W. pipe with cement mortar 1:1 (1 cement : 1 fine sand)	L.S.	26.91	2.12	57.05
	Form work 1.30x1.05 m = 1.36 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.36	669.55	910.59 A
9988	Sundries including carriage of bends etc.	L.S.	26.91	2.12	57.05
	LABOUR For cutting holes 5 cm deep in alternate course of brick work benching and channel				
0123	Mason (brick layer) 1st class	day	0.70	784.00	548.80
0124	Mason (brick layer) 2nd class	day	0.70	714.00	499.80
0114	Beldar	day	2.70	645.00	1741.50
	TOTAL				8695.74 W
	Add 1 % Water charges on "W-A"				42.67
	TOTAL				8738.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				605.48
	TOTAL				9343.89 Y
	Add 15% CPOH on "Y-A"				737.24
	TOTAL				10081.13 Z
	Add Cess @ 1% on "Z-A"				56.52
	Cost of one drop connection				10137.65
	Say				10137.65

19.22.2 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one drop connection MATERIAL				
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150mm dia = 34.5+30+37 =101.5cm say 1.00m Length of pipe = 1m. Hence, Qty = 1 / 1.8 =0.55556 No.s	each	0.55556	1750.00	972.23
9977	Carriage of pipe	L.S.	1.82	2.12	3.86
	Cutting charges				
18.83.4	Rate as per item no 18.83.4 of SH Water Supply	each cut	3.00	301.90	905.70 A
1337	Clearing eye with chain and lid 150 mm dia	each	1.00	50.00	50.00
1622	S.C.I. plain bend 150 mm dia	each	1.00	475.00	475.00
7087	S.C.I. Tee 150 mm	each	1.00	570.00	570.00
	Brick work in cement mortar 1:4 (1 cement : 4 coarse sand) 0.20x0.20x0.23 = 0.009 cum Less pipe 1/2x3.14x0.15x0.15x0.23 = 0.004 cum Net Qty= 0.005 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.45x0.50x1.15 m = 0.259 cum 0.45x0.25x0.45 = 0.0510 cum = 0.310 cum Less pipe portion 1/4x3.14x0.15x0.15x1.50 = 0.027 cum Toothing portion 3x0.45x0.05x0.10 m = 0.004 cum = 0.027 + 0.004 = 0.031 cum Net Qty 0.310-0.031 = 0.279 cum. Say 0.28 cum	cum	0.005	6882.00	34.41 A
4.1.11	Rate as per item no 4.1.11 of SH : Concrete 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 1x0.25x0.25 m = 0.0625 Say 0.06 sqm	cum	0.28	5660.45	1584.93 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Providing lead caulked joints to 150 mm diameter pipe and special	sqm	0.06	386.55	23.19 A
12.39.2	Rate as per item no. 12.39.2 of SH : Roofing	each	4.00	604.65	2418.60 A
9999	Providing joint to S.W. pipe with cement mortar 1:1 (1 cement : 1 fine sand) Form work 1.450x1.15 m = 1.67 sqm	L.S.	39.91	2.12	84.61
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.67	669.55	1118.15 A
9988	Sundries including carriage of bends etc.	L.S.	34.06	2.12	72.21
	LABOUR For cutting holes 45 holes 5 cm deep toothing in alternate course of brick work benching and making channel				
0123	Mason (brick layer) 1st class	day	0.85	784.00	666.40
0124	Mason (brick layer) 2nd class	day	0.85	714.00	606.90
0114	Beldar	day	3.50	645.00	2257.50
	TOTAL				11843.68 W
	Add 1 % Water charges on "W-A"				57.59
	TOTAL				11901.27 X
	Add GST on "X-A" (multiplying factor 0.1405)				817.19
	TOTAL				12718.46 Y
	Add 15% CPOH on "Y-A"				995.02
	TOTAL				13713.48 Z
	Add Cess @ 1% on "Z-A"				76.29
	Cost of one drop connection				13789.77
	Say				13789.75

19.23 Extra for depths beyond 60 cm of sand cast iron drop connection complete:

19.23.1 For 100 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one metre					
	MATERIAL					
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long:					
	100mm dia	each	0.55556	1135.00	630.56	
	Length of pipe = 1m. Hence, Qty = 1 / 1.8 = 0.55556 Nos.					
9977	Carriage of material and fixing charges	L.S.	13.39	2.12	28.39	
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	0.40x0.45x1.00 mm = 0.18 cum					
	Less pipe portion					
	1/2x3.14x0.10x0.10x1.00 = 0.008 cum					
	Toothing portion					
	5x0.40x0.05x0.10 m = 0.010 cum					
	Total= 0.018 cum					
	Net Qty= 0.18-0.018 = 0.162 cum Say 0.16 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.16	5660.45	905.67	A
	Form work					
	1.30x1.00 m = 1.30 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.30	669.55	870.42	A
9999	Sundries	L.S.	7.15	2.12	15.16	
	LABOUR					
	For cutting holes 5 cm deep in alternate course of brick work					
0123	Mason (brick layer) 1st class	day	0.04	784.00	31.36	
0124	Mason (brick layer) 2nd class	day	0.04	714.00	28.56	
0114	Beldar	day	0.04	645.00	25.80	
	TOTAL				2535.91	W
	Add 1 % Water charges on "W-A"				7.60	
	TOTAL				2543.51	X
	Add GST on "X-A" (multiplying factor 0.1405)				107.82	
	TOTAL				2651.33	Y
	Add 15% CPOH on "Y-A"				131.29	
	TOTAL				2782.62	Z
	Add Cess @ 1% on "Z-A"				10.07	
	Cost of one metre				2792.69	
	Say				2792.70	

19.23.2 For 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150mm dia Length of pipe = 1m. Hence, Qty = 1 / 1.8 = 0.55556 Nos.	each	0.55556	1750.00	972.23
9977	Carriage of material and fixing charges Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 0.45x0.50x1.00 mm = 0.225 cum Less pipe portion 1/2x3.14x0.15x0.15x1.00 = 0.018 cum Toothing portion 5x0.45x0.05x0.10 m = 0.011 cum Total = 0.029 cum Net 0.225-0.029 = 0.196 cum Say 0.20 cum	L.S.	13.39	2.12	28.39
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Form work 1.45x1.00 m = 1.45 sqm	cum	0.20	5660.45	1132.09 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.45	669.55	970.85 A
9999	Sundries LABOUR For cutting 5 cm deep in alternate course of brick work	L.S.	8.09	2.12	17.15
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70
0114	Beldar	day	0.05	645.00	32.25
	TOTAL				3227.86 W
	Add 1 % Water charges on "W-A"				11.25
	TOTAL				3239.10 X
	Add GST on "X-A" (multiplying factor 0.1405)				159.63
	TOTAL				3398.74 Y
	Add 15% CPOH on "Y-A"				194.37
	TOTAL				3593.11 Z
	Add Cess @ 1% on "Z-A"				14.90
	Cost of one metre				3608.01
	Say				3608.00

19.24 Dismantling of manhole including R.C.C. top slab, C.I. cover with frame, including stacking of useful materials near the site and disposal of unserviceable materials within 50 m lead as per direction of Engineer-in-charge:

19.24.1 Rectangular manhole 90x80 cm and 45 cm deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of a manhole 90x80 cm and 45 cm deep Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size) 1.51x1.41x0.20 m = 0.426 cum Say 0.43 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing Dismantling of secon class brick work in cement mortar 1:4 (1 cement : 4 coarse sand) 4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m)² x0.23m = (-) 0.008 cum Net Qty 0.348 - 0.008 = 0.340 cum	cum	0.43	1239.60	533.03 A
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching 2x0.90x(0.80/2) x (0.30+0.20)/2 = 0.18 cum Less for pipe 1x0.90x3.14/4x(0.15m)² = (-) 0.02 cum Net qty= 0.16 cum	cum	0.34	1698.45	577.47 A
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) For slab : 1.36x1.26x0.15m = 0.257 cum Less for cover 0.61x0.455x0.15m = (-) 0.042 cum Net qty= 0.215 cum Say 0.22 cum	cum	0.16	2007.10	321.14 A
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.22	2928.10	644.18 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.12	15.16
	TOTAL				2090.98 W
	Add 1 % Water charges on "W-A"				0.15
	TOTAL				2091.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.15
	TOTAL				2093.28 Y
	Add 15% CPOH on "Y-A"				2.62
	TOTAL				2095.90 Z
	Add Cess @ 1% on "Z-A"				0.20
	Cost of one no				2096.10
	Say				2096.10

19.24.2 Rectangular manhole 120x90 cm and 90 cm deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of a manhole 120x90 and 90 cm deep Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size) 1.81x1.51x0.20 m = 0.547 cum Say 0.55 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing Dismantling of secon class brick work in cement mortar 1:4 (1 cement : 4 coarse sand) 5.12x0.23x0.80 m = 0.942 cum Less for pipe 2x3.14x(0.15m)²x0.23 m = (-) 0.008 cum Net qty = 0.934 cum Say 0.93 cum	cum	0.55	1239.60	681.78 A
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 2x1.20x0.90x(0.80/2) x (0.30+0.20)/2 = 2.70 cum Less for pipe 1.20x3.14/4x(0.15m)² = (-) 0.021 cum = 0.249 cum say 0.25	cum	0.93	1698.45	1579.56 A
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) For slab : 1.66x1.36x0.15m = 0.339 cum Less for cover 3.14/4x(0.50)²x0.15m = (-) 0.029 cum Net qty = 0.31 cum	cum	0.25	2007.10	501.78 A
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.31	2928.10	907.71 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.12	15.16
	TOTAL				3685.98 W
	Add 1 % Water charges on "W-A"				0.15
	TOTAL				3686.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.15
	TOTAL				3688.29 Y
	Add 15% CPOH on "Y-A"				2.62
	TOTAL				3690.90 Z
	Add Cess @ 1% on "Z-A"				0.20
	Cost of one no				3691.10
	Say				3691.10

19.24.3 Rectangular arch type manhole 140x90 cm and 2.45 m deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of a manhole 140x90 cm and 2.45 m deep Dismantling of cement concrete 1:4:8 (1 cement : 4 coarse sand 8 : aggregate stone 40 mm nominal size) 2.16m x 1.66m x 0.20m = 0.72 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.2	Rate as per item no. 15.2.2 of SH : Dismantling and demolishing Dismantling of second class brick work in cement mortar 1:4 (1 cement : 4 coarse sand) Brick work in item 5.52mx0.23mx1.20m = 1.524 cum 3.92mx0.23mx1.15m = 1.037 cum = 2.561 cum Deduct arch ring and portion of pipe 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum 2x3.14/4(0.15)²x0.23m = 0.008 cum = (-) 0.026 cum Net qty = 2.561 - 0.026 = 2.535 cum Say 2.54 cum Brick work in arch ½x3.14x1.13x0.80x0.23m = 0.327 cum 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum = 0.345 cum Say 0.35 cum Net qty = 2.54+0.35 = 2.89 cum	cum	0.72	1239.60	892.51 A
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 2x1.4x0.90/2x(0.20+0.30)/2 = 0.315 cum Less pipe 1.4x3.14/4x(0.15)² = (-) 0.025 cum Net qty = 0.290 cum	cum	2.89	1698.45	4908.52 A
15.2.1	Rate as per item no. 15.2.1 of SH : Dismantling and demolishing Dismantling of R.C.C slab of 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) 1.36mx1.06mx0.15 = 0.216 cum Less cover 3.14/4x(0.50)²x0.15m = (-) 0.029 cum = 0.187 cum Say 0.19 cum	cum	0.29	2007.10	582.06 A
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.19	2928.10	556.34 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.12	15.16
9999	Removal of M.S foot rest	L.S.	8.06	2.12	17.09
	TOTAL				6971.68 W
	Add 1 % Water charges on "W-A"				0.32
	TOTAL				6972.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.58
	TOTAL				6976.57 Y
	Add 15% CPOH on "Y-A"				5.57
	TOTAL				6982.15 Z
	Add Cess @ 1% on "Z-A"				0.43
	Cost of one no				6982.57
	Say				6982.55

19.24.4 Circular manhole 122 cm diameter and 1.68 m deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of a manhole 1.22 m internal diameter 1.68 m deep Dismantling of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 aggregate stone 40 mm nominal size) 1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum				
15.2.1	Rate as per item no 15.2.1 of SH : Dismantling Dismantling of second class brick work in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan 3.14x1.45x0.24x0.23 = 0.251 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 = 1.320 Duduct arch ring and portion of pipe 2x½x3.14x0.25mx0.23x0.10 m = 0.018 cum 2x3.14/4x(0.15)²x0.23 = 0.008 cum = 0.026 cum Net quantity 1.320-0.026 = 1.294 Say 1.29 cum Brick work in arches 2x1/2x3.14x0.25 m x0.230x0.10 m = 0.018 cum Say 0.02 cum Total = 1.294+0.02 = 1.1.314 cum. Say 1.131 cum	cum	1.18	2007.10	2368.38 A
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantaling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 gradeed stone aggregate 20 mm nominal size) For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ Total =0.043 cum 0.024 + 0.043 = 0.277 cum Less pipe :1.22x3.14/4x(0.15)² = (-) 0.0216 cum Net Qty. = 0.277 - 0.0216 = 0.26 cum In cover fixing 0.7854x1.020x1.020x 0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : = (-) 0.037 cum = 0.086 cum Say 0.09 cum Total = 0.26 + 0.09 = 0.35 cum	cum	1.31	1698.45	2224.97 A
15.2.1	Rate as per item no 15.2.1 of SH : Demolishing and dismantling	cum	0.35	2007.10	702.49 A
9999	Removal of S.F.R.C cover with frame size 560 mm diameter (medium duty)	L.S.	7.15	2.12	15.16

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Removal of M.S. foot rests	L.S.	8.06	2.12	17.09
	TOTAL				5328.08 W
	Add 1 % Water charges on "W-A"				0.32
	TOTAL				5328.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.58
	TOTAL				5332.98 Y
	Add 15% CPOH on "Y-A"				5.57
	TOTAL				5338.55 Z
	Add Cess @ 1% on "Z-A"				0.43
	Cost of one no				5338.97
	Say				5338.95

19.25 Extra for depth of manholes dismantled :

19.25.1 Rectangular manhole 90x80 cm and beyond 45 cm depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre				
	Dismantling of second class brick work in cement mortar 1:5 (1 Cement : 5 fine sand)				
	4.32x0.23x1.0m = 0.994 cum				
	Say 0.99 cum				
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	0.99	1698.45	1681.47 A
9999	Removing of M.S. foot rests	L.S.	1.82	2.12	3.86
	TOTAL				1685.32 W
	Add 1 % Water charges on "W-A"				0.04
	TOTAL				1685.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				0.55
	TOTAL				1685.91 Y
	Add 15% CPOH on "Y-A"				0.67
	TOTAL				1686.58 Z
	Add Cess @ 1% on "Z-A"				0.05
	Cost for one metre				1686.63
	Say				1686.65

19.25.2 Rectangular manhole 120x90 cm and beyond 90 cm depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre				
	Dismantling of second class brick work in cement mortar 1:5 (1 Cement : 5 fine sand)				
	5.12x0.23x1.0m = 1.178 cum				
	Say 1.18 cum				
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing	cum	1.18	1698.45	2004.17 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Removing of M.S. foot rests	L.S.	1.82	2.12	3.86
	TOTAL				2008.03 W
	Add 1 % Water charges on "W-A"				0.04
	TOTAL				2008.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				0.55
	TOTAL				2008.62 Y
	Add 15% CPOH on "Y-A"				0.67
	TOTAL				2009.28 Z
	Add Cess @ 1% on "Z-A"				0.05
	Cost for one metre				2009.33
	Say				2009.35

19.25.3 Rectangular arch type manhole 140x90 cm and beyond 2.45 m depth (up to 4.25 m depth)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.80 metre Dismantling IInd class brick work in cement mortar 1:4 (1 Cement : 4 Coarse sand) for 2.45 depth Qty for 2.45m depth 5.52mx0.23mx1.20m = 1.524 cum 3.92mx0.23mx1.15m = 1.037 cum Total = 2.561 cum Deduct arch ring and portion of pipe 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum 2x3.14/4(0.15)²x0.23m = 0.008 cum Total deduction= = (-) 0.026 cum Net 2.561 - 0.026 = 2.535 cum Say 2.54 cum Qty in arch ½x3.14x1.13x0.80x0.23m = 0.327 cum 2x½x3.14x0.25mx0.23x0.1m = 0.018 cum Total = 0.345 cum Say 0.35 cum Totol for 4.45 m depth 2.54 + 0.35 = 2.89 cum Qty for 4.25m depth 5.52mx0.23mx1.20m = 1.524 cum 3.92mx0.23mx2.95m = 2.660 cum Total = 4.184 cum Deduct arch ring and portion of pipe 2x½x3.14x0.70mx0.23x0.1m = 0.051 cum 2x3.14/4x(0.60)²x0.23 = 0.130 cum Total deduction== (-) 0.181 cum Net 4.184 - 0.181 = 4.003 cum Say 4.00 cum Qty in arch ½x3.14x1.13x0.80x0.23m = 0.327 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	2x½x3.14x0.70mx0.23x0.1m = 0.051 cum Total = 0.378 cum Say 0.38 cum Total for 2.25 m depth = 4.0+ 0.38 =4.38 cum Net difference = 4.38 - 2.89 = 1.49 cum				
15.7.4	Rate as per item no. 15.7.4 of SH :dismantling and dimolishing Dismantling cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size) Qty for 4.25m depth 2x1.4x(0.90/2)x(0.65+0.75)/2 = 0.882 cum Less pipe :1.4x3.14/4x(0.60)²(-) = 0.396 cum = 0.486 cum Say 0.49 cum Qty for 2.45m depth 2x1.4x(0.90/2)x(0.20+0.30)/2 = 0.315 cum Less pipe :1.4x3.14/4x(0.15)²(-) = 0.025 cum = 0.290 cum Say 0.29 cum Net difference = 0.49 - 0.29 = 0.20 cum	cum	1.49	1698.45	2530.69 A
15.2.1	Rate as per item no 15.2.1 of SH : Demolishing and dismantling Cost for 1.8 metre depth Cost for 1 metre depth Say	cum	0.20	2007.10	401.42 A 2932.11 1628.95 1628.95

19.25.4 Circular manhole 122 cm diameter and beyond 1.68 m depth (up to 2.29 m depth)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 0.61 metre Dismantling cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) 1.98x1.98x0.30 = 1.178 cum. Say 1.18 cum.				
15.2.1	(Rate as per item No.15.2.1 of SH. dismantling and Demolishing) Dismantling IInd class brick work in cement mortar 1:4 (1 Cement : 4 Coarse sand) Curved on plan 3.14x1.45x0.85x0.23 = 0.891 3.14x(1.45+0.79)/2x1.32x0.23 = 1.069 Total = 0.891 + 1.069 = 1.96 cum Duduct arch ring and portion of pipe 2x1/2x3.14x0.25mx0.23x0.10 m = 0.018 cum	cum	1.18	2007.10	2368.38 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	2x3.14/4x(0.15)²x0.23 = 0.008 cum Total deduction = 0.026 cum Net quantity 1.96-0.026 = 1.934 Say 1.93 cum Qty in arch 2x1/2x3.14x0.25 m x0.23x0.10 m = 0.018 cum Say 0.02 cum Total = 1.93 + 0.02 = 1.97 cum				
15.7.4	Rate as per item no 15.7.4 of SH : Dismantling and demolishing Dismantling cemnet concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size For benching : 3.14/4x(1.22)²x0.20 = 0.234 cum [(2x8.133)/360]x(4/3)x3.14x(0.61)³ =0.043 cum = 0.277 cum Less pipe :1.22x3.14/4x(0.15)²(-) = 0.0216 cum Net qty== 0.2554 cum Say 0.26 cum For fixing cover : 3.14/4 x d2 x thickness 0.7854x1.020x1.020x0.15 m =0.123 cum Less cover 3.14/4x(0.28)² x 0.15 m : = (-)0.037 cum Net qty= 0.086 cum Say 0.09 cum Total = 0.26 + 0.09 = 0.35 cum	cum	1.97	1698.45	3345.95 A
15.2.1	Rate as per item no 15.2.1 of SH : Dismantling	cum	0.35	2007.10	702.49 A
9999	Removal of SFRC cover	L.S.	7.15	2.12	15.16
9999	Removal of M.S. foot rests Deduct cost of dismantling manhole 1.68m deep	L.S.	8.09	2.12	17.15
19.24.4	Rate as per Item No.19.24.4 of SH: DRAINAGE	each	-1.00	5338.95	-5338.95 A
	TOTAL				1110.17 W
	Add 1 % Water charges on "W-A"				0.32
	TOTAL				1110.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.58
	TOTAL				1115.08 Y
	Add 15% CPOH on "Y-A"				5.58
	TOTAL				1120.66 Z
	Add Cess @ 1% on "Z-A"				0.43
	Cost of manhole 0.61m depth				1121.09
	Cost per metre depth				1837.85
	Say				1837.85

19.26 Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :

19.26.1 Rectangular manhole 90x80 cm with rectangular cover 600 x 450 mm of grade LD - 2.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one manhole Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III): 3 aggregate stone 20 mm nominal size) = 1.36x1.26x0.15 = 0.257 cum Less cover with frame portion 0.85x0.70x0.15 =(-) 0.089 cum Net qty=0.168 cum Say 0.17 cum					
15.3	Rate as per item no. 15.3 of					
	SH : Dismantling and demolishing	cum	0.17	2928.10	497.78	A
9999	Removal of R.C.C cover and frame	L.S.	7.15	2.12	15.16	
	Removal of R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) For raised slab = 1.36x1.26x0.15 = 0.257 cum Less portion cover with frame = 0.85x0.70x0.15 =(-) 0.089 cum Net qty = 0.168 cum Say 0.17 cum					
5.3	Rate as per item no. 5.3 of					
	SH : RCC work Form work = 0.90x0.80 = 0.72 sqm Less cover = 0.60x0.45 =(-) 0.27 sqm Net qty = 0.45 sqm	cum	0.17	10719.30	1822.28	A
5.9.3	Rate as per item no 5.9.3 of					
	SH : RCC work	sqm	0.45	766.55	344.95	A
9999	Sundries	L.S.	13.52	2.12	28.66	
	TOTAL				2708.83	W
	Add 1 % Water charges on "W-A"				0.44	
	TOTAL				2709.26	X
	Add GST on "X-A" (multiplying factor 0.1405)				6.22	
	TOTAL				2715.48	Y
	Add 15% CPOH on "Y-A"				7.57	
	TOTAL				2723.05	Z
	Add Cess @ 1% on "Z-A"				0.58	
	Cost of one no				2723.63	
	Say				2723.65	

19.26.2 Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one manhole Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand : 3 aggregate stone 20 mm nominal size) 1.66x1.36x0.15 = 0.339 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Less for R.C.C cover with frame 3.14/4x(0.80)²x0.15 =(-) 0.075 cum Net qty 0.264 cum Say 0.26 cum				
15.3	Rate as per item no. 15.3 of SH : Dismantling and demolishing	cum	0.26	2928.10	761.31 A
9999	Removal of R.C.C cover and frame	L.S.	7.15	2.12	15.16
	R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 1.66x1.36x0.15 = 0.339 cum Less portion cover with frame = 3.14/4x0.80x0.80x0.15 =(-) 0.075 cum Net qty= 0.264 cum Say 0.26 cum				
5.3	Rate as per item no 5.3 of SH : RCC Work	cum	0.26	10719.30	2787.02 A
	Form work = 1.2x0.90 = 1.08 sqm Less cover = 3.14/4x(0.50)² =(-) 0.196 sqm Net qty= 0.884 sqm Say .88 sqm				
5.9.3	Rate as per item no 5.9.3 of SH : RCC work	sqm	0.88	766.55	674.56 A
9999	Sundries	L.S.	16.64	2.12	35.28
	TOTAL				4273.32 W
	Add 1 % Water charges on "W-A"				0.50
	TOTAL				4273.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				7.16
	TOTAL				4280.98 Y
	Add 15% CPOH on "Y-A"				8.71
	TOTAL				4289.70 Z
	Add Cess @ 1% on "Z-A"				0.67
	Cost of one no				4290.37
	Say				4290.35

19.26.3 Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one manhole Dismantling of R.C.C slab of 1:1.5:3 (1 cement : 1.5 coarse sand : 3 aggregate stone 20 mm nominal size) 1.66x1.36x0.15 = 0.339 cum Less for R.C.C cover with frame 3.14/4x(0.90)²x0.15 =(-) 0.095 cum Net qty 0.244 cum Say 0.24 cum				
15.3	Rate as per item no 15.3 of SH : Dismantling and demolishing	cum	0.24	2928.10	702.74 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Removal of R.C.C cover and frame	L.S.	7.15	2.12	15.16
	R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)				
	1.66x1.36x0.15 = 0.339 cum				
	Less portion cover with frame				
	= 3.14/4x0.90x0.90x0.15				
	=(-) 0.095 cum				
	Net qty= 0.244 cum Say 0.24 cum				
5.3	Rate as per item no 5.3 of				
	SH : RCC Work	cum	0.24	10719.30	2572.63 A
	Form work = 1.2x0.90 = 1.08 sqm				
	Less cover = 3.14/4x(0.56)²				
	=(-) 0.246 sqm				
	Net qty= 0.834 sqm Say .83 sqm				
5.9.3	Rate as per item no 5.9.3 of				
	SH : RCC work	sqm	0.83	766.55	636.24 A
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				3969.76 W
	Add 1 % Water charges on "W-A"				0.58
	TOTAL				3970.35 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.25
	TOTAL				3978.60 Y
	Add 15% CPOH on "Y-A"				10.05
	TOTAL				3988.65 Z
	Add Cess @ 1% on "Z-A"				0.77
	Cost of one no				3989.42
	Say				3989.40

19.26.4 Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one manhole				
	Dismantling of C.C slab of 1:2:4 (1 cement 2 coarse sand : 4 aggregate stone 20 mm nominal size)				
	= 3.14/4x(0.985)²x0.15 = 0.114 cum				
	Less cover =3.14/4x(0.90)²x0.15				
	=(-) 0.095 cum				
	Net qty= 0.019 cum Say 0.02 cum				
15.3	Rate as per item no. 15.3 of				
	SH : Dismantling and demolishing	cum	0.02	2928.10	58.56 A
9999	Removal of R.C.C cover and frame	L.S.	8.06	2.12	17.09
	C.C work 1:2:4 (1 cement : 2 coarse sand 4 graded stone aggregate 20 mm nominal size)				
	3.14/4x(0.985)²x0.15 = 0.114 cum				
	Less portion cover with frame				
	= 3.14/4x(0.90)²x0.15 =(-) 0.095 cum				
	Net qty= 0.019 cum Say 0.02 cum				
4.2.3	Rate as per item no 4.2.3 of				
	SH : Concrete Work	cum	0.02	9375.20	187.50 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	20.28	2.12	42.99
	TOTAL				306.15 W
	Add 1 % Water charges on "W-A"				0.60
	TOTAL				306.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.53
	TOTAL				315.27 Y
	Add 15% CPOH on "Y-A"				10.38
	TOTAL				325.65 Z
	Add Cess @ 1% on "Z-A"				0.80
	Cost of one no				326.45
	Say				326.45

19.27 Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :

19.27.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber				
	MATERIAL				
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				
	1.11mx1.06mx0.15 m= 0.176 cum				
	Say 0.18 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.18	5660.45	1018.88 A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)				
	2.82 m x 0.23m x0.45 m = 0.29 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.29	6882.00	1995.78 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement				
	Wall : 1.90x0.45 m = 0.855 sqm				
	Bed : 0.45x0.50 m = 0.225 sqm				
	Total= 1.080 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.08	386.55	417.47 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)				
	2.82x0.23x0.15 m = 0.097 cum				
	Say 0.10 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete	cum	0.10	9375.20	937.52 A
	Form work				
	3.50x0.15 m = 0.525 sqm				
	Say 0.53 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.53	669.55	354.86 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7380	Precast R.C.C. grating with frame 500x450 mm horizontal grating	each	1.00	620.00	620.00
9977	Carriage of R.C.C. grating	L.S.	7.15	2.12	15.16
9999	Fixing R.C.C. grating	L.S.	5.33	2.12	11.30
	TOTAL				5370.97 W
	Add 1 % Water charges on "W-A"				6.46
	TOTAL				5377.44 X
	Add GST on "X-A" (multiplying factor 0.1405)				91.74
	TOTAL				5469.17 Y
	Add 15% CPOH on "Y-A"				111.70
	TOTAL				5580.87 Z
	Add Cess @ 1% on "Z-A"				8.56
	Cost of one chamber				5589.44
	Say				5589.45

19.28 Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :

19.28.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.06mx1.06mx0.15 m= 0.17 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.17	5660.45	962.28 A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 2.72 m x 0.23m x0.70 m = 0.438 cum Deduct opening 0.45x0.23x0.10 m = 0.01 cum Block $3x(0.075)^3$ = 0.001 cum Total deduction = 0.011 cum Net qty. = 0.438 (-) 0.011 = 0.427 cum Say 0.43 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.43	6882.00	2959.26 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 1.80x0.70 m = 1.26 sqm Bed : 0.45x0.45 m = 0.202 sqm Top : 0.45x0.20 m = 0.09 sqm Sides : 2x0.20x0.10 m = 0.04 sqm Total= 1.592 sqm Deduct opening 0.45x0.10 m = 0.045 sqm Net qty. = 1.592 (-) 0.045 = 1.547 cum Say 1.55 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	sqm	1.55	386.55	599.15 A
	Block = $3x(0.75)^3$ = 0.001 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete R.C.C. 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	0.001	9375.20	9.38 A
	0.91x0.91x0.075 m = 0.062 cum Say 0.06 cum				
5.3	Rate as per item no. 5.3 of SH : RCC work Less labour for not lifting the materilas upto floor five level	cum	0.06	10719.30	643.16 A
0115	Coolie	day	-0.113	645.00	-72.89
	Form work				
	0.45x0.45 m = 0.202 sqm				
	0.45x0.20 m = 0.09 sqm				
	outside slab : 3.40x0.075 m = 0.255 sqm				
	Total= 0.547 sqm Say 0.55 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC Mild steel reinforcement for R.C.C work	sqm	0.55	669.55	368.25 A
	0.062 cum @ 80 kg/cum = 4.96 kg				
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	4.96	88.95	441.19 A
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	1.00	235.00	235.00
9999	Fixing and carriage of R.C.C. grating	L.S.	20.67	2.12	43.82
	TOTAL				6188.60 W
	Add 1 % Water charges on "W-A"				2.06
	TOTAL				6190.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				29.22
	TOTAL				6219.88 Y
	Add 15% CPOH on "Y-A"				35.58
	TOTAL				6255.47 Z
	Add Cess @ 1% on "Z-A"				2.73
	Cost of one chamber				6258.20
	Say				6258.20

19.29 Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design :

19.29.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber				
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)				
	1.71mx1.11mx0.15 m = 0.285 cum				
	Say 0.29 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.29	5660.45	1641.53 A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)				
	1.91 m x 0.23m x0.45 m = 0.199 cum				
	2.20mx0.23mx0.70 m = 0.354 cum				
	Total= 0.553 cum				
	Deduct lintel portion				
	2x0.23x0.20x0.20 m = (-) 0.018 cum				
	Nte Qty= 0.0535 cum Say 0.54 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.54	6882.00	3716.28 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement				
	Wall : 1.80x0.70 m = 1.26 sqm				
	Wall : 1.40x0.45 m = 0.63 sqm				
	Bed : 1.10x0.50 m = 0.55 sqm				
	Total= 2.44 sqm				
	Deduct 2x0.20x0.20 m = (-) 0.08 sqm				
	Net Qty= 2.36 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.36	386.55	912.26 A
	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)				
	Block = 1.92x0.23x0.15 = 0.07 cum				
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work	cum	0.07	9375.20	656.26 A
	R.C.C. 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)				
	0.88x0.96x0.075 m = 0.063 cum				
	Say 0.06 cum				
5.3	Rate as per item no. 5.3 of SH : RCC work	cum	0.06	10719.30	643.16 A
	Less labour for not lifting the materilas upto floor five level				
0115	Coolie	day	-0.113	645.00	-72.89
	R.C.C. 1:1.5:3 (1 cement: 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) in lintels				
	1x0.96x0.20x0.20 m = 0.04 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.13	Rate as per item no. 5.13 of SH : RCC work Form work Slab bottom 0.50x0.65 m = 0.325 sqm Outer periphery 3.50x0.075 m = 0.263 sqm 2.20x0.15 m = 0.330 sqm = 0.918 sqm Say 0.91 sqm	cum	0.04	13581.85	543.27 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC Mild steel reinforcement for R.C.C work (0.06+0.04) = 0.10 cum @ 80 kg/cum = 8.00 kg	sqm	0.91	669.55	609.29 A
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	8.00	88.95	711.60 A
7380	Precast R.C.C. grating with frame 500x450 mm horizontal grating	each	1.00	620.00	620.00
9977	Carriage of R.C.C. grating	L.S.	7.15	2.12	15.16
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	1.00	235.00	235.00
9999	Labour for fixing precast R.C.C. grating and frame	L.S.	34.06	2.12	72.21
	TOTAL				10303.14 W
	Add 1 % Water charges on "W-A"				8.69
	TOTAL				10311.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				123.38
	TOTAL				10435.21 Y
	Add 15% CPOH on "Y-A"				150.23
	TOTAL				10585.45 Z
	Add Cess @ 1% on "Z-A"				11.52
	Cost of one chamber				10596.97
	Say				10596.95

19.30 Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 fine sand : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:

19.30.1 Inside dimensions 455x610 mm and 45 cm deep for single pipe line :

19.30.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one chamber Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.22mx1.065mx0.15 m= 0.195 cum Say 0.20 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Brick work in bricks of clas designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 3.05 m x 0.23m x0.30 m = 0.210 cum Less pipe 2x3.14/4x(0.10)²x0.23 m = (-) 0.004 cum Net Qty= 0.206 cum Say 0.21 cum	cum	0.20	5660.45	1132.09 A
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement Wall : 2.13x0.30 m = 0.639 sqm Bed : 0.61x0.455 m = 0.278 sqm Total= 0.917 sqm Less pipe 2x3.14/4x(0.10)² = (-) 0.016 sqm Net Qty= 0.901 sqm Say 0.90 sqm	cum	0.21	6882.00	1445.22 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 3.05x0.23x0.15 = 0.105 cum say 0.11 cum	sqm	0.90	386.55	347.90 A
5.3	Rate as per item no 5.3 of SH : RCC Form work Outer periphery 3.73x0.15 m = 0.56 sqm	cum	0.11	10719.30	1179.12 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.56	669.55	374.95 A
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1400.00	1400.00
9977	Carriage of C.I.cover and frame	L.S.	7.15	2.12	15.16
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				5938.25 W
	Add 1 % Water charges on "W-A"				14.59
	TOTAL				5952.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				207.04
	TOTAL				6159.88 Y
	Add 15% CPOH on "Y-A"				252.09
	TOTAL				6411.97 Z
	Add Cess @ 1% on "Z-A"				19.33
	Cost of one chamber				6431.30
	Say				6431.30

19.30.2 Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :

19.30.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost of one no.					
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size)					
	1.31mx1.11mx0.15 m= 0.22 cum					
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.22	5660.45	1245.30	A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 fine sand)					
	3.32 m x 0.23m x0.30 m = 0.229 cum					
	Less pipe					
	$3x3.14x(0.10)^2x0.23$ m = (-) 0.005 cum					
	Net Qty= 0.224 cum Say 0.22 cum					
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.22	6882.00	1514.04	A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement					
	Wall : 2.40x0.30 m = 0.72 sqm					
	Bed : 0.70x0.50 m = 0.35 sqm					
	= 1.07 sqm					
	Less pipe $3x3.14/4x(0.10)^2$ = (-) 0.02 sqm					
	Net Qty= 1.05 sqm					
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	1.05	386.55	405.88	A
	R.C.C 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)					
	1.16x0.96x0.15 = 0.167 cum					
	Deduct cover					
	0.61x0.45x0.15 m = (-) 0.042 cum					
	Net Qty= 0.125 cum Say 0.13 cum					
5.3	Rate as per item no. 5.3 of SH : RCC work	cum	0.13	10719.30	1393.51	A
	Form work					
	Inside area of chamber : 0.70x0.50 m = 0.35 sqm					
	Outer periphery 4.00x0.15 m					
	= 0.60 sqm = 0.95 sqm					
	Deduct cover : 0.61x0.455 m					
	= (-) 0.278 sqm					
	= 0.672 sqm Say 0.67 sqm					
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.67	669.55	448.60	A
	Less labour for not lifting the materilas upto floor five level					
0115	Coolie	day	-0.24	645.00	-154.80	
	M.S.reinforcement for slab					
	0.13 cum @ 48.06 kg/cum = 6.25 kg					
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	6.25	88.95	555.94	A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1400.00	1400.00
9977	Carriage of C.I. Cover and frame	L.S.	7.15	2.12	15.16
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				6867.44 W
	Add 1 % Water charges on "W-A"				13.04
	TOTAL				6880.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				185.07
	TOTAL				7065.55 Y
	Add 15% CPOH on "Y-A"				225.34
	TOTAL				7290.89 Z
	Add Cess @ 1% on "Z-A"				17.28
	Cost of one chamber				7308.17
	Say				7308.15

19.30.3 Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets :

19.30.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of one chamber				
	Cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) 1.46mx1.21mx0.15 m= 0.26 cum				
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.26	5660.45	1471.72 A
	Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 3.82 m x 0.23m x0.30 m = 0.26 cum				
	Less pipe $5x3.14x(0.10)^2x0.23$ m = (-) 0.009 cum				
	Net Qty= 0.255 cum Say 0.26 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.26	6882.00	1789.32 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement				
	Wall : 2.90x0.30 m = 0.87 sqm				
	Bed : 0.85x0.60 m = 0.51 sqm				
	Total= 1.38 sqm				
	Less pipe $5x3.14/4x(0.10)^2$ = (-) 0.04 sqm				
	Net Qty= 1.34 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.9.1	Rate as per item no 13.9.1 of SH : Finishing R.C.C 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 1.31x1.06x0.15 = 0.208 cum Deduct cover 0.61x0.455x0.15 m = (-) 0.042 cum Net Qty= 0.166 cum Say 0.17 cum	sqm	1.34	386.55	517.98 A
5.3	Rate as per item no. 5.3 of SH : RCC work Less labour for not lifting the materilas upto floor five level	cum	0.17	10719.30	1822.28 A
0115	Coolie	day	-0.32	645.00	-206.40
	Form work Inside area of chamber : 0.85x0.60 m = 0.511 sqm Outer periphery 4.50x0.15 m = 0.675 sqm Total= 1.186 sqm Deduct cover : 0.61x0.455 m = (-) 0.278 sqm Net Qty= 0.908 sqm Say 0.91 sqm				
5.9.2	Rate as per item no 5.9.2 of SH : RCC M.S.reinforcement for slab for 0.17 cum @ 48.06 kg/cum = 48.06x0.17cum = 8.17 kg	sqm	0.91	669.55	609.29 A
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	8.17	88.95	726.72 A
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1400.00	1400.00
9977	Carriage of C.I. Cover and frame	L.S.	7.15	2.12	15.16
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				8189.89 W
	Add 1 % Water charges on "W-A"				12.53
	TOTAL				8202.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				177.75
	TOTAL				8380.16 Y
	Add 15% CPOH on "Y-A"				216.43
	TOTAL				8596.59 Z
	Add Cess @ 1% on "Z-A"				16.59
	Cost of one chamber				8613.18
	Say				8613.20

19.31 Extra for depth beyond 45 cm of brick masonry chamber :

19.31.1 For 455x610 mm size

19.31.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre Brick work in bricks of clas designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) 3.05 m x 0.23m x1.00 m = 0.70 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.70	6882.00	4817.40 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.13x1.00 m = 2.13 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.13	386.55	823.35 A
	TOTAL				5640.75
	Cost per metre				5640.75
	Say				5640.75

19.31.2 For 500x700 mm size

19.31.2.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 fine sand) 3.32 m x 0.23m x1.00 m = 0.76 cum				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.76	6882.00	5230.32 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.40x1.00 m = 2.40 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.40	386.55	927.72 A
	TOTAL				6158.04
	Cost per metre				6158.04
	Say				6158.05

19.31.3 For 600x850 mm size

19.31.3.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one metre Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement: 4 coarse sand) 3.82 m x 0.23m x1.00 m = 0.88 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work 12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : 2.90x1.00 m = 2.90 sqm	cum	0.88	6882.00	6056.16 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	2.9	386.55	1121.00 A
	TOTAL				7177.16
	Cost per metre				7177.16
	Say				7177.15

19.32 Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.

19.32.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one soak pit Earth work in excavation including disposal of surplus earth 3.14/ 4x(2.5)²x3m = 14.73 cum				
2.8.1	Rate as per item no. 2.8.1 of SH: Earth work	cum	14.73	286.85	4225.30 A
2.26.1	Rate as per item no. 2.26.1 of SH : Earth work = 3.14/4x(2.5)² x 1.5 m = 7.37 cum	cum	7.37	104.50	770.17 A
	2nd class bricks perimetre = 4x0.35 =1.40 m Area = 1.40x2.925 m = 4.1 sqm Number of brick = 4.1x487x0.066 = 131.78 Wastage 10% = 13.718 Total= 144.96 Say 145 numbers				
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5 1000 Nos 0.145 4590.00 665.55 Brick bats = 3.14/4x(1.2)²x2.925m =3.33 cum Deduct = 0.45x0.45x2.925 m = 0.59 cum Net qty= 2.74 cum				
0362	Brick bats Brick aggregate 50 to 80 mm nominal size = 3.14x1.50x0.03x2.925 m = 4.13 cum	cum	2.74	450.00	1233.00
0285	Brick Aggregate (Single size) : 63 mm nominal size Brick aggregate 40 mm nominal size = 3.14x2.15x0.35x2.925 m =6.91 cum	cum	4.13	650.00	2684.50
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	6.91	650.00	4491.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	3.00	70.00	210.00	
	Carriage of brick bats and aggregate					
2260	Carriage of Brick aggregate	cum	13.78	178.19	2455.46	
2201	Carriage of Bricks	1000 Nos	0.145	437.15	63.39	
9999	Single matting 2.5x2.5 m = 6.25 sqm	L.S.	112.14	2.12	237.74	
	Precast R.C.C.slabs 7.5 cm thick in cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) 0.45x0.45x0.075 m = 0.02 cum					
5.12	Rate as per item no 5.12 of SH : RCC Reinforcement @ 80 kg/cum = 0.02x80 =1.6 kg	cum	0.02	9673.50	193.47	A
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	1.60	88.95	142.32	A
	2nd class brick edging laid length wise with half brick depth 3.14x2.6 m =8.17 m					
16.8.1	Rate as per item no. 16.8.1 of SH : Road work	metre	8.17	49.90	407.68	A
	LABOUR					
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00	
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00	
0114	Beldar	day	3.00	645.00	1935.00	
0115	Coolie	day	3.00	645.00	1935.00	
	TOTAL				22399.07	W
	Add 1 % Water charges on "W-A"				166.60	
	TOTAL				22565.67	X
	Add GST on "X-A" (multiplying factor 0.1405)				2364.16	
	TOTAL				24929.83	Y
	Add 15% CPOH on "Y-A"				2878.63	
	TOTAL				27808.46	Z
	Add Cess @ 1% on "Z-A"				220.70	
	Cost of one soak pit				28029.16	
	Say				28029.15	

19.33 Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for one soak pit					
	Earth work in excavation including disposal of surplus earth 1.2x1.2x1.2m = 1.73 cum					
2.8.1	(Rate as per item no. 2.8.1 of SH: Earth work)	cum	1.73	286.85	496.25	A
0362	Brick bats 1.2x1.2x1.2 = 1.73 cum	cum	1.73	450.00	778.50	
2260	Carriage of Brick aggregate	cum	1.73	178.19	308.27	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
16.8.1	Rate as per item no. 16.8.1 of SH : Road work Second class brick edging laid length wise with half brick depth	metre	5.20	49.90	259.48 A
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	2.00	70.00	140.00
9999	Sundries	L.S.	25.84	2.12	54.78
	LABOUR For filling brick bats				
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries	L.S.	13.52	2.12	28.66
	TOTAL				2388.44 W
	Add 1 % Water charges on "W-A"				16.33
	TOTAL				2404.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				231.69
	TOTAL				2636.46 Y
	Add 15% CPOH on "Y-A"				282.11
	TOTAL				2918.57 Z
	Add Cess @ 1% on "Z-A"				21.63
	Cost of one soak pit				2940.20
	Say				2940.20

19.34 Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :

19.34.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of one no.				
	MATERIAL				
7128	S.W. intercepting trap 100 mm dia	each	1.00	185.00	185.00
9977	Carriage of trap	L.S.	1.04	2.12	2.20
0367	Portland Cement (OPC-43 grade)	tonne	0.0013	5000.00	6.50
2209	Carriage of Cement	tonne	0.0013	145.72	0.19
0983	Fine sand (zone IV)	cum	0.001	900.00	0.90
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.001	163.93	0.16
1881	Spun yarn	kilogram	0.09	55.00	4.95
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.02	784.00	15.68
0124	Mason (brick layer) 2nd class	day	0.02	714.00	14.28
0114	Beldar	day	0.06	645.00	38.70
0101	Bhisti	day	0.02	714.00	14.28
	TOTAL				282.85 W
	Add 1 % Water charges on "W"				2.83
	TOTAL				285.68 X
	Add GST on "X" (multiplying factor 0.1405)				40.14
	TOTAL				325.81 Y
	Add 15% CPOH on "Y"				48.87
	TOTAL				374.69 Z
	Add Cess @ 1% on "Z"				3.75
	Cost of one no.				378.43
	Say				378.45

19.34.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost of one no.				
	MATERIAL				
7129	S.W. intercepting trap 150 mm dia	each	1.00	240.00	240.00
9977	Carriage of trap	L.S.	2.08	2.12	4.41
0367	Portland Cement (OPC-43 grade)	tonne	0.0019	5000.00	9.50
2209	Carriage of Cement	tonne	0.0019	145.72	0.28
0983	Fine sand (zone IV)	cum	0.0014	900.00	1.26
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.0014	163.93	0.23
1881	Spun yarn	kilogram	0.18	55.00	9.90
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.03	784.00	23.52
0124	Mason (brick layer) 2nd class	day	0.03	714.00	21.42
0114	Beldar	day	0.08	645.00	51.60
0101	Bhisti	day	0.03	714.00	21.42
	TOTAL				383.54 W
	Add 1 % Water charges on “W”				3.84
	TOTAL				387.37 X
	Add GST on “X” (multiplying factor 0.1405)				54.43
	TOTAL				441.80 Y
	Add 15% CPOH on “Y”				66.27
	TOTAL				508.07 Z
	Add Cess @ 1% on “Z”				5.08
	Cost of one no.				513.15
	Say				513.15

19.35 Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete

19.35.1 450 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1728	RCC pipe 450 mm dia NP-3 spigot	metre	10.00	1500.00	15000.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	398.14
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5000.00	60.00
2209	Carriage of Cement	tonne	0.012	145.72	1.75
0983	Fine sand (zone IV)	cum	0.017	900.00	15.30
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.017	163.93	2.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.375	784.00	294.00
0124	Mason (brick layer) 2nd class	day	0.375	714.00	267.75
0114	Beldar	day	2.41	645.00	1554.45

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				17829.79 W
	Add 1 % Water charges on "W"				178.30
	TOTAL				18008.09 X
	Add GST on "X" (multiplying factor 0.1405)				2530.14
	TOTAL				20538.23 Y
	Add 15% CPOH on "Y"				3080.73
	TOTAL				23618.96 Z
	Add Cess @ 1% on "Z"				236.19
	Detail of cost for 10 metre				23855.15
	Rate per metre				2385.51
	Say				2385.50

19.35.2 600 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1729	RCC pipe 600 mm dia NP-3 spigot	metre	10.00	2000.00	20000.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	597.20
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5000.00	80.00
2209	Carriage of Cement	tonne	0.016	145.72	2.33
0983	Fine sand (zone IV)	cum	0.022	900.00	19.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.022	163.93	3.61
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.46	784.00	360.64
0124	Mason (brick layer) 2nd class	day	0.46	714.00	328.44
0114	Beldar	day	1.83	645.00	1180.35
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				22807.99 W
	Add 1 % Water charges on "W"				228.08
	TOTAL				23036.07 X
	Add GST on "X" (multiplying factor 0.1405)				3236.57
	TOTAL				26272.64 Y
	Add 15% CPOH on "Y"				3940.90
	TOTAL				30213.54 Z
	Add Cess @ 1% on "Z"				302.14
	Detail of cost for 10 metre				30515.67
	Rate per metre				3051.57
	Say				3051.55

19.35.3 900 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1730	RCC pipe 900 mm dia NP-3 spigot	metre	10.00	3175.00	31750.00
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	Portland Cement (OPC-43 grade)	tonne	0.025	5000.00	125.00
2209	Carriage of Cement	tonne	0.025	145.72	3.64
0983	Fine sand (zone IV)	cum	0.033	900.00	29.70
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	163.93	5.41
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.625	784.00	490.00
0124	Mason (brick layer) 2nd class	day	0.625	714.00	446.25
0114	Beldar	day	3.00	645.00	1935.00
0101	Bhisti	day	0.50	714.00	357.00
	TOTAL				36037.81 W
	Add 1 % Water charges on "W"				360.38
	TOTAL				36398.19 X
	Add GST on "X" (multiplying factor 0.1405)				5113.95
	TOTAL				41512.13 Y
	Add 15% CPOH on "Y"				6226.82
	TOTAL				47738.95 Z
	Add Cess @ 1% on "Z"				477.39
	Detail of cost for 10 metre				48216.34
	Rate per metre				4821.63
	Say				4821.65

19.35.4 1000 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1731	RCC pipe 1000 mm dia NP-3 spigot	metre	10.00	3915.00	39150.00
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41
0367	Portland Cement (OPC-43 grade)	tonne	0.028	5000.00	140.00
2209	Carriage of Cement	tonne	0.028	145.72	4.08
0983	Fine sand (zone IV)	cum	0.037	900.00	33.30
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.037	163.93	6.07
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.68	784.00	533.12
0124	Mason (brick layer) 2nd class	day	0.68	714.00	485.52
0114	Beldar	day	4.33	645.00	2792.85
0101	Bhisti	day	0.50	714.00	357.00
	TOTAL				44696.34 W
	Add 1 % Water charges on "W"				446.96
	TOTAL				45143.31 X
	Add GST on "X" (multiplying factor 0.1405)				6342.63
	TOTAL				51485.94 Y
	Add 15% CPOH on "Y"				7722.89
	TOTAL				59208.83 Z
	Add Cess @ 1% on "Z"				592.09
	Detail of cost for 10 metre				59800.92
	Rate per metre				5980.09
	Say				5980.10

19.35.5 1200 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1732	RCC pipe 1200 mm dia NP-3 spigot	metre	10.0	5200.00	52000.00	
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	1194.41	
0367	Portland Cement (OPC-43 grade)	tonne	0.034	5000.00	170.00	
2209	Carriage of Cement	tonne	0.034	145.72	4.95	
0983	Fine sand (zone IV)	cum	0.046	900.00	41.40	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.046	163.93	7.54	
	LABOUR					
0123	Mason (brick layer) 1st class	day	0.795	784.00	623.28	
0124	Mason (brick layer) 2nd class	day	0.795	714.00	567.63	
0114	Beldar	day	8.67	645.00	5592.15	
0101	Bhisti	day	0.67	714.00	478.38	
	TOTAL				60679.74	W
	Add 1 % Water charges on "W"				606.80	
	TOTAL				61286.54	X
	Add GST on "X" (multiplying factor 0.1405)				8610.76	
	TOTAL				69897.30	Y
	Add 15% CPOH on "Y"				10484.59	
	TOTAL				80381.89	Z
	Add Cess @ 1% on "Z"				803.82	
	Detail of cost for 10 metre				81185.71	
	Rate per metre				8118.57	
	Say				8118.55	

19.35.6 1800 mm dia RCC pipes. (Laying by manual/ machenical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1733	RCC pipe 1800 mm dia NP-3 spigot	metre	10.00	9450.00	94500.00	
2336	Carriage of RCC pipe above 1200 mm dia and upto 1800 mm dia	100 metre	0.10	11944.08	1194.41	
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5000.00	245.00	
2209	Carriage of Cement	tonne	0.049	145.72	7.14	
0983	Fine sand (zone IV)	cum	0.055	900.00	49.50	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.055	163.93	9.02	
	LABOUR					
0123	Mason (brick layer) 1st class	day	1.15	784.00	901.60	
0124	Mason (brick layer) 2nd class	day	1.15	714.00	821.10	
0114	Beldar	day	13.00	645.00	8385.00	
0101	Bhisti	day	1.00	714.00	714.00	
	TOTAL				106826.76	W
	Add 1 % Water charges on "W"				1068.27	
	TOTAL				107895.03	X
	Add GST on "X" (multiplying factor 0.1405)				15159.25	
	TOTAL				123054.28	Y
	Add 15% CPOH on "Y"				18458.14	
	TOTAL				141512.43	Z
	Add Cess @ 1% on "Z"				1415.12	
	Detail of cost for 10 metre				142927.55	
	Rate per metre				14292.76	
	Say				14292.75	

19.36 Providing and laying Non Pressure NP-4 class (Heavy duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete

19.36.1 450 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1734	RCC pipe 450 mm dia NP-4 spigot	metre	10.0	1750.00	17500.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	3981.36	398.14
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5000.00	60.00
2209	Carriage of Cement	tonne	0.012	145.72	1.75
0983	Fine sand (zone IV)	cum	0.017	900.00	15.30
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.017	163.93	2.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.375	784.00	294.00
0124	Mason (brick layer) 2nd class	day	0.375	714.00	267.75
0114	Beldar	day	2.41	645.00	1554.45
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				20329.79 W
	Add 1 % Water charges on "W"				203.30
	TOTAL				20533.09 X
	Add GST on "X" (multiplying factor 0.1405)				2884.90
	TOTAL				23417.99 Y
	Add 15% CPOH on "Y"				3512.70
	TOTAL				26930.69 Z
	Add Cess @ 1% on "Z"				269.31
	Detail of cost for 10 metre				27199.99
	Rate per metre				2720.00
	Say				2720.00

19.36.2 600 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1735	RCC pipe 600 mm dia pipe NP-4 spigot	metre	10.0	2350.00	23500.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	5972.04	597.20
0367	Portland Cement (OPC-43 grade)	tonne	0.016	5000.00	80.00
2209	Carriage of Cement	tonne	0.016	145.72	2.33
0983	Fine sand (zone IV)	cum	0.022	900.00	19.80
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.022	163.93	3.61
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.46	784.00	360.64
0124	Mason (brick layer) 2nd class	day	0.46	714.00	328.44
0114	Beldar	day	1.83	645.00	1180.35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.33	714.00	235.62
	TOTAL				26307.99 W
	Add 1 % Water charges on "W"				263.08
	TOTAL				26571.07 X
	Add GST on "X" (multiplying factor 0.1405)				3733.24
	TOTAL				30304.31 Y
	Add 15% CPOH on "Y"				4545.65
	TOTAL				34849.95 Z
	Add Cess @ 1% on "Z"				348.50
	Detail of cost for 10 metre				35198.45
	Rate per metre				3519.85
	Say				3519.85

19.36.3 900 mm dia RCC pipes.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1736	RCC pipe 900 mm dia pipe NP-4 spigot	metre	10.0	4500.00	45000.00
2331	R.C.C. pipes 900 mm dia	100 metre	0.10	8958.06	895.81
0367	Portland Cement (OPC-43 grade)	tonne	0.025	5000.00	125.00
2209	Carriage of Cement	tonne	0.025	145.72	3.64
0983	Fine sand (zone IV)	cum	0.033	900.00	29.70
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.033	163.93	5.41
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.625	784.00	490.00
0124	Mason (brick layer) 2nd class	day	0.625	714.00	446.25
0114	Beldar	day	3.00	645.00	1935.00
0101	Bhisti	day	0.5	714.00	357.00
	TOTAL				49287.81 W
	Add 1 % Water charges on "W"				492.88
	TOTAL				49780.69 X
	Add GST on "X" (multiplying factor 0.1405)				6994.19
	TOTAL				56774.87 Y
	Add 15% CPOH on "Y"				8516.23
	TOTAL				65291.10 Z
	Add Cess @ 1% on "Z"				652.91
	Detail of cost for 10 metre				65944.02
	Rate per metre				6594.40
	Say				6594.40

19.36.4 1000 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1737	RCC pipe 1000 mm dia pipe NP-4 spigot	metre	10.0	5570.00	55700.00
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	11944.08	1194.41

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	Portland Cement (OPC-43 grade)	tonne	0.028	5000.00	140.00
2209	Carriage of Cement	tonne	0.028	145.72	4.08
0983	Fine sand (zone IV)	cum	0.037	900.00	33.30
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.037	163.93	6.07
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.68	784.00	533.12
0124	Mason (brick layer) 2nd class	day	0.68	714.00	485.52
0114	Beldar	day	4.33	645.00	2792.85
0101	Bhisti	day	0.5	714.00	357.00
	TOTAL				61246.34 W
	Add 1 % Water charges on "W"				612.46
	TOTAL				61858.81 X
	Add GST on "X" (multiplying factor 0.1405)				8691.16
	TOTAL				70549.97 Y
	Add 15% CPOH on "Y"				10582.50
	TOTAL				81132.46 Z
	Add Cess @ 1% on "Z"				811.32
	Detail of cost for 10 metre				81943.79
	Rate per metre				8194.38
	Say				8194.40

19.36.5 1200 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail for 10 metre				
	MATERIALS :				
1738	RCC pipe 1200 mm dia pipe NP-4 spigot	metre	10.0	6510.00	65100.00
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	11944.08	1194.41
0367	Portland Cement (OPC-43 grade)	tonne	0.034	5000.00	170.00
2209	Carriage of Cement	tonne	0.034	145.72	4.95
0983	Fine sand (zone IV)	cum	0.046	900.00	41.40
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.046	163.93	7.54
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.795	784.00	623.28
0124	Mason (brick layer) 2nd class	day	0.795	714.00	567.63
0114	Beldar	day	8.67	645.00	5592.15
0101	Bhisti	day	0.67	714.00	478.38
	TOTAL				73779.74 W
	Add 1 % Water charges on "W"				737.80
	TOTAL				74517.54 X
	Add GST on "X" (multiplying factor 0.1405)				10469.71
	TOTAL				84987.26 Y
	Add 15% CPOH on "Y"				12748.09
	TOTAL				97735.34 Z
	Add Cess @ 1% on "Z"				977.35
	Detail of cost for 10 metre				98712.70
	Rate per metre				9871.27
	Say				9871.25

19.36.6 1800 mm dia RCC pipes. (Laying by manual/ machanical means)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail for 10 metre					
	MATERIALS :					
1739	RCC pipe 1800 mm dia pipe NP-4 spigot	metre	10.0	13650.00	136500.00	
2336	RCC pipe above 1200 mm dia and upto 1800 mm dia	100 metre	0.10	11944.08	1194.41	
0367	Portland Cement (OPC-43 grade)	tonne	0.049	5000.00	245.00	
2209	Carriage of Cement	tonne	0.049	145.72	7.14	
0983	Fine sand (zone IV)	cum	0.055	900.00	49.50	
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.055	163.93	9.02	
	LABOUR					
0123	Mason (brick layer) 1st class	day	1.15	784.00	901.60	
0124	Mason (brick layer) 2nd class	day	1.15	714.00	821.10	
0114	Beldar	day	13.00	645.00	8385.00	
0101	Bhisti	day	1.00	714.00	714.00	
	TOTAL				148826.76	W
	Add 1 % Water charges on "W"				1488.27	
	TOTAL				150315.03	X
	Add GST on "X" (multiplying factor 0.1405)				21119.26	
	TOTAL				171434.29	Y
	Add 15% CPOH on "Y"				25715.14	
	TOTAL				197149.44	Z
	Add Cess @ 1% on "Z"				1971.49	
	Detail of cost for 10 metre				199120.93	
	Rate per metre				19912.09	
	Say				19912.10	

SUB HEAD : 20.0

PILE WORK

20.1 Providing, driving with hydraulic piling rigs with power units and installing driven cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap) :

20.1.1 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete -3.14/4x0.40²x20 = 2.51 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	2.51	7997.30	20073.22 A
9999	Sundries	L.S.	175.00	2.12	371.00
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	35000.00	12600.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	784.00	62.72
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				39951.94 W
	Add 1 % Water charges on "W-A"				198.79
	TOTAL				40150.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				2820.89
	TOTAL				42971.62 Y
	Add 15% CPOH on "Y-A"				3434.76
	TOTAL				46406.38 Z
	Add Cess @ 1% on "Z-A"				263.33
	Cost of 20 metre pile				46669.71
	Cost of 1 metre pile				2333.49
	Say				2333.50

20.1.2 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete -3.14/4x0.45²x20 = 3.18 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	3.18	7997.30	25431.41 A
9999	Sundries	L.S.	225.00	2.12	477.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00	
7182	M.S. clamps for pile shoe of 35 kg per pile @ 35 kg per pile	kilogram	35.00	43.00	1505.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.48	35000.00	16800.00	
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	784.00	62.72	
0114	Beldar	day	2.00	645.00	1290.00	
	TOTAL				49616.13	W
	Add 1 % Water charges on "W-A"				241.85	
	TOTAL				49857.98	X
	Add GST on "X-A" (multiplying factor 0.1405)				3431.93	
	TOTAL				53289.91	Y
	Add 15% CPOH on "Y-A"				4178.77	
	TOTAL				57468.69	Z
	Add Cess @ 1% on "Z-A"				320.37	
	Cost of 20 metre pile				57789.06	
	Cost of 1 metre pile				2889.45	
	Say				2889.45	

20.1.3 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete 3.14/4x0.50²x20 = 3.925 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.925	7997.30	31389.40	A
9999	Sundries	L.S.	275.00	2.12	583.00	
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00	
7182	M.S. clamps for pile shoe of 35 kg per pile @ 35 kg per pile	kilogram	35.00	43.00	1505.00	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.60	35000.00	21000.00	
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.08	784.00	62.72	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				59880.12 W
	Add 1 % Water charges on "W-A"				284.91
	TOTAL				60165.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				4042.98
	TOTAL				64208.01 Y
	Add 15% CPOH on "Y-A"				4922.79
	TOTAL				69130.80 Z
	Add Cess @ 1% on "Z-A"				377.41
	Cost of 20 metre pile				69508.21
	Cost of 1 metre pile				3475.41
	Say				3475.40

20.1.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete 3.14/4x0.55²x20 = 4.75 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	4.75	7997.30	37987.18 A
9999	Sundries	L.S.	330.00	2.12	699.60
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	M.S. clamps for pile shoe of 35 kg per pile @ 35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.60	35000.00	21000.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	784.00	62.72
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				66594.50 W
	Add 1 % Water charges on "W-A"				286.07
	TOTAL				66880.57 X
	Add GST on "X-A" (multiplying factor 0.1405)				4059.52
	TOTAL				70940.09 Y
	Add 15% CPOH on "Y-A"				4942.94
	TOTAL				75883.03 Z
	Add Cess @ 1% on "Z-A"				378.96
	Cost of 20 metre pile				76261.99
	Cost of 1 metre pile				3813.10
	Say				3813.10

20.1.5 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 15 m length of pile				
	MATERIAL				
	Concrete 3.14/4x0.75²x15 = 6.62 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	6.62	7997.30	52942.13 A
9999	Sundries	L.S.	460.00	2.12	975.20
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe of				
	35 kg per pile	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.70	35000.00	24500.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.14	784.00	109.76
0114	Beldar	day	3.50	645.00	2257.50
	TOTAL				86339.59 W
	Add 1 % Water charges on "W-A"				333.97
	TOTAL				86673.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				4739.27
	TOTAL				91412.83 Y
	Add 15% CPOH on "Y-A"				5770.61
	TOTAL				97183.43 Z
	Add Cess @ 1% on "Z-A"				442.41
	Cost of 15 metre pile				97625.85
	Cost of 1 metre pile				6508.39
	Say				6508.40

20.1.6 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 m length of pile				
	MATERIAL				
	Concrete 3.14/4x1.00²x10 = 7.85 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	7.85	7997.30	62778.81 A
9999	Sundries	L.S.	550.00	2.12	1166.00
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe of				
	35 kg per pile	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.68	35000.00	23800.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.16	784.00	125.44
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				96005.25 W
	Add 1 % Water charges on "W-A"				332.26
	TOTAL				96337.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				4715.00
	TOTAL				101052.51 Y
	Add 15% CPOH on "Y-A"				5741.06
	TOTAL				106793.56 Z
	Add Cess @ 1% on "Z-A"				440.15
	Cost of 10 metre pile				107233.71
	Cost of 1 metre pile				10723.37
	Say				10723.35

20.1.7 1200 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 9 m length of pile				
	MATERIAL				
	Concrete 3.14/4x1.2²x9 = 10.17 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	10.17	7997.30	81332.54 A
9999	Sundries	L.S.	710.00	2.12	1505.20
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	M.S. clamps for pile shoe of 35 kg per pile @ 35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.67	35000.00	23450.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.18	784.00	141.12

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	4.50	645.00	2902.50
	TOTAL				114886.36 W
	Add 1 % Water charges on "W-A"				335.54
	TOTAL				115221.90 X
	Add GST on "X-A" (multiplying factor 0.1405)				4761.45
	TOTAL				119983.35 Y
	Add 15% CPOH on "Y-A"				5797.62
	TOTAL				125780.98 Z
	Add Cess @ 1% on "Z-A"				444.48
	Cost of 9 metre pile				126225.46
	Cost of 1 metre pile				14025.05
	Say				14025.05

20.1.8 1500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 9 m length of pile				
	MATERIAL				
	Concrete 3.14/4x1.5²x9 = 15.90 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	15.90	7997.30	127157.07 A
9999	Sundries	L.S.	1115.00	2.12	2363.80
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	M.S. clamps for pile shoe of 35 kg per pile @ 35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.77	35000.00	26950.00
0025	Hire and running charges of light crane.	day	0.10	3500.00	350.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.20	784.00	156.80
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				165547.67 W
	Add 1 % Water charges on "W-A"				383.91
	TOTAL				165931.58 X
	Add GST on "X-A" (multiplying factor 0.1405)				5447.82
	TOTAL				171379.39 Y
	Add 15% CPOH on "Y-A"				6633.35
	TOTAL				178012.74 Z
	Add Cess @ 1% on "Z-A"				508.56
	Cost of 9 metre pile				178521.30
	Cost of 1 metre pile				19835.70
	Say				19835.70

20.2 Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap).

Note: Truck Mounted rotary/TMR/Tubewell boring machine shall not be used .

20.2.1 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete 3.14/4x0.45²x20 = 3.18 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	3.18	7997.30	25431.41 A
7183	Bentonite	tonne	0.25	2800.00	700.00
9999	Sundries	L.S.	65.00	2.12	137.80
	MACHINERY				
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	0.94	3000.00	2820.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump.	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	784.00	94.08
0114	Beldar	day	2.50	645.00	1612.50
	TOTAL				35070.79 W
	Add 1 % Water charges on "W-A"				96.39
	TOTAL				35167.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				1367.88
	TOTAL				36535.06 Y
	Add 15% CPOH on "Y-A"				1665.55
	TOTAL				38200.61 Z
	Add Cess @ 1% on "Z-A"				127.69
	Cost of 20 metre pile				38328.30
	Cost of 1 metre pile				1916.42
	Say				1916.40

20.2.2 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete 3.14/4x0.50²x20 = 3.925cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.925	7997.30	31389.40	A
7183	Bentonite	tonne	0.28	2800.00	784.00	
9999	Sundries	L.S.	80.00	2.12	169.60	
	MACHINERY					
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.20	3000.00	3600.00	
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00	
0026	Hire and running charges of bentonite pump.	day	0.38	3000.00	1140.00	
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00	
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	784.00	94.08	
0114	Beldar	day	2.50	645.00	1612.50	
	TOTAL				41924.58	W
	Add 1 % Water charges on "W-A"				105.35	
	TOTAL				42029.93	X
	Add GST on "X-A" (multiplying factor 0.1405)				1494.99	
	TOTAL				43524.93	Y
	Add 15% CPOH on "Y-A"				1820.33	
	TOTAL				45345.26	Z
	Add Cess @ 1% on "Z-A"				139.56	
	Cost of 20 metre pile				45484.82	
	Cost of 1 metre pile				2274.24	
	Say				2274.25	

20.2.3 600 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete $3.14/4 \times 0.60^2 \times 20 = 5.65$ cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	5.65	7997.30	45184.75	A
7183	Bentonite	tonne	0.33	2800.00	924.00	
9999	Sundries	L.S.	115.00	2.12	243.80	
	MACHINERY					
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.50	3000.00	4500.00	
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00	
0026	Hire and running charges of bentonite pump.	day	0.38	3000.00	1140.00	
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00	
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	784.00	94.08	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				57156.63 W
	Add 1 % Water charges on "W-A"				119.72
	TOTAL				57276.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				1698.87
	TOTAL				58975.21 Y
	Add 15% CPOH on "Y-A"				2068.57
	TOTAL				61043.78 Z
	Add Cess @ 1% on "Z-A"				158.59
	Cost of 20 metre pile				61202.37
	Cost of 1 metre pile				3060.12
	Say				3060.10

20.2.4 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 15 m length of pile				
	MATERIAL				
	Concrete 3.14/4x0.75²x15 = 6.62 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	6.62	7997.30	52942.13 A
7183	Bentonite	tonne	0.30	2800.00	840.00
9999	Sundries	L.S.	130.00	2.12	275.60
	MACHINERY				
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.40	3000.00	4200.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump.	day	0.75	3000.00	2250.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.14	784.00	109.76
0114	Beldar	day	3.50	645.00	2257.50
	TOTAL				66009.99 W
	Add 1 % Water charges on "W-A"				130.68
	TOTAL				66140.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				1854.39
	TOTAL				67995.06 Y
	Add 15% CPOH on "Y-A"				2257.94
	TOTAL				70253.00 Z
	Add Cess @ 1% on "Z-A"				173.11
	Cost of 15 metre pile				70426.11
	Cost of 1 metre pile				4695.07
	Say				4695.05

20.2A Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of garde M-25 of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic pilling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap).

Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used.

20.2A.1 600 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete 3.14/4x0.60²x20 = 5.65 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	5.65	7997.30	45184.75 A
7183	Bentonite	tonne	0.33	2800.00	924.00
9999	Sundries	L.S.	110.00	2.12	233.20
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.75	35000.00	26250.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump.	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	784.00	94.08
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				78896.03 W
	Add 1 % Water charges on "W-A"				337.11
	TOTAL				79233.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				4783.80
	TOTAL				84016.94 Y
	Add 15% CPOH on "Y-A"				5824.83
	TOTAL				89841.77 Z
	Add Cess @ 1% on "Z-A"				446.57
	Cost of 20 metre pile				90288.34
	Cost of 1 metre pile				4514.42
	Say				4514.40

20.2A.2 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 15 m length of pile				
	MATERIAL				
	Concrete 3.14/4x0.75²x15 = 6.62 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	6.62	7997.30	52942.13	A
7183	Bentonite	tonne	0.30	2800.00	840.00	
9999	Sundries	L.S.	130.00	2.12	275.60	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.70	35000.00	24500.00	
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00	
0026	Hire and running charges of bentonite pump.	day	0.75	3000.00	2250.00	
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00	
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.14	784.00	109.76	
0114	Beldar	day	3.50	645.00	2257.50	
	TOTAL				86309.99	W
	Add 1 % Water charges on "W-A"				333.68	
	TOTAL				86643.66	X
	Add GST on "X-A" (multiplying factor 0.1405)				4735.07	
	TOTAL				91378.73	Y
	Add 15% CPOH on "Y-A"				5765.49	
	TOTAL				97144.22	Z
	Add Cess @ 1% on "Z-A"				442.02	
	Cost of 15 metre pile				97586.24	
	Cost of 1 metre pile				6505.75	
	Say				6505.75	

20.2A.3 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10 m length of pile					
	MATERIAL					
	Concrete 3.14/4x1.00²x10 = 7.85 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	7.85	7997.30	62778.81	A
7183	Bentonite	tonne	0.35	2800.00	980.00	
9999	Sundries	L.S.	155.00	2.12	328.60	
	MACHINERY					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.69	35000.00	24150.00	
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00	
0026	Hire and running charges of bentonite pump.	day	0.75	3000.00	2250.00	
0018	Hire and running charges of loader	day	0.40	6000.00	2400.00	
0017	Hire and running charges of tipper	day	0.40	3750.00	1500.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.16	784.00	125.44
0114	Beldar	day	4.00	645.00	2580.00
	TOTAL				97302.85 W
	Add 1 % Water charges on "W-A"				345.24
	TOTAL				97648.09 X
	Add GST on "X-A" (multiplying factor 0.1405)				4899.13
	TOTAL				102547.22 Y
	Add 15% CPOH on "Y-A"				5965.26
	TOTAL				108512.48 Z
	Add Cess @ 1% on "Z-A"				457.34
	Cost of 10 metre pile				108969.82
	Cost of 1 metre pile				10896.98
	Say				10897.00

20.2A.4 1200 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 9 m length of pile				
	MATERIAL				
	Concrete 3.14/4x1.20²x9 = 10.17 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	10.17	7997.30	81332.54 A
7183	Bentonite	tonne	0.385	2800.00	1078.00
9999	Sundries	L.S.	200.00	2.12	424.00
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.67	35000.00	23450.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump.	day	0.75	3000.00	2250.00
0018	Hire and running charges of loader.	day	0.50	6000.00	3000.00
0017	Hire and running charges of tipper	day	0.50	3750.00	1875.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.18	784.00	141.12
0114	Beldar	day	4.50	645.00	2902.50
	TOTAL				116663.16 W
	Add 1 % Water charges on "W-A"				353.31
	TOTAL				117016.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				5013.59
	TOTAL				122030.06 Y
	Add 15% CPOH on "Y-A"				6104.63
	TOTAL				128134.69 Z
	Add Cess @ 1% on "Z-A"				468.02
	Cost of 9 metre pile				128602.71
	Cost of 1 metre pile				14289.19
	Say				14289.20

20.2A.5 1500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 9 m length of pile				
	MATERIAL				
	Concrete 3.14/4x1.50²x9 = 15.90 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	15.90	7997.30	127157.07 A
7183	Bentonite	tonne	0.45	2800.00	1260.00
9999	Sundries	L.S.	315.00	2.12	667.80
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.77	35000.00	26950.00
0025	Hire and running charges of light crane.	day	0.10	3500.00	350.00
0026	Hire and running charges of bentonite pump.	day	0.96	3000.00	2880.00
0018	Hire and running charges of loader	day	0.75	6000.00	4500.00
0017	Hire and running charges of tipper	day	0.75	3750.00	2812.50
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.25	784.00	196.00
0114	Beldar	day	5.00	645.00	3225.00
	TOTAL				169998.37 W
	Add 1 % Water charges on "W-A"				428.41
	TOTAL				170426.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				6079.39
	TOTAL				176506.18 Y
	Add 15% CPOH on "Y-A"				7402.37
	TOTAL				183908.54 Z
	Add Cess @ 1% on "Z-A"				567.51
	Cost of 9 metre pile				184476.06
	Cost of 1 metre pile				20497.34
	Say				20497.35

20.3 Boring with hydraulic piling rigs with power units, providing and installing cast in situ single under reamed piles of specified diameter and length below pile cap in M-25 cement concrete, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and the length of the pile to be embedded in pile cap etc. all complete. (Length of pile for payment shall be measured upto to the bottom of pile cap) :

20.3.1 300 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	MATERIAL				
	R.C.C				
	Stem -3.14/4x(0.30)²x9.625 = 0.680 cum				
	Bulb -3.14/4x(0.75)²x0.075 = 0.033 cum				
	2x 3.14/4x(0.525)²x0.150 = 0.065 cum				
	=0.778 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.778	7997.30	6221.90 A
7183	Bentonite	tonne	0.08	2800.00	224.00
9999	Sundries	L.S.	70.00	2.12	148.40
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	35000.00	12600.00
0025	Hire and running charges of light crane.	day	0.03	3500.00	105.00
0026	Hire and running charges of bentonite pump.	day	0.02	3000.00	60.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	784.00	62.72
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				20712.02 W
	Add 1 % Water charges on "W-A"				144.90
	TOTAL				20856.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				2056.22
	TOTAL				22913.14 Y
	Add 15% CPOH on "Y-A"				2503.69
	TOTAL				25416.83 Z
	Add Cess @ 1% on "Z-A"				191.95
	Cost of 10 metre pile				25608.78
	Cost of 1 metre pile				2560.88
	Say				2560.90

20.3.2 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	MATERIAL				
	R.C.C				
	Stem -3.14/4x(0.40)²x9.30 = 1.169 cum				
	Bulb -3.14/4x(1.00)²x0.1 = 0.079 cum				
	2x 3.14/4x(0.7)²x0.30 = 0.23 cum				
	= 1.478 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	1.478	7997.30	11820.01 A
7183	Bentonite	tonne	0.15	2800.00	420.00
9999	Sundries	L.S.	130.00	2.12	275.60
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	35000.00	12600.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump.	day	0.02	3000.00	60.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	784.00	62.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				26738.33 W
	Add 1 % Water charges on "W-A"				149.18
	TOTAL				26887.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				2116.98
	TOTAL				29004.50 Y
	Add 15% CPOH on "Y-A"				2577.67
	TOTAL				31582.17 Z
	Add Cess @ 1% on "Z-A"				197.62
	Cost of 10 metre pile				31779.79
	Cost of 1 metre pile				3177.98
	Say				3178.00

20.3.3 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	MATERIAL				
	R.C.C				
	Stem -3.14/4x(0.45)²x9.212 = 1.465 cum				
	Bulb -3.14/4x(1.125)²x0.113 = 0.112 cum				
	2x 3.14/4x(0.788)²x0.337 = 0.329 cum				
	= 1.906 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	1.906	7997.30	15242.85 A
7183	Bentonite	tonne	0.19	2800.00	532.00
9999	Sundries	L.S.	165.00	2.12	349.80
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	35000.00	12600.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump.	day	0.02	3000.00	60.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	784.00	62.72
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				30347.37 W
	Add 1 % Water charges on "W-A"				151.05
	TOTAL				30498.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				2143.41
	TOTAL				32641.83 Y
	Add 15% CPOH on "Y-A"				2609.85
	TOTAL				35251.67 Z
	Add Cess @ 1% on "Z-A"				200.09
	Cost of 10 metre pile				35451.76
	Cost of 1 metre pile				3545.18
	Say				3545.20

20.3.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	MATERIAL				
	R.C.C				
	Stem -3.14/4x(0.50)²x9.125 = 1.792 cum				
	Bulb -3.14/4x(1.25)²x0.125 = 0.153 cum				
	2x 3.14/4x(0.875)²x0.375 = 0.451 cum				
	= 2.396 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	2.40	7997.30	19193.52 A
7183	Bentonite	tonne	0.20	2800.00	560.00
9999	Sundries	L.S.	210.00	2.12	445.20
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	35000.00	12600.00
0025	Hire and running charges of light crane.	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump.	day	0.02	3000.00	60.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	784.00	62.72
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				34421.44 W
	Add 1 % Water charges on "W-A"				152.28
	TOTAL				34573.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				2160.92
	TOTAL				36734.64 Y
	Add 15% CPOH on "Y-A"				2631.17
	TOTAL				39365.80 Z
	Add Cess @ 1% on "Z-A"				201.72
	Cost of 10 metre pile				39567.53
	Cost of 1 metre pile				3956.75
	Say				3956.75

20.4 Extra over single under ream for providing additional bulbs in under reamed piles, under specified diameter(only the nos. of extra bulbs are to be paid)

20.4.1 300 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 bulb.				
	MATERIAL				
	Bulb - 0.033 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	0.033	7997.30	263.91 A
7183	Bentonite	tonne	0.003	2800.00	8.40
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	35000.00	700.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0025	Hire and running charges of light crane.	day	0.01	3500.00	35.00
0026	Hire and running charges of bentonite pump.	day	0.01	3000.00	30.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.02	784.00	15.68
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				1697.99 W
	Add 1 % Water charges on "W-A"				14.34
	TOTAL				1712.33 X
	Add GST on "X-A" (multiplying factor 0.1405)				203.50
	TOTAL				1915.83 Y
	Add 15% CPOH on "Y-A"				247.79
	TOTAL				2163.62 Z
	Add Cess @ 1% on "Z-A"				19.00
	Cost of 1 bulb				2182.62
	Say				2182.60

20.4.2 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 bulb.				
	MATERIAL				
	Bulb - 0.063 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.063	7997.30	503.83 A
7183	Bentonite	tonne	0.006	2800.00	16.80
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	35000.00	700.00
0025	Hire and running charges of light crane.	day	0.01	3500.00	35.00
0026	Hire and running charges of bentonite pump.	day	0.01	3000.00	30.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.02	784.00	15.68
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				1946.31 W
	Add 1 % Water charges on "W-A"				14.42
	TOTAL				1960.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				204.70
	TOTAL				2165.43 Y
	Add 15% CPOH on "Y-A"				249.24
	TOTAL				2414.67 Z
	Add Cess @ 1% on "Z-A"				19.11
	Cost of 1 bulb				2433.78
	Say				2433.80

20.4.3 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 bulb.				
	MATERIAL				
	Bulb - 0.081 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.081	7997.30	647.78 A
7183	Bentonite	tonne	0.008	2800.00	22.40
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	35000.00	700.00
0025	Hire and running charges of light crane.	day	0.01	3500.00	35.00
0026	Hire and running charges of bentonite pump.	day	0.01	3000.00	30.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.02	784.00	15.68
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				2095.86 W
	Add 1 % Water charges on "W-A"				14.48
	TOTAL				2110.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				205.49
	TOTAL				2315.83 Y
	Add 15% CPOH on "Y-A"				250.21
	TOTAL				2566.04 Z
	Add Cess @ 1% on "Z-A"				19.18
	Cost of 1 bulb				2585.22
	Say				2585.20

20.4.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 bulb.				
	MATERIAL				
	Bulb - 0.102 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	0.102	7997.30	815.72 A
7183	Bentonite	tonne	0.01	2800.00	28.00
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	35000.00	700.00
0025	Hire and running charges of light crane.	day	0.01	3500.00	35.00
0026	Hire and running charges of bentonite pump.	day	0.02	3000.00	60.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.02	784.00	15.68

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				2299.40 W
	Add 1 % Water charges on "W-A"				14.84
	TOTAL				2314.24 X
	Add GST on "X-A" (multiplying factor 0.1405)				210.54
	TOTAL				2524.78 Y
	Add 15% CPOH on "Y-A"				256.36
	TOTAL				2781.14 Z
	Add Cess @ 1% on "Z-A"				19.65
	Cost of 1 bulb				2800.80
	Say				2800.80

20.5 Providing, driving (with vibrating pile driving hammer complete with power units & accessories) and installing driven Pre-cast reinforced cement concrete piles of specified diameter and length below the pile cap in M-25 cement concrete to carry safe working load not less than specified with a central through preformed hole with M.S. black pipe of dia, 40 mm for grouting with cement sand grouting of mix 1:2 (1cement : 2 coarse sand) under sufficient positive pressure to ensure complete filling including centring, shuttering, driving and removing the steel casing pipe and lifting casing etc. complete but excluding the cost of steel reinforcement. (Length of pile for payment shall be measured from top of the shoe to the bottom of pile cap).

20.5.1 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete -3.14/4x(0.40)²x20 = 2.51 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	2.51	7997.30	20073.22 A
5.19	Add Rate as per item no 5.19 of SH : RCC	cum	2.51	14191.95	35621.79 A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-2.51	7945.65	-19943.58 A
	Cement mortar 1:2 for grout				
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5699.25	142.48
9999	Wooden block @ 1 block for 2 pile	L.S.	442.00	2.12	937.04
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	M.S. clamps for pile shoe of 35 kg per pile @35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY				
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories .	day	0.38	30000.00	11400.00
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7000.00	420.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	784.00	94.08
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				56025.04 W
	Add 1 % Water charges on "W-A"				202.74
	TOTAL				56227.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				2876.93
	TOTAL				59104.70 Y
	Add 15% CPOH on "Y-A"				3502.99
	TOTAL				62607.69 Z
	Add Cess @ 1% on "Z-A"				268.56
	Cost of 20 metre pile				62876.25
	Cost of 1 metre pile				3143.81
	Say				3143.80

20.5.2 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete -3.14/4x(0.45)²x20 = 3.18 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of				
	SH : RCC Work	cum	3.18	7997.30	25431.41 A
5.19	Add Rate as per item no 5.19 SH : RCC	cum	3.18	14191.95	45130.40 A
5.1.3	Deduct Rate as per item no 5.1.3				
	SH : RCC	cum	-3.18	7945.65	-25267.17 A
	Cement mortar 1:2 for grout				
3.7	Rate as per Item Number 3.7 of				
	SH: Mortars	cum	0.025	5699.25	142.48
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.12	937.04
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe of 35 kg	kilogram	35.00	43.00	1505.00
	per pile @ 35 kg per pile				
	MACHINERY				
0027	Hire and running charges of vibrating				
	pile driving hammer complete with				
	power unit and accessories .	day	0.38	30000.00	11400.00
0028	Hire and running charges of crane				
	20 tonne capacity.	day	0.06	7000.00	420.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	1.08	784.00	846.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	10.78	645.00	6953.10
	TOTAL				71338.99 W
	Add 1 % Water charges on "W-A"				260.44
	TOTAL				71599.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				3695.82
	TOTAL				75295.25 Y
	Add 15% CPOH on "Y-A"				4500.09
	TOTAL				79795.35 Z
	Add Cess @ 1% on "Z-A"				345.01
	Cost of 20 metre pile				80140.35
	Cost of 1 metre pile				4007.02
	Say				4007.00

20.5.3 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete -3.14/4x(0.50)²x20 = 3.925 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	3.925	7997.30	31389.40 A
5.19	Add Rate as per item no 5.19 SH : RCC	cum	3.925	14191.95	55703.40 A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-3.925	7945.65	-31186.68 A
3.7	Cement mortar 1:2 for grout Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5699.25	142.48
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.12	937.04
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	M.S. clamps for pile shoe @ 35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY				
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories .	day	0.38	30000.00	11400.00
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7000.00	420.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	784.00	94.08
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				76179.73 W
	Add 1 % Water charges on "W-A"				202.74
	TOTAL				76382.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				2876.93
	TOTAL				79259.39 Y
	Add 15% CPOH on "Y-A"				3502.99
	TOTAL				82762.38 Z
	Add Cess @ 1% on "Z-A"				268.56
	Cost of 20 metre pile				83030.94
	Cost of 1 metre pile				4151.55
	Say				4151.55

20.5.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(0.55)²x20 = 4.75 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of					
	SH : RCC Work	cum	4.75	7997.30	37987.18	A
5.19	Add Rate as per item no 5.19 SH : RCC	cum	4.75	14191.95	67411.76	A
5.1.3	Deduct Rate as per item no 5.1.3					
	SH : RCC	cum	-4.75	7945.65	-37741.84	A
3.7	Rate as per Item Number 3.7 of					
	SH: Mortars	cum	0.025	5699.25	142.48	
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.12	937.04	
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	48.00	3840.00	
	@ 80 kg per pile					
7182	M.S. clamps for pile shoe	kilogram	35.00	43.00	1505.00	
	@ 35 kg per pile					
	MACHINERY					
0027	Hire and running charges of vibrating					
	pile driving hammer complete with					
	power unit and accessories .	day	0.38	30000.00	11400.00	
0028	Hire and running charges of crane					
	20 tonne capacity.	day	0.06	7000.00	420.00	
	LABOUR					
	Work supervisor					
0130	Mistry	day	0.12	784.00	94.08	
0114	Beldar	day	3.00	645.00	1935.00	
	TOTAL				87930.70	W
	Add 1 % Water charges on "W-A"				202.74	
	TOTAL				88133.44	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				2876.93	
	TOTAL				91010.36	Y
	Add 15% CPOH on "Y-A"				3502.99	
	TOTAL				94513.35	Z
	Add Cess @ 1% on "Z-A"				268.56	
	Cost of 20 metre pile				94781.91	
	Cost of 1 metre pile				4739.10	
	Say				4739.10	

20.5.5 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 20 m length of pile					
	MATERIAL					
	Concrete -3.14/4x(0.75)²x20 = 10.88 cum					
5.33.1.1	Rate as per item no 5.33.1.1 of					
	SH : RCC Work	cum	10.88	7997.30	87010.62	A
5.19	Add Rate as per item no 5.19 SH : RCC	cum	10.88	14191.95	154408.42	A
5.1.3	Deduct Rate as per item no 5.1.3					
	SH : RCC	cum	-10.88	7945.65	-86448.67	A
3.7	Rate as per Item Number 3.7 of					
	SH: Mortars	cum	0.025	5699.25	142.48	
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.12	937.04	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	M.S. clamps for pile shoe of 35 kg per pile @ 35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY				
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories .	day	0.38	30000.00	11400.00
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7000.00	420.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	784.00	94.08
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				175243.97 W
	Add 1 % Water charges on "W-A"				202.74
	TOTAL				175446.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				2876.93
	TOTAL				178323.63 Y
	Add 15% CPOH on "Y-A"				3502.99
	TOTAL				181826.62 Z
	Add Cess @ 1% on "Z-A"				268.56
	Cost of 20 metre pile				182095.18
	Cost of 1 metre pile				9104.76
	Say				9104.75

20.5.6 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete -3.14/4x(1.00)²x20 = 15.70 cum				
5.33.1.1	Rate as per item no 5.33.1.1 of SH : RCC Work	cum	15.7	7997.30	125557.61 A
5.19	Add Rate as per item no 5.19 SH : RCC	cum	15.7	14191.95	222813.62 A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-15.7	7945.65	-124746.71 A
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5699.25	142.48
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.12	937.04
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	M.S. clamps for pile shoe of 35 kg per pile @ 35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY				
0027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories .	day	0.38	30000.00	11400.00
0028	Hire and running charges of crane 20 tonne capacity.	day	0.06	7000.00	420.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	784.00	94.08
0114	Beldar	day	3.00	645.00	1935.00
	TOTAL				243898.12 W
	Add 1 % Water charges on "W-A"				202.74
	TOTAL				244100.86 X
	Add GST on "X-A" (multiplying factor 0.1405)				2876.93
	TOTAL				246977.78 Y
	Add 15% CPOH on "Y-A"				3502.99
	TOTAL				250480.77 Z
	Add Cess @ 1% on "Z-A"				268.56
	Cost of 20 metre pile				250749.33
	Cost of 1 metre pile				12537.47
	Say				12537.45

20.6 Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge/Anchor piles method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge.

20.6.1 Single pile upto 50 tonne Safe capacity

20.6.1.1 Initial test (Test Load 2.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 test				
7246	Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification and upto 50MT capacity pile.	per test	1.00	38500.00	38500.00
	TOTAL				38500.00 W
	Add 1 % Water charges on "W"				385.00
	TOTAL				38885.00 X
	Add GST on "X" (multiplying factor 0.1405)				5463.34
	TOTAL				44348.34 Y
	Add 15% CPOH on "Y"				6652.25
	TOTAL				51000.59 Z
	Add Cess @ 1% on "Z"				510.01
	Cost per test				51510.60
	Say				51510.60

20.6.1.2 Routine test (Test Load 1.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7249	Details of cost for 1 test Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Single pile upto 50 tonne capacity TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost per test Say	per test	1.00	13800.00	13800.00 13800.00 W 138.00 13938.00 X 1958.29 15896.29 Y 2384.44 18280.73 Z 182.81 18463.54 18463.55

20.6.2 Single pile above 50 tonne and upto 100 tonne Safe capacity
20.6.2.1 Initial test (Test Load 2.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7247	Details of cost for 1 test Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & above 50MT and upto 100MT. TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost per test Say	per test	1.00	43000.00	43000.00 43000.00 W 430.00 43430.00 X 6101.92 49531.92 Y 7429.79 56961.70 Z 569.62 57531.32 57531.30

20.6.2.2 Routine test (Test Load 1.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7250	Details of cost for 1 test Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	including prepration of pile head etc. for Single pile above 50 tonne capacity pile and upto 100 tonne capacity pile TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost per test Say	per test	1.00	22800.00	22800.00 22800.00 W 228.00 23028.00 X 3235.43 26263.43 Y 3939.52 30202.95 Z 302.03 30504.98 30505.00

20.6.3 Group of two or more piles upto 50 tonne Safe capacity

20.6.3.1 Initial test (Test Load 2.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7248	Details of cost for 1 test Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & group of two or more upto 50MT. TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost per test Say	per test	1.00	49500.00	49500.00 49500.00 W 495.00 49995.00 X 7024.30 57019.30 Y 8552.89 65572.19 Z 655.72 66227.91 66227.90

20.6.3.2 Routine test (Test Load 1.5 times the Safe capacity)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7251	Details of cost for 1 test Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	including prepration of pile head etc. for Group of two piles upto 50 tonne capacity each	per test	1.00	28500.00	28500.00
	TOTAL				28500.00 W
	Add 1 % Water charges on "W"				285.00
	TOTAL				28785.00 X
	Add GST on "X" (multiplying factor 0.1405)				4044.29
	TOTAL				32829.29 Y
	Add 15% CPOH on "Y"				4924.39
	TOTAL				37753.69 Z
	Add Cess @ 1% on "Z"				377.54
	Cost per test				38131.22
	Say				38131.20

20.7 Cyclic vertical load testing of pile in accordance with IS Code of practice IS:2911 (part IV) by Kentledge method including preparation of pile head etc for.

20.7.1 Single pile

20.7.1.1 Upto 50 tonne Safe capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7249	Details of cost for 1 test Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Single pile upto 50 tonne capacity	per test	1.00	13800.00	13800.00
	TOTAL				13800.00 W
	Add 1 % Water charges on "W"				138.00
	TOTAL				13938.00 X
	Add GST on "X" (multiplying factor 0.1405)				1958.29
	TOTAL				15896.29 Y
	Add 15% CPOH on "Y"				2384.44
	TOTAL				18280.73 Z
	Add Cess @ 1% on "Z"				182.81
	Cost per test				18463.54
	Say				18463.55

20.7.1.2 Above 50 tonne and upto 100 tonne Safe capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7250	Details of cost for 1 test Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Single pile above 50 tonne capacity pile and upto 100 tonne capacity pile	per test	1.00	22800.00	22800.00
	TOTAL				22800.00 W
	Add 1 % Water charges on "W"				228.00
	TOTAL				23028.00 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X" (multiplying factor 0.1405)				3235.43
	TOTAL				26263.43 Y
	Add 15% CPOH on "Y"				3939.52
	TOTAL				30202.95 Z
	Add Cess @ 1% on "Z"				302.03
	Cost per test				30504.98
	Say				30505.00

20.7.2 Group of two or more piles

20.7.2.1 Upto 400 tonne Safe capacity of group

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 test				
7251	Cyclic verticle load testing of piles in accordance with IS : 2911 (Part-IV) including prepration of pile head etc. for Group of two piles upto 50 tonne capacity each	per test	1.00	28500.00	28500.00
	TOTAL				28500.00 W
	Add 1 % Water charges on "W"				285.00
	TOTAL				28785.00 X
	Add GST on "X" (multiplying factor 0.1405)				4044.29
	TOTAL				32829.29 Y
	Add 15% CPOH on "Y"				4924.39
	TOTAL				37753.69 Z
	Add Cess @ 1% on "Z"				377.54
	Cost per test				38131.22
	Say				38131.20

20.8 Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile :

20.8.1 Upto 50 tonne capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 test				
7252	Lateral load testing of single pile in accordance with IS : 2911 part -IV for determining safe allowable lateral load on pile. Upto 50 tonne capacity	per test	1.00	13800.00	13800.00
	TOTAL				13800.00 W
	Add 1 % Water charges on "W"				138.00
	TOTAL				13938.00 X
	Add GST on "X" (multiplying factor 0.1405)				1958.29
	TOTAL				15896.29 Y
	Add 15% CPOH on "Y"				2384.44
	TOTAL				18280.73 Z
	Add Cess @ 1% on "Z"				182.81
	Cost per test				18463.54
	Say				18463.55

20.8.2 Above 50 tonne and upto 100 tonne capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 test				
7253	Lateral load testing of single pile in accordance with IS : 2911 part -IV for determining safe allowable lateral load on pile. Above 50 tonne capacity	per test	1.00	23100.00	23100.00
	TOTAL				23100.00 W
	Add 1 % Water charges on "W"				231.00
	TOTAL				23331.00 X
	Add GST on "X" (multiplying factor 0.1405)				3278.01
	TOTAL				26609.01 Y
	Add 15% CPOH on "Y"				3991.35
	TOTAL				30600.36 Z
	Add Cess @ 1% on "Z"				306.00
	Cost per test				30906.36
	Say				30906.35

20.9 Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one pit test (Ten pits in one day)				
	MATERIAL				
0081	Pile Integrity testing equipment	day	0.10	3000.00	300.00
	LABOUR				
0160	Technician	day	0.10	853.00	85.30
0161	Helper (Technician)	day	0.10	645.00	64.50
	Miscllaneous				
9999	Reporting charges	L.S.	100.67	2.12	213.42
9977	Transportation and consumables etc.	L.S.	33.56	2.12	71.15
	TOTAL				734.37 W
	Add 1 % Water charges on "W"				7.34
	TOTAL				741.71 X
	Add GST on "X" (multiplying factor 0.1405)				104.21
	TOTAL				845.92 Y
	Add 15% CPOH on "Y"				126.89
	TOTAL				972.81 Z
	Add Cess @ 1% on "Z"				9.73
	Cost per test				982.54
	Say				982.55

SUB HEAD : 21.0

ALUMINIUM WORK

21.1 Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :

21.1.1 For fixed portion

21.1.1.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg				
7306	Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos	kilogram	42.02	190.00	7983.80
0589	Chromium plated Brass screws 20 mm (vi)	100 Nos	0.72	160.00	115.20
7389	Anodising 15 microns on aluminium sections (vii)	kilogram	42.02	38.00	1596.76
9977	Carriage of material LABOUR For fabrication of frame	L.S.	52.00	2.12	110.24
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0100	Bandhani	day	0.05	714.00	35.70
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries L.S. 100.00 2.12 212.00				
	TOTAL				12980.70 W
	Add 1 % Water charges on "W"				129.81
	TOTAL				13110.51 X
	Add GST on "X" (multiplying factor 0.1405)				1842.03
	TOTAL				14952.53 Y
	Add 15% CPOH on "Y"				2242.88
	TOTAL				17195.41 Z
	Add Cess @ 1% on "Z"				171.95
	Cost for 40.02 kg				17367.37
	Cost for 1 kg				433.97
	Say				433.95

21.1.1.2 Powder coated aluminium (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg				
7306	Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos	kilogram	42.02	190.00	7983.80
0589	Chromium plated Brass screws 20 mm (vi) Epoxy	100 Nos	0.72	160.00	115.20
7392	Powder coating 50 microns on aluminium sections (vii)	kilogram	42.02	61.00	2563.22
9977	Carriage of material	L.S.	52.00	2.12	110.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	For fabrication of frame				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
0100	Bandhani	day	0.05	714.00	35.70
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries	L.S.	100.00	2.12	212.00
	TOTAL				13947.16 W
	Add 1 % Water charges on "W"				139.47
	TOTAL				14086.63 X
	Add GST on "X" (multiplying factor 0.1405)				1979.17
	TOTAL				16065.80 Y
	Add 15% CPOH on "Y"				2409.87
	TOTAL				18475.67 Z
	Add Cess @ 1% on "Z"				184.76
	Cost for 40.02 kg				18660.43
	Cost for 1 kg				466.28
	Say				466.30

21.1.1.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 40.02 kg MATERIAL (i) External member of the frame (Jindal section no 4605) V = 2x2.40 = 4.80 m H = 2x3x0.95 = 5.70 m = 10.50 m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) V = 2x2.40 = 4.80 m H = 1x3x0.95 = 2.85 m = 7.65 m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) 2x6x2 (1.14+0.95) = 50.16 m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long 18x0.05 = 0.900 m @ 0.985 kg/m = 0.89 kg Sub total =40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg				
7306	Aluminium T or L sections (v) C.P. brass /stainless steel screws 20 mm for cleat angle 18x4 = 72 Nos	kilogram	42.02	190.00	7983.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0589	Chromium plated Brass screws 20 mm (vi)	100 Nos	0.72	160.00	115.20
7393	Polyester powder coating 50 microns on aluminium sections (vii)	kilogram	42.02	67.00	2815.34
9977	Carriage of material	L.S.	52.00	2.12	110.24
	LABOUR				
	For fabrication of frame				
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
0100	Bandhani	day	0.05	714.00	35.70
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries	L.S.	100.00	2.12	212.00
	TOTAL				14199.28 W
	Add 1 % Water charges on "W"				141.99
	TOTAL				14341.27 X
	Add GST on "X" (multiplying factor 0.1405)				2014.95
	TOTAL				16356.22 Y
	Add 15% CPOH on "Y"				2453.43
	TOTAL				18809.65 Z
	Add Cess @ 1% on "Z"				188.10
	Cost for 40.02 kg				18997.75
	Cost for 1 kg				474.71
	Say				474.70

21.1.2 For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)

21.1.2.1 Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20.21 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526) 1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	(vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x 4.8 mm 35 mm long 3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg Sub total = 20.62 kg Add 5% wastage = 1.03 kg Total = 21.65 kg					
7306	Aluminium T or L sections (viii)	kilogram	21.65	190.00	4113.50	
0689	Anodised Aluminium butt hinges 100x75x4 mm (ix) C.P. brass /stainless steel screws 20 mm For cleat 12x4 = 48 For cleat 4x8 = 32 For glazing plate @ 15 cm centre to centre in 75 cm length 2x6 = 12 Total = 92 Nos	10 Nos	0.40	393.00	157.20	
0589	Chromium plated Brass screws 20 mm (x)	100 Nos	0.92	160.00	147.20	
7389	Anodising 15 microns on aluminium sections (xi)	kilogram	21.65	38.00	822.70	
9977	Carriage of material (xii) Neoprene/ EPDM gasket in groove of meeting style	L.S.	31.20	2.12	66.14	
7390	Neoprene/EPDM rubber gasket LABOUR For fabrication	metre	2.35	15.00	35.25	
0116	Fitter (grade 1)	day	1.00	784.00	784.00	
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	714.00	
0114	Beldar	day	0.50	645.00	322.50	
0100	Bandhani For fixing the shutter including hinges :	day	0.40	714.00	285.60	
0111	Carpenter 1st class	day	0.20	784.00	156.80	
0114	Beldar	day	0.50	645.00	322.50	
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.12	106.00	
	TOTAL				8033.39	W
	Add 1 % Water charges on "W"				80.33	
	TOTAL				8113.73	X
	Add GST on "X" (multiplying factor 0.1405)				1139.98	
	TOTAL				9253.71	Y
	Add 15% CPOH on "Y"				1388.06	
	TOTAL				10641.76	Z
	Add Cess @ 1% on "Z"				106.42	
	Cost for 20.21 kg				10748.18	
	Cost for 1 kg				531.82	
	Say				531.80	

21.1.2.2 Powder coated aluminium (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20.21 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526) 1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg (vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x 4.8 mm 35 mm long 3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg Sub total = 20.62 kg Add 5% wastage = 1.03 kg Total = 21.65 kg				
7306	Aluminium T or L sections (viii)	kilogram	21.65	190.00	4113.50
0689	Anodised Aluminium butt hinges 100x75x4 mm (ix) C.P. brass /stainless steel screws 20 mm For cleat 12x4 = 48 For cleat 4x8 = 32 For glazing plate @ 15 cm centre to centre in 75 cm length 2x6 = 12 Total = 92 Nos	10 Nos	0.40	393.00	157.20
0589	Chromium plated Brass screws 20 mm (x) Epoxy	100 Nos	0.92	160.00	147.20
7392	Powder coating 50 microns on aluminium sections (xi)	kilogram	21.65	61.00	1320.65
9977	Carriage of material (xii) Neoprene/ EPDM rubber gasket in groove of meeting style	L.S.	31.20	2.12	66.14
7390	Neoprene/EPDM rubber gasket LABOUR	metre	2.35	15.00	35.25
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	714.00
0114	Beldar	day	0.50	645.00	322.50
0100	Bandhani	day	0.40	714.00	285.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	For fixing the shutter including hinges :				
0111	Carpenter 1st class	day	0.20	784.00	156.80
0114	Beldar	day	0.50	645.00	322.50
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.12	106.00
	TOTAL				8531.34 W
	Add 1 % Water charges on "W"				85.31
	TOTAL				8616.66 X
	Add GST on "X" (multiplying factor 0.1405)				1210.64
	TOTAL				9827.30 Y
	Add 15% CPOH on "Y"				1474.09
	TOTAL				11301.39 Z
	Add Cess @ 1% on "Z"				113.01
	Cost for 20.21 kg				11414.41
	Cost for 1 kg				564.79
	Say				564.80

21.1.2.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20.21 kg MATERIAL (i) Hanging style (Jindal section no 4524) 1x2.35 = 2.35 m @ 2.53 kg/m = 5.95 kg (ii) Meeting style (Jindal section no 4526) 1x2.35 = 2.35 m @ 2.465 kg/m = 5.79 kg (iii) Top & bottom rail (Jindal section no 4510) 2x0.75 = 1.50 m @ 2.48 kg/m = 3.72 kg (iv) Lock rail (Jindal section no 4524) 1x0.75 = 0.75 m @ 2.53 kg/m = 1.90 kg (v) Glazing plate (Jindal section no 440) on one side of lock rail 1x0.75 = 0.75 m @ 0.459 kg/m = 0.34 kg (vi) Aluminium snap beading (Jindal section no 4497) on both side 2x2 (0.75+1.26) = 8.04 m 2x2 (0.75+0.81) = 6.24 m = 14.28 m @ 0.176 kg/m = 2.51 kg (vii) Aluminium angle cleat 38x38x 4.8 mm 35 mm long 3x4x0.035 = 0.42 m @ 0.985 kg/m = 0.41 kg Sub total = 20.62 kg Add 5% wastage = 1.03 kg Total = 21.65 kg				
7306	Aluminium T or L sections (viii)	kilogram	21.65	190.00	4113.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0689	Anodised Aluminium butt hinges 100x75x4 mm (ix) C.P. brass /stainless steel screws 20 mm For cleat 12x4 = 48 For cleat 4x8 = 32 For glazing plate @ 15 cm centre to centre in 75 cm length 2x6 = 12 Total = 92 Nos	10 Nos	0.40	393.00	157.20
0589	Chromium plated Brass screws 20 mm (x)	100 Nos	0.92	160.00	147.20
7393	Polyester powder coating 50 microns on aluminium sections (xi)	kilogram	21.65	67.00	1450.55
9977	Carriage of material (xii) Neoprene/ EPDM rubber gasket in groove of meeting style	L.S.	31.20	2.12	66.14
7390	Neoprene/EPDM rubber gasket LABOUR For fabrication	metre	2.35	15.00	35.25
0116	Fitter (grade 1)	day	1.00	784.00	784.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	714.00	714.00
0114	Beldar	day	0.50	645.00	322.50
0100	Bandhani For fixing the shutter including hinges :	day	0.40	714.00	285.60
0111	Carpenter 1st class	day	0.20	784.00	156.80
114	Beldar	day	0.50	645.00	322.50
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.12	106.00
	TOTAL				8661.24 W
	Add 1 % Water charges on "W"				86.61
	TOTAL				8747.86 X
	Add GST on "X" (multiplying factor 0.1405)				1229.07
	TOTAL				9976.93 Y
	Add 15% CPOH on "Y"				1496.54
	TOTAL				11473.47 Z
	Add Cess @ 1% on "Z"				114.73
	Cost for 20.21 kg				11588.20
	Cost for 1 kg				573.39
	Say				573.40

21.2 Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.

21.2.1 Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 7 sqm				
	MATERIAL				
	12 mm thick particle board = 7.00 sqm				
	Add 5% wastage = 0.35 sqm				
	Total = 7.35 sqm				
7477	Prelaminated particle board with one side decorative and other side balancing lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	7.35	500.00	3675.00
9977	Carriage of particle board	L.S.	13.65	2.12	28.94
9999	Sundries & screws etc.	L.S.	27.30	2.12	57.88
	LABOUR				
0112	Carpenter 2nd class	day	0.90	714.00	642.60
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				5049.41 W
	Add 1 % Water charges on "W"				50.49
	TOTAL				5099.91 X
	Add GST on "X" (multiplying factor 0.1405)				716.54
	TOTAL				5816.45 Y
	Add 15% CPOH on "Y"				872.47
	TOTAL				6688.91 Z
	Add Cess @ 1% on "Z"				66.89
	Cost for 7 sqm				6755.80
	Cost for 1 sqm				965.11
	Say				965.10

21.2.2 Pre-laminated particle board with decorative lamination on both sides

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 7 sqm				
	MATERIAL				
	12 mm thick particle board = 7.00 sqm				
	Add 5% wastage = 0.35 sqm				
	Total = 7.35 sqm				
7480	Prelaminated particle board with both sides decorative lamination, flat pressed 3 layer & graded (medium density) Grade I, Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	7.35	490.00	3601.50
9977	Carriage of particle board	L.S.	13.65	2.12	28.94
9999	Sundries & screws etc.	L.S.	27.30	2.12	57.88
	LABOUR				
0112	Carpenter 2nd class	day	0.90	714.00	642.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				4975.91 W
	Add 1 % Water charges on "W"				49.76
	TOTAL				5025.67 X
	Add GST on "X" (multiplying factor 0.1405)				706.11
	TOTAL				5731.78 Y
	Add 15% CPOH on "Y"				859.77
	TOTAL				6591.55 Z
	Add Cess @ 1% on "Z"				65.92
	Cost for 7 sqm				6657.46
	Cost for 1 sqm				951.07
	Say				951.05

21.3 Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):

21.3.1 With float glass panes of 4.0 mm thickness (weight not less than 10kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 sqm				
	MATERIAL				
	Float Glass panes 4.0 mm thick = 1.00 sqm				
	Add for wastage & breakage @ 10% = 0.10 sqm				
	Total =1.10 sqm				
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.10	309.00	339.90
9977	Carriage of glass	L.S.	2.42	2.12	5.13
7390	Neoprene/EPDM rubber gasket	metre	6.00	15.00	90.00
	LABOUR				
0112	Carpenter 2nd class	day	0.23	714.00	164.22
0114	Beldar	day	0.23	645.00	148.35
9988	Sundries and carriage of gasket	L.S.	6.89	2.12	14.61
	TOTAL				762.21 W
	Add 1 % Water charges on "W"				7.62
	TOTAL				769.83 X
	Add GST on "X" (multiplying factor 0.1405)				108.16
	TOTAL				877.99 Y
	Add 15% CPOH on "Y"				131.70
	TOTAL				1009.69 Z
	Add Cess @ 1% on "Z"				10.10
	Cost for 1 sqm				1019.79
	Say				1019.80

21.3.2 With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 sqm				
	MATERIAL				
	Glass panes 5.50 mm thick = 1.00 sqm				
	Add for wastage & breakage @ 10% = 0.10 sqm				
	Total =1.00 sqm				
2407	Float glass sheet of nominal thickness 5 mm (weight not less than 12.50 kg/sqm)	sqm	1.10	515.00	566.50
9977	Carriage of glass	L.S.	3.33	2.12	7.06
7390	Neoprene/EPDM rubber gasket	metre	6.00	15.00	90.00
	LABOUR				
0112	Carpenter 2nd class	day	0.23	714.00	164.22
0114	Beldar	day	0.23	645.00	148.35
9988	Sundries and carriage of gasket	L.S.	6.89	2.12	14.61
	TOTAL				990.74 W
	Add 1 % Water charges on "W"				9.91
	TOTAL				1000.64 X
	Add GST on "X" (multiplying factor 0.1405)				140.59
	TOTAL				1141.23 Y
	Add 15% CPOH on "Y"				171.19
	TOTAL				1312.42 Z
	Add Cess @ 1% on "Z"				13.12
	Cost for 1 sqm				1325.54
	Say				1325.55

21.3.3 With float glass panes of 8 mm thickness (weight not less than 20 kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 sqm				
	MATERIAL				
	Float Glass panes 8.0 mm thick = 1.00 sqm				
	Add for wastage & breakage @ 10% = 0.10 sqm				
	Total =1.10 sqm				
2408	Float glass sheet of nominal thickness 8 mm.(weight not less than 20.00 kg/sqm).	sqm	1.10	628.00	690.80
9977	Carriage of glass	L.S.	4.84	2.12	10.26
7390	Neoprene/EPDM rubber gasket	metre	6.00	15.00	90.00
	LABOUR				
0112	Carpenter 2nd class	day	0.23	714.00	164.22
0114	Beldar	day	0.23	645.00	148.35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Sundries and carriage of gasket	L.S.	6.89	2.12	14.61
	TOTAL				1118.24 W
	Add 1 % Water charges on "W"				11.18
	TOTAL				1129.42 X
	Add GST on "X" (multiplying factor 0.1405)				158.68
	TOTAL				1288.10 Y
	Add 15% CPOH on "Y"				193.22
	TOTAL				1481.32 Z
	Add Cess @ 1% on "Z"				14.81
	Cost for 1 sqm				1496.13
	Say				1496.15

21.4 Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.

21.4.1 With stainless steel cover plate minimum 1.25 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one number				
	MATERIAL				
7394	Double action hydraulic floor spring with stainless steel cover plate	each	1.00	1500.00	1500.00
9977	CARRIAGE	L.S.	13.00	2.12	27.56
9999	Sundries and screws	L.S.	26.00	2.12	55.12
	Cement concrete 1:2:4				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete work	cum	0.002	7365.15	14.73 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
0112	Carpenter 2nd class	day	0.01	714.00	7.14
0114	Beldar	day	0.17	645.00	109.65
	TOTAL				1834.04 W
	Add 1 % Water charges on "W-A"				18.19
	TOTAL				1852.23 X
	Add GST on "X-A" (multiplying factor 0.1405)				258.17
	TOTAL				2110.40 Y
	Add 15% CPOH on "Y-A"				314.35
	TOTAL				2424.75 Z
	Add Cess @ 1% on "Z-A"				24.10
	Cost for each				2448.85
	Say				2448.85

21.4.2 With brass cover plate minimum 1.25 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one number				
	MATERIAL				
7396	Double action hydraulic floor spring with brass cover plate	each	1.00	1620.00	1620.00
9977	CARRIAGE	L.S.	13.00	2.12	27.56
9999	Sundries and screws	L.S.	26.00	2.12	55.12
	Cement concrete 1:2:4				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete work	cum	0.002	7365.15	14.73 A
	LABOUR				
	For cutting hole and making it good				
0123	Mason (brick layer) 1st class	day	0.08	784.00	62.72
0124	Mason (brick layer) 2nd class	day	0.08	714.00	57.12
0112	Carpenter 2nd class	day	0.01	714.00	7.14
0114	Beldar	day	0.17	645.00	109.65
	TOTAL				1954.04 W
	Add 1 % Water charges on "W-A"				19.39
	TOTAL				1973.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				275.20
	TOTAL				2248.63 Y
	Add 15% CPOH on "Y-A"				335.09
	TOTAL				2583.72 Z
	Add Cess @ 1% on "Z-A"				25.69
	Cost for each				2609.41
	Say				2609.40

21.5 Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee/ angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P. brass/ stainless steel sunk screws, aluminium perimeter angles fixed to wall with stainless steel rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I. level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-in-charge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6.35 kg (2.40x2.40 = 5.76 sqm) MATERIAL (i) Aluminium main runner - assuming Tee of size 35x23.5x1.5 mm @ 600 mm centre to centre 3x2.40 m = 7.20 m Extra for light fittings 2x1.20 m = 2.40 m Total= 9.60 m @ 0.247 kg/m = 2.370 kg				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Aluminium cross runner - assuming Tee of size 35x23.5x1.5 mm @ 600 mm centre to centre 3x4x0.60 m = 7.20 m (-) 2x0.30 = (-) 0.60 m Total=6.60 m @ 0.247 kg/m = 1.630 kg Perimeter angle aluminium - assuming size 25.4x25.4x1.63 mm @ 600 mm centre to centre 4x2.40 m = 9.60 m @ 0.213 kg/m = 2.045 kg (ii) CLEATS Aluminium angle- assuming size 25.4x25.4x1.63 mm Extra for light fittings =3x2x2 = 12.00 Corner = 4.00 For joining runners = 42.00 Total = 58.00x0.025 = 1.45 m @ 0.213 kg/m = 0.309 kg Sub total = 2.370 + 1.630 + 2.045 + 0.309 =6.354 kg Add 5% wastage = 0.318 kg Total = 6.672 kg				
7306	Aluminium T or L sections	kilogram	6.672	190.00	1267.68
	(iii) C.P. brass/ stainless steel screws 20 mm for angle cleats				
0589	Chromium plated Brass screws 20 mm	100 Nos	0.0116	160.00	1.86
	(iv) Rawl plug for fixing perimeter angles				
7048	Rawl plug 50 mm (designation 10 no.) Epoxy	each	24.00	22.00	528.00
7392	Powder coating 50 microns on aluminium sections	kilogram	6.67	61.00	406.87
	(vi)				
9977	Carriage of material	L.S.	13.00	2.12	27.56
	(vii)				
9999	C.P. brass screws for fixing frame with suspenders	L.S.	13.00	2.12	27.56
	LABOUR				
	For fabrication and erection				
0111	Carpenter 1st class	day	0.64	784.00	501.76
0114	Beldar	day	0.64	645.00	412.80
9999	Scaffolding and sundries	L.S.	13.00	2.12	27.56
	TOTAL				3201.65 W
	Add 1 % Water charges on "W"				32.02
	TOTAL				3233.66 X
	Add GST on "X" (multiplying factor 0.1405)				454.33
	TOTAL				3687.99 Y
	Add 15% CPOH on "Y"				553.20
	TOTAL				4241.19 Z
	Add Cess @ 1% on "Z"				42.41
	Cost for 6.35 kg				4283.60
	Cost for 1 kg				674.58
	Say				674.60

21.6 Providing and fixing 6 mm dia. G.I. level adjusting hangers (upto 1200mm length), fixed to roof slabs by means of ceiling cleats made out of G.I. flat 40x3mm size 60 mm long and stainless steel expandable dash fastener of 12.5 mm dia and 50 mm long, complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 23 nos (hangers in 2.40 mx 2.40 m = 5.76 sqm)one number				
	MATERIAL				
	6 mm dia G.I. adjustable hangers including clips (upto 1.20 metre length).				
	For light fitting 2x4 = 8.00				
	For runners = 15.00				
	Total = 23.00				
7395	6 mm dia. G.I. adjustable hangers including clips (upto 1.2 m length)	each	23.00	20.00	460.00
	Ceiling cleats				
	G.I. flat 40X3 mm 60mm long				
	23x0.06 = 1.38 m @ 0.95kg/m = 1.31kg				
	Add 5% wastage = 0.07 kg				
	Total = 1.38 kg say 0.014 q				
0992	Galvanised steel plain sheets	quintal	0.014	5000.00	70.00
7388	Dash hold fastener 12.5 mm dia, 40 mm long with 6 mm dia bolt	each	23.00	10.00	230.00
9977	Carriage of materials	L.S.	5.20	2.12	11.02
	LABOUR				
0111	Carpenter 1st class	day	0.35	784.00	274.40
0114	Beldar	day	0.27	645.00	174.15
	TOTAL				1219.57 W
	Add 1 % Water charges on "W"				12.20
	TOTAL				1231.77 X
	Add GST on "X" (multiplying factor 0.1405)				173.06
	TOTAL				1404.83 Y
	Add 15% CPOH on "Y"				210.73
	TOTAL				1615.56 Z
	Add Cess @ 1% on "Z"				16.16
	Cost for 23 hangers				1631.71
	Cost for one hanger				70.94
	Say				70.95

21.7 Providing and fixing machine moulded aluminium covering of approved pattern & design, made out of machine cut aluminium sheet and machine holed for receiving dash fastener, over expansion joints on vertical surfaces/ceiling floors, the fixing on plate in one row on one side of joint only shall be done with stainless steel dash fasteners of 8 mm dia and 75 mm long bolt including providing aluminium washers 2 mm thick & 15 mm dia , at a staggered pitch of 200mm centre to centre including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete as per direction of Engineer-in-charge.

21.7.1 Anodised aluminium sheet 2.5mm thick (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 7.00 kg				
	MATERIAL				
	Anodised aluminium sheet 2.5 mm thick, 170 mm wide				
	5.88 m x0.17 m = 1.00 sqm @ 7.00 kg/ sqm = 7.00 kg				
	Add 5% wastage = 0.35 kg				
	Total = 7.35 kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	7.35	240.00	1764.00
7389	Anodising 15 microns on aluminium sections	kilogram	7.35	38.00	279.30
7347	Cadmium plated full threaded steel screws (30x4 mm dia.)	100 Nos	0.30	27.00	8.10
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	0.30	10.00	3.00
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	30.00	17.00	510.00
9977	Carriage of materials	L.S.	6.50	2.12	13.78
	LABOUR				
0112	Carpenter 2nd class	day	0.392	714.00	279.89
0114	Beldar	day	0.392	645.00	252.84
9999	Sundries including machine work	L.S.	21.45	2.12	45.47
	TOTAL				3156.38 W
	Add 1 % Water charges on "W"				31.56
	TOTAL				3187.95 X
	Add GST on "X" (multiplying factor 0.1405)				447.91
	TOTAL				3635.85 Y
	Add 15% CPOH on "Y"				545.38
	TOTAL				4181.23 Z
	Add Cess @ 1% on "Z"				41.81
	Cost for 7.00 kg				4223.04
	Cost for 1 kg				603.29
	Say				603.30

21.7.2 Powder coated aluminium sheet 2.5mm thick (minimum thickness of powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 7.00 kg				
	MATERIAL				
	Anodised aluminium sheet 2.5 mm thick, 170 mm wide				
	5.88 m x0.17 m = 1.00 sqm @ 7.00 kg/sqm = 7.00 kg				
	Add 5% wastage = 0.35 kg				
	Total = 7.35 kg				
2704	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	7.35	240.00	1764.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7392	Powder coating 50 microns on aluminium sections	kilogram	7.35	61.00	448.35
7347	Cadmium plated full threaded steel screws (30x4 mm dia.)	100 Nos	0.30	27.00	8.10
7348	Aluminium washer 2 mm thick 15 mm dia	100 Nos	0.30	10.00	3.00
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	30.00	17.00	510.00
9977	Carriage of materials	L.S.	6.50	2.12	13.78
	LABOUR				
0112	Carpenter 2nd class	day	0.392	714.00	279.89
0114	Beldar	day	0.392	645.00	252.84
9999	Sundries including machine work	L.S.	21.45	2.12	45.47
	TOTAL				3325.43 W
	Add 1 % Water charges on "W"				33.25
	TOTAL				3358.69 X
	Add GST on "X" (multiplying factor 0.1405)				471.90
	TOTAL				3830.58 Y
	Add 15% CPOH on "Y"				574.59
	TOTAL				4405.17 Z
	Add Cess @ 1% on "Z"				44.05
	Cost for 7.00 kg				4449.22
	Cost for 1 kg				635.60
	Say				635.60

21.8 Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.

21.8.1 Upto 5mm depth and 5 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 metre				
	MATERIAL				
8646	Silicon sealant (i/c 5% wastage)	cartridge	0.087	112.00	9.74
8654	Masking tape	metre	2.00	2.18	4.36
9999	Sundries & profile	L.S.	2.60	2.12	5.51
9999	LABOUR	L.S.	20.80	2.12	44.10
	TOTAL				63.71 W
	Add 1 % Water charges on "W"				0.64
	TOTAL				64.35 X
	Add GST on "X" (multiplying factor 0.1405)				9.04
	TOTAL				73.39 Y
	Add 15% CPOH on "Y"				11.01
	TOTAL				84.40 Z
	Add Cess @ 1% on "Z"				0.84
	Cost for 1 metre				85.24
	Say				85.25

21.9 Extra for applying additional anodic coating AC 25 instead of AC 15 to aluminium extruded sections.

21.9.1 For fixed portion

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 41.09 kg				
	Difference in cost of				
7391	Anodising 25 microns on aluminium sections	kilogram	41.09	48.00	1972.32
7389	Anodising 15 microns on aluminium sections	kilogram	-41.09	38.00	-1561.42
	TOTAL				410.90 W
	Add 1 % Water charges on "W"				4.11
	TOTAL				415.01 X
	Add GST on "X" (multiplying factor 0.1405)				58.31
	TOTAL				473.32 Y
	Add 15% CPOH on "Y"				71.00
	TOTAL				544.32 Z
	Add Cess @ 1% on "Z"				5.44
	Cost for 41.09 kg				549.76
	Cost for 1 kg				13.38
	Say				13.40

21.9.2 For shutters of doors, windows & ventilators

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 21.65 kg				
	Difference in cost of				
7391	Anodising 25 microns on aluminium sections	kilogram	21.65	48.00	1039.20
7389	Anodising 15 microns on aluminium sections	kilogram	-21.65	38.00	-822.70
	TOTAL				216.50 W
	Add 1 % Water charges on "W"				2.17
	TOTAL				218.67 X
	Add GST on "X" (multiplying factor 0.1405)				30.72
	TOTAL				249.39 Y
	Add 15% CPOH on "Y"				37.41
	TOTAL				286.80 Z
	Add Cess @ 1% on "Z"				2.87
	Cost for 21.65kg				289.66
	Cost for 1 kg				13.38
	Say				13.40

21.10 Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side, having 12 mm air gap, including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 sqm				
	MATERIAL				
	Hermetically sealled double glazed unit made with 6mm thick clear float glass both side having 12 mm air gap = 1.00 sqm.				
	Add for wastage & breakage @ 10% = 0.10 sqm				
	Total = 1.10 sqm				
8648	Hermetically sealed double glazed unit made with 6 mm thick clear float glass both side having 12 mm air gap	sqm	1.10	2200.00	2420.00
9977	Carriage of glass	L.S.	6.66	2.12	14.12
7390	Neoprene/EPDM rubber gasket	metre	6.00	15.00	90.00
	LABOUR				
	Glazier /				
0112	Carpenter 2nd class	day	0.23	714.00	164.22
0114	Beldar	day	0.46	645.00	296.70
9988	Sundries and carriage of gasket	L.S.	6.89	2.12	14.61
	TOTAL				2999.65 W
	Add 1 % Water charges on "W"				30.00
	TOTAL				3029.64 X
	Add GST on "X" (multiplying factor 0.1405)				425.66
	TOTAL				3455.31 Y
	Add 15% CPOH on "Y"				518.30
	TOTAL				3973.60 Z
	Add Cess @ 1% on "Z"				39.74
	Cost for 1 sqm				4013.34
	Say				4013.35

21.11 Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.

21.11.1 205 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
8649	Stainless steel (SS 304 grade) adjustable friction window stay 205 x 19 mm	each	10.00	197.80	1978.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
9977	CARRIAGE	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.14	645.00	90.30
	TOTAL				2188.38 W
	Add 1 % Water charges on "W"				21.88
	TOTAL				2210.27 X
	Add GST on "X" (multiplying factor 0.1405)				310.54
	TOTAL				2520.81 Y
	Add 15% CPOH on "Y"				378.12
	TOTAL				2898.93 Z
	Add Cess @ 1% on "Z"				28.99
	Cost for 10 nos				2927.92
	Cost for each				292.79
	Say				292.80

21.11.2 255 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
8650	Stainless steel (SS 304 grade) adjustable 255 x 19mm	each	10.00	225.00	2250.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
9977	CARRIAGE	L.S.	2.73	2.12	5.79
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.14	645.00	90.30
	TOTAL				2460.38 W
	Add 1 % Water charges on "W"				24.60
	TOTAL				2484.99 X
	Add GST on "X" (multiplying factor 0.1405)				349.14
	TOTAL				2834.13 Y
	Add 15% CPOH on "Y"				425.12
	TOTAL				3259.25 Z
	Add Cess @ 1% on "Z"				32.59
	Cost for 10 nos				3291.84
	Cost for each				329.18
	Say				329.20

21.11.3 355 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
8651	Stainless steel (SS 304 grade) adjustable friction window stay 355 x 19 mm	each	10.00	195.00	1950.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
9977	CARRIAGE	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.14	645.00	90.30
	TOTAL				2160.38 W
	Add 1 % Water charges on "W"				21.60
	TOTAL				2181.99 X
	Add GST on "X" (multiplying factor 0.1405)				306.57
	TOTAL				2488.56 Y
	Add 15% CPOH on "Y"				373.28
	TOTAL				2861.84 Z
	Add Cess @ 1% on "Z"				28.62
	Cost for 10 nos				2890.46
	Cost for each				289.05
	Say				289.05

21.11.4 510 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
8652	Stainless steel (SS 304 grade) adjustable friction window stay 510 x 19 mm	each	10.00	535.00	5350.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
9977	CARRIAGE	L.S.	2.73	2.12	5.79
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.14	645.00	90.30
	TOTAL				5560.38 W
	Add 1 % Water charges on "W"				55.60
	TOTAL				5615.99 X
	Add GST on "X" (multiplying factor 0.1405)				789.05
	TOTAL				6405.03 Y
	Add 15% CPOH on "Y"				960.76
	TOTAL				7365.79 Z
	Add Cess @ 1% on "Z"				73.66
	Cost for 10 nos				7439.45
	Cost for each				743.94
	Say				743.95

21.11.5 710 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos.				
	MATERIAL				
8653	Stainless steel (SS 304 grade) adjustable friction window stay 710 x 19 mm	each	10.00	925.00	9250.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	35.84	14.34
9977	CARRIAGE	L.S.	2.73	2.12	5.79

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.14	645.00	90.30
	TOTAL				9460.38 W
	Add 1 % Water charges on "W"				94.60
	TOTAL				9554.99 X
	Add GST on "X" (multiplying factor 0.1405)				1342.48
	TOTAL				10897.46 Y
	Add 15% CPOH on "Y"				1634.62
	TOTAL				12532.08 Z
	Add Cess @ 1% on "Z"				125.32
	Cost for 10 nos				12657.40
	Cost for each				1265.74
	Say				1265.75

21.12 Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.

21.12.1 Anodized (AC 15) aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos handle bar.				
	MATERIAL				
	10x22/7 x 1/4 (0.032x0.032 - 0.026 x 0.026) x 2.10 = 0.0057 cum				
	0.0057 cum @ 2710 kg/ cum = 15.56kg				
	Add 5% wastage 0.78 kg				
	Total = 16.34 kg				
7306	Aluminium T or L sections	kilogram	16.34	190.00	3104.60
7389	Anodising 15 microns on aluminium sections	kilogram	16.34	38.00	620.92
9977	Carriage of material	L.S.	4.42	2.12	9.37
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	35.84	2.87
	LABOUR				
0111	Carpenter 1st class	day	0.125	784.00	98.00
	TOTAL				3835.76 W
	Add 1 % Water charges on "W"				38.36
	TOTAL				3874.12 X
	Add GST on "X" (multiplying factor 0.1405)				544.31
	TOTAL				4418.43 Y
	Add 15% CPOH on "Y"				662.76
	TOTAL				5081.19 Z
	Add Cess @ 1% on "Z"				50.81
	Cost of 10 nos				5132.00
	Cost of 1 no				513.20
	Say				513.20

21.12.2 Powder coated minimum thickness 50 micron aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos handle bar.				
	MATERIAL				
	10x22/7 x 1/4 (0.032x0.032 - 0.026 x 0.026) x 2.10 = 0.0057 cum				
	0.0057 cum @ 2710 kg/ cum = 15.56kg				
	Add 5% wastage 0.78 kg				
	Total = 16.34 kg				
7306	Aluminium T or L sections	kilogram	16.34	190.00	3104.60
	Epoxy				
7392	Powder coating 50 microns on aluminium sections	kilogram	16.34	61.00	996.74
9977	Carriage of material	L.S.	4.42	2.12	9.37
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	35.84	2.87
	LABOUR				
0111	Carpenter 1st class	day	0.125	784.00	98.00
	TOTAL				4211.58 W
	Add 1 % Water charges on "W"				42.12
	TOTAL				4253.69 X
	Add GST on "X" (multiplying factor 0.1405)				597.64
	TOTAL				4851.34 Y
	Add 15% CPOH on "Y"				727.70
	TOTAL				5579.04 Z
	Add Cess @ 1% on "Z"				55.79
	Cost of 10 nos				5634.83
	Cost of 1 no				563.48
	Say				563.50

21.12.3 Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos handle bar.				
	MATERIAL				
	10x22/7 x 1/4 (0.032x0.032 -0.026 x 0.026) x 2.10 = 0.0057 cum				
	0.0057 cum @ 2710 kg/ cum = 15.56kg				
	Add 5% wastage 0.78 kg				
	Total = 16.34 kg				
7306	Aluminium T or L sections	kilogram	16.34	190.00	3104.60
7393	Polyester powder coating 50 microns on aluminium sections	kilogram	16.34	67.00	1094.78
9977	Carriage of material	L.S.	4.42	2.12	9.37
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	35.84	2.87

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.125	784.00	98.00
	TOTAL				4309.62 W
	Add 1 % Water charges on "W"				43.10
	TOTAL				4352.71 X
	Add GST on "X" (multiplying factor 0.1405)				611.56
	TOTAL				4964.27 Y
	Add 15% CPOH on "Y"				744.64
	TOTAL				5708.91 Z
	Add Cess @ 1% on "Z"				57.09
	Cost of 10 nos				5766.00
	Cost of 1 no				576.60
	Say				576.60

21.13 Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 nos.				
	MATERIAL				
7001	Brass 100mm mortice latch and lock with 6 levers without pair of handles	each	1.00	195.00	195.00
	LABOUR				
0111	Carpenter 1st class	day	0.17	784.00	133.28
9999	Sundry and screws	L.S.	3.64	2.12	7.72
	TOTAL				336.00 W
	Add 1 % Water charges on "W"				3.36
	TOTAL				339.36 X
	Add GST on "X" (multiplying factor 0.1405)				47.68
	TOTAL				387.04 Y
	Add 15% CPOH on "Y"				58.06
	TOTAL				445.09 Z
	Add Cess @ 1% on "Z"				4.45
	Cost of 1 no				449.54
	Say				449.55

21.14 Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS: 1285, fixed with dash fastener of required dia and size (Dash fastener to be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 4.082kg				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Aluminium Section (i) External member of the frame (Jindal section no TU/ 3644) V = 2x2.00 = 4.00 m H = 2x1.20 = 2.40 m Total= 6.40 m @ 0.607 kg/m = 3.885kg Angle cleat 38x38x4.8 mm 50 mm long 4x0.05 = 0.200 m @ 0.985 kg/m = 0.197 kg sub total = 4.082kg. Add 5% wastage = 0.204kg Total = 4.286kg				
7306	Aluminium T or L sections	kilogram	4.286	190.00	814.34
0589	Chromium plated Brass screws 20 mm	100 Nos	0.08	160.00	12.80
7389	Anodising 15 microns on aluminium sections	kilogram	4.286	38.00	162.87
9977	Carriage of material	L.S.	5.20	2.12	11.02
	LABOUR For fabrication of frame				
0116	Fitter (grade 1)	day	0.04	784.00	31.36
0139	Skilled Beldar (for floor rubbing etc.)	day	0.04	714.00	28.56
0114	Beldar	day	0.02	645.00	12.90
0100	Bandhani	day	0.01	714.00	7.14
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners & sundries	L.S.	5.20	2.12	11.02
	TOTAL				1092.02 W
	Add 1 % Water charges on "W"				10.92
	TOTAL				1102.94 X
	Add GST on "X" (multiplying factor 0.1405)				154.96
	TOTAL				1257.90 Y
	Add 15% CPOH on "Y"				188.68
	TOTAL				1446.58 Z
	Add Cess @ 1% on "Z"				14.47
	Cost for 4.082 kg				1461.05
	Cost for 1 kg				357.92
	Say				357.90

21.15 Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.

21.15.1 Anodized (AC 15) aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos. MATERIAL				
8660	Aluminium casement window fastener (Anodised AC 15)	each	10.00	48.00	480.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				549.55 W
	Add 1 % Water charges on "W"				5.50
	TOTAL				555.04 X
	Add GST on "X" (multiplying factor 0.1405)				77.98
	TOTAL				633.03 Y
	Add 15% CPOH on "Y"				94.95
	TOTAL				727.98 Z
	Add Cess @ 1% on "Z"				7.28
	Cost of 10 nos				735.26
	Cost of 1 nos				73.53
	Say				73.55

21.15.2 Powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos.				
	MATERIAL				
8661	Aluminium casement window fastener (powder coated)	each	10.00	52.64	526.40
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				595.95 W
	Add 1 % Water charges on "W"				5.96
	TOTAL				601.91 X
	Add GST on "X" (multiplying factor 0.1405)				84.57
	TOTAL				686.48 Y
	Add 15% CPOH on "Y"				102.97
	TOTAL				789.45 Z
	Add Cess @ 1% on "Z"				7.89
	Cost of 10 nos				797.34
	Cost of 1 nos				79.73
	Say				79.75

21.15.3 Polyester powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos.				
	MATERIAL				
8662	Aluminium casement window fastener (polyester powder coated)	each	10.00	51.52	515.20
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				584.75 W
	Add 1 % Water charges on "W"				5.85
	TOTAL				590.60 X
	Add GST on "X" (multiplying factor 0.1405)				82.98
	TOTAL				673.57 Y
	Add 15% CPOH on "Y"				101.04
	TOTAL				774.61 Z
	Add Cess @ 1% on "Z"				7.75
	Cost of 10 nos				782.36
	Cost of 1 nos				78.24
	Say				78.25

21.16 Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge

21.16.1 Anodized (AC 15) aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos.				
	MATERIAL				
8663	Aluminium round shape handle (anodised AC 15) outer dia 100mm	each	10.00	59.36	593.60
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				663.15 W
	Add 1 % Water charges on "W"				6.63
	TOTAL				669.78 X
	Add GST on "X" (multiplying factor 0.1405)				94.10
	TOTAL				763.88 Y
	Add 15% CPOH on "Y"				114.58
	TOTAL				878.47 Z
	Add Cess @ 1% on "Z"				8.78
	Cost of 10 nos				887.25
	Cost of 1 nos				88.73
	Say				88.75

21.16.2 Powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8664	Aluminium round shape handle (powder coated) outer dia 100 mm	each	10.00	60.00	600.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				669.55 W
	Add 1 % Water charges on "W"				6.70
	TOTAL				676.24 X
	Add GST on "X" (multiplying factor 0.1405)				95.01
	TOTAL				771.26 Y
	Add 15% CPOH on "Y"				115.69
	TOTAL				886.94 Z
	Add Cess @ 1% on "Z"				8.87
	Cost of 10 nos				895.81
	Cost of 1 nos				89.58
	Say				89.60

21.16.3 Polyester powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos.				
	MATERIAL				
8665	Aluminium round shape handle (polyester powder coated) outer dia 100 mm	each	10.00	62.00	620.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	41.80	16.72
	LABOUR				
0111	Carpenter 1st class	day	0.06	784.00	47.04
9977	Carriage of materials	L.S.	2.73	2.12	5.79
	TOTAL				689.55 W
	Add 1 % Water charges on "W"				6.90
	TOTAL				696.44 X
	Add GST on "X" (multiplying factor 0.1405)				97.85
	TOTAL				794.29 Y
	Add 15% CPOH on "Y"				119.14
	TOTAL				913.44 Z
	Add Cess @ 1% on "Z"				9.13
	Cost of 10 nos				922.57
	Cost of 1 nos				92.26
	Say				92.25

21.17 Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 kg				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Anodised aluminium grill = 10.00 kg				
	Add 20% wastage = 2 kg = 12 kg				
8774	Aluminium Grill	kg	12.00	279.00	3348.00
9977	Carriage of materials	L.S.	11.00	2.12	23.32
	LABOUR				
	for fixing				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25
0100	Bandhani	day	0.05	714.00	35.70
9999	Sundries	L.S.	25.00	2.12	53.00
	TOTAL				4191.77 W
	Add 1 % Water charges on "W"				41.92
	TOTAL				4233.69 X
	Add GST on "X" (multiplying				
	factor 0.1405)				594.83
	TOTAL				4828.52 Y
	Add 15% CPOH on "Y"				724.28
	TOTAL				5552.80 Z
	Add Cess @ 1% on "Z"				55.53
	Cost for 10.00 kg				5608.33
	Cost for 1 kg				560.83
	Say				560.85

21.18 Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double acting hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 2.10 sqm				
	MATERIAL				
	Glass= 2.10 Sqm.				
	Add Wastage @ 10% = 0.21 sqm.				
	Total= 2.31 sqm.				
8778	Toughened glass 12 mm thickness	sqm	2.31	1750.00	4042.50
9977	Carriage of glass panes and other				
	materials	L.S.	8.19	2.12	17.36
9999	Methylated spirit	L.S.	5.33	2.12	11.30
	Stainless steel pivot and double acting				
	hydraulic floor spring type fixing				
21.4.1	Rate as per Item No.21.4.1 of				
	SH:Aluminium Work	each	1.00	2448.85	2448.85 A
	LABOUR				
0119	Glazier	day	0.90	714.00	642.60
0114	Beldar	day	0.90	645.00	580.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries,sush rog cotton etc.	L.S.	1.13	2.12	2.40
	TOTAL				7745.51 W
	Add 1 % Water charges on "W-A"				52.97
	TOTAL				7798.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				751.62
	TOTAL				8550.10 Y
	Add 15% CPOH on "Y-A"				915.19
	TOTAL				9465.28 Z
	Add Cess @ 1% on "Z-A"				70.16
	Cost for 2.10 sqm				9535.45
	Cost for 1 sqm				4540.69
	Say				4540.70

21.19 Filling the gap in between aluminium/ stone/ wood frame and adjacent RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum work by providing weather/structural non sag elastomeric PU sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete, complying to ASTM C920, DIN 18540-F & ISO 11600

21.19.1 Upto 5 mm depth and 5 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10m length width 5mm & depth 5mm				
	MATERIAL				
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	1.00	543.00	543.00
8654	Masking tape	metre	20.00	2.18	43.60
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.12	55.12
9977	Carriage of material	L.S.	8.40	2.12	17.81
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.40	784.00	313.60
	TOTAL				973.13 W
	Add 1 % Water charges on "W"				9.73
	TOTAL				982.86 X
	Add GST on "X" (multiplying factor 0.1405)				138.09
	TOTAL				1120.95 Y
	Add 15% CPOH on "Y"				168.14
	TOTAL				1289.09 Z
	Add Cess @ 1% on "Z"				12.89
	Cost of 10 metre				1301.98
	Cost per metre				130.20
	Say				130.20

21.19.2 Upto 10 mm depth and 10 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m length, width 10mm & depth 10mm					
	MATERIAL					
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	1.50	543.00	814.50	
8654	Masking tape	metre	20.00	2.18	43.60	
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.12	55.12	
9977	Carriage of material	L.S.	8.40	2.12	17.81	
	LABOUR					
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00	
	TOTAL				1323.03	W
	Add 1 % Water charges on "W"				13.23	
	TOTAL				1336.26	X
	Add GST on "X" (multiplying factor 0.1405)				187.74	
	TOTAL				1524.00	Y
	Add 15% CPOH on "Y"				228.60	
	TOTAL				1752.60	Z
	Add Cess @ 1% on "Z"				17.53	
	Cost of 10 metre				1770.13	
	Cost per metre				177.01	
	Say				177.00	

21.19.3 Upto 20 mm depth and 20 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10m length, width 20mm & depth 20mm				
	MATERIAL				
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum/Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	3.00	543.00	1629.00
8654	Masking tape	metre	20.00	2.18	43.60
2630	Baker rod	metre	10.00	6.00	60.00
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.12	55.12
9977	Carriage of material	L.S.	8.40	2.12	17.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.75	784.00	588.00
	TOTAL				2393.53 W
	Add 1 % Water charges on "W"				23.94
	TOTAL				2417.46 X
	Add GST on "X" (multiplying factor 0.1405)				339.65
	TOTAL				2757.12 Y
	Add 15% CPOH on "Y"				413.57
	TOTAL				3170.68 Z
	Add Cess @ 1% on "Z"				31.71
	Cost of 10 metre				3202.39
	Cost per metre				320.24
	Say				320.25

SUB HEAD : 22.0

WATER PROOFING

22.1 Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge and consisting of :
(i) Ist layer of 22 mm to 25 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound.
(ii) 2nd layer of 25 mm thick cement mortar 1:3 (1 cement: 3 coarse sand) mixed with water proofing compound in recommended proportions.
(iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer.

22.1.1 Using rough kota stone.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 sqm				
	MATERIAL				
	Ist layer				
	Cement mortar 1:3 for fixing of stone				
	10x0.025 = 0.25 cum				
3.8	Rate as per Item Number 3.8 of				
	SH: MORTARS	cum	0.25	5024.15	1256.04
	Kota stone slab = 10 sqm				
	Wastage @ 10% = 1 sqm				
	Total = 11 sqm				
1169	Kotastone slab 25mm thick				
	(rough cheseled)	sqm	11.00	250.00	2750.00
	Cartage 11x0.025 @ 2330 kg/m3				
	= 0.64 t				
2216	Carriage of Stone blocks white &				
	red sand stone & kota stone slab	tonne	0.64	145.72	93.26
	Cement mortar 1:3				
	10x0.025 = 0.25 cum				
	Wastage @ 12% = 0.03 cum				
	Total = 0.28 cum				
3.8	Rate as per Item No.3.8 of				
	SH: MORTARS	cum	0.28	5024.15	1406.76
	for slurry Bed				
	2x10.00 @ 2kg/m3 = 40.00 kg				
	Joints				
	4x3.7x0.02x0.037 = 0.011 cum				
	25x0.6x0.02x0.037 = 0.011 cum				
	= 0.022 cum @ 1440 kg/cum				
	Total = 71.88 kg or 0. 72 t				
0367	Portland Cement (OPC-43 grade)	tonne	0.072	5000.00	360.00
2209	Carriage of Cement	tonne	0.072	145.72	10.49
	Mortar = 0.25 + 0.28 = 0.53 cum				
	Cement in 0.53 cum @ 5.1 q/cum				
	= 2.7 quintal				
	Cement in slurry = 0.73 quintal				
	Total = 3.43 quintal @ 1 kg for 50 kg				
	of cement i.e. 6.86 kg				
1213	Water proofing materials	kilogram	6.86	35.00	240.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0296	Stone Aggregate (Single size) : 12.5 mm nominal size @ 8 cudm/sqm 1x10.3x8x1/1000 = 0.08 cum	cum	0.08	1350.00	108.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.08	163.93	13.11
	Labour for base mortar & kota stone laying i/c slurry job				
0125	Mason (for plain stone work) 2nd class	day	1.20	714.00	856.80
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	1.00	645.00	645.00
	LABOUR				
	Labour for top layer & spreading stone grit				
0125	Mason (for plain stone work) 2nd class	day	1.08	714.00	771.12
0114	Beldar	day	1.08	645.00	696.60
0101	Bhisti	day	0.45	714.00	321.30
9999	Sundries	L.S.	6.24	2.12	13.23
	TOTAL				10186.82 W
	Add 1 % Water charges on "W"				101.87
	TOTAL				10288.68 X
	Add GST on "X" (multiplying factor 0.1405)				1445.56
	TOTAL				11734.24 Y
	Add 15% CPOH on "Y"				1760.14
	TOTAL				13494.38 Z
	Add Cess @ 1% on "Z"				134.94
	Cost for 10.00 sqm				13629.32
	Cost for 1 sqm				1362.93
	Say				1362.95

22.2 Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25 mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement : 3 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge :

22.2.1 Using rough Kota stone

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 sqm MATERIAL Ist layer Kota stone slab = 10 sqm Wastage @ 10% = 1 sqm Total = 11 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1169	Kotastone slab 25mm thick (rough cheseled) Cartage 11x0.025 @ 2330 kg/m3 = 0.64t	sqm	11.00	250.00	2750.00
2216	Carriage of Stone blocks white & red sand stone & kota stone slab Cement slurry for jointing 6x3.70 = 22.20 m 7x2.78 = 19.46 m =41.66x0.025x0.012 = 0.013 cum Cement slurry for filling 20 mm gap 10x0.02 = 0.200 cum = 0.213 cum @ 1440 kg/cum = 306.70 kg or 0.307 t	tonne	0.64	145.72	93.26
0367	Portland Cement (OPC-43 grade)	tonne	0.31	5000.00	1550.00
2209	Carriage of Cement	tonne	0.31	145.72	45.17
	Cement plaster 1:3 with neat cement punning				
13.9.2	Rate as per item no 13.9.2 of SH : Finishing Water proofing material Cement slurry = 0.31 t = 310 kg Cement plaster 1:3 @ 13.62 q/100sqm = 136.20 kg Total = 446.20 kg @ 1 kg for 50 kg of cement i.e. 8.90 kg	sqm	10.00	507.85	5078.50 A
1213	Water proofing materials	kilogram	8.90	35.00	311.50
	LABOUR Fixing of Kota stone and applying cement slurry.				
0125	Mason (for plain stone work) 2nd class	day	3.00	714.00	2142.00
0114	Beldar	day	3.00	645.00	1935.00
0115	Coolie	day	1.00	645.00	645.00
9999	Sundries and scaffolding	L.S.	18.20	2.12	38.58
	TOTAL				14589.02 W
	Add 1 % Water charges on "W-A"				95.11
	TOTAL				14684.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				1349.59
	TOTAL				16033.71 Y
	Add 15% CPOH on "Y-A"				1643.28
	TOTAL				17677.00 Z
	Add Cess @ 1% on "Z-A"				125.98
	Cost for 10.00sqm				17802.98
	Cost for 1 sqm				1780.30
	Say				1780.30

22.3 Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of: (i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.

(ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.
(iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.
(iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/ sqm).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL				
	Cement slurry @ 4.4 kg/sqm				
	= 44.00 kg or 0.044 t				
0367	Portland Cement (OPC-43 grade)	tonne	0.044	5000.00	220.00
2209	Carriage of Cement	tonne	0.044	145.72	6.41
	MATERIAL				
	Cement plaster 1:3 (20 mm thick)				
3.8	Rate as per Item No.3.8 of				
	SH: MORTARS	cum	0.224	5024.15	1125.41
	LABOUR				
0155	Mason (average)	day	0.94	749.00	704.06
0115	Coolie	day	1.02	645.00	657.90
0101	Bhisti	day	1.10	714.00	785.40
9999	Scafolding and sundries	L.S.	12.61	2.12	26.73
0313	Blown type petroleum bitumen of				
	penetration 85/25 of approved quality	tonne	0.017	34790.00	591.43
	= 10x1.70= 17 kg = 0.017 t				
2211	Carriage of Tar bitumen	tonne	0.017	163.93	2.79
3002	Polyvinyle chloride sheet 400 micron				
	thick	sqm	10.00	45.00	450.00
9977	CARRIAGE	L.S.	13.00	2.12	27.56
1213	Water proofing materials	kilogram	3.60	35.00	126.00
	@ 1 kg per 50 kg of cement used				
	Cement slurry = 44 kg				
	Cement plaster 1:3				
	10x(13.62xl00)/100= 136.2 kg				
	Total = 180.2 kg/50 = 3.60 kg				
	LABOUR				
0131	Painter	day	0.20	714.00	142.80
0114	Beldar	day	1.33	645.00	857.85
0130	Mistry	day	0.06	784.00	47.04
9999	Sundries	L.S.	7.28	2.12	15.43
	TOTAL				5786.81 W
	Add 1 % Water charges on "W"				57.87
	TOTAL				5844.68 X
	Add GST on "X" (multiplying				
	factor 0.1405)				821.18
	TOTAL				6665.86 Y
	Add 15% CPOH on "Y"				999.88
	TOTAL				7665.74 Z
	Add Cess @ 1% on "Z"				76.66
	Cost for 10 sqm				7742.40
	Cost for 1 sqm				774.24
	Say				774.25

22.4 Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :

22.4.1 Serrated with central bulb (225 mm wide, 8-11 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7427	Water stops Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	100.00	200.00	20000.00	
	LABOUR					
0114	Beldar	day	2.00	645.00	1290.00	
9999	Sundries & wire etc.	L.S.	26.00	2.12	55.12	
	TOTAL				21345.12	W
	Add 1 % Water charges on "W"				213.45	
	TOTAL				21558.57	X
	Add GST on "X" (multiplying factor 0.1405)				3028.98	
	TOTAL				24587.55	Y
	Add 15% CPOH on "Y"				3688.13	
	TOTAL				28275.68	Z
	Add Cess @ 1% on "Z"				282.76	
	Cost for 100 metres				28558.44	
	Cost for 1 metre				285.58	
	Say				285.60	

22.4.2 Dumb bell with central bulb (180 mm wide, 8 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7428	Water stops Dumb bell with central bulb	metre	100.00	160.00	16000.00	
	LABOUR					
0114	Beldar	day	2.00	645.00	1290.00	
9999	Sundries & wire etc.	L.S.	26.00	2.12	55.12	
	TOTAL				17345.12	W
	Add 1 % Water charges on "W"				173.45	
	TOTAL				17518.57	X
	Add GST on "X" (multiplying factor 0.1405)				2461.36	
	TOTAL				19979.93	Y
	Add 15% CPOH on "Y"				2996.99	
	TOTAL				22976.92	Z
	Add Cess @ 1% on "Z"				229.77	
	Cost for 100 metres				23206.69	
	Cost for 1 metre				232.07	
	Say				232.05	

22.4.3 Kickers (320 mm wide, 5 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
7429	Kickers	metre	100.00	160.00	16000.00
	LABOUR				
0114	Beldar	day	2.00	645.00	1290.00
9999	Sundries & wire etc.	L.S.	26.00	2.12	55.12
	TOTAL				17345.12 W
	Add 1 % Water charges on "W"				173.45
	TOTAL				17518.57 X
	Add GST on "X" (multiplying factor 0.1405)				2461.36
	TOTAL				19979.93 Y
	Add 15% CPOH on "Y"				2996.99
	TOTAL				22976.92 Z
	Add Cess @ 1% on "Z"				229.77
	Cost for 100 metres				23206.69
	Cost for 1 metre				232.07
	Say				232.05

22.5 Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying :
(a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours.
(b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.
The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	Cement 10x(0.488+0.242) = 7.30 kg				
	Sealing fillets 10x0.5 kg / sqm = 5.00 kg				
	Total = 12.30 kg = 0.012 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.012	5000.00	60.00
2209	Carriage of Cement	tonne	0.012	145.72	1.75
	Bonding material 1.6 kgx30x2 = 96 kg				
	Bitumen (blown/residual type) 10x(0.25+0.126) = 3.79 kg				
	Sealing fillets 10x0.10 kg / sqm = 1.00 kg				
	Wastage @ 5% on 4.79 kg = 0.24 kg				
	Total = 5.03 kg Say 5.00 kg				
8501	Polymer modified cementation coating	kilogram	5.00	160.00	800.00
	LABOUR				
0155	Mason (average)	day	2.00	749.00	1498.00
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.25	714.00	178.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, brushes etc	L.S.	15.60	2.12	33.07
	TOTAL				3861.32 W
	Add 1 % Water charges on "W"				38.61
	TOTAL				3899.93 X
	Add GST on "X" (multiplying factor 0.1405)				547.94
	TOTAL				4447.87 Y
	Add 15% CPOH on "Y"				667.18
	TOTAL				5115.06 Z
	Add Cess @ 1% on "Z"				51.15
	Cost for 10 sqm				5166.21
	Cost for 1 sqm				516.62
	Say				516.60

22.6 Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:
(a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm.
(b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm.
(c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around.
(d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately.
For the purpose of measurement the entire treated surface will be measured.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL				
	Cement 10x(1.289+0.488) = 17.77 kg				
	Sealing fillets @ 10% = 1.77 kg				
	Total = 19.54kg = 0.020 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.02	5000.00	100.00
2209	Carriage of Cement	tonne	0.02	145.72	2.91
	Bonding material 1.6 kgx30x2 = 96 kg				
	Bitumen (blown/residual type)				
	10x(0.253+0.67) = 9.23 kg				
	Wastage @ 5% = 0.46 kg				
	Total = 9.69 kg				
8501	Polymer modified cementation coating	kilogram	9.69	160.00	1550.40
	Fibre Glass cloth = 10.00 sqm				
	Wastage @ 10 % = 1.00 sqm				
	Total = 11.00 sqm				
8502	Fibre glass cloth	sqm	11.00	32.00	352.00
	LABOUR				
0155	Mason (average)	day	2.00	749.00	1498.00
0114	Beldar	day	1.00	645.00	645.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.25	714.00	178.50
9999	Sundries, brushes etc	L.S.	23.40	2.12	49.61
	TOTAL				4376.42 W
	Add 1 % Water charges on "W"				43.76
	TOTAL				4420.19 X
	Add GST on "X" (multiplying factor 0.1405)				621.04
	TOTAL				5041.22 Y
	Add 15% CPOH on "Y"				756.18
	TOTAL				5797.41 Z
	Add Cess @ 1% on "Z"				57.97
	Cost for 10 sqm				5855.38
	Cost for 1 sqm				585.54
	Say				585.55

22.7 Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations:

(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.

(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.

(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge.

(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.

(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test.“All above operations to be done in order and as directed and specified by the Engineer-in-Charge :

22.7.1 With average thickness of 120 mm and minimum thickness at khurra as 65 mm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 10 sqm					
	i) Cement slury					
0367	Portland Cement (OPC-43 grade)	tonne	0.0275	5000.00	137.50	
	ii) Cement mortar 1:5 (1 cement: 5 coarsesand)					
3.10	Rate as per Item No.3.10 of SH:Mortars	cum	0.224	3995.00	894.88	
	iii) Roof treatment with brick bat and cement mortar					
	MATERIAL					
0285	Brick Aggregate (Single size) : 63 mm	cum	0.94	650.00	611.00	
2260	Carriage of Brick aggregate	cum	0.94	178.19	167.50	
	Cement mortar 1:5					
3.10	Rate as per Item No.3.10 of SH:Mortars	cum	0.50	3995.00	1997.50	
	LABOUR					
0114	Beldar	day	1.75	645.00	1128.75	
0101	Bhisti	day	0.28	714.00	199.92	
0123	Mason (brick layer) 1st class	day	0.05	784.00	39.20	
0124	Mason (brick layer) 2nd class	day	0.05	714.00	35.70	
0128	Mate	day	0.04	714.00	28.56	
	Extra labour for ramming					
0114	Beldar	day	0.25	645.00	161.25	
9999	Sundries	L.S.	13.65	2.12	28.94	
	iv) Cement slury					
0367	Portland Cement (OPC-43 grade)	tonne	0.0275	5000.00	137.50	
0114	Beldar	day	0.20	645.00	129.00	
	v) 20 mm cement plaster 1:4 (1 cement : 4 coarse sand)					
13.6.1	Rate as per item no 13.6.1 of SH : Finishing	sqm	10.00	421.40	4214.00	A
	vi) Water proofing compound					
	vi) Water proofing compound 27.50+27.50+69.40+124.00 = 248.40 kg @ 1 kg per bag of cement					
1213	Water proofing materials	kilogram	5.00	35.00	175.00	
	Extra for making chequers for 10 sqm					
7233	Fibre glass tissue reinforcement Type II Grade I	sqm	10.50	75.00	787.50	
0124	Mason (brick layer) 2nd class	day	0.36	714.00	257.04	
0114	Beldar	day	0.36	645.00	232.20	
9999	Chequer plate	L.S.	13.65	2.12	28.94	
	Add labour for laying 20 mm bed mortar					
0124	Mason (brick layer) 2nd class	day	0.54	714.00	385.56	
0114	Beldar	day	0.54	645.00	348.30	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.45	714.00	321.30
	TOTAL				12447.03 W
	Add 1 % Water charges on "W-A"				82.33
	TOTAL				12529.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				1168.31
	TOTAL				13697.67 Y
	Add 15% CPOH on "Y-A"				1422.55
	TOTAL				15120.22 Z
	Add Cess @ 1% on "Z-A"				109.06
	Cost for 10 sqm				15229.29
	Cost for one sqm				1522.93
	Say				1522.95

22.8 Providing and laying four courses water proofing treatment with bitumen felt over roofs consisting of first and third courses of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45 Kg per square metre of area for each course, second course of roofing felt type 3 grade-I (hessian based self finished bitumen felt) and fourth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per square metre, including preparation of surface but excluding grading complete with :

22.8.1 Bitumen felt (hessian base) type 3 grade I conforming to IS : 1322

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 sqm				
	Blown or / and residual bitumen applied hot = 2x1.45x30 = 87 kg				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.087	34790.00	3026.73
	Hession felt type 3 Grade I (hessian base self finished bitumen felt) = 30sqm + Add for over lapping @ 10% = 3 sqm. Total = 33 Sqm				
0322	Bitumen felt :Type 3 grade 1	sqm	33.00	70.00	2310.00
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180 cudm	cum	0.18	800.00	144.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	163.93	29.51
2211	Carriage of Tar bitumen 0.087tx2.7x.001x33=0.162t	tonne	0.162	163.93	26.56
0370	Coal (steam) = 2 quintals/t of bitumen i.e. 2x0.087 =0.174q	quintal	0.174	440.00	76.56
2200	Carriage of steam coal	tonne	0.0174	187.35	3.26
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.55	2.12	285.25
	LABOUR				
0131	Painter	day	2.16	714.00	1542.24
0114	Beldar	day	3.24	645.00	2089.80
0130	Mistry	day	0.18	784.00	141.12

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33
	TOTAL				9689.35 W
	Add 1 % Water charges on "W"				96.89
	TOTAL				9786.24 X
	Add GST on "X" (multiplying factor 0.1405)				1374.97
	TOTAL				11161.21 Y
	Add 15% CPOH on "Y"				1674.18
	TOTAL				12835.39 Z
	Add Cess @ 1% on "Z"				128.35
	Cost of 30.00 Sqm.				12963.75
	Cost of 1.00 Sqm.				432.12
	Say				432.10

22.9 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth course of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45, 1.20 and 1.45 Kg per square metre of area respectively, second and fourth courses of roofing felt type 3 grade I conforming to IS : 1322 (Hessian based self finished bitumen felt) , sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot (1.45+1.20+1.45)x30=123kg				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.123	34790.00	4279.17
	Bitumen felt Type 3 grade 1 (hessian base self finished bitumen felt) = 60 sqm.+ Add for over lapping @ 10% = 6 sqm. Total =66 Sqm				
0322	Bitumen felt :Type 3 grade 1	sqm	66.00	70.00	4620.00
2211	Carriage of Tar bitumen 0.123t+2.7x.001x66=0.273t	tonne	0.273	163.93	44.75
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm	cum	0.18	800.00	144.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	163.93	29.51
0370	Coal (steam) = 2 quintals/t of bitumen i.e. 2x0.123 =0.246q	quintal	0.246	440.00	108.24
2200	Carriage of steam coal	tonne	0.0246	187.35	4.61
9999	Praparing roof surface, sutting groove and making good etc. LABOUR	L.S.	134.55	2.12	285.25
0131	Painter	day	3.24	714.00	2313.36
0114	Beldar	day	4.86	645.00	3134.70
0130	Mistry	day	0.2	784.00	156.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33
	TOTAL				15134.72 W
	Add 1 % Water charges on "W"				151.35
	TOTAL				15286.06 X
	Add GST on "X" (multiplying factor 0.1405)				2147.69
	TOTAL				17433.76 Y
	Add 15% CPOH on "Y"				2615.06
	TOTAL				20048.82 Z
	Add Cess @ 1% on "Z"				200.49
	Cost of 30.00 Sqm.				20249.31
	Cost of 1.00 Sqm.				674.98
	Say				675.00

22.10 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade I (fibre base self finished bitumen felt) six and final courses of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface, excluding grading, compete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 sqm				
	Blown bitumen applied hot (1.45+1.20+1.70)x30 = 130.5 kg.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.1305	34790.00	4540.10
	Bitumen felt type B grade I (fibre base self finished bitumen felt) = 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 Sqm				
0318	Bitumen felt fibre base (vegetable or animal):Type 2 grade 1	sqm	66.00	70.00	4620.00
2211	Carriage of Tar bitumen (0.131 t+2.22x.001x66 = 0.275t)	tonne	0.275	163.93	45.08
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm	cum	0.18	800.00	144.00
	CARRIAGE:				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	163.93	29.51
	Fuel (Steam coal) = 2 quintals/t of bitumen i.e. 0.1305=0.261q				
0370	Coal (steam)	quintal	0.261	440.00	114.84
2200	Carriage of steam coal	tonne	0.0261	187.35	4.89
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.55	2.12	285.25
	LABOUR				
0131	Painter	day	4.32	714.00	3084.48
0114	Beldar	day	6.48	645.00	4179.60
0130	Mistry	day	0.36	784.00	282.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33
	TOTAL				17344.31 W
	Add 1 % Water charges on "W"				173.44
	TOTAL				17517.75 X
	Add GST on "X" (multiplying factor 0.1405)				2461.24
	TOTAL				19979.00 Y
	Add 15% CPOH on "Y"				2996.85
	TOTAL				22975.85 Z
	Add Cess @ 1% on "Z"				229.76
	Cost of 30.00 Sqm.				23205.61
	Cost of 1.00 Sqm.				773.52
	Say				773.50

22.11 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade II (glass fibre base self finished bitumen felt) and sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 30 sqm				
	Blown or / and residual bitumen applied hot (1.45+1.20+1.70)x30 =130.5 kg.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.1305	34790.00	4540.10
	Bitumen felt as per IS 7193 Grade II (fibre base self finished bitumen felt) = 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 Sqm				
0318	Bitumen felt fibre base (vegetable or animal):As per IS 7193 Grade I	sqm	66.00	70.00	4620.00
2211	Carriage of Tar bitumen (0.131t+3.08x.001x66=334t.)	tonne	0.334	163.93	54.75
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm	cum	0.18	800.00	144.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	163.93	29.51
	Fuel (Steam coal) = 2 quintals/t of bitumen i.e. 2x0.1305=0.261q				
0370	Coal (steam)	quintal	0.261	440.00	114.84
2200	Carriage of steam coal	tonne	0.0261	187.35	4.89
9999	Praparing roof surface, sutting groove and making good etc.	L.S.	134.55	2.12	285.25
	LABOUR				
0131	Painter	day	4.32	714.00	3084.48
0114	Beldar	day	6.48	645.00	4179.60
0130	Mistry	day	0.36	784.00	282.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, brushes etc.	L.S.	6.76	2.12	14.33
	TOTAL				17353.98 W
	Add 1 % Water charges on "W"				173.54
	TOTAL				17527.52 X
	Add GST on "X" (multiplying factor 0.1405)				2462.62
	TOTAL				19990.14 Y
	Add 15% CPOH on "Y"				2998.52
	TOTAL				22988.66 Z
	Add Cess @ 1% on "Z"				229.89
	Cost of 30.00 Sqm.				23218.55
	Cost of 1.00 Sqm.				773.95
	Say				773.95

22.12 Supplying and applying bituminous solution primer on roof and / or wall surface at 0.24 litre per sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sq. metres				
	MATERIAL				
0316	Bitumen solution primer of approved quality	litre	2.40	47.00	112.80
9977	CARRIAGE	L.S.	1.43	2.12	3.03
	LABOUR				
0131	Painter	day	0.17	714.00	121.38
0114	Beldar	day	0.17	645.00	109.65
9999	Sundries brushes etc.	L.S.	13.52	2.12	28.66
	TOTAL				375.52 W
	Add 1 % Water charges on "W"				3.76
	TOTAL				379.28 X
	Add GST on "X" (multiplying factor 0.1405)				53.29
	TOTAL				432.57 Y
	Add 15% CPOH on "Y"				64.89
	TOTAL				497.45 Z
	Add Cess @ 1% on "Z"				4.97
	Cost of 10.00 Sqm.				502.43
	Cost of 1.00 Sqm.				50.24
	Say				50.25

22.13 Deduct for omitting in water proofing treatment final course of spreading stone grit 6 mm down size or pea sized gravel :

22.13.1 at 6 cudm per sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
1177	Stone grit 6 mm and down size or pea sized gravel 6x10 = 60 cudm	cum	0.06	800.00	48.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.06	163.93	9.84
9999	Labour for screening and spreading grit	L.S.	21.58	2.12	45.75
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				117.92 W
	Add 1 % Water charges on "W"				1.18
	TOTAL				119.10 X
	Add GST on "X" (multiplying factor 0.1405)				16.73
	TOTAL				135.83 Y
	Add 15% CPOH on "Y"				20.37
	TOTAL				156.20 Z
	Add Cess @ 1% on "Z"				1.56
	Cost of 10.00 Sqm.				157.77
	Cost of 1.00 Sqm.				15.78
	Say				15.80

22.13.2 at 8 cudm per sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
1177	Stone grit 8 mm and down size or pea sized gravel 8x10 = 80 cudm	cum	0.08	800.00	64.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.08	163.93	13.11
9999	Labour for screening and spreading grit	L.S.	26.91	2.12	57.05
9999	Sundries	L.S.	6.76	2.12	14.33
	TOTAL				148.49 W
	Add 1 % Water charges on "W"				1.48
	TOTAL				149.98 X
	Add GST on "X" (multiplying factor 0.1405)				21.07
	TOTAL				171.05 Y
	Add 15% CPOH on "Y"				25.66
	TOTAL				196.71 Z
	Add Cess @ 1% on "Z"				1.97
	Cost of 10.00 Sqm.				198.68
	Cost of 1.00 Sqm.				19.87
	Say				19.85

22.14 Grading roof for water proofing treatment with
22.14.1 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cum.				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.67	1400.00	938.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0297	Stone Aggregate (Single size) :				
	10 mm nominal size	cum	0.22	1350.00	297.00
2202	Carriage of Stone aggregate below				
	40 mm nominal size	cum	0.89	163.93	145.90
0982	Coarse sand (zone III)	cum	0.45	1500.00	675.00
2203	Carriage of Coarse sand	cum	0.45	163.93	73.77
0367	Portland Cement (OPC-43 grade)	tonne	0.32	5000.00	1600.00
2209	Carriage of Cement	tonne	0.32	145.72	46.63
	LABOUR				
0114	Beldar	day	1.63	645.00	1051.35
0101	Bhisti	day	0.70	714.00	499.80
0123	Mason (brick layer) 1st class	day	0.10	784.00	78.40
9999	Sundries, brushes etc.	L.S.	14.30	2.12	30.32
0002	Hire charges of Concrete Mixer 0.25 to				
	0.40 cum with hooper	day	0.07	800.00	56.00
0012	Vibrator (Needle type 40 mm)	day	0.07	350.00	24.50
9999	Sundries for laying in terrace	L.S.	45.76	2.12	97.01
	TOTAL				5613.67 W
	Add 1 % Water charges on "W"				56.14
	TOTAL				5669.81 X
	Add GST on "X" (multiplying				
	factor 0.1405)				796.61
	TOTAL				6466.42 Y
	Add 15% CPOH on "Y"				969.96
	TOTAL				7436.38 Z
	Add Cess @ 1% on "Z"				74.36
	Cost of one cum				7510.75
	Say				7510.75

22.14.2 Cement mortar 1:3 (1 cement : 3 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cum.				
	MATERIAL				
	Cement mortar 1:3				
3.8	Rate as per Item No.3.8 of SH:Mortars	cum	1.00	5024.15	5024.15
	LABOUR				
0155	Mason (average)	day	1.00	749.00	749.00
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.50	714.00	357.00
0115	Coolie	day	5.00	645.00	3225.00
9999	Sundries	L.S.	11.70	2.12	24.80
	TOTAL				10669.95 W
	Add 1 % Water charges on "W"				106.70
	TOTAL				10776.65 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1514.12
	TOTAL				12290.77 Y
	Add 15% CPOH on "Y"				1843.62
	TOTAL				14134.39 Z
	Add Cess @ 1% on "Z"				141.34
	Cost of one cum				14275.73
	Say				14275.75

22.14.3 Cement mortar 1:4 (1cement : 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one cum.				
	MATERIAL				
	Cement mortar 1:4				
3.9	Rate as per Item Number 3.9 of				
	SH: Mortars	cum	1.00	4355.20	4355.20
	LABOUR				
0155	Mason (average)	day	1.00	749.00	749.00
0114	Beldar	day	2.00	645.00	1290.00
0101	Bhisti	day	0.50	714.00	357.00
0115	Coolie	day	5.00	645.00	3225.00
9999	Sundries	L.S.	10.79	2.12	22.87
	TOTAL				9999.07 W
	Add 1 % Water charges on "W"				99.99
	TOTAL				10099.07 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1418.92
	TOTAL				11517.98 Y
	Add 15% CPOH on "Y"				1727.70
	TOTAL				13245.68 Z
	Add Cess @ 1% on "Z"				132.46
	Cost of one cum				13378.14
	Say				13378.15

22.22 Providing and mixing integral crystalline admixture for water proofing treatment to RCC structures like basement raft, retaining walls, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc. at the time of transporting of concrete into the drum of the ready-mix truck , using integral crystalline admixture @0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer's specification in reinforced cement concrete at site of work. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 90%, compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure. The crystalline admixture shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 kg				
	MATERIAL :				
0352	Integral crystalline admixture	kg	1.00	230.00	230.00
	LABOUR :				
9999	For measuring, making and mixing etc..	L.S.	5.80	2.12	12.30
9999	Sundries	L.S.	1.15	2.12	2.44

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				248.44 W
	Add 1 % Water charges on "W"				2.48
	TOTAL				250.93 X
	Add GST on "X" (multiplying factor 0.1405)				35.26
	TOTAL				286.18 Y
	Add 15% CPOH on "Y"				42.93
	TOTAL				329.11 Z
	Add Cess @ 1% on "Z"				3.29
	Cost for 1.00 Kg				332.40
	Say				332.40

22.22A Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	MATERIAL				
8511	Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre	litre	11.30	230.00	2599.00
9977	Carriage of materials	L.S.	1.43	2.12	3.03
	LABOUR				
0115	Coolie	day	0.67	645.00	432.15
0131	Painter	day	0.67	714.00	478.38
9999	Wire brush brushes, rollers etc.	L.S.	6.76	2.12	14.33
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				3543.98 W
	Add 1 % Water charges on "W"				35.44
	TOTAL				3579.42 X
	Add GST on "X" (multiplying factor 0.1405)				502.91
	TOTAL				4082.33 Y
	Add 15% CPOH on "Y"				612.35
	TOTAL				4694.68 Z
	Add Cess @ 1% on "Z"				46.95
	Cost of 10 sqm				4741.62
	Cost of 1 sqm				474.16
	Say				474.15

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

22.23.1 For vertical surface two coats @ 0.70 kg per sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 sqm				
	MATERIAL :				
0351	Integral crystalline slurry	kg	1.40	195.00	273.00
	(2 x .70kg / sq.mtr. = 1.40kg)				
	LABOUR				
9999	For application of waterproofing material	L.S.	11.55	2.12	24.49
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				303.63 W
	Add 1 % Water charges on "W"				3.04
	TOTAL				306.67 X
	Add GST on "X" (multiplying				
	factor 0.1405)				43.09
	TOTAL				349.76 Y
	Add 15% CPOH on "Y"				52.46
	TOTAL				402.22 Z
	Add Cess @ 1% on "Z"				4.02
	Cost for 1.00 sqm				406.24
	Say				406.25

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 sqm				
	MATERIAL :				
0351	Integral crystalline slurry	kilogram	1.10	195.00	214.50
	(1 x 1.10kg / sq.mtr. = 1.10kg)				
	LABOUR :				
9999	For application of waterproofing material	L.S.	5.75	2.12	12.19
9999	Sundries	L.S.	1.15	2.12	2.44

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				232.84 W
	Add 1 % Water charges on "W"				2.33
	TOTAL				235.17 X
	Add GST on "X" (multiplying factor 0.1405)				33.04
	TOTAL				268.21 Y
	Add 15% CPOH on "Y"				40.23
	TOTAL				308.44 Z
	Add Cess @ 1% on "Z"				3.08
	Cost for 1.00 sqm				311.52
	Say				311.50

22.23A Providing & Applying polymer modified, flexible cementatious negative side waterproofing coating with elastic waterproofing polymers on interior wall plaster surface in three coats @14.35 kg /10 sqm. one coat of self priming of cementatious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementatious waterproofing polymer (dilution with water in the ratio of 3:1) after scrapping and properly cleaning the surface to remove pre-existing paint film & loose particles till plaster is visible, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	MATERIAL				
8512	Cementitious water proofing coating with elastic polymers 14.35 kg + 0.72 (Add wastage 5%) = 15.07 litre	kg	15.07	225.00	3390.75
9977	Carriage of materials	L.S.	1.56	2.12	3.31
	LABOUR				
0115	Coolie	day	0.23	645.00	148.35
0131	Painter	day	0.46	714.00	328.44
9999	Wire brush brushes, rollers etc.	L.S.	7.15	2.12	15.16
9999	Sundries	L.S.	8.06	2.12	17.09
	TOTAL				3903.09 W
	Add 1 % Water charges on "W"				39.03
	TOTAL				3942.12 X
	Add GST on "X" (multiplying factor 0.1405)				553.87
	TOTAL				4495.99 Y
	Add 15% CPOH on "Y"				674.40
	TOTAL				5170.39 Z
	Add Cess @ 1% on "Z"				51.70
	Cost of 10 sqm				5222.09
	Cost of 1 sqm				522.21
	Say				522.20

22.24 Providing and applying integral crystalline (dry shake) of hydrophilic in nature for waterproofing treatment to the RCC structures like basement raft, foundation slab, sewage & water treatment plant slab, warehouses floor, parking structures and water tank base slab etc. sprinkled @0.60kg per sqm or higher as recommended by the manufacturer's specification over the lean concrete of above cited structures. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 85%, compared control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline dry-shake shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 sqm				
	MATERIAL :				
0354	Integral crystalline dry shake	kilogram	0.60	280.00	168.00
	LABOUR				
9999	For measuring and sprinkling of waterproofing material	L.S.	11.55	2.12	24.49
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				198.63 W
	Add 1 % Water charges on "W"				1.99
	TOTAL				200.62 X
	Add GST on "X" (multiplying factor 0.1405)				28.19
	TOTAL				228.81 Y
	Add 15% CPOH on "Y"				34.32
	TOTAL				263.13 Z
	Add Cess @ 1% on "Z"				2.63
	Cost for 1.00 sqm				265.76
	Say				265.75

22.24A Providing & Applying high quality acrylic modified resin based texture of Dholpur/Red sand stone Pattern with anti algae and UV resistance properties to be applied as intermediate finish in desired pattern @ 43.04 kgs/10 sqm to form film of 1- 1.5 mm thickness after scrapping and properly cleaning the surface to remove loose particles from the plaster surface, followed by top coating with Premium Acrylic Smooth exterior paint with Silicone additives of required shade by two or more coats @ 1.43 litres/10 sqm, complete as the direction of Engineer -in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	MATERIAL				
8513	Acrylic modified resin based texture 43.04 kg + 2.15 (Add wastage 5%) = 45.19 kg	kg	45.19	42.00	1897.98

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Quantity taken for cost using once = 10 sqm				
	Top coat with premium acrylic exterior paint (two or more coats)				
13.112.1	Rate as per Item No.13.112.1 of SH:Finishing	sqm	10.00	108.60	1086.00 A
9977	Carriage of materials	L.S.	3.90	2.12	8.27
	LABOUR				
0115	Coolie	day	0.56	645.00	361.20
0123	Mason (brick layer) 1st class	day	0.56	784.00	439.04
9999	Sundries and scaffolding	L.S.	40.00	2.12	84.80
	TOTAL				3877.29 W
	Add 1 % Water charges on "W-A"				27.91
	TOTAL				3905.20 X
	Add GST on "X-A" (multiplying factor 0.1405)				396.10
	TOTAL				4301.30 Y
	Add 15% CPOH on "Y-A"				482.29
	TOTAL				4783.59 Z
	Add Cess @ 1% on "Z-A"				36.98
	Cost of 10 sqm				4820.57
	Cost of 1 sqm				482.06
	Say				482.05

22.25 Providing and applying crystalline mortar by mixing in the ratio of 4.5 : 1 (4.5 parts crystalline mortar : 1 part water) for the treatment of faulty construction joints, cracks, tie rod holes and spalled & honeycombed surface of RCC underground structures like basement, water tanks, bridge deck etc. to ensure water tightness. The crystallie mortar shall conform to the EN 1504-3 having compressive strength Class R4 ?45 MPa and adhesive bond strength Class R3 ?1.5 MPa. The work shall be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.

22.25.1 For sealing cracks and faulty construction joints, routed out/making U-shape groove size 25x25mm and then primed the area with integral crystalline slurry @0.05kg/running metre and while the surface is tacky filled the groove upto surface with crystalline mortar @1.50kg/running metre. Once crystalline mortar is touch dry then finally applied two coats of integral crystalline slurry @0.05kg/running metre per coat.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 meter				
	MATERIAL :				
0353	Crystalline Mortar @1.50 kg per meter	kilogram	1.50	190.00	285.00
0351	Integral crystalline slurry for priming and finishing (3 x 0.05kg / meter) = 0.15kg	kilogram	0.150	195.00	29.25
	LABOUR				
9999	For making crystalline mortar and repair work etc..	L.S.	14.450	2.12	30.63
9999	Sundries	L.S.	1.150	2.12	2.44

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Carriage of material and tools cost etc..	L.S.	1.750	2.12	3.71
	TOTAL				351.03 W
	Add 1 % Water charges on "W"				3.51
	TOTAL				354.54 X
	Add GST on "X" (multiplying factor 0.1405)				49.81
	TOTAL				404.36 Y
	Add 15% CPOH on "Y"				60.65
	TOTAL				465.01 Z
	Add Cess @ 1% on "Z"				4.65
	Cost for 1.00 meter				469.66
	Say				469.65

22.25.2 For patching of tie rod holes, prepared tie rod hole surface and then primed the area with integral crystalline slurry @0.070kg/sqm and while the surface is tacky repair and then filled the tie rod holes with crystalline mortar@0.040kg per hole. The crystalline mortar should be tightly rodded into tie rod holes or packed tightly (For 25x25x25 mm tie rod hole, use 0.040kg to fill the hole)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 no. hole				
	MATERIAL :				
0353	Crystalline mortar@0.040 kg per hole	kilogram	0.04	190.00	7.60
	LABOUR				
9999	For making crystalline mortar and repair work etc..	L.S.	2.90	2.12	6.15
9999	Sundries	L.S.	0.30	2.12	0.64
9999	Carriage of material and tools cost etc..	L.S.	0.25	2.12	0.53
	TOTAL				14.91 W
	Add 1 % Water charges on "W"				0.15
	TOTAL				15.06 X
	Add GST on "X" (multiplying factor 0.1405)				2.12
	TOTAL				17.18 Y
	Add 15% CPOH on "Y"				2.58
	TOTAL				19.76 Z
	Add Cess @ 1% on "Z"				0.20
	Cost for each hole				19.95
	Say				19.95

22.26 Providing and applying of swellable type water stop tape, 19mm x 25mm thick in linear meter (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running meter. Over the primed surface swellable type water stop tape shall be placed. The work shall

be carried out all complete as per specification and the direction of the Engineer-In-Charge. The product performance shall carry guarantee for 10 years against any leakage.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 meter				
	MATERIAL :				
0355	Swellable type water stop tape				
	(Crystalline sealing compound)	metre	1.00	325.00	325.00
0356	Swellable type water stop primer	Litre	0.016	1300.00	20.80
	(@3.78 litre per 240 running meter)				
	LABOUR				
9999	For application of primer and swellable				
	water stop	L.S.	8.65	2.12	18.34
9999	Sundries	L.S.	1.15	2.12	2.44
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.12	3.71
	TOTAL				370.29 W
	Add 1 % Water charges on "W"				3.70
	TOTAL				373.99 X
	Add GST on "X" (multiplying				
	factor 0.1405)				52.55
	TOTAL				426.53 Y
	Add 15% CPOH on "Y"				63.98
	TOTAL				490.51 Z
	Add Cess @ 1% on "Z"				4.91
	Cost for 1.00 metre				495.42
	Say				495.40

SUB HEAD : 23.0

RAIN WATER HARVESTING & TUBEWELLS

2001

23.1 Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge, upto 90 metre depth below ground level.

23.1.1 All types of soil

23.1.1.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 35 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.00	7000.00	7000.00
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	645.00	1290.00
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				15487.68 W
	Add 1 % Water charges on "W"				154.88
	TOTAL				15642.56 X
	Add GST on "X" (multiplying factor 0.1405)				2197.78
	TOTAL				17840.34 Y
	Add 15% CPOH on "Y"				2676.05
	TOTAL				20516.39 Z
	Add Cess @ 1% on "Z"				205.16
	Cost for 35 metre				20721.56
	Cost of 1 metre				592.04
	Say				592.05

23.1.1.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 32 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.00	7000.00	7000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	645.00	1290.00
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				15487.68 W
	Add 1 % Water charges on "W"				154.88
	TOTAL				15642.56 X
	Add GST on "X" (multiplying factor 0.1405)				2197.78
	TOTAL				17840.34 Y
	Add 15% CPOH on "Y"				2676.05
	TOTAL				20516.39 Z
	Add Cess @ 1% on "Z"				205.16
	Cost for 32 metre				20721.56
	Cost of 1 metre				647.55
	Say				647.55

23.1.1.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 25 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.00	7000.00	7000.00
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	645.00	1290.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				15487.68 W
	Add 1 % Water charges on "W"				154.88
	TOTAL				15642.56 X
	Add GST on "X" (multiplying factor 0.1405)				2197.78
	TOTAL				17840.34 Y
	Add 15% CPOH on "Y"				2676.05
	TOTAL				20516.39 Z
	Add Cess @ 1% on "Z"				205.16
	Cost for 25 metre				20721.56
	Cost of 1 metre				828.86
	Say				828.85

23.1.2 Rocky strata including Boulders
23.1.2.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 16 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	6.00	80.87	485.22
	Extra diesel required for boring in rocky strata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	0.75	645.00	483.75
0114	Beldar	day	3.00	645.00	1935.00
0103	Blacksmith 2nd class	day	0.75	714.00	535.50
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				16937.15 W
	Add 1 % Water charges on "W"				169.37
	TOTAL				17106.53 X
	Add GST on "X" (multiplying factor 0.1405)				2403.47
	TOTAL				19509.99 Y
	Add 15% CPOH on "Y"				2926.50
	TOTAL				22436.49 Z
	Add Cess @ 1% on "Z"				224.36
	Cost for 16 metre				22660.86
	Cost of 1 metre				1416.30
	Say				1416.30

23.1.2.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 16 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	8.00	80.87	646.96
	Extra diesel required for boring in rockystrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator &security				
0134	Rock Hole Driller	day	1.00	645.00	645.00
0114	Beldar	day	4.00	645.00	2580.00
0103	Blacksmith 2nd class	day	0.75	714.00	535.50
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				17905.14 W
	Add 1 % Water charges on "W"				179.05
	TOTAL				18084.20 X
	Add GST on "X" (multiplying factor 0.1405)				2540.83
	TOTAL				20625.02 Y
	Add 15% CPOH on "Y"				3093.75
	TOTAL				23718.78 Z
	Add Cess @ 1% on "Z"				237.19
	Cost for 16 metre				23955.97
	Cost of 1 metre				1497.25
	Say				1497.25

23.1.2.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 16 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	16.00	80.87	1293.92
	Extra diesel required for boring in rockystrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2x30)/140				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	1.20	645.00	774.00
0114	Beldar	day	8.00	645.00	5160.00
0103	Blacksmith 2nd class	day	0.75	714.00	535.50
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				21261.10 W
	Add 1 % Water charges on "W"				212.61
	TOTAL				21473.72 X
	Add GST on "X" (multiplying factor 0.1405)				3017.06
	TOTAL				24490.77 Y
	Add 15% CPOH on "Y"				3673.62
	TOTAL				28164.39 Z
	Add Cess @ 1% on "Z"				281.64
	Cost for 16 metre				28446.03
	Cost of 1 metre				1777.88
	Say				1777.90

23.2 Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre & upto 150 metre depth below ground level.

23.2.1 All types of soil

23.2.1.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.00	7000.00	7000.00
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	645.00	1290.00
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				15487.68 W
	Add 1 % Water charges on "W"				154.88
	TOTAL				15642.56 X
	Add GST on "X" (multiplying factor 0.1405)				2197.78
	TOTAL				17840.34 Y
	Add 15% CPOH on "Y"				2676.05
	TOTAL				20516.39 Z
	Add Cess @ 1% on "Z"				205.16
	Cost for 30 metre				20721.56
	Cost of 1 metre				690.72
	Say				690.70

23.2.1.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 27 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.00	7000.00	7000.00
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	645.00	1290.00
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				15487.68 W
	Add 1 % Water charges on "W"				154.88
	TOTAL				15642.56 X
	Add GST on "X" (multiplying factor 0.1405)				2197.78
	TOTAL				17840.34 Y
	Add 15% CPOH on "Y"				2676.05
	TOTAL				20516.39 Z
	Add Cess @ 1% on "Z"				205.16
	Cost for 27 metre				20721.56
	Cost of 1 metre				767.47
	Say				767.45

23.2.1.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	1.00	7000.00	7000.00
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	645.00	1290.00
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				15487.68 W
	Add 1 % Water charges on "W"				154.88
	TOTAL				15642.56 X
	Add GST on "X" (multiplying factor 0.1405)				2197.78
	TOTAL				17840.34 Y
	Add 15% CPOH on "Y"				2676.05
	TOTAL				20516.39 Z
	Add Cess @ 1% on "Z"				205.16
	Cost for 20 metre				20721.56
	Cost of 1 metre				1036.08
	Say				1036.10

23.2.2 Rocky strata including Boulders
23.2.2.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 16 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	10.00	80.87	808.70
	Extra diesel required for boring in rockystrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site (assume 140m of bore for one shifting) (2 x30)/140Loading, unloading &Errection charges of drilling Rig Machine				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	1.00	645.00	645.00
0114	Beldar	day	5.00	645.00	3225.00
0103	Blacksmith 2nd class	day	0.70	714.00	499.80
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				18676.18 W
	Add 1 % Water charges on "W"				186.76
	TOTAL				18862.95 X
	Add GST on "X" (multiplying factor 0.1405)				2650.24
	TOTAL				21513.19 Y
	Add 15% CPOH on "Y"				3226.98
	TOTAL				24740.17 Z
	Add Cess @ 1% on "Z"				247.40
	Cost for 16 metre				24987.57
	Cost of 1 metre				1561.72
	Say				1561.70

23.2.2.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 16 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	12.00	80.87	970.44
	Extra diesel required for boring in rockystrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting) (2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	1.00	645.00	645.00
0114	Beldar	day	6.00	645.00	3870.00
0103	Blacksmith 2nd class	day	0.75	714.00	535.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				19518.62 W
	Add 1 % Water charges on "W"				195.19
	TOTAL				19713.81 X
	Add GST on "X" (multiplying factor 0.1405)				2769.79
	TOTAL				22483.60 Y
	Add 15% CPOH on "Y"				3372.54
	TOTAL				25856.14 Z
	Add Cess @ 1% on "Z"				258.56
	Cost for 16 metre				26114.70
	Cost of 1 metre				1632.17
	Say				1632.15

23.2.2.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 14 metre				
	MACHINERY :				
0020	Hydraulic Excavator (3D) with driver and fuel.	day	0.95	7000.00	6650.00
1235	Diesel oil	litre	16.00	80.87	1293.92
	Extra diesel required for boring in rockystrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	3940.00	1688.68
	Transportation charges for to and fro to site				
	(assume 140m of bore for one shifting)				
	(2 x30)/140				
	Loading, unloading &Errection charges of drilling Rig Machine				
	LABOUR				
0114	Beldar	day	4.00	645.00	2580.00
0130	Mistry	day	1.00	784.00	784.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	1500.00	1500.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	1.20	645.00	774.00
0114	Beldar	day	8.00	645.00	5160.00
0103	Blacksmith 2nd class	day	1.00	714.00	714.00
0113	Chowkidar	day	1.00	645.00	645.00
	TOTAL				21789.60 W
	Add 1 % Water charges on "W"				217.90
	TOTAL				22007.50 X
	Add GST on "X" (multiplying factor 0.1405)				3092.05
	TOTAL				25099.55 Y
	Add 15% CPOH on "Y"				3764.93
	TOTAL				28864.49 Z
	Add Cess @ 1% on "Z"				288.64
	Cost for 14 metre				29153.13
	Cost of 1 metre				2082.37
	Say				2082.35

23.3 Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.

23.3.1 100 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 100 metres					
	MATERIAL					
7758	uPVC blind pipe 100 mm dia as per IS: 12818	metre	100.00	405.00	40500.00	
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.50	358.32	179.16	
	Qty = 50 to consider 50% of carriage as per 2321					
	LABOUR					
	for lowering					
0114	Beldar	day	0.50	645.00	322.50	
0115	Coolie	day	0.50	645.00	322.50	
9999	Sundries	L.S.	10.07	2.12	21.35	
	TOTAL				41345.51	W
	Add 1 % Water charges on "W"				413.46	
	TOTAL				41758.96	X
	Add GST on "X" (multiplying factor 0.1405)				5867.13	
	TOTAL				47626.10	Y
	Add 15% CPOH on "Y"				7143.91	
	TOTAL				54770.01	Z
	Add Cess @ 1% on "Z"				547.70	
	Cost of 100 metres				55317.71	
	Cost of 1 metre				553.18	
	Say				553.20	

23.3.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
7745	uPVC blind pipe 150 mm dia as per IS: 12818	metre	100.00	490.00	49000.00
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.50	597.20	298.60
	Qty = 50 to consider 50% of carriage as per 2321				
	LABOUR				
	for lowering				
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.12	21.35
	TOTAL				49964.95 W
	Add 1 % Water charges on "W"				499.65
	TOTAL				50464.60 X
	Add GST on "X" (multiplying factor 0.1405)				7090.28
	TOTAL				57554.87 Y
	Add 15% CPOH on "Y"				8633.23
	TOTAL				66188.10 Z
	Add Cess @ 1% on "Z"				661.88
	Cost of 100 metres				66849.99
	Cost of 1 metre				668.50
	Say				668.50

23.3.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
7746	uPVC blind pipe 200 mm dia as per IS: 12818	metre	100.00	700.00	70000.00
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.50	971.45	485.73
	Qty = 50 to consider 50% of carriage as per 2321				
	LABOUR				
	for lowering				
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.50	645.00	322.50
9999	Sundries	L.S.	10.07	2.12	21.35
	TOTAL				71152.07 W
	Add 1 % Water charges on "W"				711.52
	TOTAL				71863.59 X
	Add GST on "X" (multiplying factor 0.1405)				10096.83
	TOTAL				81960.43 Y
	Add 15% CPOH on "Y"				12294.06
	TOTAL				94254.49 Z
	Add Cess @ 1% on "Z"				942.54
	Cost of 100 metres				95197.04
	Cost of 1 metre				951.97
	Say				951.95

23.4 Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.

23.4.1 100 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
7759	uPVC slotted pipe 100 mm dia as per IS: 12818	metre	100.00	425.00	42500.00
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	0.50	358.32	179.16
	Qty = 50 to consider 50% of carriage as per 2321				
	LABOUR				
	for lowering				
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.50	645.00	322.50
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.12	21.35
	TOTAL				43345.51 W
	Add 1 % Water charges on "W"				433.46
	TOTAL				43778.96 X
	Add GST on "X" (multiplying factor 0.1405)				6150.94
	TOTAL				49929.91 Y
	Add 15% CPOH on "Y"				7489.49
	TOTAL				57419.39 Z
	Add Cess @ 1% on "Z"				574.19
	Cost of 100 metres				57993.59
	Cost of 1 metre				579.94
	Say				579.95

23.4.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
7751	uPVC slotted pipe 150 mm dia as per IS: 12818	metre	100.00	500.00	50000.00
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	0.50	597.20	298.60
	Qty = 50 to consider 50% of carriage as per 2321				
	LABOUR				
	for lowering				
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.50	645.00	322.50
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.12	21.35
	TOTAL				50964.95 W
	Add 1 % Water charges on "W"				509.65
	TOTAL				51474.60 X
	Add GST on "X" (multiplying factor 0.1405)				7232.18
	TOTAL				58706.78 Y
	Add 15% CPOH on "Y"				8806.02
	TOTAL				67512.80 Z
	Add Cess @ 1% on "Z"				675.13
	Cost of 100 metres				68187.92
	Cost of 1 metre				681.88
	Say				681.90

23.4.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
7752	uPVC slotted pipe 200 mm dia as per IS: 12818	metre	100.00	810.00	81000.00
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	0.50	971.45	485.73
	Qty = 50 to consider 50% of carriage as per 2321				
	LABOUR				
	for lowering				
0114	Beldar	day	0.50	645.00	322.50
0115	Coolie	day	0.50	645.00	322.50
9999	Sundries (Adhesive etc.)	L.S.	13.42	2.12	28.45
	TOTAL				82159.18 W
	Add 1 % Water charges on "W"				821.59
	TOTAL				82980.77 X
	Add GST on "X" (multiplying factor 0.1405)				11658.80
	TOTAL				94639.56 Y
	Add 15% CPOH on "Y"				14195.93
	TOTAL				108835.50 Z
	Add Cess @ 1% on "Z"				1088.35
	Cost of 100 metres				109923.85
	Cost of 1 metre				1099.24
	Say				1099.25

23.5 Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
7753	Boulder 50 mm to 200 mm including carriage	cum	1.00	810.00	810.00
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	1.00	2.12	2.12
	TOTAL				973.37 W
	Add 1 % Water charges on "W"				9.73
	TOTAL				983.10 X
	Add GST on "X" (multiplying factor 0.1405)				138.13
	TOTAL				1121.23 Y
	Add 15% CPOH on "Y"				168.18
	TOTAL				1289.41 Z
	Add Cess @ 1% on "Z"				12.89
	Cost of 1 Cum.				1302.31
	Say				1302.30

23.6 Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
7754	Gravel 5 mm to 10 mm including carriage	cum	1.00	815.00	815.00
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	1.00	2.12	2.12
	TOTAL				978.37 W
	Add 1 % Water charges on "W"				9.78
	TOTAL				988.15 X
	Add GST on "X" (multiplying factor 0.1405)				138.84
	TOTAL				1126.99 Y
	Add 15% CPOH on "Y"				169.05
	TOTAL				1296.04 Z
	Add Cess @ 1% on "Z"				12.96
	Cost of 1 Cum.				1309.00
	Say				1309.00

23.7 Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum.				
	MATERIAL				
7755	Gravel 1.5 mm to 2 mm including carriage	cum	1.00	815.00	815.00
	LABOUR				
0114	Beldar	day	0.25	645.00	161.25
9999	Sundries	L.S.	1.00	2.12	2.12
	TOTAL				978.37 W
	Add 1 % Water charges on "W"				9.78
	TOTAL				988.15 X
	Add GST on "X" (multiplying factor 0.1405)				138.84
	TOTAL				1126.99 Y
	Add 15% CPOH on "Y"				169.05
	TOTAL				1296.04 Z
	Add Cess @ 1% on "Z"				12.96
	Cost of 1 Cum.				1309.00
	Say				1309.00

23.8 Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 cum.					
	MATERIAL					
7772	Pea Gravel including carriage	cum	1.00	910.00	910.00	
	LABOUR					
0114	Beldar	day	0.30	645.00	193.50	
9999	Sundries	L.S.	1.00	2.12	2.12	
	TOTAL				1105.62	W
	Add 1 % Water charges on "W"				11.06	
	TOTAL				1116.68	X
	Add GST on "X" (multiplying factor 0.1405)				156.89	
	TOTAL				1273.57	Y
	Add 15% CPOH on "Y"				191.04	
	TOTAL				1464.60	Z
	Add Cess @ 1% on "Z"				14.65	
	Cost of 1 Cum.				1479.25	
	Say				1479.25	

23.9 Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1 No. RCC drain cover					
	MATERIAL					
7762	Precast R.C.C. perforated slab	each	1.00	875.00	875.00	
	LABOUR					
9988	Carriage and fixing charges	L.S.	15.00	2.12	31.80	
	TOTAL				906.80	W
	Add 1 % Water charges on "W"				9.07	
	TOTAL				915.87	X
	Add GST on "X" (multiplying factor 0.1405)				128.68	
	TOTAL				1044.55	Y
	Add 15% CPOH on "Y"				156.68	
	TOTAL				1201.23	Z
	Add Cess @ 1% on "Z"				12.01	
	Cost of 1 No.				1213.24	
	Say				1213.25	

23.10 Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.

23.10.1 100 mm nominal size dia having minimum wall thickness 5.00 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
7757	M.S. pipe 100 mm dia casing pipe	metre	30.00	780.00	23400.00
7764	M.S. socket 100 mm dia	each	5.00	125.00	625.00
2343	Carriage of ductile iron pipes (k7) 100 mm dia including loading and unloading	100 metre	0.30	358.32	107.50
	Painting with anticorrosive Paint 3.14 x.0110x30.00=10.36 sqm.				
13.65.1	Rate as per Item No.13.65.1 of SH: Finishing	sqm	10.36	115.10	1192.44 A
	LABOUR				
0114	Beldar	day	1.35	645.00	870.75
0130	Mistry	day	0.50	784.00	392.00
	TOTAL				26587.68 W
	Add 1 % Water charges on "W-A"				253.95
	TOTAL				26841.63 X
	Add GST on "X-A" (multiplying factor 0.1405)				3603.71
	TOTAL				30445.35 Y
	Add 15% CPOH on "Y-A"				4387.94
	TOTAL				34833.28 Z
	Add Cess @ 1% on "Z-A"				336.41
	Cost for 30 metre				35169.69
	Cost of 1 metre				1172.32
	Say				1172.30

23.10.2 150 mm nominal size dia having minimum wall thickness 5.00 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
7743	M.S. pipe 150 mm dia casing pipe	metre	30.00	1126.00	33780.00
7765	M.S. socket 150 mm dia	each	5.00	205.00	1025.00
2344	Carriage of cast iron pipes 150 mm dia including loading and unloading	100 metre	0.30	597.20	179.16
	Painting with Anticorrosive Paint 3.14 x0.160x30.00=15.07 sqm.				
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	15.07	115.10	1734.56 A
	LABOUR				
0114	Beldar	day	1.40	645.00	903.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0130	Mistry	day	0.50	784.00	392.00
	TOTAL				38013.72 W
	Add 1 % Water charges on "W-A"				362.79
	TOTAL				38376.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				5148.19
	TOTAL				43524.70 Y
	Add 15% CPOH on "Y-A"				6268.52
	TOTAL				49793.22 Z
	Add Cess @ 1% on "Z-A"				480.59
	Cost for 30 metre				50273.81
	Cost of 1 metre				1675.79
	Say				1675.80

23.10.3 200 mm nominal size dia having minimum wall thickness 5.40 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
7744	M.S. pipe 200 mm dia casing pipe	metre	30.00	1400.00	42000.00
7766	M.S. socket 200 mm dia	each	5.00	265.00	1325.00
2345	Carriage of cast iron pipes 200 mm dia including loading and unloading	100 metre	0.30	971.45	291.44
	Painting with anticorrosive Paint 3.14 x0.210x30.00=20.25 sqm.				
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	20.25	115.10	2330.78 A
	LABOUR				
0114	Beldar	day	1.45	645.00	935.25
0130	Mistry	day	0.50	784.00	392.00
	TOTAL				47274.46 W
	Add 1 % Water charges on "W-A"				449.44
	TOTAL				47723.90 X
	Add GST on "X-A" (multiplying factor 0.1405)				6377.73
	TOTAL				54101.63 Y
	Add 15% CPOH on "Y-A"				7765.63
	TOTAL				61867.26 Z
	Add Cess @ 1% on "Z-A"				595.36
	Cost for 30 metre				62462.62
	Cost of 1 metre				2082.09
	Say				2082.10

23.11 Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 plain slotted (having slot of size 1.6/3.2 mm) mild steel threaded and socketed/ plain bevel ended pipe (type A) of required dia, conforming to IS: 8110, of reputed and approved make, having wall thickness not less than 5.40 mm, including painted with outside surface with two coats of anticorrosive bitumestic paint of approved brand and manufacture, including hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer -in-charge.

23.11.1 100 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7757	M.S. pipe 100 mm dia casing pipe	metre	30.00	780.00	23400.00	
7764	M.S. socket 100 mm dia	each	5.00	125.00	625.00	
9999	Sundries	L.S.	906.04	2.12	1920.80	
2343	Carriage of ductile iron pipes (k7) 100 mm dia including loading and unloading	100 metre	0.30	358.32	107.50	
	Painting with anticorrosive Paint 3.14 x.11x30.00=10.36 sqm					
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	10.36	115.10	1192.44	A
	LABOUR					
0114	Beldar	day	1.35	645.00	870.75	
0130	Mistry	day	0.50	784.00	392.00	
	TOTAL				28508.49	W
	Add 1 % Water charges on "W-A"				273.16	
	TOTAL				28781.65	X
	Add GST on "X-A" (multiplying factor 0.1405)				3876.28	
	TOTAL				32657.93	Y
	Add 15% CPOH on "Y-A"				4719.82	
	TOTAL				37377.76	Z
	Add Cess @ 1% on "Z-A"				361.85	
	Cost for 30 metre				37739.61	
	Cost of 1 metre				1257.99	
	Say				1258.00	

23.11.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 30 metre					
	MATERIAL					
7743	M.S. pipe 150 mm dia casing pipe	metre	30.00	1126.00	33780.00	
7765	M.S. socket 150 mm dia	each	5.00	205.00	1025.00	
9999	Extra for making slots	L.S.	1208.05	2.12	2561.07	
2344	Carriage of cast iron pipes 150 mm dia including loading and unloading	100 metre	0.30	597.20	179.16	
	Painting with anticorrosive Paint 3.14 x.160x30.00=15.07 sqm.					
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	15.07	115.10	1734.56	A
	LABOUR					
0114	Beldar	day	1.40	645.00	903.00	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0130	Mistry	day	0.50	784.00	392.00
	TOTAL				40574.78 W
	Add 1 % Water charges on "W-A"				388.40
	TOTAL				40963.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				5511.62
	TOTAL				46474.81 Y
	Add 15% CPOH on "Y-A"				6711.04
	TOTAL				53185.85 Z
	Add Cess @ 1% on "Z-A"				514.51
	Cost for 30 metre				53700.36
	Cost of 1 metre				1790.01
	Say				1790.00

23.11.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metre				
	MATERIAL				
7744	M.S. pipe 200 mm dia casing pipe	metre	30.00	1400.00	42000.00
7766	M.S. socket 200 mm dia	each	5.00	265.00	1325.00
9999	Extra for making slots	L.S.	1208.05	2.12	2561.07
2345	Carriage of cast iron pipes 200 mm dia including loading and unloading	100 metre	0.30	971.45	291.44
	Painting with anticorrosive Paint 3.14 x 0.210x30.00=20.25 sqm.				
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing	sqm	20.25	115.10	2330.78 A
	LABOUR				
0114	Beldar	day	1.40	645.00	903.00
0130	Mistry	day	0.50	784.00	392.00
	TOTAL				49803.28 W
	Add 1 % Water charges on "W-A"				474.73
	TOTAL				50278.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				6736.59
	TOTAL				57014.59 Y
	Add 15% CPOH on "Y-A"				8202.57
	TOTAL				65217.16 Z
	Add Cess @ 1% on "Z-A"				628.86
	Cost for 30 metre				65846.02
	Cost of 1 metre				2194.87
	Say				2194.85

23.12 Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved

laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 8 Hours				
	MACHINERY :				
0040	Air compressor 250 cfm with two leads for pneumatic cutters/ hammers.	day	1.00	1600.00	1600.00
	MATERIAL				
1235	Diesel oil	litre	48.00	80.87	3881.76
	TOTAL				5481.76 W
	Add 1 % Water charges on "W"				54.82
	TOTAL				5536.58 X
	Add GST on "X" (multiplying factor 0.1405)				777.89
	TOTAL				6314.47 Y
	Add 15% CPOH on "Y"				947.17
	TOTAL				7261.64 Z
	Add Cess @ 1% on "Z"				72.62
	Cost of 8 Hours				7334.25
	Cost of 1 Hour				916.78
	Say				916.80

23.13 Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:

23.13.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
	100mm dia MS screwed cap with locking arrangement				
7760	M.S. cap 100 mm dia	each	1.00	135.00	135.00 P
	Add 5% labour factor on P				6.75
	TOTAL				141.75 W
	Add 1 % Water charges on "W"				1.42
	TOTAL				143.17 X
	Add GST on "X" (multiplying factor 0.1405)				20.12
	TOTAL				163.28 Y
	Add 15% CPOH on "Y"				24.49
	TOTAL				187.77 Z
	Add Cess @ 1% on "Z"				1.88
	Cost of 1 No				189.65
	Say				189.65

23.13.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
	150 mm dia MS screwed cap with locking arrangement				
7747	M.S. cap 150 mm dia	each	1.00	150.00	150.00
	Add 5% labour facor on X				7.50
	TOTAL				157.50 W
	Add 1 % Water charges on "W"				1.58
	TOTAL				159.08 X
	Add GST on "X" (multiplying factor 0.1405)				22.35
	TOTAL				181.43 Y
	Add 15% CPOH on "Y"				27.21
	TOTAL				208.64 Z
	Add Cess @ 1% on "Z"				2.09
	Cost of 1 No				210.73
	Say				210.75

23.13.3 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
	200 mm dia MS screwed cap with locking arrangement				
7748	M.S. cap 200 mm dia	each	1.00	200.00	200.00
	Add 5% labour facor on X				10.00
	TOTAL				210.00 W
	Add 1 % Water charges on "W"				2.10
	TOTAL				212.10 X
	Add GST on "X" (multiplying factor 0.1405)				29.80
	TOTAL				241.90 Y
	Add 15% CPOH on "Y"				36.29
	TOTAL				278.19 Z
	Add Cess @ 1% on "Z"				2.78
	Cost of 1 No				280.97
	Say				280.95

23.14 Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.

23.14.1 100 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
	Clamps made of MS flat of size 100x10mm thick1x2mt.x7.80 kg per mt.=15.60 kg.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
10.1	Rate as per Item No.10.1 of SH: Steel Work	kg	15.60	93.05	1451.58 A
9999	Sundries, nuts and bolts etc.	L.S.	25.00	2.12	53.00
	TOTAL				1504.58 W
	Add 1 % Water charges on "W-A"				0.53
	TOTAL				1505.11 X
	Add GST on "X-A" (multiplying factor 0.1405)				7.52
	TOTAL				1512.63 Y
	Add 15% CPOH on "Y-A"				9.16
	TOTAL				1521.79 Z
	Add Cess @ 1% on "Z-A"				0.70
	Cost of 1 No				1522.49
	Say				1522.50

23.14.2 150 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
	Clamps made of MS flat of size 100x10mm thick1x2.10 mt.x7.80 kg per mt.=16.38 kg.				
10.1	Rate as per Item No.10.1 of SH: Steel Work	kg	16.38	93.05	1524.16 A
9999	Sundries, nuts and bolts etc.	L.S.	30.00	2.12	63.60
	TOTAL				1587.76 W
	Add 1 % Water charges on "W-A"				0.64
	TOTAL				1588.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				9.03
	TOTAL				1597.42 Y
	Add 15% CPOH on "Y-A"				10.99
	TOTAL				1608.41 Z
	Add Cess @ 1% on "Z-A"				0.84
	Cost of 1 No				1609.25
	Say				1609.25

23.14.3 200 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
	Clamps made of MS flat of size 100x10mm thick1x2.40 mt.x7.80 kg per mt.=18.72 kg.				
10.1	Rate as per Item No.10.1 of SH: Steel Work	kg	18.72	93.05	1741.90 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, nuts and bolts etc.	L.S.	30.00	2.12	63.60
	TOTAL				1805.50 W
	Add 1 % Water charges on "W-A"				0.64
	TOTAL				1806.13 X
	Add GST on "X-A" (multiplying factor 0.1405)				9.03
	TOTAL				1815.16 Y
	Add 15% CPOH on "Y-A"				10.99
	TOTAL				1826.15 Z
	Add Cess @ 1% on "Z-A"				0.84
	Cost of 1 No				1826.99
	Say				1827.00

23.15 Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).

23.15.1 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
7761	M.S. bail plug 100 mm dia	each	1.00	160.00	160.00
9999	Sundries	L.S.	5.00	2.12	10.60
	TOTAL				170.60 W
	Add 1 % Water charges on "W"				1.71
	TOTAL				172.31 X
	Add GST on "X" (multiplying factor 0.1405)				24.21
	TOTAL				196.51 Y
	Add 15% CPOH on "Y"				29.48
	TOTAL				225.99 Z
	Add Cess @ 1% on "Z"				2.26
	Cost of 1 No				228.25
	Say				228.25

23.15.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
7749	M.S bail plug 150 mm dia	each	1.00	200.00	200.00
9999	Sundries	L.S.	5.00	2.12	10.60
	TOTAL				210.60 W
	Add 1 % Water charges on “W”				2.11
	TOTAL				212.71 X
	Add GST on “X” (multiplying factor 0.1405)				29.89
	TOTAL				242.59 Y
	Add 15% CPOH on “Y”				36.39
	TOTAL				278.98 Z
	Add Cess @ 1% on “Z”				2.79
	Cost of 1 No				281.77
	Say				281.75

23.15.3 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
	MATERIAL				
7750	M.S bail plug 200 mm dia	each	1.00	220.00	220.00
9999	Sundries	L.S.	5.00	2.12	10.60
	TOTAL				230.60 W
	Add 1 % Water charges on “W”				2.31
	TOTAL				232.91 X
	Add GST on “X” (multiplying factor 0.1405)				32.72
	TOTAL				265.63 Y
	Add 15% CPOH on “Y”				39.84
	TOTAL				305.47 Z
	Add Cess @ 1% on “Z”				3.05
	Cost of 1 No				308.53
	Say				308.55

SUB HEAD : 24.0

CONSERVATION OF HERITAGE BUILDINGS

2027

24.1 Raking out joints of stone masonry surface to the required width and depth, with due care and precaution, by mechanical / manual means, including preparing and cleaning the surface for re-pointing/ refilling of joints, including disposal of rubbish to the dumping ground within 50 metre lead.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0114	Beldar	day	0.53	645.00	341.85
0115	Coolie	day	0.08	645.00	51.60
0101	Bhisti	day	0.07	714.00	49.98
9999	Sundries	L.S.	1.43	2.12	3.03
	TOTAL				446.46 W
	Add 1 % Water charges on "W"				4.46
	TOTAL				450.93 X
	Add GST on "X" (multiplying factor 0.1405)				63.36
	TOTAL				514.28 Y
	Add 15% CPOH on "Y"				77.14
	TOTAL				591.42 Z
	Add Cess @ 1% on "Z"				5.91
	Cost of 10.00 sqm				597.34
	Cost of 1.00 sqm				59.73
	Say				59.75

24.2 Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge.
Note:- (1) The elevational area of the scaffolding shall be measured for payment purpose. (2) The payment will be made once only for execution of all items for such works.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for area 22.5x9.0 =202.50 sqm MATERIAL Assuming shuttering material will become unserviceable after use of 40 times Adding for maintenance @ 10% of cost Taking slvage value after full use of material @ 25% of cost				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7397	Base jack Qty taken for cost of using once =14x0.85/40=0.2975	each	0.30	145.00	43.50
4009	Mild steel tubes hot finished welded type Vertical standard 2.5m length =7x2x9x2.5=315.00 m Side support 6.00m length =3x2x6.00=36.00m Horizonatal support 3.00mlength =18x3x3.00=162.00m Total=1026.00m @ 3.67 kg/m =3765.42 kgQty taken for cost of using once= 3765.42x0.85/40 =80.02kg	kilogram	80.02	60.00	4801.20
7387	Spigot for standard jointing 7x2x9=126 nos x 0.40m length = 50.40m @2.46kg /m=123.98kgQty taken for cost of using once= 123.98x0.85/40=2.63kg	kg	2.63	40.00	105.20
1034	Bolts and nuts upto 300 mm in length 2x7x2x9=252 nos @ 0.15 kg each=37.80 kg =0.378qQty taken for cost of using once= 0.378x0.85/ 40=0.008q	quintal	0.008	5200.00	41.60
7346	Double coupler Clamp coupler for fixing MS tube with scafolding 2x3x2+2x18x3=120 nosQty taken for cost of using once= 120x0.85/40=2.55 nos	each	2.55	46.00	117.30
7398	Challies 3 nos x 18 lines=54 nosTwo level plate challies=2x18 lines=36nosTotal = 90 nos Qty taken for cost of using once =90x0.85/40=1.9125 nos	each	1.91	765.00	1461.15
7399	Cup lock For Vertical standards=(5x7x2x9= 630 nos) +(2x18x19=694 nos) Total=1314 nos Qty taken for cost of using once = 1314x0.85/40=27.92	each	27.92	48.00	1340.16
2205	Carriage of Steel 40mm dia MS pipe=3765.42kg 25mm spigot=123.98kgNuts & bolts=37.80kgclamp=120 nos@1.00kg each=120.00kgChallies=90 nos @ 15.00kg each=1350.00kgCup locks=1314 nos @ 0.50kg each= 657.00kgTotal=6054.20kg=6.054 tonne	tonne	6.054	145.72	882.19
	LABOUR				
0116	Fitter (grade 1)	day	15.50	784.00	12152.00
0114	Beldar	day	31.00	645.00	19995.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1035.00	2.12	2194.20
	TOTAL				43133.50 W
	Add 1 % Water charges on "W"				431.33
	TOTAL				43564.83 X
	Add GST on "X" (multiplying factor 0.1405)				6120.86
	TOTAL				49685.69 Y
	Add 15% CPOH on "Y"				7452.85
	TOTAL				57138.55 Z
	Add Cess @ 1% on "Z"				571.39
	Cost of 202.50 sqm				57709.93
	Cost of 1.00 sqm				284.99
	Say				285.00

24.3 Cleaning the sand stone surface and removing dirt, dust, bird dropping, grease, oil, algae, fungus, monkey beats, vegetable growth etc., including providing, applying and washing the surface with liquid Ammonia Chemical of 5% solution and other chemical cleaning agent as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with the help of required scrubbers and also cleaning with machine operated water jet mixed with desired quantity of fine silica where ever required, without causing any scratching/ damage to the stone surface and finally washing the surface with clean water with the help of pressure jet machine, complete in all respect, including taking all precautions to safeguard ventilators, windows, doors etc. by suitable covering so as to avoid any damage to the building/ structure, all as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
7767	Stone cleaning chemical approved by ASI 1 kg teepal of 3% solution for 10 sqm area for 10sqm = 0.10 liter	litre	0.10	270.00	27.00
7771	Liquid Amonia 5%	litre	0.17	145.00	24.65
	LABOUR (for applying the camical Salution)				
0131	Painter	day	0.20	714.00	142.80
0114	Beldar	day	0.20	645.00	129.00
0128	Mate	day	0.10	714.00	71.40
9999	Cleaning T & P & its manitinance cost (Jet Pump, electrice cable, horse pipe, waler pipe, Nozel safety belt Rope & mantance cost and safety machine for window etc.)	L.S.	1.00	2.12	2.12
6501	Sand zone V (Jamuna)	cum	0.0283	1300.00	36.79
	LABOUR (for pressure cleaning)				
0103	Blacksmith 2nd class	day	0.40	714.00	285.60
0114	Beldar	day	0.80	645.00	516.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0128	Mate	day	0.10	714.00	71.40
	TOTAL				1306.76 W
	Add 1 % Water charges on "W"				13.07
	TOTAL				1319.83 X
	Add GST on "X" (multiplying factor 0.1405)				185.44
	TOTAL				1505.26 Y
	Add 15% CPOH on "Y"				225.79
	TOTAL				1731.05 Z
	Add Cess @ 1% on "Z"				17.31
	Cost of 10.00 sqm				1748.36
	Cost of 1.00 sqm				174.84
	Say				174.85

24.4 Providing and applying antifungal wash treatment using 3% solution of sodium pentachlorophenate, of reputed brand and manufacturer, on cleaned sand stone surface at desired locations as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
7775	Sodium pentachlorophenate	Kg	0.10	500.00	50.00
	LABOUR				
0131	Painter	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25
0128	Mate	day	0.125	714.00	89.25
	TOTAL				479.00 W
	Add 1 % Water charges on “W”				4.79
	TOTAL				483.79 X
	Add GST on “X” (multiplying factor 0.1405)				67.97
	TOTAL				551.76 Y
	Add 15% CPOH on “Y”				82.76
	TOTAL				634.53 Z
	Add Cess @ 1% on “Z”				6.35
	Cost of 10.00 sqm				640.87
	Cost of 1.00 sqm				64.09
	Say				64.10

24.5 Ruled / Flush pointing on Red sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime: 1.5 surkhi (50% red and 50% light yellow surkhi) : 1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
3.19	Rate as per Item No.3.19 of SH:Mortars	cum	0.023	3140.50	72.23
	LABOUR				
0155	Mason (average)	day	0.92	749.00	689.08
0115	Coolie	day	1.37	645.00	883.65
0101	Bhisti	day	0.93	714.00	664.02

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	4.03	2.12	8.54
	TOTAL				2317.53 W
	Add 1 % Water charges on "W"				23.18
	TOTAL				2340.70 X
	Add GST on "X" (multiplying factor 0.1405)				328.87
	TOTAL				2669.57 Y
	Add 15% CPOH on "Y"				400.44
	TOTAL				3070.00 Z
	Add Cess @ 1% on "Z"				30.70
	Cost of 10.00 sqm				3100.70
	Cost of 1.00 sqm				310.07
	Say				310.05

24.6 Ruled/ Flush pointing on White sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime : 1.5 surkhi (15% dark red and 85% light yellow surkhi) : 1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
3.19	Rate as per Item No.3.19 of SH:Mortars	cum	0.023	3140.50	72.23
	LABOUR				
0155	Mason (average)	day	0.92	749.00	689.08
0115	Coolie	day	1.37	645.00	883.65
0101	Bhisti	day	0.93	714.00	664.02
9999	Sundries	L.S.	4.03	2.12	8.54
	TOTAL				2317.53 W
	Add 1 % Water charges on "W"				23.18
	TOTAL				2340.70 X
	Add GST on "X" (multiplying factor 0.1405)				328.87
	TOTAL				2669.57 Y
	Add 15% CPOH on "Y"				400.44
	TOTAL				3070.00 Z
	Add Cess @ 1% on "Z"				30.70
	Cost of 10.00 sqm				3100.70
	Cost of 1.00 sqm				310.07
	Say				310.05

24.7 Applying two or more coat of Ethyl Silicate chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with brush or spray on the existing stone masonry surface till there is no further absorption of chemical by stone surface, including protecting the applied surface from direct sunlight by suitable means during application, all complete as per direction of the Engineer-in-Charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 5 sqm				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7769	Stone surface strengthening chemical approved by ASI	litre	1.00	835.00	835.00
	LABOUR				
0131	Painter	day	0.15	714.00	107.10
0114	Beldar	day	0.15	645.00	96.75
9999	Sundries	L.S.	6.00	2.12	12.72
	TOTAL				1051.57 W
	Add 1 % Water charges on "W"				10.52
	TOTAL				1062.09 X
	Add GST on "X" (multiplying factor 0.1405)				149.22
	TOTAL				1211.31 Y
	Add 15% CPOH on "Y"				181.70
	TOTAL				1393.01 Z
	Add Cess @ 1% on "Z"				13.93
	Cost of 5.00 sqm				1406.94
	Cost of 1.00 sqm				281.39
	Say				281.40

24.8 Applying breathable, non-reactive, antifungal, and water repellant Silane/ Siloxane chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacture, diluted with solvent mineral Turpentine oil in the ratio of 1:12 (One part of approved chemical :12 Part of Turpentine oil), on the existing sand stone masonry surface with two or more coats to give uniform application of chemical on the surface, all complete as per direction of Engineer-In-charge (The rate is inclusive of all materials & labours involved except scaffolding).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 45 sqm				
	MATERIAL				
7768	Water repallent chemical approved by ASI	litre	1.00	1100.00	1100.00
7770	Turpentine oil	litre	12.00	50.00	600.00
	LABOUR				
0131	Painter	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
9999	Handling / Transportation charges	L.S.	6.00	2.12	12.72
	TOTAL				3071.72 W
	Add 1 % Water charges on "W"				30.72
	TOTAL				3102.44 X
	Add GST on "X" (multiplying factor 0.1405)				435.89
	TOTAL				3538.33 Y
	Add 15% CPOH on "Y"				530.75
	TOTAL				4069.08 Z
	Add Cess @ 1% on "Z"				40.69
	Cost of 45.00 sqm				4109.77
	Cost of 1.00 sqm				91.33
	Say				91.35

SUB HEAD : 25.0

STRUCTURAL GLAZING ALUMINIUM COMPOSITE PANEL

25.1 Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account). The weight of aluminium extruded section shall be taken for purpose of payment.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6.50 kg Width of the unit 1.6 m Height of the unit 4.2 m Area of Single Unit 6.72 sqm Total Area 6.72 sqm, No of Panels 1 no Aluminium Weight per sqm = 6.50 Kg/m2 Vision Height 2.2 m Add for cleats, sleeves, screws etc. @5% = 0.33 kg Add wastage @ 5% = 0.34 kg Total = 7.17 kg Details of cost for 6.50 kg MATERIALS				
7306	Aluminium T or L sections	kilogram	7.17	190.00	1362.30
7392	Powder coating 50 microns on aluminium sections	kilogram	7.17	61.00	437.37
	TOTAL				1799.67 W
	Add 1 % Water charges on "W"				18.00
	TOTAL				1817.67 X
	Add GST on "X" (multiplying factor 0.1405)				255.38
	TOTAL				2073.05 Y
	Add 15% CPOH on "Y"				310.96
	TOTAL				2384.01 Z
	Add Cess @ 1% on "Z"				23.84
	Cost for 6.5 kg				2407.85
	Cost for 1 kg				370.44
	Say				370.45

25.2 Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including:
(a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:

(b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimentional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.
(c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.
(d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.
(e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge.
Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this sub- head. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.
Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accreditated by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately.

The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NABL accredited lab or any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025

1. **Performance Laboratory Test for Air Leakage Test (-50pa to - 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr**
2. **Static Water Penetration Test. (50pa to 1500pa) as per ASTME- 331-09 testing method for a range up to 2000 ml.**
3. **Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml**
4. **Structural Performance Deflection and deformation by static air pressure test (1.5 times design wind pressure without any failure) as per ASTME-330-10 testing method for a range upto 50 mm**
5. **Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test, Tests to be conducted on site.**
6. **Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000 ml**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6.72 sqm Width of the unit 1.6 m Height of the unit 4.2 m Area of Single Unit 6.72 sqm Total Area 6.72 sqm, No of Panels 1 no Aluminium Weight per sqm = 6.50 Kg/sqm Vision Height 2.2 m Sparndrel Height 2.0 m Details of cost for 6.72 sqm MATERIALS				
2605	Structural sealant - 6 mm x 12 mm	metre	17.02	31.00	527.62
2606	Spacer tape 6.4 mm thick x 6 mm wide	metre	20.11	21.00	422.31
2607	Weather Sealant - Non Staining (600 ml)	each	1.96	332.00	650.72
2608	Weather Sealant - Normal (300 ml)	each	2.55	102.00	260.10
2609	MS Brackets/Aluminium Alloy Brackets	kg	9.78	104.00	1017.12
2610	Silicon Gasket in Kg (Above 50 g / m)	kg	0.78	484.00	377.52
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	0.70	156.00	109.20
2612	Anchor Fastner - M10	each	2.00	11.00	22.00
2613	SS Bolt with washer of sizes for structural glazing / ACP Cladding	each	2.00	37.00	74.00
2630	Baker rod	metre	5.04	6.00	30.24
2614	SS Screws of sizes for structural glazing /ACP Cladding	each	52.00	4.00	208.00
2632	Fire Stop	metre	1.60	480.00	768.00
2615	Protective Tape	metre	6.72	22.00	147.84
2616	GI flashing - 1.2 mm Thick	kg	3.96	61.00	241.56
8654	Masking tape	metre	6.72	2.18	14.65
9999	Sundries	L.S.	225.50	2.12	478.06
9999	Sundries (For Fabrication)	L.S.	1804.03	2.12	3824.54
9999	Sundries (For Installation)	L.S.	1804.03	2.12	3824.54
9999	Sundries (Transporation)	L.S.	451.00	2.12	956.12

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (Scaffolding / Loading / Unloading)	L.S.	573.00	2.12	1214.76
9999	Sundries (Designing charges etc.)	L.S.	216.18	2.12	458.30
	TOTAL				15627.21 W
	Add 1 % Water charges on "W"				156.27
	TOTAL				15783.48 X
	Add GST on "X" (multiplying factor 0.1405)				2217.58
	TOTAL				18001.06 Y
	Add 15% CPOH on "Y"				2700.16
	TOTAL				20701.22 Z
	Add Cess @ 1% on "Z"				207.01
	Cost for 6.72 sqm				20908.23
	Cost for 1 sqm				3111.34
	Say				3111.35

25.3 Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthned clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor.

(Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.25.2)

For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.

(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6.72 sqm Width of the unit 1.6 m Height of the unit 4.2 m Area of Single Unit 6.72 sqm Total Area 6.72 sqm, No of Panels 1 no Area of Glass deducting area of gap/ grove 5% = 6.38 sqm Vision Height 2.2 m				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Wastage 10% = 0.638 sqm say 0.7 sqm Net = 7.02 sqm Details of cost for 6.72 sqm MATERIALS				
2617	6 mm thick High performance glass	sqm	7.02	1030.00	7230.60
2618	6 mm thick clear heat strengthened glass	sqm	7.02	670.00	4703.40
9999	Sundries (for insurance Charges)	L.S.	126.27	2.12	267.69
9999	Sundries (Fabrication charges including silicon sealant, baker rod, desecant etc.	L.S.	2120.13	2.12	4494.68
9999	Transporation including loading and unloading	L.S.	126.27	2.12	267.69
	TOTAL				16964.06 W
	Add 1 % Water charges on "W"				169.64
	TOTAL				17133.70 X
	Add GST on "X" (multiplying factor 0.1405)				2407.28
	TOTAL				19540.99 Y
	Add 15% CPOH on "Y"				2931.15
	TOTAL				22472.13 Z
	Add Cess @ 1% on "Z"				224.72
	Cost for 6.72 sqm				22696.86
	Cost for 1 sqm				3377.51
	Say				3377.50

25.4 Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer- in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.76 sqm Width of the unit 1.6 m Shuttter Weight Height of the unit 1.1 m Outer glass 6 mm Area 1.76 sqm Inner glass 6 mm Aluminium Weight per sqm 7.78 Kg Al weight = 1.76x7.78 = 13.7 Kg No of Locking Point 4 no Total 67 Kg Wedge Block 1 no Details of cost for 1.76 sqm MATERIALS				
2619	6 mm thick clear heat strengthened glass	each	3.00	132.00	396.00
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	0.80	156.00	124.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2614	SS Screws of sizes for structural glazing / ACP Cladding	each	49.00	4.00	196.00
2615	Protective Tape	metre	1.76	22.00	38.72
2620	ARMS GS HD -TOP HUNG -20"-TYPE P-COUPLE	pair	1.00	1390.00	1390.00
2621	Connection Block	each	2.00	36.00	72.00
2622	Curtain wall striker	each	4.00	87.00	348.00
2623	Adjustable Fastening Pawl	each	4.00	36.00	144.00
2624	Corner drive	each	2.00	260.00	520.00
2625	Top wedge Block	each	1.00	122.00	122.00
9999	Sundries	L.S.	118.00	2.12	250.16
9999	Sundries (For Fabrication)	L.S.	354.36	2.12	751.24
	TOTAL				4352.92 W
	Add 1 % Water charges on "W"				43.53
	TOTAL				4396.45 X
	Add GST on "X" (multiplying factor 0.1405)				617.70
	TOTAL				5014.15 Y
	Add 15% CPOH on "Y"				752.12
	TOTAL				5766.28 Z
	Add Cess @ 1% on "Z"				57.66
	Cost for 1.76 sqm				5823.94
	Cost for 1 sqm				3309.06
	Say				3309.05

25.5 Providing, fabricating and supplying shadow box of required size and shape, for fixing in the spandrel portion of the structural glazing, in linear as well as curvilinear portions of the building by providing semi -rigid, inorganic, non-combustible fibre glass wool insulation 50 mm thick, conforming to IS: 8183 and BS: 3958 Part 5. The insulation layer shall have facing (factory bonded on surface # 1 of the fibre glass insulation layer), of black non-woven fibre glass tissue of nominal thickness 0.5 mm and nominal mass not less than 60 gm / sqm, made of randomly oriented glass fibres distributed in a binder by a wet-lay process including fixing 1.5 mm thick solid aluminum sheet backing using, 6 mm thick cement board including SS rivets, nuts, bolts, washers etc complete.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3.23 sqm Width of the unit = 0.86 m Height of the unit = 3.75 m Area = 3.23 sqm Area including wastage @5 % = 3.39 Details of cost for 3.23 sqm MATERIALS				
2626	Glass wool Denisity 48 Kg / m3 with Black Glass Tissue (BGT)	sqm	3.39	255.00	864.45
2634	GI/Aluminium Sheet (0.8 mm thick)	kg	21.30	55.00	1171.50
2627	SS Screws - # 8 x 19	each	32.00	7.00	224.00
2628	Weather Sealant - DC 789	cartridge	2.00	125.00	250.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2629	Cement Board	sqm	3.39	245.00	830.55
9999	Sundries with clips & adhesives	L.S.	308.50	2.12	654.02
9999	Sundries (For Fabrication)	L.S.	170.64	2.12	361.76
9999	Sundries (For Installation)	L.S.	170.64	2.12	361.76
	TOTAL				4718.03 W
	Add 1 % Water charges on "W"				47.18
	TOTAL				4765.21 X
	Add GST on "X" (multiplying factor 0.1405)				669.51
	TOTAL				5434.73 Y
	Add 15% CPOH on "Y"				815.21
	TOTAL				6249.94 Z
	Add Cess @ 1% on "Z"				62.50
	Cost for 3.23 sqm				6312.43
	Cost for 1 sqm				1954.31
	Say				1954.30

25.6 Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer- in- Charge.

For payment, only the actual area of glass on face # 1 of the glass panels (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevent Item*).“(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3.23 sqm				
	Width of the unit = 0.86 m				
	Height of the unit = 3.75 m				
	Area = 3.23 sqm				
	Area i/c wastage @ 5 % = 3.39 sqm				
	Details of cost for 3.23 sqm				
	MATERIALS				
2617	6 mm thick High performance glass	sqm	3.39	1030.00	3491.70
9999	Sundries (Insurance charges)	L.S.	43.46	2.12	92.14
9999	Sundries (Fabrication charges including silicon sealant, baker rod, desecant etc.)	L.S.	682.55	2.12	1447.01

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (transporation including loading & unloading) TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost for 3.23 sqm Cost for 1 sqm Say	L.S.	147.59	2.12	312.89 5343.73 W 53.44 5397.17 X 758.30 6155.47 Y 923.32 7078.79 Z 70.79 7149.58 2213.49 2213.50

25.8 Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof.
The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc. all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8945	Details of cost for 35.28 Sqm Description WD HT Nos Area (Sqm) Facade Area 7.00 5.04 1.00 35.28 Fin Area 0.40 2.30 5.00 4.60 (A) Spider Fitting 4 Point spider fittings of SS-316 grade with fin but without flat head bolt(c/c routel distance 200mm)	each	5.00	3318.00	16590.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8946	2 Point wall mounted spider fitting of SS- 316 grade without flat head bolt and anchor fastener (c/c routel distance 200mm)	each	2.00	1659.00	3318.00
8947	1 Point wall mounted spider fitting of SS-316 grade without flat head bolt and anchor fastener (c/c routel distance 200mm)	each	12.00	1300.00	15600.00
8948	Flate head bolt	Nos	36.00	651.00	23436.00
8949	400 mm long fin plate without fastners	pair	5.00	5931.00	29655.00
	(B) Local Hardware				
2612	Anchor Fastner - M10 For one point spider fitting =12x2=24 nos For two point spider fitting =2x2=4 nos For 400mm fin plates =5x6=30 nos Total=58 nos	each	58.00	11.00	638.00
8560	Non staining water resistant Clear silicon filling in gap Vr. joints between glasses = 7x5.04=35.28 m Hr.joints between glass & wall = 2x7.00=14.00 mTotal=49.28 m	metre	49.28	70.00	3449.60
8559	Stainless steel U Channel of size (50x25x2mm)	metre	7.00	160.00	1120.00
9999	Sundries(Baker Road, Screw & Accessories)	L.S.	1000.00	2.12	2120.00
9999	Labour	L.S.	10000.00	2.12	21200.00
9999	Scaffolding	L.S.	2600.00	2.12	5512.00
	(C) Glass Area				
8778	Toughened glass 12 mm thickness with hole =7.00x5.04=35.28 sqm + 1.76 sqm (Add 5% Wastage) Total = 37.04 sqm	sqm	37.04	1750.00	64820.00
2415	21mm thick clear toughened Laminated glass for fins with holes = 5x2.30x.40=4.60sqm + 0.23sqm (Add 5% Wastage)Total = 4.83 sqm	sqm	4.83	6120.00	29559.60
	TOTAL				217018.20 W
	Add 1 % Water charges on "W"				2170.18
	TOTAL				219188.38 X
	Add GST on "X" (multiplying factor 0.1405)				30795.97
	TOTAL				249984.35 Y
	Add 15% CPOH on "Y"				37497.65
	TOTAL				287482.00 Z
	Add Cess @ 1% on "Z"				2874.82
	Cost of 35.28 sqm				290356.82
	Cost of 1 sqm				8230.07
	Say				8230.05

SUB HEAD : 26.0

NEW TECHNOLOGIES AND MATERIALS

26.1 Providing & fixing in position Phenol bonded Bamboowood flooring with planks of sizes 14mm thick, minimum 1800mm length and minimum 100 mm wide, in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The flooring shall be fixed with tongue and groove interlocking system, with underlayment of 4mm thick expanded polyethylene foam sheets having density 40kg/cum, over prepared surface with necessary quarter round planks of size 1900mm x 18mm and door reducer of size 1900mm x 44mm, wherever required. The bamboowood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m x 10m = 100 sqm					
	MATERIAL					
8021	Bamboo wood Tile Flooring 14mm thick, minimum 1800 mm length and 100 mm wide 100 + 10 (Add for wastage @10%) = 110 sqm	sqm	110.00	3470.00	381700.00	
8022	Bamboo wood Quarter Round 18mm thick of size 1900mm x 18mm	metre	39.90	115.00	4588.50	
8023	Bamboo wood door reducer 14mm thick of size 1900mm x 44mm	metre	2.00	255.00	510.00	
8015	Expanded polyethylene Foam sheet 4mm thick of Density 40kg/m3 100 + 5 (Add for wastage @5%) = 105 sqm	sqm	105.00	20.00	2100.00	
1246	Silicon based Joint Sealant for Tiles	kg	5.00	160.00	800.00	
1247	Rubber base Adhesive	kg	5.00	223.00	1115.00	
	LABOUR					
0111	Carpenter 1st class	day	3.00	784.00	2352.00	
0114	Beldar	day	3.00	645.00	1935.00	
9999	Sundries	L.S.	100.00	2.12	212.00	
	TOTAL				395312.50	W
	Add 1 % Water charges on "W"				3953.13	
	TOTAL				399265.63	X
	Add GST on "X" (multiplying factor 0.1405)				56096.82	
	TOTAL				455362.45	Y
	Add 15% CPOH on "Y"				68304.37	
	TOTAL				523666.81	Z
	Add Cess @ 1% on "Z"				5236.67	
	Cost of 100 sqm				528903.48	
	Cost of 1 sqm				5289.03	
	Say				5289.05	

26.2 Providing & fixing in position Phenol bonded Bamboo wood in wall skirting with planks of sizes 14mm thick, 1900mm length (minimum) and 85mm wide(minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The skirting shall be fixed with SS screws &

rawl plugs, over underlayment of 4mm thick, expanded polyethylene foam sheets having 40kg/cum density over prepared surface. The bamboowood planks shall have minimum density of 1000Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm skirting				
	MATERIAL				
8024	Bamboo wood Skirting 14mm thick of Size 1900mm x 85mm Area of 1 length skirting is 1.9 m x 0.085 m = 0.162 sqm Quantity required for 10 sqm = 10 / 0.1615 = 61.92 pieces Add 2.5% wastage= 1.548 Total = 61.92 + 1.548 = 63.468 Qty in running mtr = 63.468 x1.9m = 120.59 running meter	metre	120.59	300.00	36177.00
8015	High Density Expanded poly ethylene Foam sheet 4mm thick of Density 40kg/m3 10 + 0.5 (Add for wastage @5%) = 10.5 sqm	sqm	10.50	20.00	210.00
8210	Stainless steel screws 50 mm (62x3=186 nos)	100 Nos	1.86	300.00	558.00
1246	Silicon based Joint Sealant for Tiles	kg	1.00	160.00	160.00
1247	Rubber base Adhesive	kg	1.00	223.00	223.00
	LABOUR				
0111	Carpenter 1st class	day	1.00	784.00	784.00
0114	Beldar	day	1.00	645.00	645.00
9999	Sundries	L.S.	20.00	2.12	42.40
	TOTAL				38799.40 W
	Add 1 % Water charges on "W"				387.99
	TOTAL				39187.39 X
	Add GST on "X" (multiplying factor 0.1405)				5505.83
	TOTAL				44693.22 Y
	Add 15% CPOH on "Y"				6703.98
	TOTAL				51397.21 Z
	Add Cess @ 1% on "Z"				513.97
	Cost of 10 sqm				51911.18
	Cost of 1 sqm				5191.12
	Say				5191.10

26.3 Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, minimum 1800mm length and minimum 100 mm wide, in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC), with necesasary profiled edges fixed with 40mm SS screws 5 nos in each tile to frame work made of second class teak wood of size 20x15 mm in centre of each tile and bottom and top of work height, 40x15mm placed at ends of each tile. The cladding shall be laid over

backlayment of 1.00 mm thick expanded polyethylene foam of density 40kg/ cum in two layers, first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The bamboowood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 10m x 9.5m = 95 sqm					
	MATERIAL					
8025	Bamboo wood Tile Wall Cladding 10mm thick, minimum 1800 mm length and minimum 100 mm wide 10 x 9.5 = 95 + 9.5 (Add for wastage @10%) = 104.5 sqm	sqm	104.50	3400.00	355300.00	
8026	Bamboo wood T-mold 14mm thick of size 1900mm x 44mm At end joints of planks = 4x9.91 = 39.64 mtr + 1.98 (Add for wastage 5%) = 41.62 mtr	metre	41.62	250.00	10405.00	
8027	Bamboo wood Threshold 14mm thick of size 1900mm x 44mm At perriferi of cladding = 2x(10+9.5) +1.95 (Add for wastage @5%) =40.95 metre	metre	40.95	255.00	10442.25	
8016	High Density expanded poly ethylene (EPE) Foam 1mm thick (2x10x9.5) = 190 + 9.5 (Add for wastage @5%)=199.5 sqm	sqm	199.50	10.00	1995.00	
8210	Stainless steel screws 50 mm @500mm c/c at teak wood frame	100 Nos	2.58	300.00	774.00	
8212	Stainless steel screws 30 mm (5nos in each panels) No of panels=95/(1.9 x 0.135)=370 nos No. of screws= 370 x 5=1850 nos	100 Nos	18.50	230.00	4255.00	
1190	Second class teak wood in planks 10 metre height, at every 1.9 meter height one length of 10 metre i.e (5x9.91x0.02x 0.015+2x10x0.02x.015+ 2x9.50x.02x.015+4x9.91x0.04x0.015)+ wastage @5% =0.052866 cum cudm	10 cudm	5.2866	791.00	4181.70	
	LABOUR					
0111	Carpenter 1st class	day	5.00	784.00	3920.00	
0112	Carpenter 2nd class	day	5.00	714.00	3570.00	
0114	Beldar	day	5.00	645.00	3225.00	
9999	Sundries	L.S.	100.00	2.12	212.00	
	TOTAL				398279.95	W
	Add 1 % Water charges on "W"				3982.80	
	TOTAL				402262.75	X
	Add GST on "X" (multiplying factor 0.1405)				56517.92	
	TOTAL				458780.67	Y
	Add 15% CPOH on "Y"				68817.10	
	TOTAL				527597.77	Z
	Add Cess @ 1% on "Z"				5275.98	
	Cost of 95 sqm				532873.74	
	Cost of 1 sqm				5609.20	
	Say				5609.20	

26.4 Providing & fixing in position Phenol bonded Bamboowood panelled or panelled and glazed shutters for doors windows, clerestorey windows with pre-molded minimum 30mm thick planks, in approved colours, texture & finish. It shall have 10mm wide, 25mm deep grove to fit in panels.The bamboo wood shall have minimum density of 1000 Kg/cum, minimum Hardness 1000 Kgf. All styles and rails shall have profiled interlocking system locked in place by bamboo pins, all complete as per direction of Engineer in charge. (The panelling will be paid for separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for shutters of Bamboowood 200 x 108cm = 2.16 sqm				
	MATERIAL				
8028	Bamboo wood shutter of doors Styles 4x2.00x0.115x0.03 =0.0276 cum + Top rails 1x1.08x0.11x0.03m = 0.0036 cum + Bottom rails 1x1.08x0.212x0.03 = 0.0069 cum + Lock rails 1x1.08x0.18x0.03 = 0.0058 cum Total =0.0439 cum + 0.004 cum (Wastage @5%) Grand Total =0.0483 cum OR 48.30 cudm	10 cudm	4.83	1700.00	8211.00
8215	Stainless steel butt hinges 125x64x 1.9 mm IS : 12817 marked	10 Nos	0.40	310.00	124.00
8211	Stainless steel screws 40 mm	100 Nos	0.32	250.00	80.00
	LABOUR				
0156	Carpenter (average)	day	0.33	749.00	247.17
0114	Beldar	day	0.33	645.00	212.85
9999	Sundries T&P etc.	L.S.	5.62	2.12	11.91
	TOTAL				8886.93 W
	Add 1 % Water charges on "W"				88.87
	TOTAL				8975.80 X
	Add GST on "X" (multiplying factor 0.1405)				1261.10
	TOTAL				10236.90 Y
	Add 15% CPOH on "Y"				1535.54
	TOTAL				11772.44 Z
	Add Cess @ 1% on "Z"				117.72
	Cost of 2.16 sqm				11890.16
	Cost of 1 sqm				5504.71
	Say				5504.70

26.5 Providing & fixing in position Phenol bonded Bamboo wood panelling of 10mm thick, in 25 to 40 mm thick panelled or panelled & glazed shutters for doors, windows, clerestorey windows, in approved colour, texture & finish. The bamboowood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. The panels shall have profiled interlocking system locked in place with bamboo pins all complete as per direction of the Engineer in-charge. (area of opening for panel inserts excluding portion inside grooves or rebates to be measured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for shutters of a door with 2/3rd panelling… 200 x 108 cm = 2.16 sqm Panel area = 4x45.1x36.55cm = 0.66 sqm				
	MATERIAL				
8029	Bamboo wood panelling (10mm thick) 4x47.2x38.65x1.0cm = 0.0073cum + 0.0007 sqm (Add Wastage @10%) Total = 0.008 cum OR 8 cudm	10 cudm	0.80	1680.00	1344.00
	LABOUR				
0156	Carpenter (average)	day	0.57	749.00	426.93
9999	Sundries	L.S.	4.42	2.12	9.37
	TOTAL				1780.30 W
	Add 1 % Water charges on "W"				17.80
	TOTAL				1798.10 X
	Add GST on "X" (multiplying factor 0.1405)				252.63
	TOTAL				2050.74 Y
	Add 15% CPOH on "Y"				307.61
	TOTAL				2358.35 Z
	Add Cess @ 1% on "Z"				23.58
	Cost of 0.66 sqm				2381.93
	Cost of 1 sqm				3608.99
	Say				3609.00

26.6 Providing & fixing in position 65 mm thick factory made door frame of Phenol bonded Bamboo wood (superior class, interior use), in approved colour, texture and finish.The bamboo wood shall have minimum density of 1000 Kg/cum, minimum hardness 1000 Kgf. The door frame shall have tenon & mortise interlocking system, to be fixed to the wall with 100 mm size G.I screws all a complete as per direction of Engineer-in charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 33 cudm				
	MATERIAL				
8030	Superior class Bamboo wood door frame 65 mm thick 2x206.75x9.5x6.5 cm = 0.0255 cum + 1x117.50x9.5x6.5 cm = 0.0072 cum Total = 0.033 cum = 33 cudm + 0.001 cum (Add for wastage @ 5%) Grand total = 0.034 cum = 34 Cudm	10 cudm	3.40	1675.00	5695.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	0.72	784.00	564.48
0114	Beldar	day	0.07	645.00	45.15
	TOTAL				6304.63 W
	Add 1 % Water charges on "W"				63.05
	TOTAL				6367.68 X
	Add GST on "X" (multiplying factor 0.1405)				894.66
	TOTAL				7262.33 Y
	Add 15% CPOH on "Y"				1089.35
	TOTAL				8351.69 Z
	Add Cess @ 1% on "Z"				83.52
	Cost of 33 cudm				8435.20
	Cost of 1 cudm				255.61
	Say				255.60

26.6A Providing, erecting, laying and fixing in position in 3.5 to 4 mm thick bamboo mat corrugated sheet (BMCS) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 181.30sqm area. Consider a sheet of 18mx9m (external dimension of plinth). Area of roof = 18.5x9.8m = 181.30 sqm. MATERIAL: Sheets used = 2x 19 nos (2.44m x 1.05m) & 4x19 nos (1.83mx 1.05m). Total area = (2x19x2.44x1.05)+(4x19x1.83x1.05) = 243.39sqm, Add wastage @ 3% = 7.30 sqm, Total area = 250.69 sqm.				
8144	Bamboo Mat corrugated sheets 3.5 to 4mm thick conforming to IS 15476:2004 Weight of sheets, For 2.44mx1.05m sheet size, 12kg/Nos x 38 nos = 456 kgs, For 1.83m x 1.05m sheet size, 9kgs/Nos x 76 Nos = 684 kgs. Total weight of sheet = 456+684 = 1140 kgs = 1.14 tonne	sqm	250.69	2648.00	663827.12
2358	Carriage of Bamboo Mat corrugated sheets and accessories	tonne	1.14	17700.00	20178.00
1023	Galvanized steel J or L hooks 8mm dia	10 Nos	68.40	120.00	8208.00
1208	Bitumen washer	100 Nos	6.84	30.00	205.20
1209	G.I. plain washer thick	100 Nos	6.84	35.00	239.40
9977	Carriage of bolts and washers	L.S.	11.58	2.12	24.55
9999	Sundries	L.S.	56.78	2.12	120.37
	LABOUR:				
0130	Mistry	day	3.00	784.00	2352.00
0112	Carpenter 2nd class	day	3.00	714.00	2142.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	9.00	645.00	5805.00
	TOTAL				703101.64 W
	Add 1 % Water charges on "W"				7031.02
	TOTAL				710132.66 X
	Add GST on "X" (multiplying factor 0.1405)				99773.64
	TOTAL				809906.30 Y
	Add 15% CPOH on "Y"				121485.94
	TOTAL				931392.24 Z
	Add Cess @ 1% on "Z"				9313.92
	Cost of 181.30 sqm				940706.17
	Cost of 1sqm				5188.67
	Say				5188.65

26.6B Providing and fixing in position ridges of 3.5 to 4 mm thick bamboo mat ridge cap (BMRC) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for length of ridge 18.50 metre (pair of 43cm width each) Consider a shed of 18mx9m (external dimensions of plinth). Length of ridge 18.50 metre. MATERIAL: Ridges (Male & female) of size: 1.05m length required = 20 sets x 1.05m = 21.00 metre, Add wastage @ 5% = 1.05 metre, Total length = 22.05 metre.				
8145	Bamboo Mat Ridge cap 3.5 to 4mm thick conforming to IS 15476:2004	metre	22.05	2570.00	56668.50
9977	Carriage (The ridges to be fixed with the same hooks as the sheets)	L.S.	19.43	2.12	41.19
9999	Sundries	L.S.	9.71	2.12	20.59
	LABOUR:				
0130	Mistry	day	0.20	784.00	156.80
0112	Carpenter 2nd class	day	0.20	714.00	142.80
0114	Beldar	day	0.60	645.00	387.00
	TOTAL				57416.88 W
	Add 1 % Water charges on "W"				574.17
	TOTAL				57991.05 X
	Add GST on "X" (multiplying factor 0.1405)				8147.74
	TOTAL				66138.79 Y
	Add 15% CPOH on "Y"				9920.82
	TOTAL				76059.61 Z
	Add Cess @ 1% on "Z"				760.60
	Cost of 18.50 metre				76820.20
	Cost of 1 metre				4152.44
	Say				4152.45

26.6C Providing and fixing at all height false ceiling of 4mm thick phenol bonded Bamboo Mat board (595x595mm) conforming to IS:13958-1994 including providing and fixing of frame work made of GI angle 25x25x0.4 mm thick all around suitably fixed to wall with the help of dash fastener and hanger frame (600x600 c/c) made GI slotted Tee having powder coating on bottom side (30x25x0.3 mm thick for main member & 25x25x0.3 mm for cross member) connected to ceiling with 2.64mm GI wire and anchor fastener at every junction and also including cost of making openings for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm. Ceiling area = 100sqm, Add wastage @ 5% = 5sqm, Total area = 105 sqm MATERIAL:				
8147	4mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: (0.595x0.595m of Bamboo board). Total number of board = 297. Total weight of Bamboo board = 297 Nos x 1.31kgs/Nos = 389.07 kgs = 0.39 tonne.	sqm	105.00	1738.00	182490.00
2358	Carriage of 4mm thick Bamboo mat board and accessories.	tonne	0.39	17700.00	6903.00
8570	GI Main T ceiling section 30x25x0.3 mm (3 metre long) including of wastage of 10%	each	29.50	210.00	6195.00
8571	GI Perimeter wall angle 25x25x0.4 mm (3 metre long) including of wastage of 10%	each	13.50	170.00	2295.00
8572	GI Intermediate cross T section 25x25x0.3 mm (1.2 metre long) including of wastage of 10% on grid cutouts.	each	147.00	80.00	11760.00
8573	GI Intermediate cross T section 25x25x0.3 mm (0.6 metre long) including of wastage of 10% on grid cutouts.	each	147.00	35.00	5145.00
8615	Hanger rod 4mm thick	each	72.00	10.00	720.00
8616	Adjustment clip 85x30x0.8mm	each	72.00	6.00	432.00
7015	Soffit cleat (size 27x37x25x1.60mm)	each	72.00	3.00	216.00
7388	Dash hold fasteners 12.5mm dia, 50mm long with 6mm dia bolts	each	72.00	10.00	720.00
9977	Carriage of grid materials	L.S.	89.28	2.12	189.27
9999	Sundries	L.S.	187.95	2.12	398.45
	LABOUR:				
0112	Carpenter 2nd class	day	28.00	714.00	19992.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				252290.73 W
	Add 1 % Water charges on "W"				2522.91
	TOTAL				254813.63 X
	Add GST on "X" (multiplying factor 0.1405)				35801.32
	TOTAL				290614.95 Y
	Add 15% CPOH on "Y"				43592.24
	TOTAL				334207.19 Z
	Add Cess @ 1% on "Z"				3342.07
	Cost of 100 sqm				337549.27
	Cost of 1sqm				3375.49
	Say				3375.50

26.6D Providing and fixing at Bamboo Mat board conforming to IS:13958-1994 for partition to frame by bucking or studding with screws etc. complete (Frames, backing or studding to be paid separately)

26.6D.1 3mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm				
	MATERIAL:				
8146	3mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 2.70 kgs/sqm =19.845 kgs = 0.02 tonne.	sqm	7.35	1508.00	11083.80
2358	Carriage of 3mm thick Bamboo mat board and accessories.	tonne	0.02	17700.00	354.00
9999	Sundries and screws	L.S.	26.91	2.12	57.05
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	714.00	642.60
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				12782.45 W
	Add 1 % Water charges on "W"				127.82
	TOTAL				12910.27 X
	Add GST on "X" (multiplying factor 0.1405)				1813.89
	TOTAL				14724.17 Y
	Add 15% CPOH on "Y"				2208.63
	TOTAL				16932.79 Z
	Add Cess @ 1% on "Z"				169.33
	Cost of 7 sqm				17102.12
	Cost of 1sqm				2443.16
	Say				2443.15

26.6D.2 4mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm				
	MATERIAL:				
8147	4mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 3.70 kgs/sqm =27.195 kgs = 0.03 tonne.	sqm	7.35	1738.00	12774.30
2358	Carriage of 4mm thick Bamboo mat board and accessories.	tonne	0.03	17700.00	531.00
9999	Sundries and screws	L.S.	26.91	2.12	57.05
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	714.00	642.60
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				14649.95 W
	Add 1 % Water charges on "W"				146.50
	TOTAL				14796.45 X
	Add GST on "X" (multiplying factor 0.1405)				2078.90
	TOTAL				16875.35 Y
	Add 15% CPOH on "Y"				2531.30
	TOTAL				19406.65 Z
	Add Cess @ 1% on "Z"				194.07
	Cost of 7 sqm				19600.72
	Cost of 1sqm				2800.10
	Say				2800.10

26.6D.3 6mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm				
	MATERIAL:				
8148	6mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 5.40 kgs/sqm =39.69 kgs = 0.04 tonne.	sqm	7.35	2098.00	15420.30
2358	Carriage of 6mm thick Bamboo mat board and accessories.	tonne	0.04	17700.00	708.00
9999	Sundries and screws	L.S.	26.91	2.12	57.05
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	714.00	642.60
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				17472.95 W
	Add 1 % Water charges on "W"				174.73
	TOTAL				17647.68 X
	Add GST on "X" (multiplying factor 0.1405)				2479.50
	TOTAL				20127.18 Y
	Add 15% CPOH on "Y"				3019.08
	TOTAL				23146.25 Z
	Add Cess @ 1% on "Z"				231.46
	Cost of 7 sqm				23377.72
	Cost of 1sqm				3339.67
	Say				3339.65

26.6D.4 9mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm				
	MATERIAL:				
8149	9mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 8.40 kgs/sqm =61.74 kgs = 0.06 tonne.	sqm	7.35	2688.00	19756.80
2358	Carriage of 9mm thick Bamboo mat board and accessories.	tonne	0.06	17700.00	1062.00
9999	Sundries and screws	L.S.	26.91	2.12	57.05
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	714.00	642.60
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				22163.45 W
	Add 1 % Water charges on "W"				221.63
	TOTAL				22385.08 X
	Add GST on "X" (multiplying factor 0.1405)				3145.10
	TOTAL				25530.19 Y
	Add 15% CPOH on "Y"				3829.53
	TOTAL				29359.72 Z
	Add Cess @ 1% on "Z"				293.60
	Cost of 7 sqm				29653.31
	Cost of 1sqm				4236.19
	Say				4236.20

26.6D.5 12mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm				
	MATERIAL:				
8150	12mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 7.35sqm x 10.00 kgs/sqm =73.50 kgs = 0.07 tonne.	sqm	7.35	3115.00	22895.25
2358	Carriage of 12mm thick Bamboo mat board and accessories.	tonne	0.07	17700.00	1239.00
9999	Sundries and screws	L.S.	26.91	2.12	57.05
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	714.00	642.60
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				25478.90 W
	Add 1 % Water charges on "W"				254.79
	TOTAL				25733.69 X
	Add GST on "X" (multiplying factor 0.1405)				3615.58
	TOTAL				29349.27 Y
	Add 15% CPOH on "Y"				4402.39
	TOTAL				33751.66 Z
	Add Cess @ 1% on "Z"				337.52
	Cost of 7 sqm				34089.18
	Cost of 1sqm				4869.88
	Say				4869.90

26.6E Providing and fixing at all height wall panelling with phenol bonded Bamboo Mat board conforming to IS:13958-1994 including providing and fixing to frame work made of 50mm x 50mm hardwood plugs including cutting brick work and fixing in cement mortar and making good the wall etc. and also providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws all complete as per direction of Engineer-in-Charge.

26.6E.1 9mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for panelling area of 5mx4m = 20.00 sqm with moulding length of 18.00 metre Wall panelling area = 20.00sqm, Add wastage @ 5% = 1.0sqm, Total area = 21.00 sqm				
	MATERIAL:				
8149	9mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 21sqm x 8.40 kgs/sqm =176.4 kgs = 0.18 tonne.	sqm	21.00	2688.00	56448.00
2358	Carriage of 9mm thick Bamboo mat board and accessories.	tonne	0.18	17700.00	3186.00
1316	50mmx50mm hardwood plug	each	45.00	50.00	2250.00
1190	Second class teak wood in planks	10 cudm	2.477	791.00	1959.31
2204	Carriage of timber	cum	0.02477	187.35	4.64
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.70	60.00	42.00
9999	Sundries	L.S.	26.91	2.12	57.05
	LABOUR:				
0112	Carpenter 2nd class	day	2.00	714.00	1428.00
0114	Beldar	day	2.00	645.00	1290.00
	TOTAL				66665.00 W
	Add 1 % Water charges on "W"				666.65
	TOTAL				67331.65 X
	Add GST on "X" (multiplying factor 0.1405)				9460.10
	TOTAL				76791.74 Y
	Add 15% CPOH on "Y"				11518.76
	TOTAL				88310.50 Z
	Add Cess @ 1% on "Z"				883.11
	Cost of 20 sqm				89193.61
	Cost of 1sqm				4459.68
	Say				4459.70

26.6E.2 12mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for panelling area of 5mx4m = 20.00 sqm with moulding length of 18.00 metre Wall panelling area = 20.00sqm, Add wastage @ 5% = 1.0sqm, Total area = 21.00 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	MATERIAL:					
8150	12mm thick Bamboo Mat Board conforming to IS 13958:1994 Weight: 21sqm x 10 kgs/sqm =210 kgs = 0.21 tonne.	sqm	21.00	3115.00	65415.00	
2358	Carriage of 12mm thick Bamboo mat board and accessories.	tonne	0.21	17700.00	3717.00	
1316	50mmx50mm hardwood plug	each	45.00	50.00	2250.00	
1190	Second class teak wood in planks	10 cudm	2.477	791.00	1959.31	
2204	Carriage of timber	cum	0.02477	187.35	4.64	
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.70	60.00	42.00	
9999	Sundries	L.S.	26.91	2.12	57.05	
	LABOUR:					
0112	Carpenter 2nd class	day	2.00	714.00	1428.00	
0114	Beldar	day	2.00	645.00	1290.00	
	TOTAL				76163.00	W
	Add 1 % Water charges on "W"				761.63	
	TOTAL				76924.63	X
	Add GST on "X" (multiplying factor 0.1405)				10807.91	
	TOTAL				87732.54	Y
	Add 15% CPOH on "Y"				13159.88	
	TOTAL				100892.42	Z
	Add Cess @ 1% on "Z"				1008.92	
	Cost of 20 sqm				101901.34	
	Cost of 1sqm				5095.07	
	Say				5095.05	

26.7 Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size between cavity wall, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/m³ as per ASTM D 1622, water absorptions ? 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	MATERIAL				
8561	Extruded polystyrene rigid insulation board 50 mm thick including 2% wastage	sqm	10.20	550.00	5610.00
	LABOUR				
0111	Carpenter 1st class	day	0.25	784.00	196.00
0128	Mate	day	0.25	714.00	178.50
0114	Beldar	day	0.25	645.00	161.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (Water based adhesive, fasteners, scaffolding etc.)	L.S.	100.00	2.12	212.00
	TOTAL				6357.75 W
	Add 1 % Water charges on "W"				63.58
	TOTAL				6421.33 X
	Add GST on "X" (multiplying factor 0.1405)				902.20
	TOTAL				7323.52 Y
	Add 15% CPOH on "Y"				1098.53
	TOTAL				8422.05 Z
	Add Cess @ 1% on "Z"				84.22
	Cost of 10 sqm				8506.27
	Cost of 1 sqm				850.63
	Say				850.65

26.8 Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size underdeck on ceiling surface, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/cum as per ASTM D 1622, water absorptions ? 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	MATERIAL				
8561	Extruded polystyrene rigid insulation board 50 mm thick including 2% wastage	sqm	10.20	550.00	5610.00
	LABOUR				
0111	Carpenter 1st class	day	0.50	784.00	392.00
0128	Mate	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
9999	Sundries (Water based adhesive, fasteners, scaffolding etc.)	L.S.	100.00	2.12	212.00
	TOTAL				6893.50 W
	Add 1 % Water charges on "W"				68.94
	TOTAL				6962.44 X
	Add GST on "X" (multiplying factor 0.1405)				978.22
	TOTAL				7940.66 Y
	Add 15% CPOH on "Y"				1191.10
	TOTAL				9131.76 Z
	Add Cess @ 1% on "Z"				91.32
	Cost of 10 sqm				9223.07
	Cost of 1 sqm				922.31
	Say				922.30

26.9 Providing and fixing factory made solid Foam uPVC profile for kitchen cabinet frame (45 x 20 mm) of approved shade, quality and make. The profile shall be laminated on both sides, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and the exposed edges sealed with PVC edge beading of same shade and colour. The frame shall be fire retardent with necessary screw holding capacity. Frame shall be fixed to wall using Expendable Fastner with necesary stainless steel screws, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for kitchen cabinate (2.00 x 0.45)+(2.00+0.615)= 2.13 mtr				
	MATERIAL				
2491	Pre laminated both side solid foam uPVC profile (45x20mm)	metre	2.13	134.00	285.42
2493	PVC edge beading	metre	4.26	32.00	136.32
2494	Expandable fastner with plastic sleeve	each	8.00	6.00	48.00
8210	Stainless steel screws 50 mm	100 Nos	0.08	300.00	24.00
	LABOUR				
0111	Carpenter 1st class	day	0.10	784.00	78.40
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				636.64 W
	Add 1 % Water charges on "W"				6.37
	TOTAL				643.01 X
	Add GST on "X" (multiplying factor 0.1405)				90.34
	TOTAL				733.35 Y
	Add 15% CPOH on "Y"				110.00
	TOTAL				843.35 Z
	Add Cess @ 1% on "Z"				8.43
	Cost for 2.13 metre				851.78
	Cost for 1 metre				399.90
	Say				399.90

26.10 Providing and fixing factory made Kitchen Cabinet Shutter/Partition 20 mm nominal thickness of approved shade, quality and make, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and laminated on both side by laminate Sheet/PVC foil lamination. The exposed edges shall be sealed with PVC edge beading of same shade and colour. The shutter shall be fire retardent having necessary screw holding capacity. Shutter shall be fixed to frame using approved hinges with necessary stainless steel screws, all complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for of one shutter 0.46 x0.61m =0.281 sqm				
	MATERIAL				
2492	Solid foam uPVC sheet 20mm thick prelaminated on both side	sqm	0.281	2153.00	604.99
2493	PVC edge beading	metre	2.13	32.00	68.16
9999	Sundries	L.S.	20.00	2.12	42.40
	LABOUR				
0111	Carpenter 1st class	day	0.20	784.00	156.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				1001.35 W
	Add 1 % Water charges on "W"				10.01
	TOTAL				1011.37 X
	Add GST on "X" (multiplying factor 0.1405)				142.10
	TOTAL				1153.46 Y
	Add 15% CPOH on "Y"				173.02
	TOTAL				1326.48 Z
	Add Cess @ 1% on "Z"				13.26
	Cost for 0.281 sqm				1339.75
	Cost for 1 sqm				4767.79
	Say				4767.80

26.11 Providing and fixing concealed hinge of approved quality for 19-20mm thick door with stainless steel screws complete :

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 nos				
	MATERIAL				
8226	Concealed zinc coated hinges				
	19-20 mm thick with mounting plate	10 Nos	1.00	460.00	460.00
8210	Stainless steel screws 50 mm	100 Nos	0.80	300.00	240.00
9977	Carriage of material	L.S.	2.73	2.12	5.79
	LABOUR				
0112	Carpenter 2nd class	day	0.14	714.00	99.96
0114	Beldar	day	0.09	645.00	58.05
	TOTAL				863.80 W
	Add 1 % Water charges on "W"				8.64
	TOTAL				872.44 X
	Add GST on "X" (multiplying factor 0.1405)				122.58
	TOTAL				995.01 Y
	Add 15% CPOH on "Y"				149.25
	TOTAL				1144.26 Z
	Add Cess @ 1% on "Z"				11.44
	Cost of 10 nos				1155.71
	Cost of 1 no				115.57
	Say				115.55

26.12 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 15kN/m in the longitudinal and transverse direction, with 5kN/m and 7kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm				
	MATERIAL				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8956	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 15 kN/m in the longitudinal and transverse direction	Sqm	300.00	120.00	36000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				3600.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				45869.04 W
	Add 1 % Water charges on "W"				458.69
	TOTAL				46327.73 X
	Add GST on "X" (multiplying factor 0.1405)				6509.05
	TOTAL				52836.78 Y
	Add 15% CPOH on "Y"				7925.52
	TOTAL				60762.29 Z
	Add Cess @ 1% on "Z"				607.62
	Cost for 300 Sqm				61369.92
	Cost per Sqm				204.57
	Say				204.55

26.13 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 20kN/m in the longitudinal and transverse direction, with 7kN/m and 14kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm				
	MATERIAL				
8957	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 20kN/m in the longitudinal and transverse direction	sqm	300.00	135.00	40500.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				4050.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				50819.04 W
	Add 1 % Water charges on "W"				508.19
	TOTAL				51327.23 X
	Add GST on "X" (multiplying factor 0.1405)				7211.48
	TOTAL				58538.71 Y
	Add 15% CPOH on "Y"				8780.81
	TOTAL				67319.51 Z
	Add Cess @ 1% on "Z"				673.20
	Cost for 300 Sqm				67992.71
	Cost per Sqm				226.64
	Say				226.65

26.14 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 30kN/m in the longitudinal and transverse direction, with 10.5kN/m and 21kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm				
	MATERIAL				
8958	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 30kN/m in the longitudinal and transverse direction	sqm	300.00	205.00	61500.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				6150.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				73919.04 W
	Add 1 % Water charges on "W"				739.19
	TOTAL				74658.23 X
	Add GST on "X" (multiplying factor 0.1405)				10489.48
	TOTAL				85147.71 Y
	Add 15% CPOH on "Y"				12772.16
	TOTAL				97919.87 Z
	Add Cess @ 1% on "Z"				979.20
	Cost for 300 Sqm				98899.07
	Cost per Sqm				329.66
	Say				329.65

26.15 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 40kN/m in the longitudinal and transverse direction, with 14kN/m and 28kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm				
	MATERIAL				
8959	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 40kN/m in the longitudinal and transverse direction	Sqm	300.00	290.00	87000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				8700.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				101969.04 W
	Add 1 % Water charges on "W"				1019.69
	TOTAL				102988.73 X
	Add GST on "X" (multiplying factor 0.1405)				14469.92
	TOTAL				117458.65 Y
	Add 15% CPOH on "Y"				17618.80
	TOTAL				135077.44 Z
	Add Cess @ 1% on "Z"				1350.77
	Cost for 300 Sqm				136428.22
	Cost per Sqm				454.76
	Say				454.75

26.16 Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. Geocomposite for planar drainage, realized by thermobonding a draining core in extruded monofilaments with two filtering nonwoven geotextiles that may also be working as separation or protecting layers. The draining three dimensional core will have a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm charecteristic opening size (O90) of 110 micron and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 18 kN/m , with mass per unit area of 740 gsm, supplied in the form of roll for easy transportation to site of work as per detailed specification all complete as per directions of Engineer in charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Material				
	Details of Cost for 300 Sqm				
8960	Geosynthetic Drainage Composite	sqm	300.00	530.00	159000.00 P
	Add 10 per cent of the cost of synthetic Composits for wastage and accessories for joining sheets with the facia pannels, overlaps and other protective elements for synthetic Composits and other miscelleneus activities required to complete the item in all respect including transpotarion & takes. 10% of "P"				15900.00
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				181169.04 W
	Add 1 % Water charges on "W"				1811.69
	TOTAL				182980.73 X
	Add GST on "X" (multiplying factor 0.1405)				25708.79
	TOTAL				208689.52 Y
	Add 15% CPOH on "Y"				31303.43
	TOTAL				239992.95 Z
	Add Cess @ 1% on "Z"				2399.93
	Cost for 300 Sqm				242392.88
	Cost per Sqm				807.98
	Say				808.00

26.17 Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. having thermobonding a draining core - HDPE geonet comprises of two sets of parallel overlayed ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 gsm and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength

of 13.5 kN/m , with mass per unit area of 830 gsm, at easily accessible location including top and bottom, with all leads and lifts, manpower and machinery, materials, labour etc. complete and as directed by Engineer - In - Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Material				
	Details of Cost for 300 Sqm				
8961	Geosynthetic Drainage Composite	sqm	300.00	630.00	189000.00 P
	Add 10 per cent of the cost of synthetic Composits for wastage and accessories for joining sheets with the facia pannels, overlaps and other protective elements for synthetic Composits and other miscelleneus activities required to complete the item in all respect including transpotarion & takes. 10% of "P"				18900.00
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				214169.04 W
	Add 1 % Water charges on "W"				2141.69
	TOTAL				216310.73 X
	Add GST on "X" (multiplying factor 0.1405)				30391.66
	TOTAL				246702.39 Y
	Add 15% CPOH on "Y"				37005.36
	TOTAL				283707.75 Z
	Add Cess @ 1% on "Z"				2837.08
	Cost for 300 Sqm				286544.82
	Cost per Sqm				955.15
	Say				955.15

26.18 Supplying and laying high strength flexible geogrids (HSFG) as soil reinforcement / basal reinforcement as per MORTH 3100 and IRC 113, made of high tenacity polyester core with polyethylene coating with Minimum Long Term Design Strength (LTDS) of more than 50% of ultimate tensile strength at 30 degree Celcius corresponding to 12 % strain .

26.18.1 Ultimate tensile strength- 100 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8962	Synthetic Geogrid having umtimate tensile strength 100 kN/m	Sqm	300.00	200.00	60000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				6000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				72269.04 W
	Add 1 % Water charges on "W"				722.69
	TOTAL				72991.73 X
	Add GST on "X" (multiplying factor 0.1405)				10255.34
	TOTAL				83247.07 Y
	Add 15% CPOH on "Y"				12487.06
	TOTAL				95734.13 Z
	Add Cess @ 1% on "Z"				957.34
	Cost for 300 Sqm				96691.47
	Cost per Sqm				322.30
	Say				322.30

26.18.2 Ultimate tensile strength- 150 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8963	Synthetic Geogrid having umtimate tensile strength 150 kN/m	sqm	300.00	210.00	63000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				6300.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				75569.04 W
	Add 1 % Water charges on "W"				755.69
	TOTAL				76324.73 X
	Add GST on "X" (multiplying factor 0.1405)				10723.62
	TOTAL				87048.36 Y
	Add 15% CPOH on "Y"				13057.25
	TOTAL				100105.61 Z
	Add Cess @ 1% on "Z"				1001.06
	Cost for 300 Sqm				101106.66
	Cost per Sqm				337.02
	say				337.00

26.18.3 Ultimate tensile strength- 200 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8964	Synthetic Geogrid having umtimate tensile strength 200 kN/m	sqm	300.00	340.00	102000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				10200.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				118469.04 W
	Add 1 % Water charges on "W"				1184.69
	TOTAL				119653.73 X
	Add GST on "X" (multiplying factor 0.1405)				16811.35
	TOTAL				136465.08 Y
	Add 15% CPOH on "Y"				20469.76
	TOTAL				156934.84 Z
	Add Cess @ 1% on "Z"				1569.35
	Cost for 300 Sqm				158504.19
	Cost per Sqm				528.35
	say				528.35

26.18.4 Ultimate tensile strength- 250 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8965	Synthetic Geogrid having umtimate tensile strength 250 kN/m	sqm	300.00	350.00	105000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				10500.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				121769.04 W
	Add 1 % Water charges on "W"				1217.69
	TOTAL				122986.73 X
	Add GST on "X" (multiplying factor 0.1405)				17279.64
	TOTAL				140266.37 Y
	Add 15% CPOH on "Y"				21039.95
	TOTAL				161306.32 Z
	Add Cess @ 1% on "Z"				1613.06
	Cost for 300 Sqm				162919.38
	Cost per Sqm				543.06
	say				543.05

26.18.5 Ultimate tensile strength- 300 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8966	Synthetic Geogrid having umtimate tensile strength 300 kN/m	sqm	300.00	360.00	108000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				10800.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				125069.04 W
	Add 1 % Water charges on "W"				1250.69
	TOTAL				126319.73 X
	Add GST on "X" (multiplying factor 0.1405)				17747.92
	TOTAL				144067.65 Y
	Add 15% CPOH on "Y"				21610.15
	TOTAL				165677.80 Z
	Add Cess @ 1% on "Z"				1656.78
	Cost for 300 Sqm				167334.58
	Cost per Sqm				557.78
	say				557.80

26.18.6 Ultimate tensile strength- 350 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8967	Synthetic Geogrid having umtimate tensile strength 350 kN/m	sqm	300.00	370.00	111000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				11100.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				128369.04 W
	Add 1 % Water charges on "W"				1283.69
	TOTAL				129652.73 X
	Add GST on "X" (multiplying factor 0.1405)				18216.21
	TOTAL				147868.94 Y
	Add 15% CPOH on "Y"				22180.34
	TOTAL				170049.28 Z
	Add Cess @ 1% on "Z"				1700.49
	Cost for 300 Sqm				171749.77
	Cost per Sqm				572.50
	say				572.50

26.18.7 Ultimate tensile strength- 400 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8968	Synthetic Geogrid having umtimate tensile strength 400 kN/m	sqm	300.00	450.00	135000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				13500.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				154769.04 W
	Add 1 % Water charges on "W"				1547.69
	TOTAL				156316.73 X
	Add GST on "X" (multiplying factor 0.1405)				21962.50
	TOTAL				178279.23 Y
	Add 15% CPOH on "Y"				26741.88
	TOTAL				205021.12 Z
	Add Cess @ 1% on "Z"				2050.21
	Cost for 300 Sqm				207071.33
	Cost per Sqm				690.24
	say				690.25

26.18.8 Ultimate tensile strength- 500 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8969	Synthetic Geogrid having umtimate tensile strength 500 kN/m	sqm	300.00	500.00	150000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				15000.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				171269.04 W
	Add 1 % Water charges on "W"				1712.69
	TOTAL				172981.73 X
	Add GST on "X" (multiplying factor 0.1405)				24303.93
	TOTAL				197285.66 Y
	Add 15% CPOH on "Y"				29592.85
	TOTAL				226878.51 Z
	Add Cess @ 1% on "Z"				2268.79
	Cost for 300 Sqm				229147.30
	Cost per Sqm				763.82
	say				763.80

26.18.9 Ultimate tensile strength- 600 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8970	Synthetic Geogrid having umtimate tensile strength 600 kN/m	sqm	300.00	550.00	165000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				16500.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				187769.04 W
	Add 1 % Water charges on "W"				1877.69
	TOTAL				189646.73 X
	Add GST on "X" (multiplying factor 0.1405)				26645.37
	TOTAL				216292.10 Y
	Add 15% CPOH on "Y"				32443.81
	TOTAL				248735.91 Z
	Add Cess @ 1% on "Z"				2487.36
	Cost for 300 Sqm				251223.27
	Cost per Sqm				837.41
	say				837.40

26.18.10 Ultimate tensile strength- 700 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8971	Synthetic Geogrid having umtimate tensile strength 700 kN/m	sqm	300.00	650.00	195000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				19500.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				220769.04 W
	Add 1 % Water charges on "W"				2207.69
	TOTAL				222976.73 X
	Add GST on "X" (multiplying factor 0.1405)				31328.23
	TOTAL				254304.96 Y
	Add 15% CPOH on "Y"				38145.74
	TOTAL				292450.71 Z
	Add Cess @ 1% on "Z"				2924.51
	Cost for 300 Sqm				295375.21
	Cost per Sqm				984.58
	say				984.60

26.18.11 Ultimate tensile strength- 800 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8972	Synthetic Geogrid having umtimate tensile strength 800 kN/m	sqm	300.00	725.00	217500.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				21750.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				245519.04 W
	Add 1 % Water charges on "W"				2455.19
	TOTAL				247974.23 X
	Add GST on "X" (multiplying factor 0.1405)				34840.38
	TOTAL				282814.61 Y
	Add 15% CPOH on "Y"				42422.19
	TOTAL				325236.80 Z
	Add Cess @ 1% on "Z"				3252.37
	Cost for 300 Sqm				328489.17
	Cost per Sqm				1094.96
	say				1094.95

26.18.12 Ultimate tensile strength- 900 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8973	Synthetic Geogrid having umtimate tensile strength 900 kN/m	sqm	300.00	850.00	255000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				25500.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				286769.04 W
	Add 1 % Water charges on "W"				2867.69
	TOTAL				289636.73 X
	Add GST on "X" (multiplying factor 0.1405)				40693.96
	TOTAL				330330.69 Y
	Add 15% CPOH on "Y"				49549.60
	TOTAL				379880.29 Z
	Add Cess @ 1% on "Z"				3798.80
	Cost for 300 Sqm				383679.10
	Cost per Sqm				1278.93
	say				1278.95

26.18.13 Ultimate tensile strength- 1000 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8974	Synthetic Geogrid having umtimate tensile strength 1000 kN/m	sqm	300.00	950.00	285000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				28500.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				319769.04 W
	Add 1 % Water charges on "W"				3197.69
	TOTAL				322966.73 X
	Add GST on "X" (multiplying factor 0.1405)				45376.83
	TOTAL				368343.56 Y
	Add 15% CPOH on "Y"				55251.53
	TOTAL				423595.09 Z
	Add Cess @ 1% on "Z"				4235.95
	Cost for 300 Sqm				427831.04
	Cost per Sqm				1426.10
	say				1426.10

26.18.14 Ultimate tensile strength- 1100 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8975	Synthetic Geogrid having umtimate tensile strength 1100 kN/m	sqm	300.00	1000.00	300000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wsatage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				30000.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				336269.04 W
	Add 1 % Water charges on "W"				3362.69
	TOTAL				339631.73 X
	Add GST on "X" (multiplying factor 0.1405)				47718.26
	TOTAL				387349.99 Y
	Add 15% CPOH on "Y"				58102.50
	TOTAL				445452.49 Z
	Add Cess @ 1% on "Z"				4454.52
	Cost for 300 Sqm				449907.01
	Cost per Sqm				1499.69
	say				1499.70

26.18.15 Ultimate tensile strength- 1200 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
	Details of Cost for 300 Sqm				
8976	Synthetic Geogrid having umtimate tensile strength 1200 kN/m	sqm	300.00	1050.00	315000.00 P
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for wastage and accessories like tie-strips, nuts and bolts and loops/ lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geogrids and all other activities required to complete the item in all respect including taxes and transportation. 10% of "P"				31500.00
	LABOUR				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	714.00	2142.00
	TOTAL				352769.04 W
	Add 1 % Water charges on "W"				3527.69
	TOTAL				356296.73 X
	Add GST on "X" (multiplying factor 0.1405)				50059.69
	TOTAL				406356.42 Y
	Add 15% CPOH on "Y"				60953.46
	TOTAL				467309.88 Z
	Add Cess @ 1% on "Z"				4673.10
	Cost for 300 Sqm				471982.98
	Cost per Sqm				1573.28
	say				1573.30

26.19 Providing at all heights, levels and locations Aluminium profile industrial troughed sheet of Alloy 31500/31000/40800, conforming to IS 1254, IS 737, IS 2676. The sheet shall be fixed using self drilling/self tapping SS screws of size 5.5x65 mm with EPDM seal complete upto required pitch in horizontal, vertical or curved surfaces i/c cutting to size and shape where required as per specifications, detail drawings and direction of Engineer-in-Charge. The rate shall be inclusive of all screws, seal, ridge, labour, scaffolding, machinery for fixing and approved sealent where required etc. but excluding the cost of purlins, rafters and trusses.

26.19.1 0.71 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 216.14 sqm Consider a shed of 20x10 metres. (External dimensions of plinth). Area of roof- 20.20x10.70m = 216.14 sqm. MATERIAL: Sheets used = 20 Nosx10.70mx1.044m = 223.42 sqm, Add 3% wastage = 6.70 sqm,Total = 230.12sqm				
8977	Aluminium profile sheet 0.71 mm	sqm	230.12	600.00	138072.00
9999	Carriage of sheets	L.S.	104.00	2.12	220.48
1023	Galvanised steel J or L hooks 8 mm dia	10 Nos	47.60	120.00	5712.00
1208	Bitumen washer	100 Nos	4.76	30.00	142.80
1209	G.I. plain washer thick	100 Nos	4.76	35.00	166.60
9999	Carriage of bolts and nuts, washers etc.	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	39.52	2.12	83.78
	LABOUR:				
0130	Mistry	day	2.34	784.00	1834.56
0112	Carpenter 2nd class	day	9.34	714.00	6668.76

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	9.34	645.00	6024.30
	TOTAL				158942.37 W
	Add 1 % Water charges on "W"				1589.42
	TOTAL				160531.79 X
	Add GST on "X" (multiplying factor 0.1405)				22554.72
	TOTAL				183086.51 Y
	Add 15% CPOH on "Y"				27462.98
	TOTAL				210549.49 Z
	Add Cess @ 1% on "Z"				2105.49
	Cost of 216.14 sqm				212654.98
	Cost of 1 sqm				983.88
	Say				983.90

26.19.2 0.91 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 216.14 sqm Consider a shed of 20x10 metres. (External dimensions of plinth). Area of roof- 20.2x10.70m = 216.14 sqm. MATERIAL: Sheets used = 20 Nosx10.70mx1.044m = 223.42 sqm, Add 3% wastage = 6.70 sqm, Total = 230.12sqm				
8978	Aluminium profile sheet 0.91 mm	sqm	230.12	785.00	180644.20
9999	Carriage of sheets	L.S.	104.00	2.12	220.48
1023	Galvanised steel J or L hooks 8 mm dia	10 Nos	47.60	120.00	5712.00
1208	Bitumen washer	100 Nos	4.76	30.00	142.80
1209	G.I. plain washer thick	100 Nos	4.76	35.00	166.60
9999	Carriage of bolts and nuts, washers etc.	L.S.	8.06	2.12	17.09
9999	Sundries	L.S.	39.52	2.12	83.78
	LABOUR:				
0130	Mistry	day	2.34	784.00	1834.56
0112	Carpenter 2nd class	day	9.34	714.00	6668.76
0114	Beldar	day	9.34	645.00	6024.30
	TOTAL				201514.57 W
	Add 1 % Water charges on "W"				2015.15
	TOTAL				203529.72 X
	Add GST on "X" (multiplying factor 0.1405)				28595.92
	TOTAL				232125.64 Y
	Add 15% CPOH on "Y"				34818.85
	TOTAL				266944.49 Z
	Add Cess @ 1% on "Z"				2669.44
	Cost of 216.14 sqm				269613.93
	Cost of 1 sqm				1247.40
	Say				1247.40

26.22 Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595mm of approved texture, design and patterns as per CPWD Specification 2019, to be laid in true horizontal level suspended on inter-locking metal T-Grid of hot dipped galvanised iron section of 0.33mmthick (galvanized @ 120 grams per sqm including both sides)comprising of main-T runners of size 24x38 mm of length 3000 mm,cross - T of size 24x32 mm of length 1200 mm and secondaryintermediate cross-T of size 24x32 mm of length 600mm to formgrid module of size 600 x 600 mm, suspended from ceiling usinggalvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 12x50 mm long dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 76x25x25x1.6 mm fixed with grid and Z cleat of size 25x37x25x1.6mm thick with precut hole on both 25mm flange to pierce into 12x50mm or even bigger size dash fastener if require, fixed with Glavanised iron perimeter wall angle or size 24x24x0.40 mm of length 3000 mm to be fixed on periphey wall / partition with the help of plastic rawl plugs at 450mm center to center and 40 mm long dry wall S.S screws. The workshall be carried out as per specifications, drawing and as per directionsof the Engineer-in-Charge.

26.22.1 With 15 mm thick Tegular edged light weight calcium sliciate false ceiling tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm				
	MATERIAL				
8589	Calcium Slicate tegular edged Flase ceiling tiles 595x595 mm and 15 mm thick Ceiling Area = 100 sqm + Add 5% wastage = 5 sqm. Total = 105 sqm	sqm	105.00	685.00	71925.00
8590	Galavanised iron main Tee ceiling section Size 24x38x0.33 mm (3 metre long) including wastage @ 10%	each	29.50	140.00	4130.00
8591	Galavanised iron perimeter wall Angle Size 24x24x0.40 mm (3.00 metre long) including wastage @ 10%	each	13.50	90.00	1215.00
8592	Galavanised iron intermediate cross T section Size 24x32x0.33 mm (1.2 metre long) including wastage @ 10%	each	147.00	45.00	6615.00
8593	Glavanised iron intermediate cross T section Size 24 x 32x 0.33 mm (0.6 metre long)	each	147.00	22.00	3234.00
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	72.00	28.00	2016.00
5775	Galavinised MS L-shape level adjuster of size 76x25x25x1.6 mm	each	72.00	15.00	1080.00
5776	12x50 mm long dash fastener	each	72.00	35.00	2520.00
5777	Galvanized MS Z Cleat of size 25 x 37 x 25 x 1.6 mm with precut hole on both 25 mm flange	each	72.00	12.00	864.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos.	1.00	250.00	250.00
9999	Scaffolding etc.	L.S.	498.65	2.12	1057.14
9977	Carriage of materails etc.	L.S.	237.48	2.12	503.46

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	310.70	2.12	658.68
	LABOUR				
0111	Carpenter 1st class	day	28.00	784.00	21952.00
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				132855.28 W
	Add 1 % Water charges on "W"				1328.55
	TOTAL				134183.83 X
	Add GST on "X" (multiplying factor 0.1405)				18852.83
	TOTAL				153036.66 Y
	Add 15% CPOH on "Y"				22955.50
	TOTAL				175992.16 Z
	Add Cess @ 1% on "Z"				1759.92
	Cost of 100 sqm.				177752.08
	Cost of 1 cum.				1777.52
	Say				1777.50

26.22.2 With 15 mm thick tegular/butt edged without perforation plain/designer light weight calcium silicate Anti-Microbial Bio-Safe coated false ceiling tiles Confirming to JIS-Z2801 and ASTM G-21

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm				
	MATERIAL				
5778	15 mm thick tegular/butt edged without perforation plain/designer light weight calcium silicate Anti-Microbial Bio-Safe coated false ceiling tiles of size 595x595mm Ceiling Area = 100 sqm + Add 5% wastage = 5 sqm. Total = 105 sqm	sqm	105.00	830.00	87150.00
8590	Galavanised iron main Tee ceiling section Size 24x38x0.33 mm (3 metre long) including wastage @ 10%	each	29.50	140.00	4130.00
8591	Galavanised iron perimeter wall Angle Size 24x24x0.40 mm (3.00 metre long) including wastage @ 10%	each	13.50	90.00	1215.00
8592	Galavanised iron intermediate cross T section Size 24x32x0.33 mm (1.2 metre long) including wastage @ 10%	each	147.00	45.00	6615.00
8593	Glavanised iron intermediate cross T section Size 24 x 32x 0.33 mm (0.6 metre long)	each	147.00	22.00	3234.00
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	72.00	28.00	2016.00
5775	Galavinised MS L-shape level adjuster of size 76x25x25x1.6 mm	each	72.00	15.00	1080.00
5776	12x50 mm long dash fastener	each	72.00	35.00	2520.00
5777	Galvanized MS Z Cleat of size 25 x 37 x 25 x 1.6 mm with precut hole on both 25 mm flange	each	72.00	12.00	864.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos.	1.00	250.00	250.00
9999	Scaffolding etc.	L.S.	498.65	2.12	1057.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materails etc.	L.S.	237.48	2.12	503.46
9999	Sundries	L.S.	310.70	2.12	658.68
	LABOUR				
0111	Carpenter 1st class	day	28.00	784.00	21952.00
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				148080.28 W
	Add 1 % Water charges on "W"				1480.80
	TOTAL				149561.08 X
	Add GST on "X" (multiplying factor 0.1405)				21013.33
	TOTAL				170574.41 Y
	Add 15% CPOH on "Y"				25586.16
	TOTAL				196160.58 Z
	Add Cess @ 1% on "Z"				1961.61
	Cost of 100 sqm.				198122.18
	Cost of 1 cum.				1981.22
	Say				1981.20

26.23 Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on inter-locking metal powder coated T-Grid of hot dipped galvanised iron section of 0.40 mm thick on Silhouette profile,rotary stiched double webbed white with 6mm reveal profile (white/black),comprising of main-T runners of size 15x42mm of length 3000 mm, cross - T of size 15x42 mm of length 1200 mm and secondary intermediate cross-T of size 15x42 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 22x19x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.

26.23.1 With 15 mm thick integral densified micro edge light weight calcium silicate false ceiling tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8563	Details of cost for 100 sqm MATERIAL 15 mm thick, light weight, integral densified micro look edged,false ceiling tiles of size 595x595 mm. Celling Area = 100 sqm + Add 5% wastage = 5 sqm. Total = 105 sqm SILHOUETTE Profile grid frame :	sqm	105.00	725.00	76125.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
8567	Galvanized mild steel perimeter wall angle 22x19x0.40 mm (3000 mm long) including wastage @10%	each	13.50	125.00	1687.50	
8566	Powder coated steel section main-T ceiling sections 15x42x0.40 mm (3000 mm long) including wastage @10%	each	29.50	260.00	7670.00	
8568	Powder coated Galvanised Iron intermediate cross-T section 15x42x0.40 mm (1200 mm long) including wastage @10%	each	147.00	105.00	15435.00	
8569	Powder coated Galvanized Iron intermediate cross-T section 15x42x0.40mm (600 mm long) including wastage @10%	each	147.00	50.00	7350.00	
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	72.00	28.00	2016.00	
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	15.00	1080.00	
8515	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	72.00	42.00	3024.00	
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	250.00	250.00	
9999	Scaffolding etc.	L.S.	498.65	2.12	1057.14	
9977	Carriage of materials etc.	L.S.	237.48	2.12	503.46	
9999	Sundries	L.S.	310.70	2.12	658.68	
	LABOUR					
0111	Carpenter 1st class	day	28.00	784.00	21952.00	
0114	Beldar	day	23.00	645.00	14835.00	
	TOTAL				153643.78	W
	Add 1 % Water charges on "W"				1536.44	
	TOTAL				155180.22	X
	Add GST on "X" (multiplying factor 0.1405)				21802.82	
	TOTAL				176983.04	Y
	Add 15% CPOH on "Y"				26547.46	
	TOTAL				203530.49	Z
	Add Cess @ 1% on "Z"				2035.30	
	Cost of 100 sqm.				205565.80	
	Cost of 1 sqm.				2055.66	
	Say				2055.65	

26.24 Providing and fixing in position wall panelling at all heights with integral densified calcium silicate panels/tiles of size 595 x 595mm, having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity <0.043 W/m K as per ASTM 518:1991, comprising of a frame made from especially fabricated galvanised mild steel sheet 0.50 mm thick pressed section (galvanizing @120 grams per sqm including both sides) i.e.vertical studs of size 48 x 34 x 36 mm are placed at 600mm center to center in a floor and ceiling channel section of size 50 x 32m fixed to the floor and soffit at 600mm centers using 12mm dia,50mm long wedge type expanded zinc alloy dash

fastner with 10mm bolt. This same channel is then to be fixed in horiziontal direction at 600mm center to center so as to form a grid of 600mm x 600mm. Glasswool of 50mm thickness is then to be inserted in the slots and finally calcium silicate non combustible panels/tiles are to be screw fixed with self tapping pan head nickel coated mild steel screws of size 13 x 3.2mm on to this grid leaving an even groove of 1 mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate based compound and fiber joint tape roll 50mm wide (90 metre)roll and two coats of primer suitable for panelling as per manufacturer's specification as per direction of Engineer-in-Charge all complete.

26.24.1 With 15 mm thick fully perforated square/butt edge light weight calcium silicate panels/ tiles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6.00 x 3.65=21.90 sqm				
	MATERIAL				
8564	15 mm thick, light weight,fully perforated square/butt edge integral densified,false ceiling tiles of size 595x595 mm. Ceiling area = 21.90 sqm + 1.10 sqm (Add 5% wastage) Total = 23.00 sqm	sqm	23.00	900.00	20700.00
7367	Galvanised M.S. sheet 0.5 mm thick pressed channel section of size 50x 32 mm 2 x 6.00 m=12m +0.60 (Add 5% wastage) = 12.60 m	metre	12.60	60.00	756.00
7369	Galvanised M.S. sheet 0.50 mm thick pressed stud : 48x34x36 mm 11 x 3.65 m = 40.15 m + 5 x 6.00 = 30.00 m Total= 70.15 m +3.51 (Add 5% wastage) Total = 73.66m	metre	73.66	70.00	5156.20
7025	Self tapping pan head nickle coated mild steel screws of size 13 x 3.2 mm	1000 Nos	0.392	480.00	188.16
7383	12 mm dia 50 mm long wedge type expanded zinc alloy dash fastner	each	19.00	7.00	133.00
7274	Glass wool 50 mm thick 21.90 +1.10 (Add 5% wastage) = 23.00 sqm	sqm	23.00	200.00	4600.00
0764	Calcium silicate base compound for jointing calcium silicate tiles 22.81/103.68 x 21.9 = 4.82 kgs	kg	4.82	26.00	125.32
7026	Fibre joint tape 50 mm wide (90 metre) roll 1.27/103.68 x 21.90 = 0.27 roll	each roll	0.27	150.00	40.50
9999	Sundries such as scaffolding, tools, bits, etc.	L.S.	130.00	2.12	275.60
9977	Carriage of materials etc.	L.S.	52.00	2.12	110.24
	LABOUR				
0111	Carpenter 1st class 0.30x21.90=6.57 days	day	6.57	784.00	5150.88
0112	Carpenter 2nd class 0.13x21.90=2.847 days	day	2.847	714.00	2032.76

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar 0.35x21.90=7.665 days	day	7.665	645.00	4943.93
0131	Painter	day	1.095	714.00	781.83
	TOTAL				44994.41 W
	Add 1 % Water charges on "W"				449.94
	TOTAL				45444.36 X
	Add GST on "X" (multiplying factor 0.1405)				6384.93
	TOTAL				51829.29 Y
	Add 15% CPOH on "Y"				7774.39
	TOTAL				59603.68 Z
	Add Cess @ 1% on "Z"				596.04
	Cost of 21.90 sqm.				60199.72
	Cost of 1 sqm.				2748.85
	Say				2748.85

26.25 Providing and fixing 15 mm thick false ceiling tiles at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991,in true horizontal level on the existing frame work consisting of T-sections and Lsections suitably fixed according to tile size as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	MATERIAL				
8589	Calcium Silicate tegular edged celling tiles 595x595 mm and 15 mm thick 10 + 0.5 (Add wastage @5%) = 10.5 sqm	sqm	10.50	685.00	7192.50
9977	Carriage	L.S.	14.95	2.12	31.69
	LABOUR				
0111	Carpenter 1st class	day	2.50	784.00	1960.00
0114	Beldar	day	2.00	645.00	1290.00
9999	Scaffolding	L.S.	31.07	2.12	65.87
9999	Sundries	L.S.	31.07	2.12	65.87
	TOTAL				10605.93 W
	Add 1 % Water charges on "W"				106.06
	TOTAL				10711.99 X
	Add GST on "X" (multiplying factor 0.1405)				1505.03
	TOTAL				12217.02 Y
	Add 15% CPOH on "Y"				1832.55
	TOTAL				14049.58 Z
	Add Cess @ 1% on "Z"				140.50
	Cost of 10 sqm				14190.07
	Cost of 1 sqm				1419.01
	Say				1419.00

26.26 Providing & fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having moisture content less than 2%, humidity resistance of 99%, NRC0.50 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 (part 4)-1970 and light reflectance of 85% (minimum) to be laid in true horizontal level suspended on inter-locking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 15x32 mm of length 3000 mm, cross - T of size 15x32 mm of length 1200 mm and secondary intermediate cross-T of size 15x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall wood screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.

26.26.1 With semi perforated 12 mm thick micro tegular edged GRG false ceiling tiles.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm MATERIAL Celling area =100 sqm Add wastage @ 5% = 5 sqm Total=105.00 sqm				
8581	12 mm thick micro tegular edged semi perforated GFRG (Glass Fibre Reinforced Gypsum) false celing tiles of Size 595x595 mm	sqm	105.00	550.00	57750.00
8555	Galvanized iron main-T ceiling sections 15x32x0.33 mm (3000 mm long) Including wastage @ 10%	each	29.50	190.00	5605.00
8591	Galvanized iron perimeter wall angle 24x24x0.40 mm (3000 mm long) Including wastage @ 10%	each	13.50	90.00	1215.00
8556	Galvanized iron intermediate cross-T section 15x32x0.33 mm (1200 mm long) Including wastage @ 10%	each	147.00	78.00	11466.00
8587	Galvanized iron intermediate cross-T section 15x32x0.33 mm (600 mm long) Including wastage @ 10%	each	147.00	37.00	5439.00
8588	Galavanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm length	each	72.00	28.00	2016.00
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	15.00	1080.00
8596	Galvanised MS 8mm outer diameter M-6 dash fastener 25mm long	each	72.00	35.00	2520.00
8211	40mm SS with plastic rawl plugs	100 nos	1.00	250.00	250.00
9999	Scaffolding etc.	L.S.	498.65	2.12	1057.14
9977	Carriage of materials etc.	L.S.	237.48	2.12	503.46
9999	Sundries	L.S.	310.70	2.12	658.68

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	28.00	784.00	21952.00
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				126347.28 W
	Add 1 % Water charges on "W"				1263.47
	TOTAL				127610.75 X
	Add GST on "X" (multiplying factor 0.1405)				17929.31
	TOTAL				145540.06 Y
	Add 15% CPOH on "Y"				21831.01
	TOTAL				167371.07 Z
	Add Cess @ 1% on "Z"				1673.71
	Cost of 100 sqm				169044.78
	Cost of 1 sqm				1690.45
	Say				1690.45

26.26.2 With fully perforated 12 mm thick micro tegular edged or 10 mm thick square edged GRG false ceiling tiles.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 sqm				
	MATERIAL				
	Celling area =100 sqm				
	Add wastage @ 5% = 5 sqm				
	Total=105.00 sqm				
8582	12 mm thick micro tegular edged fully perforated GFRG (Glass Fibre Reinforced Gypsum) false celing tiles of Size 595x595 mm	sqm	105.00	600.00	63000.00
8555	Galvanized iron main-T ceiling sections 15x32x0.33 mm (3000 mm long) Including wastage @ 10%	each	29.50	190.00	5605.00
8591	Galvanized iron perimeter wall angle 24x24x0.40 mm (3000 mm long) Including wastage @ 10%	each	13.50	90.00	1215.00
8556	Galvanized iron intermediate cross-T section 15x32x0.33 mm (1200 mm long) Including wastage @ 10%	each	147.00	78.00	11466.00
8587	Galvanized iron intermediate cross-T section 15x32x0.33 mm (600 mm long) Including wastage @ 10%	each	147.00	37.00	5439.00
8588	Galavanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm length	each	72.00	28.00	2016.00
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	15.00	1080.00
8596	Galvanised MS 8mm outer diameter M-6 dash fastener 25mm long	each	72.00	35.00	2520.00
8211	40mm long SS screws with plastic rawl plugs	100 nos	1.00	250.00	250.00
9999	Scaffolding etc.	L.S.	498.65	2.12	1057.14
9977	Carriage of materials etc.	L.S.	237.48	2.12	503.46
9999	Sundries	L.S.	310.70	2.12	658.68

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0111	Carpenter 1st class	day	28.00	784.00	21952.00
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				131597.28 W
	Add 1 % Water charges on "W"				1315.97
	TOTAL				132913.25 X
	Add GST on "X" (multiplying factor 0.1405)				18674.31
	TOTAL				151587.56 Y
	Add 15% CPOH on "Y"				22738.13
	TOTAL				174325.70 Z
	Add Cess @ 1% on "Z"				1743.26
	Cost of 100 sqm				176068.96
	Cost of 1 sqm				1760.69
	Say				1760.70

26.27 Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance ? 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in-charge.

26.27.1 With 16 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.55 to 0.6

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 Sqm				
	MATERIAL				
8552	Mineral fibre beveled tegular edged ceiling tiles 595x595 mm, 16 mm thick Area = 100 sqm + 5 sqm (Add for wastage @5%) Total = 105 sqm	sqm	105.00	835.00	87675.00
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick including 10 % wastage	each	29.50	190.00	5605.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8556	G.I. cross Tee 15X32mm of 1200mm length 0.33mm thick including 10 % wastage	each	147.00	78.00	11466.00
8557	G.I. cross Tee 15X32mm of 600mm length, 0.33 mm thick including 10 % wastage	each	147.00	35.00	5145.00
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long) including 10 % wastage	each	13.50	90.00	1215.00
8558	Galvanised Iron hanger rod 6mm dia fully threaded upto 1000mm length	each	72.00	26.00	1872.00
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	15.00	1080.00
8515	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	72.00	42.00	3024.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	250.00	250.00
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.12	398.45
9977	Carriage of material etc.	L.S.	89.35	2.12	189.42
	LABOUR				
0111	Carpenter 1st class	day	28.00	784.00	21952.00
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				154706.88 W
	Add 1 % Water charges on "W"				1547.07
	TOTAL				156253.94 X
	Add GST on "X" (multiplying factor 0.1405)				21953.68
	TOTAL				178207.62 Y
	Add 15% CPOH on "Y"				26731.14
	TOTAL				204938.77 Z
	Add Cess @ 1% on "Z"				2049.39
	Cost of 100 sqm				206988.16
	Cost of 1 sqm				2069.88
	Say				2069.90

26.27.2 With 20 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.7)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 Sqm				
	MATERIAL				
8554	Mineral fibre beveled tegular edged ceiling tiles 595x595mm, 20 mm thick Area = 100 sqm + 5 sqm (Add for wastage @5%) Total = 105 sqm	sqm	105.00	1045.00	109725.00
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick including 10 % wastage	each	29.50	190.00	5605.00
8556	G.I. cross Tee 15X32mm of 1200mm length 0.33mm thick including 10 % wastage	each	147.00	78.00	11466.00
8587	G.I. cross Tee 15X32mm of 600mm length, 0.33 mm thick including 10 % wastage	each	147.00	37.00	5439.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long) including 10 % wastage	each	13.50	90.00	1215.00
8558	Galvanised Iron hanger rod 6mm dia fully threaded upto 1000mm length	each	72.00	26.00	1872.00
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	15.00	1080.00
8596	Galavanised MS 8 mm outer diameter 50mm long	each	72.00	35.00	2520.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	250.00	250.00
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.12	398.45
9977	Carriage of material etc.	L.S.	89.35	2.12	189.42
	LABOUR				
0111	Carpenter 1st class	day	28.00	784.00	21952.00
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				176546.88 W
	Add 1 % Water charges on "W"				1765.47
	TOTAL				178312.34 X
	Add GST on "X" (multiplying factor 0.1405)				25052.88
	TOTAL				203365.23 Y
	Add 15% CPOH on "Y"				30504.78
	TOTAL				233870.01 Z
	Add Cess @ 1% on "Z"				2338.70
	Cost of 100 sqm				236208.71
	Cost of 1 sqm				2362.09
	Say				2362.10

26.27.3 With 16 mm thick beveled tegular mineral fibre Anti-microbial false ceiling tile confirming to ISO 5 (class 100) specifications

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 Sqm				
	MATERIAL				
8553	Mineral fibre beveled tegular edged ceiling tiles 595x595 mm, 16 mm thick with bioblock, confirming to ISO 5 (class 100) specifications Area = 100 sqm + 5 sqm (Add for wastage @5%) Total = 105 sqm	sqm	105.00	925.00	97125.00
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick including 10 % wastage	each	29.50	190.00	5605.00
8556	G.I. cross Tee 15X32mm of 1200mm length 0.33mm thick including 10 % wastage	each	147.00	78.00	11466.00
8557	G.I. cross Tee 15X32mm of 600mm length,0.33 mm thick including 10 % wastage	each	147.00	35.00	5145.00
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long) including 10 % wastage	each	13.50	90.00	1215.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8558	Galvanised Iron hanger rod 6mm dia fully threaded upto 1000mm length	each	72.00	26.00	1872.00
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	72.00	15.00	1080.00
8596	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	72.00	35.00	2520.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	250.00	250.00
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.12	398.45
9977	Carriage of material etc.	L.S.	89.35	2.12	189.42
	LABOUR				
0111	Carpenter 1st class	day	28.00	784.00	21952.00
0114	Beldar	day	23.00	645.00	14835.00
	TOTAL				163652.88 W
	Add 1 % Water charges on "W"				1636.53
	TOTAL				165289.40 X
	Add GST on "X" (multiplying factor 0.1405)				23223.16
	TOTAL				188512.57 Y
	Add 15% CPOH on "Y"				28276.88
	TOTAL				216789.45 Z
	Add Cess @ 1% on "Z"				2167.89
	Cost of 100 sqm				218957.35
	Cost of 1 sqm				2189.57
	Say				2189.55

26.28 Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge

26.28.1 75mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for One Sqm 75mm average thickness for beams				
	MACHINERY				
9999	Hire charges for HILTY-TE 504 Pneumatic Chisel	L.S.	5.60	2.12	11.87
	LABOUR				
0157	Machine Operator	day	0.20	784.00	156.80
0114	Beldar	day	0.10	645.00	64.50
	TOTAL				233.17 W
	Add 1 % Water charges on "W"				2.33
	TOTAL				235.50 X
	Add GST on "X" (multiplying factor 0.1405)				33.09
	TOTAL				268.59 Y
	Add 15% CPOH on "Y"				40.29
	TOTAL				308.88 Z
	Add Cess @ 1% on "Z"				3.09
	Cost of 1.0 sqm				311.97
	Say				311.95

26.28.2 50mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for One Sqm				
	50mm average thickness for beams				
	MACHINERY				
9999	Hire charges for HILTY-TE 504				
	Pneumatic Chisel	L.S.	3.74	2.12	7.93
	LABOUR				
0157	Machine Operator	day	0.134	784.00	105.06
0114	Beldar	day	0.07	645.00	45.15
	TOTAL				158.13 W
	Add 1 % Water charges on "W"				1.58
	TOTAL				159.72 X
	Add GST on "X" (multiplying				
	factor 0.1405)				22.44
	TOTAL				182.16 Y
	Add 15% CPOH on "Y"				27.32
	TOTAL				209.48 Z
	Add Cess @ 1% on "Z"				2.09
	Cost of 1.0 sqm				211.57
	Say				211.55

26.28.3 25 mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for One Sqm				
	25mm average thickness for beams				
	MACHINERY				
9999	Hire charges for HILTY-TE 504				
	Pneumatic Chisel	L.S.	1.87	2.12	3.96
	LABOUR				
0157	Machine Operator	day	0.07	784.00	54.88
0114	Beldar	day	0.03	645.00	19.35
	TOTAL				78.19 W
	Add 1 % Water charges on "W"				0.78
	TOTAL				78.98 X
	Add GST on "X" (multiplying				
	factor 0.1405)				11.10
	TOTAL				90.07 Y
	Add 15% CPOH on "Y"				13.51
	TOTAL				103.58 Z
	Add Cess @ 1% on "Z"				1.04
	Cost of 1.0 sqm				104.62
	Say				104.60

26.29 Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.

26.29.1 Bars upto 12 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 3.00 sqm (95.54 meter length of 10 mm dia bar) Bars upto 12 mm diameter				
	(1 litre chemical shall cover 3.00 sqm area of bars)				
	MATERIALS				
7911	Chemical Rust Remover	litre	1.00	245.00	245.00
	LABOUR				
	(Application charges for 3.0 sqm)				
0131	Painter	day	0.162	714.00	115.67
0115	Coolie	day	0.162	645.00	104.49
9999	Putty, brush, sand paper	L.S.	3.162	2.12	6.70
9999	Sundries	L.S.	1.98	2.12	4.20
	TOTAL				476.06 W
	Add 1 % Water charges on "W"				4.76
	TOTAL				480.82 X
	Add GST on "X" (multiplying factor 0.1405)				67.56
	TOTAL				548.37 Y
	Add 15% CPOH on "Y"				82.26
	TOTAL				630.63 Z
	Add Cess @ 1% on "Z"				6.31
	Cost of 3 sqm (95.54 m length of 10 mm dia bar)				636.94
	Rate per meter length of bar				6.67
	Say				6.65

26.29.2 Bars above 12 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 3.00 sqm (47.78 meter length of 20 mm dia bar) Bars above 12 mm diameter				
	(1 litre chemical shall cover 3.00 sqm area of bars)				
	MATERIALS				
7911	Chemical Rust Remover	litre	1.00	245.00	245.00
	LABOUR				
	(Application charges for 3.0 sqm)				
0131	Painter	day	0.162	714.00	115.67
0115	Coolie	day	0.162	645.00	104.49
9999	Putty, brush, sand paper	L.S.	3.162	2.12	6.70
9999	Sundries	L.S.	1.98	2.12	4.20
	TOTAL				476.06 W
	Add 1 % Water charges on "W"				4.76
	TOTAL				480.82 X
	Add GST on "X" (multiplying factor 0.1405)				67.56
	TOTAL				548.37 Y
	Add 15% CPOH on "Y"				82.26
	TOTAL				630.63 Z
	Add Cess @ 1% on "Z"				6.31
	Cost of 3.00 sqm (47.78m length of 20 mm dia bar)				636.94
	Rate per meter length of bar				13.33
	Say				13.35

26.30 Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100mm upto 200mm in RCC beams, lintels, columns and slabs to introduce steel bars for sunshades/balconies including fixing the steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-In-Charge.

26.30.1 Upto and including 12mm dia.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 holes				
	MATERIAL				
7913	Epoxy	kg	0.20	585.00	117.00
	Approx unit Weight of Epoxy = 2000kg/cum or 2gm/cucm				
	Volume of Epoxy filled =3.14/4[(1.5) 2-(1.2)2] x 15.5cm = 9.86cucm				
	Weight of Epoxy for 10 holes =10x9.86 x 2 = 197.20 gms say 200gms = 0.2 kg				
	MACHINERY				
0088	Hire charges of Drill machine upto 30 mm dia	day	0.50	160.00	80.00
	LABOUR				
0116	Fitter (grade 1)	day	0.50	784.00	392.00
0114	Beldar	day	0.50	645.00	322.50
	TOTAL				911.50 W
	Add 1 % Water charges on "W"				9.12
	TOTAL				920.62 X
	Add GST on "X" (multiplying factor 0.1405)				129.35
	TOTAL				1049.96 Y
	Add 15% CPOH on "Y"				157.49
	TOTAL				1207.46 Z
	Add Cess @ 1% on "Z"				12.07
	Rate for 10 holes				1219.53
	Rate for one hole				121.95
	Say				121.95

26.31 Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.

26.31.1 SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 10.00 Sqm bonding coat				
	MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.022	5000.00	110.00
7914	SBR Polymer @ 10% of cement weight= 22.00kgx 10% =2.2 kg	kg	2.20	175.00	385.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0155	Mason (average)	day	0.27	749.00	202.23
0115	Coolie	day	0.27	645.00	174.15
9999	Scaffolding and sundries (8.06/2=4.03)	L.S.	4.03	2.12	8.54
	TOTAL				879.92 W
	Add 1 % Water charges on "W"				8.80
	TOTAL				888.72 X
	Add GST on "X" (multiplying factor 0.1405)				124.87
	TOTAL				1013.59 Y
	Add 15% CPOH on "Y"				152.04
	TOTAL				1165.63 Z
	Add Cess @ 1% on "Z"				11.66
	Cost for 10.00 sqm				1177.28
	Rate per sqm				117.73
	Say				117.75

26.31.2 Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 2.20 Sqm				
7913	Epoxy	kg	1.00	585.00	585.00
9999	Application charge for applying bonding coat of Epoxy	L.S.	18.50	2.12	39.22
9999	Cost of brushes etc.	L.S.	8.40	2.12	17.81
	TOTAL				642.03 W
	Add 1 % Water charges on "W"				6.42
	TOTAL				648.45 X
	Add GST on "X" (multiplying factor 0.1405)				91.11
	TOTAL				739.56 Y
	Add 15% CPOH on "Y"				110.93
	TOTAL				850.49 Z
	Add Cess @ 1% on "Z"				8.50
	Cost for 2.20 sqm				858.99
	Rate per sqm				390.45
	Say				390.45

26.32 Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge.

Note: Measurement and payment: The pre-measurement of thickness shall be done just after the surface preparation is completed and Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding / tapping with a blunt metal instrument and/or the 75mm size cube crushing strength at the end of 28 days to be not less than 30 N/Sqmm2).

26.32.1 12 mm average thickness.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 10 Sqm				
	MATERIAL				
	Cement mortar 1:4 (1 cement : sand) = 0.144 Cum				
3.9	Rate as per Item No.3.9 of SH:MORTARS	cum	0.144	4355.20	627.15
7914	SBR Polymer	kg	1.10	175.00	192.50
	Qty of cement in mortar= 0.144x0.38 = 0.055 MT or 55kg				
	@ 2% of weight of cement 55kgx2% =1.10 kg				
	LABOUR				
0155	Mason (average)	day	0.67	749.00	501.83
0115	Coolie	day	0.75	645.00	483.75
0101	Bhisti	day	0.92	714.00	656.88
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				2488.84 W
	Add 1 % Water charges on "W"				24.89
	TOTAL				2513.73 X
	Add GST on "X" (multiplying factor 0.1405)				353.18
	TOTAL				2866.91 Y
	Add 15% CPOH on "Y"				430.04
	TOTAL				3296.95 Z
	Add Cess @ 1% on "Z"				32.97
	Cost for 10 sqm				3329.92
	Rate per sqm				332.99
	Say				333.00

26.32.2 25 mm average thickness in 2 layers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 10 Sqm				
	MATERIAL				
	Cement mortar 1:4 (1 cement : 4 coarse sand) =(0.144/12)x25 =0.30 Cum				
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.30	4355.20	1306.56
7914	SBR Polymer	kg	2.28	175.00	399.00
	Cement 0.30x0.38 = 0.114 MT OR 114 kg				
	@ 2% of weight of cement 114kgx2% =2.28kg				
	LABOUR				
0155	Mason (average)	day	0.94	749.00	704.06
0115	Coolie	day	1.02	645.00	657.90
0101	Bhisti	day	1.01	714.00	721.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	12.61	2.12	26.73
	TOTAL				3815.39 W
	Add 1 % Water charges on "W"				38.15
	TOTAL				3853.55 X
	Add GST on "X" (multiplying factor 0.1405)				541.42
	TOTAL				4394.97 Y
	Add 15% CPOH on "Y"				659.25
	TOTAL				5054.22 Z
	Add Cess @ 1% on "Z"				50.54
	Cost for 10 sqm				5104.76
	Rate per sqm				510.48
	Say				510.50

26.32.3 50 mm average thickness in 3 layers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 10 Sqm				
	MATERIAL				
	Cement mortar 1:4 (1 cement : 4 coarse sand) 0.144/12)x50= 0.60 Cum				
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.60	4355.20	2613.12
7914	SBR Polymer	kg	4.56	175.00	798.00
	Cement 0.60x0.38 = 0.228 MT OR 228 kg				
	@ 2% of weight of cement 228kgx2% =4.56 kg				
	LABOUR				
0155	Mason (average)	day	1.88	749.00	1408.12
0115	Coolie	day	2.04	645.00	1315.80
0101	Bhisti	day	2.02	714.00	1442.28
9999	Scaffolding and sundries	L.S.	25.22	2.12	53.47
	TOTAL				7630.79 W
	Add 1 % Water charges on "W"				76.31
	TOTAL				7707.09 X
	Add GST on "X" (multiplying factor 0.1405)				1082.85
	TOTAL				8789.94 Y
	Add 15% CPOH on "Y"				1318.49
	TOTAL				10108.43 Z
	Add Cess @ 1% on "Z"				101.08
	Cost for 10 sqm				10209.52
	Rate per sqm				1020.95
	Say				1020.95

26.33 Providing, mixing and applying SBR polymer (of approved make @ minimum 2% by wt. of cement used) modified plain/reinforced cement concrete for structural members having minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness.

Note: Rates shall be for finished surface area of concrete and shall include the cost of labour, concrete and appropriate approved Super-Plasticiser for rendering concrete as flowable and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument)

26.33.1 50mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm area (0.5cum) M25 concrete 0.5 cum of concrete@ 330 kg/cum				
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete	cum	0.50	10080.15	5040.08 A
	Deduction of pumping charges				
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.50	210.00	-105.00
7914	SBR Polymer @2% of cement 165 kg = 165X2% = 3.3 kg	kg	3.30	175.00	577.50
	TOTAL				5512.58 W
	Add 1 % Water charges on "W-A"				4.73
	TOTAL				5517.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				67.05
	TOTAL				5584.35 Y
	Add 15% CPOH on "Y-A"				81.64
	TOTAL				5665.99 Z
	Add Cess @ 1% on "Z-A"				6.26
	Cost of 10 sqm				5672.25
	Cost of 1 sqm				567.23
	Say				567.25

26.33.2 75mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm area (0.75cum) M25 concrete 0.75 cum of concrete@ 330 kg/cum				
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete	cum	0.75	10080.15	7560.11 A
	Deduction of pumping charges				
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.75	210.00	-157.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7914	SBR Polymer @2% of cement 247.50 kg = 247.50X2% = 4.95 kg	kg	4.95	175.00	866.25
	TOTAL				8268.86 W
	Add 1 % Water charges on "W-A"				7.09
	TOTAL				8275.95 X
	Add GST on "X-A" (multiplying factor 0.1405)				100.58
	TOTAL				8376.53 Y
	Add 15% CPOH on "Y-A"				122.46
	TOTAL				8498.99 Z
	Add Cess @ 1% on "Z-A"				9.39
	Cost of 10 sqm				8508.38
	Cost of 1 sqm				850.84
	Say				850.85

26.34 Providing and laying SBR Polymer modified (of approved make @ minimum 2% by wt. of cement used) plain/reinforced concrete jacket for the structural members e.g. columns, pillars, piers, beams etc with concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness all-round existing core of RCC member.

Note: Rates shall be for finished surface area of concrete and shall include the cost of making holes in existing RCC slab, if required, for pouring concrete in shuttering mould of jacket and appropriate approved Super-Plasticiser for rendering concrete as flowable self compacting and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument)

26.34.1 50mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm area M25 concrete 0.5 cum of concrete with cement content 330 kg/cum				
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete	cum	0.50	10080.15	5040.08 A
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.50	210.00	-105.00
7914	SBR Polymer @2% of cement 165 kg = 165X2% = 3.3 kg	kg	3.30	175.00	577.50
	TOTAL				5512.58 W
	Add 1 % Water charges on "W-A"				4.73
	TOTAL				5517.30 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X-A" (multiplying factor 0.1405)				67.05
	TOTAL				5584.35 Y
	Add 15% CPOH on "Y-A"				81.64
	TOTAL				5665.99 Z
	Add Cess @ 1% on "Z-A"				6.26
	Cost of 10 sqm				5672.25
	Cost of 1 sqm				567.23
	Say				567.25

26.34.2 75mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm area (0.75cum) M25 concrete 0.75 cum of concrete with cement content 330 kg/cum				
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete	cum	0.75	10080.15	7560.11 A
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.75	210.00	-157.50
7914	SBR Polymer @2% of cement 247.50 kg = 247.50X2% = 4.95 kg	kg	4.95	175.00	866.25
	TOTAL				8268.86 W
	Add 1 % Water charges on "W-A"				7.09
	TOTAL				8275.95 X
	Add GST on "X-A" (multiplying factor 0.1405)				100.58
	TOTAL				8376.53 Y
	Add 15% CPOH on "Y-A"				122.46
	TOTAL				8498.99 Z
	Add Cess @ 1% on "Z-A"				9.39
	Cost of 10 sqm				8508.38
	Cost of 1 sqm				850.84
	Say				850.85

26.34.3 100mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm area (1.00 cum) M25 concrete 1.00 cum of concrete with cement content 330 kg/cum				
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete	cum	1.00	10080.15	10080.15 A
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-1.00	210.00	-210.00
7914	SBR Polymer @2% of cement 330 kg = 330X2% = 6.6 kg	kg	6.60	175.00	1155.00
	TOTAL				11025.15 W
	Add 1 % Water charges on "W-A"				9.45
	TOTAL				11034.60 X

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST on "X-A" (multiplying factor 0.1405)				134.10
	TOTAL				11168.70 Y
	Add 15% CPOH on "Y-A"				163.28
	TOTAL				11331.98 Z
	Add Cess @ 1% on "Z-A"				12.52
	Cost of 10 sqm				11344.50
	Cost of 1 sqm				1134.45
	Say				1134.45

26.35 Providing and injecting approved grout in proportion recommended by the manufacturer into cracks/honey-comb area of concrete/masonry by suitable gun/pump at required pressure including cutting of nipples after curing etc. complete as per directions of Engineer-in-Charge.
(The payment shall be made on the basis of actual weight of approved grout injected.)

26.35.1 Stirrer mixed Acrylic Polymer of approved make @ 2% of weight of cement used) modified Cement slurry made with non shrink compound in concrete/ RCC work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 kg Acrylic polymer mixed cement grout				
	MATERIAL				
7927	Acrylic Polymer chemical for cracks Considering 1 kg of cement grout mixed with non shrink polymer compound with cement @ 2% of cement	kg	2.00	31.00	62.00
0367	Portland Cement (OPC-43 grade)	tonne	0.10	5000.00	500.00
9977	Carriage of materials	L.S.	1.00	2.12	2.12
9999	Injecting charges of Stirrer mixed polymer grout Gun, rubber, pipe and other accessories hire charges of plant, machinery including necessary fuel and transportation of site	L.S.	2250.00	2.12	4770.00
	LABOUR				
0122	Foreman	day	1.00	784.00	784.00
0157	Nozzleman	day	1.00	784.00	784.00
0157	Pump Operator	day	1.00	784.00	784.00
	TOTAL				7686.12 W
	Add 1 % Water charges on "W"				76.86
	TOTAL				7762.98 X
	Add GST on "X" (multiplying factor 0.1405)				1090.70
	TOTAL				8853.68 Y
	Add 15% CPOH on "Y"				1328.05
	TOTAL				10181.73 Z
	Add Cess @ 1% on "Z"				101.82
	Cost of 100 kg				10283.55
	Cost of 1 kg				102.84
	Say				102.85

26.35.2 Stirrer mixed SBR Polymer (of approved make) modified Cement slurry made with Shrinkage Compensating Cement in concrete/RCC work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100kg of SBR Polymer mixed cement grout				
	MATERIAL				
7914	SBR Polymer for crack	kg	2.00	175.00	350.00
0367	Portland Cement (OPC-43 grade)	tonne	0.10	5000.00	500.00
9977	Carriage of materials	L.S.	1.00	2.12	2.12
9999	Injecting charges of Stirrer mixed polymer grout Gun, rubber, pipe and other accessories hire charges of plant, machinery including necessary fuel and transportation of site Rs 4000/ - per day including plant shall be used of doing approximate v Hence cost per sqm (4000/50 = 80)	L.S.	2250.00	2.12	4770.00
	LABOUR				
0122	Foreman	day	1.00	784.00	784.00
0157	Nozzle Operator	day	1.00	784.00	784.00
0157	Pump Operator	day	1.00	784.00	784.00
	TOTAL				7974.12 W
	Add 1 % Water charges on "W"				79.74
	TOTAL				8053.86 X
	Add GST on "X" (multiplying factor 0.1405)				1131.57
	TOTAL				9185.43 Y
	Add 15% CPOH on "Y"				1377.81
	TOTAL				10563.24 Z
	Add Cess @ 1% on "Z"				105.63
	Cost of 100 kg				10668.88
	Cost of 1 kg				106.69
	Say				106.70

26.35.3 Epoxy injection grout in concrete/RCC work of approved make

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for10kg Epoxy grout				
	MATERIAL				
7913	Epoxy	kg	10.00	585.00	5850.00
0092	Hire charges of Plant and machinery, it can inject - 350kg/day	day	0.03	200.00	6.00
	LABOUR				
0114	Beldar	day	0.06	645.00	38.70
0157	Nozzle Operator	day	0.03	784.00	23.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (gloves gogles etc.)	L.S.	5.00	2.12	10.60
	TOTAL				5928.82 W
	Add 1 % Water charges on "W"				59.29
	TOTAL				5988.11 X
	Add GST on "X" (multiplying factor 0.1405)				841.33
	TOTAL				6829.44 Y
	Add 15% CPOH on "Y"				1024.42
	TOTAL				7853.85 Z
	Add Cess @ 1% on "Z"				78.54
	Cost of 10 kg				7932.39
	Cost of 1 kg				793.24
	Say				793.25

26.36 Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the Engineer-in-charge.

26.36.1 Wooven PVC cloth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL				
7915	Wooven PVC cloth	sqm	10.00	25.00	250.00
9999	Fixing double scaffolding outside	L.S.	11.00	2.12	23.32
	Total Material				273.32
	LABOUR				
	For fixing and removal after complete of work @25%				68.33
	TOTAL				341.65 W
	Add 1 % Water charges on "W"				3.42
	TOTAL				345.07 X
	Add GST on "X" (multiplying factor 0.1405)				48.48
	TOTAL				393.55 Y
	Add 15% CPOH on "Y"				59.03
	TOTAL				452.58 Z
	Add Cess @ 1% on "Z"				4.53
	Rate for 10 sqm				457.11
	Rate for 1 sqm				45.71
	Say				45.70

26.37 Cleaning of exposed concrete surface of sticking material including loose and foreign material by sand blasting with coarse sand followed by and including cleaning with oil free air blast as per direction of Engineer in charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	Machinery				
0089	Hire charges of sand blasting equipment (14 sqm per day)	day	0.70	400.00	280.00
0090	Hire charges of compressor	day	0.70	500.00	350.00
	Material				
0982	Coarse sand (zone III)	cum	1.00	1500.00	1500.00
2203	Carriage of coarse sand	cum	1.00	163.93	163.93
	LABOUR				
0114	Beldar	day	0.70	645.00	451.50
9999	Sundries	L.S.	10.00	2.12	21.20
	TOTAL				2766.63 W
	Add 1 % Water charges on "W"				27.67
	TOTAL				2794.30 X
	Add GST on "X" (multiplying factor 0.1405)				392.60
	TOTAL				3186.89 Y
	Add 15% CPOH on "Y"				478.03
	TOTAL				3664.93 Z
	Add Cess @ 1% on "Z"				36.65
	Cost of 10 sqm				3701.58
	Cost of 1 sqm				370.16
	Say				370.15

26.38 Shotcreting R.C.C. columns, beams and slabs etc. in layers with approved design mix concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10 mm maximum size in proportion as per design criteria] including the cost of centering and shuttering at edges and corners etc. as directed by Engineer- in-Charge

Note: Rates shall include the providing necessary ground wires etc. The levelling gauges, if used, shall be paid for separately. Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument.

26.38.1 25mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm M25 concrete 0.25 cum of concrete@ 330 kg/cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cubical qty of concrete for 10 sqm = 10x1.00x0.025 = 0.25 cum + Wastage 25%, = 0.25x25/100=0.0625 cum. Total=0.3125 cum				
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete Machinary	cum	0.3125	10080.15	3150.05 A
0086	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel (approx. 40 sqm area of shotcrete per day = 10/40 = 0.25 day)	day	0.25	4000.00	1000.00
	Labour				
0157	Operator (Pile/ Special machine)	day	0.40	784.00	313.60
0154	Nozzel man/ gun man	day	0.40	784.00	313.60
0124	Mason (brick layer) 2nd class	day	0.40	714.00	285.60
0161	Helper (Technician)	day	0.80	645.00	516.00
0101	Bhisti	day	0.40	714.00	285.60
	TOTAL				5864.45 W
	Add 1 % Water charges on "W-A"				27.14
	TOTAL				5891.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				385.19
	TOTAL				6276.78 Y
	Add 15% CPOH on "Y-A"				469.01
	TOTAL				6745.79 Z
	Add Cess @ 1% on "Z-A"				35.96
	Cost of 10 sqm				6781.74
	Cost of 1 sqm				678.17
	Say				678.15

26.38.2 50mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm M25 concrete 0.5 cum of concrete@ 330 kg/cum Cubical qty of concrete for 10 sqm = 10x1.00x0.050 = 0.50 cum Wastage 25%, = 0.50x25/100 =0.125 cum Total=0.625 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete Machinary	cum	0.625	10080.15	6300.09 A
0086	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel (approx. 25 sqm area of shotcrete per day = 10/25 = 0.4 day)	day	0.40	4000.00	1600.00
	Labour				
0157	Operator (Pile/ Special machine)	day	0.40	784.00	313.60
0154	Nozzel man/ gun man	day	0.40	784.00	313.60
0124	Mason (brick layer) 2nd class	day	0.40	714.00	285.60
0161	Helper (Technician)	day	0.80	645.00	516.00
0101	Bhisti	day	0.40	714.00	285.60
	TOTAL				9614.49 W
	Add 1 % Water charges on "W-A"				33.14
	TOTAL				9647.64 X
	Add GST on "X-A" (multiplying factor 0.1405)				470.33
	TOTAL				10117.97 Y
	Add 15% CPOH on "Y-A"				572.68
	TOTAL				10690.65 Z
	Add Cess @ 1% on "Z-A"				43.91
	Cost of 10 sqm				10734.55
	Cost of 1 sqm				1073.46
	Say				1073.45

26.38.3 75mm thick in Grade M 25 with cement content not less than 330 kg per cum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm M25 concrete 0.75 cum of concrete @ 330 kg/cum Cubical qty of concrete for 10 sqm = 10x1.00x0.075 = 0.75 cum Wastage 25%, = 0.75x25/100 =0.1875 cum Total=0.9375 cum				
5.33.2.1	Rate as per Item No.5.33.2.1 of SH: Reinforced Cement Concrete Machinary	cum	0.9375	10080.15	9450.14 A
0086	Compressor, gun, rubber pipes & other accessories- hire charge of plant & machinery i/c necessary fuel (approx. 15 sqm area of shotcrete per day = 10/15 = 0.665 day)	day	0.665	4000.00	2660.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Labour				
0157	Operator (Pile/ Special machine)	day	0.40	784.00	313.60
0154	Nozzel man/ gun man	day	0.40	784.00	313.60
0124	Mason (brick layer) 2nd class	day	0.40	714.00	285.60
0161	Helper (Technician)	day	0.80	645.00	516.00
0101	Bhisti	day	0.40	714.00	285.60
	TOTAL				13824.54 W
	Add 1 % Water charges on "W-A"				43.74
	TOTAL				13868.28 X
	Add GST on "X-A" (multiplying factor 0.1405)				620.75
	TOTAL				14489.03 Y
	Add 15% CPOH on "Y-A"				755.83
	TOTAL				15244.87 Z
	Add Cess @ 1% on "Z-A"				57.95
	Cost of 10 sqm				15302.82
	Cost of 1 sqm				1530.28
	Say				1530.30

26.39 Providing and inserting 12mm dia galvanised steel injection nipple in honey comb area and along crack line including drilling of holes of required diametre (20mm to 30mm) up to depth from 30mm to 80mm at required spacing and making the hole & crack dust free by blowing compressed air, sealing the distance between injection nipple with adhesive chemical of approved make and allow it to cure complete as per direction of Engineer-In-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20.00 Nos Hole				
	MATERIAL				
7921	Adhesive chemical (750 mm deep & 20 mm Dia Hole) Volume of hole =20x(3.14/4)x2.00x 2.00x7.5=471 cub cm. Adhesive @ 40% of 471 ml =188.40 ml, Say 188 ml	ml	188.00	2.00	376.00
7922	Bit of drilling machine for Hole upto 30mm dia (One Bit done 20 Holes only)	each	1.00	500.00	500.00
7923	GI injection nipple 12mm dia, 75mm long	each	20.00	45.00	900.00
7924	Blowing compressed air for cleaning holes upto 30mm dia	each	20.00	10.00	200.00
	LABOUR				
0155	Mason (average)	day	0.50	749.00	374.50
0115	Coolie	day	0.50	645.00	322.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.50	714.00	357.00
	TOTAL				3030.00 W
	Add 1 % Water charges on "W"				30.30
	TOTAL				3060.30 X
	Add GST on "X" (multiplying factor 0.1405)				429.97
	TOTAL				3490.27 Y
	Add 15% CPOH on "Y"				523.54
	TOTAL				4013.81 Z
	Add Cess @ 1% on "Z"				40.14
	Cost of 20 Nos hole				4053.95
	Cost of 1 hole				202.70
	Say				202.70

26.40 Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 sqm (i.e 77.50 kg.)				
	MATERIAL				
7925	L shaped 100mm long, 10mm dia mild steel shear key key to be provided at 0.5 mtr centre to centre in each direction Total no. of Shear key of MS Bar in 10sqm = 25 nos 25x0.10x0.617=1.55 kg	kg	1.55	80.00	124.00
0091	Welding charges of shear key to existing reinforcement	each	25.00	5.00	125.00
1021	Hard drawn steel wire fabric 75x25mm, weight 7.75kg/sqm 75x25 mm = 10.00 sqm + Add 5% wastage = 0.50 sqm Total = 10.50 sqm	sqm	10.50	430.00	4515.00
9977	Carriage at site	L.S.	5.61	2.12	11.89
	LABOUR				
0103	Blacksmith 2nd class	day	1.00	714.00	714.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				6134.89 W
	Add 1 % Water charges on "W"				61.35
	TOTAL				6196.24 X
	Add GST on "X" (multiplying factor 0.1405)				870.57
	TOTAL				7066.81 Y
	Add 15% CPOH on "Y"				1060.02
	TOTAL				8126.84 Z
	Add Cess @ 1% on "Z"				81.27
	Cost of 10 sqm				8208.10
	Cost of 1 sqm				820.81
	Say				820.80

26.41 Designing, providing, installing and fixing factory finished custom designed cold form Light Gauge Steel Framed super structure comprising of steel wall panel, trusses, purlins etc manufactured out of minimum 0.75 mm thick steel sheet as per design requirements. The steel sheet shall be galvanized (AZ-150gms Aluminium Zinc Alloy coated steel having minimum yield strength 300-550 Mpa) conforming to AISI specifications and IBC 2009 for cold formed steel framing and construction and also as per IS: 875-1987, ISO 800-1984 and IS:801- 1975. The wind load shall be as per provisions of IS 875 (part -III). LGSFS frame shall be designed as per IS: 801 using commercially available software such as Frame CAD Pro-11.7/ STAAD PRO-V8i/ArchitekV2.5.16/ Revit architecture-2011 or equivalent. Proper usage of Connection Accessories like Heavy Duty Tension Ties, Light Duty Hold-ons, Twist Straps (to connect truss with wall frames), Strong Tie, Tie Rod, H-Brackets, Boxing Sections, L-Shaped Angles for better structural stability. The framing section shall be cold form C-type having minimum web depth 89 mm x 39mm flange x 11mm lip in required length as per structural design requirement duly punched with dimple/slot at required locations as per approved drawings. The slots will be along centre line of webs and shall be spaced minimum 250mm away from both ends of the member. The frame can be supplied in panelized or knock down condition in specific dimensions and fastened with screws extending through the steel beyond by minimum of three exposed threads. All self drilling tapping screws for joining the members shall have a Type II coating in accordance with ASTM B633(13) or equivalent corrosion protection of gauge 10 & 12, TPI 16 & 8 of length 20mm. The frames shall be fixed to RCC slab or Tie beam over Neoprene rubber using self expanding carbon steel anchor bolt of dia as per approved drawings. design subject to minimum 12mm diameter and 121mm length conforming to AISI 304 and 316 at 500mm c/c with minimum embedment of 100mm in RCC (RCC to be paid separately) and located not more than 300mm from corners or termination of bottom tracks complete in all respects. The item also includes the submission of stability reports duly examined and issued by any NIT/IIT. The rate includes the concept design, detailed design, fabrication of sections, transportation, installation and all required fixing arrangement at site as described above.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.00 Kg				
	MATERIAL				
8579	Cold form light gauge Steel C-section of thickness 0.75mm i/c zink coating/ sliting etc. = 1.00 + 0.05 (Add for wastage @5%) = 1.05 kg	kg	1.05	140.00	147.00
9977	Carriage	L.S.	1.685	2.12	3.57
	Deduct for				
8580	Scrap value wastage of cold form light gauge steel	kg	-0.05	18.00	-0.90
	Labour for assembling/ fixing etc				
0103	Blacksmith 2nd class	day	0.01	714.00	7.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.03	645.00	19.35
	TOTAL				176.16 W
	Add 1 % Water charges on "W"				1.76
	TOTAL				177.92 X
	Add GST on "X" (multiplying factor 0.1405)				25.00
	TOTAL				202.92 Y
	Add 15% CPOH on "Y"				30.44
	TOTAL				233.36 Z
	Add Cess @ 1% on "Z"				2.33
	Cost for 1.00 kg				235.69
	Say				235.70

26.42 Providing and fixing of external wall system on Light gauge steel frame work with outer face cement boards as per standard sizes fixed with self- drilling / taping screws / fasteners @ 60cm c/c of approved make. A groove of 2 mm to 3mm shall be maintained and grooves shall be sealed with silicon based sealant. The board shall be fixed in a staggered pattern. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick or 8 to 10 gauge of length varying from 25 to 45 mm and. Internal face 12.5 mm thick gypsum plaster board fixed on cement board as per standard sizes fixed with self- drilling / taping screws / fasteners @ 60cm c/c of approved make, proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cost of frame work to be paid for separately)

26.42.1 Outer face: Outer face having 6mm thick fiber cement board fixed on 9mm thick fiber cement board, Type A, as per IS:14862:2000 (high pressure steam cured) Inner Face :- 12.5 mm thick gypsum plaster board conforming to IS 2095:2011 fixed on 8 mm thick fibre cement board confirming to IS:14862:2000 of type B (High pressure steam cured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 10.00 Sqm				
	MATERAILS				
	Outer face:				
0238	6mm thick Type A fiber cement board 1x10 =10 Sqm + 1.00 (Add for wastage @ 10%) Total = 11.00 Sqm	Sqm	11.00	470.00	5170.00
2636	GI Screws of Gauge 10, length 45 mm for fixing cement fibre board to C section.	each	40.00	3.10	124.00
0240	9 mm thick Type A fiber cement board 1x10=10 sqm +1 sqm (Add for wastage @10%) Total = 11.00 sqm	Sqm	11.00	625.00	6875.00
2635	GI screws of gauge 10, length 25 mm for fixing cement fibre board to C section Tapping and finishing Cement board joints	each	40.00	3.15	126.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
Sub A/R 1	Filling the Grove of 2 mm to 3 mm between 6 mm and 9 mm thick cement bonded particle boards.	Sqm	10.00	92.85	928.50
	Inner face :				
0239	8 mm thick Type B fiber cement board 1x10 = 10 sqm +1.00 (Add for wastage @ 10%) Total = 11.00 Sqm.	Sqm	11.00	300.00	3300.00
2636	GI screw of gauge 10, length 45 mm for fixing cement bonded particle board to C section	each	40.00	3.10	124.00
7009	12.5 mm thick tapered edge gypsum plain board 1x10 =10 sqm +1.00 (Add for wastage @10%) Total = 11.00 sqm.	Sqm	11.00	140.00	1540.00
2635	GI Screws of Gauge 10, length 25 mm for Gypsum board to C section.	each	40.00	3.15	126.00
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick heavy duty cement fibre board and 12.5 mm thick gypsum plastic board.	Sqm	10.00	243.75	2437.50
	LABOUR				
	For cutting and fixing of cement and gypsum board				
0112	Carpenter 2nd class	day	2.00	714.00	1428.00
0114	Beldar	day	6.00	645.00	3870.00
	TOTAL				26049.00 W
	Add 1 % Water charges on "W"				260.49
	TOTAL				26309.49 X
	Add GST on "X" (multiplying factor 0.1405)				3696.48
	TOTAL				30005.97 Y
	Add 15% CPOH on "Y"				4500.90
	TOTAL				34506.87 Z
	Add Cess @ 1% on "Z"				345.07
	Cost of 10 sqm				34851.94
	Cost of 1 sqm				3485.19
	Say				3485.20

26.42.2 Outer face: Outer face having 8 mm thick cement bonded particle Board fixed on 10 mm thick cement bonded particle board. (Termite, Fire and Moisture Resistance) as per IS 14276:1995. Inner face:-12.5 mm thick gypsum plaster board conforming to IS 2095:2011 fixed on 8 mm thick cement bonded particle board (Termite, fire and moisture resistance) confirming to IS:14276:1995)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 10.00 Sqm				
	MATERAILS				
	Outer face :				
0243	8mm thick Cement bonded particle board 1x10 =10 Sqm + 1.00 (Add for wastage @ 10%) Total = 11.00 Sqm	Sqm	11.00	215.00	2365.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
2636	GI Screws of Gauge 10, length 45 mm for fixing cement bonded particle board to C section.	each	40.00	3.10	124.00	
0249	10 mm thick Cement Bonded particle board 1x10=10 sqm +1 sqm (Add for wastage @10%) Total = 11.00 sqm	Sqm	11.00	475.00	5225.00	
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints	each	40.00	3.15	126.00	
Sub A/R 1	Filling the Groove of 2mm to 3 mm between 8 mm and 10 mm thick cement bonded particle boards. Inner face :	Sqm	10.00	92.85	928.50	
0243	8 mm thick cement bonded particle board 1x10 = 10 sqm +1.00 (Add for wastage @ 10%) Total = 11.00 Sqm.	Sqm	11.00	215.00	2365.00	
2636	GI screw of gauge 10, length 45 mm for fixing cement bonded particle board to C section.	each	40.00	3.10	124.00	
7009	12.5 mm thick tapered edge gypsum plain board 1x10 =10 sqm +1.00 (Add for wastage @10%) Total = 11.00 sqm.	Sqm	11.00	140.00	1540.00	
2635	GI Screws of Gauge 10, length 25 mm for Gypsum board to C section.	each	40.00	3.15	126.00	
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick cement bonded particle board and 12.5 mm thick gypsum plastic board.	Sqm	10.00	243.75	2437.50	
	LABOUR For cutting and fixing of cement and gypsum board					
0112	Carpenter 2nd class	day	2.00	714.00	1428.00	
0114	Beldar	day	6.00	645.00	3870.00	
	TOTAL				20659.00	W
	Add 1 % Water charges on "W"				206.59	
	TOTAL				20865.59	X
	Add GST on "X" (multiplying factor 0.1405)				2931.62	
	TOTAL				23797.21	Y
	Add 15% CPOH on "Y"				3569.58	
	TOTAL				27366.79	Z
	Add Cess @ 1% on "Z"				273.67	
	Cost of 10 sqm				27640.45	
	Cost of 1 sqm				2764.05	
	Say				2764.05	

Sub A/R-1 Filling the groove (i.e. 2-3mm gap between boards),taping and jointing of the first layer 6mm and 9mm thick fiber cement boards with epoxy based sealing compound or with silicon sealant. Second layer is fixed over it in a staggered pattern.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 Sqm				
	MATERIAL				
1248	Epoxy based sealing Compound	kg	0.14	535.00	74.90
	LABOUR				
0112	Carpenter 2nd class	day	0.0132	714.00	9.42
0114	Beldar	day	0.0132	645.00	8.51
	Cost of 1 sqm				92.84
	Say				92.85

Sub A/R-2 Fill the groove (i.e. 2-3mm gap between boards),taping and jointing 8mm thick fiber cement board and 12.5mm thick gypsum plaster boards with epoxy based sealing compound, Acrylic based sealing compound, Non woven reinforcement Tape as per direction of Engineer in charge.(Use a flexible knife so that no air bubble is entrapped. Allow 1-2 hours gap. Once hard tacky or set, apply a coat of Acrylic based sealing compound paste to flash fill the beveled area. After 2-4 hours go on to repeat a skin coat with Acrylic based sealing compound to securely embed the 40mm width (non woven reinforcement Tape. Use only flexible steel knife, such as provided with packs, to avoid air entrapment within compound. After overnight drying shrinkage apply a coat of acrylic based sealing compound to compensate shrinkage. Finally cover the bevel portion with any suitable overall skin coat with a desired full surface-leveler material).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 Sqm				
	MATERIAL				
1248	Epoxy based sealing Compound	kg	0.14	535.00	74.90
1249	Acrylic based sealing compound	kg	0.26	500.00	130.00
1250	Non woven reinforcement Tape	metre	25.00	0.14	3.50
	LABOUR				
0112	Carpenter 2nd class	day	0.026	714.00	18.56
0114	Beldar	day	0.026	645.00	16.77
	Cost of 1 sqm				243.73
	Say				243.75

26.43 Providing and fixing internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on cement board as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick or 8 to 10 gauge of length varying from 25 to 45 mm. Proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cost of frame work to be paid for separately

26.43.1 Cement Fiber Board 8 mm thick as per IS 14862:2000 of type B (High pressure Steam Cured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	Material				
0239	8 mm thick Type B fiber cement board 2x10=20 sqm + 2.00 (Add for wastage @10 %) = 22.00 sqm	Sqm	22.00	300.00	6600.00
2635	GI screws of gauge 10, length 25 mm for fixing cement fiber board to C section Tapping and finishing Cement board joints.	each	80.00	3.15	252.00
0241	12.5 mm thick Gypsum plaster board 2x10 = 20 sqm + 2.00 (Add for wastage @ 10%) = 22.00 sqm	Sqm	22.00	170.00	3740.00
2635	GI screws of gauge 10, length 25 mm for fixing cement fiber board to C section Tapping and finishing Cement board joints.	each	80.00	3.15	252.00
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick cement bonded particle board and 12.5 mm thick gypsum plastic board.	Sqm	10.00	243.75	2437.50
	LABOUR (For cutting & fixing cement board and Gypsum board)				
0112	Carpenter 2nd class	day	1.11	714.00	792.54
0114	Beldar	day	3.33	645.00	2147.85
	TOTAL				16221.89 W
	Add 1 % Water charges on "W"				162.22
	TOTAL				16384.11 X
	Add GST on "X" (multiplying factor 0.1405)				2301.97
	TOTAL				18686.08 Y
	Add 15% CPOH on "Y"				2802.91
	TOTAL				21488.99 Z
	Add Cess @ 1% on "Z"				214.89
	Cost of 10 sqm				21703.88
	Cost of 1 sqm				2170.39
	Say				2170.40

26.43.2 Cement Bonded particle board 8 mm (Termite, Fire & Moisture Resistance), as per IS:14276 : 1995

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	Material				
0243	8 mm thick cement bonded particle board 2x10=20 sqm + 2.00 (Add for wastage @10 %) = 22.00 sqm	Sqm	22.00	215.00	4730.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints.	each	80.00	3.15	252.00
0241	12.5 mm thick Gypsum plaster board 2x10 = 20 sqm + 2.00 (Add for wastage @ 10%) = 22.00 sqm	Sqm	22.00	170.00	3740.00
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints.	each	80.00	3.15	252.00
Sub A/R 2	Filling the grove of 2 mm to 3 mm between 8 mm thick cement bonded particle board and 12.5 mm thick gypsum plastic board.	Sqm	10.00	243.75	2437.50
	LABOUR (For cutting & fixing cement board and Gypsum board)				
0112	Carpenter 2nd class	day	1.11	714.00	792.54
0114	Beldar	day	3.33	645.00	2147.85
	TOTAL				14351.89 W
	Add 1 % Water charges on "W"				143.52
	TOTAL				14495.41 X
	Add GST on "X" (multiplying factor 0.1405)				2036.60
	TOTAL				16532.01 Y
	Add 15% CPOH on "Y"				2479.80
	TOTAL				19011.82 Z
	Add Cess @ 1% on "Z"				190.12
	Cost of 10 sqm				19201.93
	Cost of 1 sqm				1920.19
	Say				1920.20

26.44 Providing and fixing in all exterior face panels breathable vapour barrier underneath the cement fiber board as per National Building Code 2009 complete as per direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10.00 Sqm				
	MATERIAL				
2637	Vapour barrier 10.00 sqm + 1.00 sqm (Add for wastage @10%) = 11.00 sqm	sqm	11.00	180.00	1980.00
	LABOUR				
	For fixing fixing 45 sqm vapour barrier				
0112	Carpenter 2nd class	day	0.22	714.00	157.08

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.22	645.00	141.90
	TOTAL				2046.44 W
	Add 1 % Water charges on "W"				20.46
	TOTAL				2066.90 X
	Add GST on "X" (multiplying factor 0.1405)				290.40
	TOTAL				2357.30 Y
	Add 15% CPOH on "Y"				353.60
	TOTAL				2710.90 Z
	Add Cess @ 1% on "Z"				27.11
	Cost of 10 sqm				2738.01
	Cost of 1.00 sqm				273.80
	Say				273.80

26.45 Supplying and installation of moisture resistant/fire resistant cement board as per standard sizes fixed with self-drilling / taping screws. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick or 8 to 10 gauge of length varying from 25 to 45 mm.

26.45.1 Cement Fiber Board 6 mm thick as per IS 14862:2000 of type B (High pressure Steam Cured)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	Material				
0238	6 mm thick fibre cement board 10 sqm +1 sqm (Add for wastage @10%)=11.00 sqm	Sqm	11.00	470.00	5170.00
2635	GI screws of gauge 10, length 25 mm for fixing cement fibre board to C section Tapping and finishing Cement board joints	each	40.00	3.15	126.00
Sub A/R 1	Filling the Grove of 2 mm to 3 mm between 6 mm and 10 mm thick cement bonded particle boards.	Sqm	10.00	92.85	928.50
	LABOUR				
	For cutting and fixing of Cement & gypsum board				
0112	Carpenter 2nd class	day	1.11	714.00	792.54
0114	Beldar	day	3.33	645.00	2147.85
	TOTAL				9164.89 W
	Add 1 % Water charges on "W"				91.65
	TOTAL				9256.54 X
	Add GST on "X" (multiplying factor 0.1405)				1300.54
	TOTAL				10557.08 Y
	Add 15% CPOH on "Y"				1583.56
	TOTAL				12140.65 Z
	Add Cess @ 1% on "Z"				121.41
	Cost of 10 sqm				12262.05
	Cost of 1 sqm				1226.21
	Say				1226.20

26.45.2 Cement Bonded particle board 8 mm thick (Termite, Fire & Moisture Resistance), as per IS:14276 : 1995

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 Sqm				
	Material				
0243	8 mm thick cement bonded particle board 10 sqm +1 sqm (Add for wastage @10%)=11.00 sqm	Sqm	11.00	215.00	2365.00
2635	GI screws of gauge 10, length 25 mm for fixing cement bonded particle board to C section Tapping and finishing Cement board joints	each	40.00	3.15	126.00
Sub A/R 1	Filling the Grove of 2 mm to 3 mm between 6 mm and 10 mm thick cement bonded particle boards.	Sqm	10.00	92.85	928.50
	LABOUR				
	For cutting and fixing of Cement & gypsum board				
0112	Carpenter 2nd class	day	1.11	714.00	792.54
0114	Beldar	day	3.33	645.00	2147.85
	TOTAL				6359.89 W
	Add 1 % Water charges on "W"				63.60
	TOTAL				6423.49 X
	Add GST on "X" (multiplying factor 0.1405)				902.50
	TOTAL				7325.99 Y
	Add 15% CPOH on "Y"				1098.90
	TOTAL				8424.89 Z
	Add Cess @ 1% on "Z"				84.25
	Cost of 10 sqm				8509.14
	Cost of 1 sqm				850.91
	Say				850.90

26.46 Providing and fixing in position, 200 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shortcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by welding (at an angle ranging from 50-70 degree) . The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/ per cum. Both the outer faces of the panel shall be finished by applying the layer of 50 mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} À with the help of shotcreting/ guniting equipment etc at a pressure not less than 1 bar (100Kn/m2) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.20x3.00m = 3.60 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
8013	Factory made EPS Core wallpanel / roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh,with 50 mm pitch in both the directions, kept at 120-135 mm gap and interconnected by the zig zag G.I. wire of 3 mm dia at alternate row by welding. 3.60 sqm + 0.18 sqm (Add for wastage @5%)Total = 3.78 sqm	sqm	3.78	1650.00	6237.00
9999	Add for L-shape,U-shape & straight lap mesh	L.S.	208.00	2.12	440.96
	Cement mortar 1:3 (1cement: 3 coarse sand) 2x1.20x3.00x0.05= 0.36 cum				
3.8	Rate as per Item No.3.8 of SH: Mortar	cum	0.36	5024.15	1808.69
	10 mm TMT bars (2 nos.75 mm long) Aluminium C-channels (100mmx 150mm long)				
9999	For fixing wall with foundation	L.S.	312.15	2.12	661.76
	LABOUR				
9999	For carrying out shotcreting, shoring, leveling, and finishing the surface with trowel.	L.S.	707.50	2.12	1499.90
	TOTAL				10648.31 W
	Add 1 % Water charges on "W"				106.48
	TOTAL				10754.80 X
	Add GST on "X" (multiplying factor 0.1405)				1511.05
	TOTAL				12265.84 Y
	Add 15% CPOH on "Y"				1839.88
	TOTAL				14105.72 Z
	Add Cess @ 1% on "Z"				141.06
	Cost of 3.60 sqm				14246.78
	Cost of 1 sqm				3957.44
	Say				3957.45

26.47 Providing and fixing in position, 230mm thick factory made Expanded Polystyrene Core (EPS Core) roof/floor panels made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of panel, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20kg/ per cum. The bottom side of the panel shall be finished by applying a layer of 60-65 mm thick cement mortar 1: 3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} À with the help of shotcreting equipment etc at a pressure of not less than 1 bar (100Kn/m2) and surface finished with trowel. The top face of the panel shall be provided and finished by applying 70-75 mm thick layer of cement

concrete 1:1.5: 3 (1 cement :1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size). Fixing operations of roof/floor panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 1.20x3.00m = 3.60 sqm					
	MATERIAL					
8013	Factory made EPS Core wallpanel / roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh,with 50 mm pitch in both the directions, kept at 120-135 mm gap and interconnected by the zig zag G.I. wire of 3 mm dia at alternate row by welding. sqm 3.78 3.60 sqm + 0.18 sqm (Add for wastage @5%)Total = 3.78 sqm	sqm	3.78	1650.00	6237.00	
	Cement mortar 1:3 (1cement: 3 coarse sand) 60mm thick on the bottom of roof slab =1x1.2x3.00x0.060= 0.216cum					
3.8	Rate as per Item No.3.8 of SH: Mortar Cement concrete 1:1.5:3	cum	0.216	5024.15	1085.22	
	70mm thick on the top of roof slab =1x1.20x3.00x0.07= 0.252 cum					
5.3	Rate as per Item No.5.3 of SH: Reinforced Cement Concrete	cum	0.252	10719.30	2701.26	A
9999	Add for L-shape, U-shape & straight lap mesh	L.S.	202.32	2.12	428.92	
	LABOUR					
9999	For providing concreting, shotcreting, shoring, leveling, plastering and finishing the surface with trowel.	L.S.	832.36	2.12	1764.60	
	TOTAL				12217.00	W
	Add 1 % Water charges on "W-A"				95.16	
	TOTAL				12312.16	X
	Add GST on "X-A" (multiplying factor 0.1405)				1350.33	
	TOTAL				13662.49	Y
	Add 15% CPOH on "Y-A"				1644.18	
	TOTAL				15306.67	Z
	Add Cess @ 1% on "Z-A"				126.05	
	Cost of 3.60 sqm				15432.73	
	Cost of 1 sqm				4286.87	
	Say				4286.85	

26.48 Providing and fixing of customized Aluminium form work for monolithic construction on RCC members with repetitive usage made up of aluninium sheets/plates of minimum 4mm thickness and grade 6061 (Type-6). The formwork comprises of (a) wall panel, roccker, kickerand internal soffit corner, external soffit corner, external corner, internal corner etc., (b) beam components i.e, beam side panel prop head for soffit beam, beams soffit panel, beam soffit bulk head and (c) deck components i.e. deck panel, deck prop, prop length, deck mid, soffit length, deck beam bar. The panels are held in position by a simple pin and wedge system that passes thorugh holes in the out side rib of each panel. The tolerance of finished panel shall not be less than (-1 mm) and shall conform to IS 14987-1999. Pins and wedges to be made of high grade hot dipped galvansied mild steel. This form work also comprises of M.S. angle iron, "Z" shaped brackets braced diagonally at 0.90 to 1.00 mtr. centre to centre on extrenal wall face just the level below on which to lay M.S. square tube panels (Challis) and guard railing supports to form working platform and 40 mm dia G.I. telescopic adjustable props to support deck formwork and beam soffit panels including de-shuttering the formwork from odd/even level to be shifted/ lifted to next alterante odd/even level before which the points and shuttering surface to be thoroughly cleaned, pins greasing and shuttering surface oiling propoerly before fixing all complete including sealing of gap between kicker plates of wall panel and floors (if any) as per design of formwork as provided by shuttering supplier and as per direction of the Engineer-in-charge including filling and finishing the holes of varied sizes and shapes (left by keys/pins of aluminium form work shuttering while de-shuttering) with GP-2 cementeous polymer compound mixed with water in ratio prescribed by manufacturer to form consistent workable dough for pushing it in the holes upto full depth of wall using appropriate tools and finishing smooth all complete as per directions of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 sqm (Assuming 100 repetitions)				
	MATERIAL				
	Aluminium forwork & MS working platform 100 sqm @ 849431.55 = 849431.55 (Total material cost modified as 'D' below)				
	Therefore cost for using once 849431.55/100 = 8494.32				8494.32
	Deduct solvage value of aluminium for work and working platform with 100 repetitions @30% of bare material cost i.e, Rs.699400.00 (marked as ' A ' below) = 699400 /100 @ 30%				
	= (-) 2098.20				-2098.20
5772	Grease to be applied to pins for 100 sqm @ 5pins/sqm. using 25gm grease /pin = 100x5x25 gm = 12.50 Kg	Kg	12.50	180.00	2250.00
9999	Add replacement of lost/ damaged accessories	L.S.	98.85	2.12	209.56

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5773	Shuttering oil for panels @ 20sqm / ltr = 100/20 = 5.00 ltr	litre	5.00	90.00	450.00
9999	Add sundries for gaps filling with sealants etc. and T& P including pully, ropes and misc. tools	L.S.	400.00	2.12	848.00
9999	Add for PVC sleeve and plastic cover for wall tiles	L.S.	500.00	2.12	1060.00
	LABOUR				
0116	Fitter	day	5.00	784.00	3920.00
0117	Assistant Fitter	day	5.00	714.00	3570.00
0155	Mason (Average)	day	2.00	749.00	1498.00
0114	Beldar	day	10.00	645.00	6450.00
	TOTAL				26651.68
Sub A/R-2	Add for filling and fishing the holes of aluminium form work with GP-2	each	450.00	16.65	7492.50
	TOTAL				34144.18 W
	Add 1 % Water charges on "W"				341.44
	TOTAL				34485.62 X
	Add GST on "X" (multiplying factor 0.1405)				4845.23
	TOTAL				39330.85 Y
	Add 15% CPOH on "Y"				5899.63
	TOTAL				45230.48 Z
	Add Cess @ 1% on "Z"				452.30
	Cost of 10.00 sqm				45682.78
	Cost of 1.00 sqm				456.83
	Say				456.85

Sub A/R - 1

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Material cost Part-1 : Aluminium formwork 4mm thick sheet of aluminium alloy grade 6061 (type-6) for the contact face area of 100 sqm the sheet/plate requirement including framing flanges and specials = 100 + 120 = 220 sqm 220 sqm @ 10.72 kg/sqm = 2358.40 Kg Add 5% extra waste = 117.92 Kg Total = 2358.40 + 117.82 = 2476.32 Kg				
5780	4mm thick sheet of aluminium alloy grade 6061 (type-6) for aluminuum formwork Aluminium formwork weight without wastage = 2358.40 Kg	Kg	2476.32	250.00	619080.00(E)
5781	Fabrication cost for formwork panels and special including computerised designing for fabrication and mock testing before transportation to site of work.	Kg	2358.40	35.00	82544.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Accossories like pins, wedges and wall ties @ 5% of (E)				30954.00
	Add cost towards maintenance and time to time repalcement of damaged members @5% (E)				30954.00
5782	Packaging and carting of aluminium sheet/plate to the site of work	Tonne	2.36	5000.00	11800.00
	Total				775332.00
	Say				775332.00(B)
	Part-2: M S working platform on external face (required while fixing & removing)				
10.2	M.S angle iron bracket of size 50x50x6 mm 10x6.00 mtr @ 4.50 Kg/mtrs = 270 Kg (Rate as per item no 10.2 SH:10 Steel Work excluding WC, GST, CPOH & Cess)	Kg	270.00	58.44	15779.47
10.16.1	M.S. Square tube panel of tubes 25x25mm, 1.8mm thick 7x2x11.45 = 160mtr + 45 mtr (railing guards) = 205 mtr @ 1.25 Kg/mtr = 256.25 Kg (Rate as per item no.10.16.1 SH: Steel Work excluding WC, GST, CPOH & Cess)	Kg	256.25	115.79	29670.06
	Applying red oxide primer on steel work (approx. 15 sqm)				
7343	40 mm dia G.I. telescopic adjsutabe props 2-3.5 mtr	each	30.00	955.00	28650.00
	Bare cost of material				74099.53
	Say				74099.55(C)
5783	M S working platform for aluminium formwork	Kg	270.00	46.00	12420.00
4009	M S tube panel	Kg	256.25	60.00	15375.00
7343	Telescopic props = 30x2.75x2 = 165 mtr. One prop length = 3m. Total number of prop = 165/3 = 55 Nos.	each	55.00	955.00	52525.00
	Total				80320.00
	Aluminium formworkmatrial cost (marked as ' E ' = 619080				619080.00
	Grand total				699400.00(A)
	Total material cost (B) + (C)				849431.55
	Say				849431.55(D)

Sub A/R - 2 Filling and finishing the holes of varies sizes and shades (left by keys/pins of aluminium formwork shuttering while de-shuttering) with GP-2 cementeous polymer compound mixed with water in ratio prescribed by manufacturer to form consistent workable dough for pushing it in the holes upto full depth of wall using appropriate tools and finishing smooth all complete as per directions of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 0.01 cum (Assuming 100 to 120 nos holes of 0.0001cum to 0.00008 cum size can be filled with 25 kg (i/c wastage) of GP-2 compound)				
	Material				
5774	GP-2 Cementeous compound (100 holes of 0.0001 cum size = 0.01 cum)	Kg	25.00	20.00	500.00
	Labour				
0124	Mason 2nd class	day	0.90	714.00	642.60
0114	Beldar	day	0.90	645.00	580.50
9999	Sundries for T&P and scaffolding etc.	L.S.	50.00	2.12	106.00
	Total				1829.10
	Cost per each (1588.30/110)				16.63
	say				16.65

26.49 Providing and fixing in position factory made EPS cement sandwich wall/roof/ floor light weight solid core panels made of core material of EPS granule balls/ beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum) adhesive, cement, sand, flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each. Panel shall be laid on 6mm thick cement mortar (1 cement: 2 fine sand) mixed with chemical adhesive of 0.5kg per 50kg of cement or shall be preferably fixed into 'C' channel made of 1.2mm thick MS plate screwed/fastenened to the slab/ column/beam etc. The panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "C channel" which will be paid seperately).

26.49.1 Non load bearing panels 50mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 10sqm (6.95Nos x 0.6m x2.40m = 10sqm)				
	MATERIAL				
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7996	Factory made EPS light weight composite sandwitched wall/roof panel (50mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	10.50	735.25	7720.13
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.12	78.44
	LABOUR				
	For fixing, aligning, locking the panels				
0123	Mason Grade -1	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				8835.57 W
	Add 1 % Water charges on "W"				88.36
	TOTAL				8923.92 X
	Add GST on "X" (multiplying factor 0.1405)				1253.81
	TOTAL				10177.73 Y
	Add 15% CPOH on "Y"				1526.66
	TOTAL				11704.39 Z
	Add Cess @ 1% on "Z"				117.04
	Cost of 10 sqm				11821.44
	Cost of 1sqm				1182.14
	Say				1182.15

26.49.2 Non load bearing panels 60mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 10sqm (6.95Nos x 0.6m x2.40m = 10sqm)				
	MATERIAL				
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm				
7997	Factory made EPS light weight composite sandwitched wall/roof panel (60mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	10.50	845.00	8872.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.12	78.44
	LABOUR				
	For fixing, aligning, locking the panels				
0123	Mason Grade -1	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				9987.94 W
	Add 1 % Water charges on "W"				99.88
	TOTAL				10087.82 X
	Add GST on "X" (multiplying factor 0.1405)				1417.34
	TOTAL				11505.16 Y
	Add 15% CPOH on "Y"				1725.77
	TOTAL				13230.93 Z
	Add Cess @ 1% on "Z"				132.31
	Cost of 10 sqm				13363.24
	Cost of 1sqm				1336.32
	Say				1336.30

26.49.3 Non load bearing panels 75mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 10sqm (6.95Nos x 0.6m x2.40m = 10sqm)				
	MATERIAL				
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm				
7998	Factory made EPS light weight composite sandwitched wall/roof panel (75mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	10.50	1074.46	11281.83
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.12	78.44
	LABOUR				
	For fixing, aligning, locking the panels				
0123	Mason Grade -1	day	0.50	784.00	392.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				12397.27 W
	Add 1 % Water charges on "W"				123.97
	TOTAL				12521.24 X
	Add GST on "X" (multiplying factor 0.1405)				1759.23
	TOTAL				14280.48 Y
	Add 15% CPOH on "Y"				2142.07
	TOTAL				16422.55 Z
	Add Cess @ 1% on "Z"				164.23
	Cost of 10 sqm				16586.77
	Cost of 1sqm				1658.68
	Say				1658.70

26.49.4 Non load bearing panels 90mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 10sqm (6.95Nos x 0.6m x2.40m = 10sqm)				
	MATERIAL				
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm				
7999	Factory made EPS light weight composite sandwitched wall/roof panel (90mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	10.50	1268.00	13314.00
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.12	78.44
	LABOUR				
	For fixing, aligning, locking the panels				
0123	Mason Grade -1	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				14429.44 W
	Add 1 % Water charges on "W"				144.29
	TOTAL				14573.73 X
	Add GST on "X" (multiplying factor 0.1405)				2047.61
	TOTAL				16621.34 Y
	Add 15% CPOH on "Y"				2493.20
	TOTAL				19114.55 Z
	Add Cess @ 1% on "Z"				191.15
	Cost of 10 sqm				19305.69
	Cost of 1sqm				1930.57
	Say				1930.55

26.49.5 Non load bearing panels 100mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 10sqm (6.95Nos x 0.6m x2.40m = 10sqm)				
	MATERIAL				
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm				
8000	Factory made EPS light weight composite sandwitched wall/roof panel (100mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each	sqm	10.50	1512.37	15879.89
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.12	78.44
	LABOUR				
	For fixing, aligning, locking the panels				
0123	Mason Grade -1	day	0.50	784.00	392.00
0114	Beldar	day	1.00	645.00	645.00
	TOTAL				16995.33 W
	Add 1 % Water charges on "W"				169.95
	TOTAL				17165.28 X
	Add GST on "X" (multiplying factor 0.1405)				2411.72
	TOTAL				19577.00 Y
	Add 15% CPOH on "Y"				2936.55
	TOTAL				22513.55 Z
	Add Cess @ 1% on "Z"				225.14
	Cost of 10 sqm				22738.69
	Cost of 1sqm				2273.87
	Say				2273.85

26.50 Providing and fixing in position factory made non asbestos fibre reinforced aerated cement sandwich wall/roof/floor light weight solid core panels made of light weight cement concrete core composed of OPC cement, pulverized flyash, quick lime, cotton pulp & Gypsum in mortar state mixed with aeration agent in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board confirming to IS 14862:2000. These solid wall panels are installed using Galvanized iron steel tracks/C channel of 1mm thick of required sizes as recommended by manufacturer's and fixed to floor and RCC soffit in plumb to each other with steel screw/fasteners. The panel shall be fixed vertically with tongue & groove joint with cement based polymer modified jointing compound. The exposed surface finished with fibre mesh/glass fibre tape with polymer based jointing compound having superior flexibility. Panels should be used as floor & roofing with additional structural support, steel or

RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "tracks/C channel" which will be paid separately).

26.50.1 Non load bearing panels 50mm thick of required size (minimum 4mm thick fibre cement board)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 10sqm (6.95Nos x 0.6m x2.40m = 10sqm)				
	MATERIAL				
	Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm				
0244	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) confirming to IS 14862:2000	sqm	10.50	634.00	6657.00
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.12	1060.00
	LABOUR				
	For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.				
0123	Mason Grade -1	day	1.00	784.00	784.00
0114	Beldar	day	2.00	645.00	1290.00
0131	Painter	day	0.50	714.00	357.00
	TOTAL				10148.00 W
	Add 1 % Water charges on "W"				101.48
	TOTAL				10249.48 X
	Add GST on "X" (multiplying factor 0.1405)				1440.05
	TOTAL				11689.53 Y
	Add 15% CPOH on "Y"				1753.43
	TOTAL				13442.96 Z
	Add Cess @ 1% on "Z"				134.43
	Cost of 10 sqm				13577.39
	Cost of 1sqm				1357.74
	Say				1357.75

26.50.2 Non load bearing panels 75mm thick of required size (minimum 5mm thick fibre cement board)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost 10sqm (6.95Nos x 0.6m x2.40m = 10sqm)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL Panel area = 10.00sqm, Add wastage @ 5% = 0.50sqm, Total area = 10.50 sqm				
0245	Factory made light weight non asbestos fibre reinforced aerated cement sandwitched wall/roof panel (75mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 5mm thick) confirming to IS 14862:2000	sqm	10.50	789.00	8284.50
9999	Sundries, cement based polymer modified jointing compound, polymer based jointing compound having superior flexibility, fibre glass tape etc.	L.S.	500.00	2.12	1060.00
	LABOUR For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.				
0123	Mason Grade -1	day	1.00	784.00	784.00
0114	Beldar	day	2.00	645.00	1290.00
0131	Painter	day	0.50	714.00	357.00
	TOTAL				11775.50 W
	Add 1 % Water charges on "W"				117.76
	TOTAL				11893.26 X
	Add GST on "X" (multiplying factor 0.1405)				1671.00
	TOTAL				13564.26 Y
	Add 15% CPOH on "Y"				2034.64
	TOTAL				15598.90 Z
	Add Cess @ 1% on "Z"				155.99
	Cost of 10 sqm				15754.88
	Cost of 1sqm				1575.49
	Say				1575.50

26.51 Supplying of standard quality GFRG panel of 124 mm thickness with modular cavities purchased from GFRG panel manufacturing plant in the country, cut to required wall sizes and floor/ roof slab sizes in correct length and height, including cutting of door, window and ventilator opening as per the cutting drawing prepared by architects /design engineers for the construction of GFRG building and loaded in stillages for transportation to the construction site. Cost of panel includes security deposits, hire charges of stillages & jaws, cost of transportation in trucks/ lorries without any damages upto 300kms including all leads and lifts from GFRG manufacturing plant to construction site and unloading at site using suitable fork lift/ crane. (Payment shall be made on the basis of area of one side of panel without reduction of opening of door/ window / ventilator). For transportation above 300kms, additional charges to be paid.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1sqm. MATERIALS				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Panel area = 1.00sqm, Add wastage @ 5% = 0.050sqm, Total area = 1.05 sqm				
7368	GFRG panel of 124mm thick	sqm	1.05	845.00	887.25
9999	Transportation of panel in suitable truck (Rs 0.15/sqm/km) upto 300 Km	L.S.	26.00	2.12	55.12
9999	Hire Charges for Stillages/Lifting jaw, unloading of panel at site using for lift or crane, Hire Charges for Stillages/ Lifting jaw	L.S.	17.00	2.12	36.04
	TOTAL				978.41 W
	Add 1% water charges				9.78
	TOTAL				988.19 X
	Add GST on "X" (multiplying factor 0.1405)				138.84
	TOTAL				1127.04 Y
	Add 15% CPOH on "Y"				169.06
	TOTAL				1296.09 Z
	Add Cess @1% on "Z"				12.96
	Cost of 1 sqm				1309.05
	Say				1309.05

26.52 Erection of GFRG Panels in walls in all floors using suitable crane as per instructions of Engineer-in-Charge, as per cutting drawings and structural drawings, in perfect line and plumb, above RCC plinth beam/GFRG panel below and provide necessary lateral/ slanting support to keep the wall panel in safe position, providing & tieing of Reinforcement as per structural drawings and applying a coat of water repellant coating Zycosil/equivalent or equivalent product (1 Zycosil/equivalent compound :10 water) to saturation level over RCC plinth beam to provide water proofing treatment to joint between wall panel & plinth beam as per the guide lines / instruction by the engineer in charge. (Cost of reinforcement, water proofing of walls and plinth beam/GFRG panel below joints and installation of door/ window frames before filling of concrete shall be paid separately). The rate quoted shall include making provision for laying of lintels, beams, sunshades, staircase beams, lofts, plumbing work, electrical conduits and any structural insertion etc., as per the drawing and direction of the engineer in charge. The payment shall be made based on the actual exposed area (one side only) of the panel. The work shall be carried out as per the Special Conditions For Glass Fibre Reinforced Gypsum (GFRG) Structures mentioned in NIT.

Note:

(i) When cutting panel, "A" side is to be for outside or external surface of respective external wall and B side is to be for internal surface of wall

(ii) Erection of panel is to be with reference to both building plan & cutting drawing by following notational mark indicated in the cutting drawing as well as notional mark written on each panel cut as per cutting drawing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 36sqm. (4 walls of 3mx3m = 36 sqm)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR Skilled trained crew erection team 4 persons for 4 hour				
0123	Mason (Brick layer) 1st class For 2 Lintels works, 4 skilled men for 2 hrs	day	2.00	784.00	1568.00
0123	Mason (Brick layer) 1st class Web cutting for horizontal tie beam, 2 skilled men“ for 4 hrs	day	1.00	784.00	784.00
0123	Mason (Brick layer) 1st class Placing horizontal tie beam reinforcement 4 men for 2 hrs	day	1.00	784.00	784.00
0123	Mason (Brick layer) 1st class Cost for technical supervisor for 4 hrs (Technical supervisor = Skilled labour)	day	1.00	784.00	784.00
0116	Fitter (Grade 1)	day	0.50	784.00	392.00
0037	Mobile crane	day	0.375	4500.00	1687.50
9999	Hire charge for lateral support & Lifting jaws	L.S.	150.00	2.12	318.00
	TOTAL				6317.50 W
	Add 1% water charges				63.18
	TOTAL				6380.68 X
	Add GST on "X" (multiplying factor 0.1405)				896.48
	TOTAL				7277.16 Y
	Add 15% CPOH on "Y"				1091.57
	TOTAL				8368.73 Z
	Add Cess @1% on "Z"				83.69
	Cost of 36 sqm				8452.42
	Cost of 1 sqm				234.79
	Say				234.80

26.53 Filling of empty cavities (as shown in the structural design drawing) with quarry dust mixed with 5% cement (by volume). After initial infill of 50 mm thick with M25 concrete at base/bottom of cavities to seal off, infill wall panel cavities in 3 stages as detailed below, (i) 1st pour / infill to be limited to 0.3 to 0.50 m height from bottom of the panel. (ii) 2nd Pour/ infill: infilling shall be done only after 90 minutes interval between successive pours. The maximum height of infill shall be restricted to 1.5m height or up to the top level of door / window. (iii) 3rd pour/infill: After an interval of 90 minutes of second pour, infill or pour the balance height up to the bottom of embedded RCC tie beam. Pour enough water just required to dampen the dry mix enough to form cake form after each stage. (cost of laying M25 concrete shall be paid separately) (If any rain falls in between any stages of concrete pour, make sure to cover the panel top to prevent ingress of water or water falling into the cavities. In case of water collection over the concrete inside the panel, drill 10mm hole in GFRG panel immediately above concrete filled level to drain out water before pour/in-fill of balance concreting)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for filling one panel size 9 sqm (3mx3m Wall)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
1159	Stone dust/Quarry dust filling in cavities of size 230x94 mm	cum	0.85	1100.00	935.00
0367	OPC Cement @ 5% volume of quarry dust Tools and plants hire charges	tonne	0.06091	5000.00	304.55
0002	Mixer hire charges	day	0.125	800.00	100.00
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.125	714.00	89.25
0114	Beldar	day	0.125	645.00	80.63
	TOTAL				1509.43 W
	Add 1% water charges				15.09
	TOTAL				1524.52 X
	Add GST on "X" (multiplying factor 0.1405)				214.19
	TOTAL				1738.71 Y
	Add 15% CPOH on "Y"				260.81
	TOTAL				1999.52 Z
	Add Cess @1% on "Z"				20.00
	Cost of 0.85 cum				2019.52
	Cost of 1 cum				2375.90
	Say				2375.90

26.54 Laying of GFRG panel as roof / floor slab panel and staircase panel using suitable crane as per instructions of Engineer-in-Charge, including providing support system with 25mm x 300mm-400 mm wide plywood, as runner with proper prop below proposed micro beams including (a) Cutting of top flange of panel to 180 mm wide (leaving 25mm projection on either side) to provide RCC embedded micro beam as per cutting drawings and structural drawings. (b) Reinforcement for micro beams and tie beams to be provided in position with proper anchorage as per structural drawings. (c) Provision for Electrical cabling, fan hooks and laying of pipes for plumbing work. (d) Concreting of Tie beam, micro beam and top of GFRG panels (50 mm thick) with M-25 cement concrete mix using coarse aggregate of size less than 20 mm including laying of 10 gauge 100x100 size weld mesh with 25 mm effective cover from the panel top.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 9 sqm (3mx3m wall panel)				
	LABOUR				
	Providing runner & support system in place for placing panel in position with 40mm bearing on walls(4 Skilled persons for 1/2 Hrs /1/16 days)				
0123	Mason (Brick layer) 1st class	day	0.25	784.00	196.00
	Lifting panel from stack by crane and placing in position with 40 mm bearing on walls 4 skilled labour for 1 hrs				
0123	Mason (Brick layer) 1st class	day	0.50	784.00	392.00
	Cutting & removal of top flange to protruding 25mm on either sides for				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	keying panel into RCC micro beams in position (every 3rd cavities runner/span in place beneath) and providing concealed beam reinforcement in position, side shuttering for slab for external side(with 6mm grove) also to be provided (mean while providing fan hooks, electrical cabling, piping etc by coordinate task by concerned skilled persons, 4 skilled labour for 1 hrs				
0123	Mason (Brick layer) 1st class	day	0.50	784.00	392.00
9999	Hire charges for runner and support system and side shuttering for external side of slab for 5 days	L.S.	29.00	2.12	61.48
0037	Mobile crane	day	0.125	4500.00	562.50
	TOTAL				1603.98 W
	Add 1% water charges				16.04
	TOTAL				1620.02 X
	Add GST on "X" (multiplying factor 0.1405)				227.61
	TOTAL				1847.63 Y
	Add 15% CPOH on "Y"				277.14
	TOTAL				2124.78 Z
	Add Cess @1% on "Z"				21.25
	Cost of 9 sqm				2146.03
	Cost of 1 sqm				238.45
	Say				238.45

26.55 Supplying and fixing 10 Gauge weld mesh of size 100mm x100 mm for floor/ roof slab concrete screed over the micro beams as reinforcement. The weld mesh shall be fixed as per drawing.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 9sqm (3mx3m)				
	MATERIAL				
	Mesh area = 9.00sqm, Add wastage @ 5% = 0.45sqm, Total area = 9.45 sqm				
1223	Steel weld mesh	sqm	9.45	150.00	1417.50
	Labour for filling the quarry dust				
0103	Blacksmith 2nd class	day	0.125	714.00	89.25
0114	Beldar	day	0.125	645.00	80.63
	TOTAL				1587.38 W
	Add 1% water charges				15.87
	TOTAL				1603.25 X
	Add GST on "X" (multiplying factor 0.1405)				225.26
	TOTAL				1828.51 Y
	Add 15% CPOH on "Y"				274.28
	TOTAL				2102.78 Z
	Add Cess @1% on "Z"				21.03
	Cost of 9 sqm				2123.81
	Cost of 1 sqm				235.98
	Say				236.00

26.56 Application of ZMB 60/equivalent solution (100 Kg ZMB 60/equivalent, 1 litre ZMB Nano Thinner, 20 litre water & 1 Litre Zycoprime/equivalent = 122 litre/ kg) over already applied coat of Zycosil/equivalent & Zycoprime/equivalent solution on the top of all the RCC plinth beams by brush/spray coat before erection of GFRG over RCC plinth beams in GF. In the case of upper floors 150 mm wide on floor slab for all the external walls, bath/toilet/wet areas (3 hrs drying time) before erection of wall panel on upper floors including erection of parapet wall.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 122sqm				
	MATERIAL				
8516	ZMB 60 / equivalent	kg	100.00	110.00	11000.00
8517	ZMB Thinner	litre	1.00	220.00	220.00
8518	Zycoprime / equivalent	litre	1.00	230.00	230.00
9999	Water, brush, technical supervision etc.	L.S.	78.00	2.12	165.36
	LABOUR				
0123	Mason (Brick layer) 1st class	day	20.333	784.00	15941.07
	TOTAL				27556.43 W
	Add 1% water charges				275.56
	TOTAL				27832.00 X
	Add GST on "X" (multiplying				
	factor 0.1405)				3910.40
	TOTAL				31742.39 Y
	Add 15% CPOH on "Y"				4761.36
	TOTAL				36503.75 Z
	Add Cess @1% on "Z"				365.04
	Cost of 122 sqm				36868.79
	Cost of 1 sqm				302.20
	Say				302.20

26.57 After erection of GFRG wall panels, seal all GFRG wall joints with paper tape temporarily. Water proofing treatment of vertical joints with Zycosil/ equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litres)) with 50 ml syringe till the gap and in filled concrete is completely saturated. After removing the paper seal, seal off the vertical joints with water proofing material "Grout RW/equivalent " (Sealing cost excluded.)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 3 metre				
	MATERIAL				
8519	Zycosil /equivalent	litre	0.02609	1800.00	46.96
8518	Zycoprime / equivalent	litre	0.05217	230.00	12.00
9999	water, syringe, etc.	L.S.	16.00	2.12	33.92

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (Brick layer) 1st class	day	0.125	784.00	98.00
	TOTAL				190.88 W
	Add 1% water charges				1.91
	TOTAL				192.79 X
	Add GST on "X" (multiplying factor 0.1405)				27.09
	TOTAL				219.88 Y
	Add 15% CPOH on "Y"				32.98
	TOTAL				252.86 Z
	Add Cess @1% on "Z"				2.53
	Cost of 3 metre				255.39
	Cost of 1 metre				85.13
	Say				85.15

26.58 Filling of joints between RCC plinth beam / floor slab and wall panel of external walls, toilet / bath room / wet areas walls on all floor and parapet wall over roof slab, stair case head room at the time of erection of GFRG panels with Grout RW/equivalent sealant compound after the erection of panel before the infill of concrete in panel cavities and fine finish. This applies for all horizontal and vertical joints between GFRG wall and slab panels.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 48 metre				
	MATERIAL				
8520	Elastobar / equivalent	kg	1.00	300.00	300.00
0367	OPC Cement	tonne	0.0015	5000.00	7.50
9999	100 mesh silica, water, technical supervision, etc.	L.S.	3.00	2.12	6.36
	LABOUR				
0123	Mason (Brick layer) 1st class	day	1.500	784.00	1176.00
	TOTAL				1489.86 W
	Add 1% water charges				14.90
	TOTAL				1504.76 X
	Add GST on "X" (multiplying factor 0.1405)				211.42
	TOTAL				1716.18 Y
	Add 15% CPOH on "Y"				257.43
	TOTAL				1973.60 Z
	Add Cess @1% on "Z"				19.74
	Cost of 48 metre				1993.34
	Cost of 1 metre				41.53
	Say				41.55

26.59 Water proofing treatment of Vertical joints (of external side and internal side) between door frame, window & ventilator frames (on all four sides) of outer wall over the Zycosil/equivalent & Zycoprime/equivalent solution already applied (before the installation of door / window / ventilator frames in position) and fine finish with Grout RW/equivalent.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 40 sqm				
	MATERIAL				
8519	Zycosil / equivalent	litre	1.00	1800.00	1800.00
8518	Zycoprime / equivalent	litre	2.00	230.00	460.00
9999	Water, technical supervision, etc.	L.S.	6.00	2.12	12.72
	LABOUR				
0123	Mason (Brick layer) 1st class	day	0.28571	784.00	224.00
	Cost of 40 sqm				2496.72
	Cost of 1 metre (10mm thick)				0.62 A1
	Detail of cost for 48 metre				
	MATERIAL				
8520	Elastobar / equivalent	kg	1.00	300.00	300.00
0367	OPC Cement	tonne	0.0015	5000.00	7.50
9999	100 mesh silica, water, technical supervision, etc.	L.S.	3.00	2.12	6.36
	LABOUR				
0123	Mason (Brick layer) 1st class	day	1.50	784.00	1176.00
	Cost of 48 metre				1489.86
	Cost of 1 metre				31.04 A2
	TOTAL (A1+A2)				31.66 W
	Add 1% water charges				0.32
	TOTAL				31.98 X
	Add GST on "X" (multiplying factor 0.1405)				4.49
	TOTAL				36.47 Y
	Add 15% CPOH on "Y"				5.47
	TOTAL				41.94 Z
	Add Cess @1% on "Z"				0.42
	Cost of 1 metre				42.36
	Say				42.35

26.60 Water proofing treatment of RCC sunshade with Zycosil/equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litres)) till it meets the saturation level and testing as per RILEM or by water drops test in which water drops do not absorb but drops remain or rolls.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 40 sqm				
	MATERIAL				
8519	Zycosil / equivalent	litre	1.00	1800.00	1800.00
8518	Zycoprime /equivalent	litre	2.00	230.00	460.00
9999	Water, technical supervision, etc.	L.S.	7.00	2.12	14.84

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	2.50	714.00	1785.00
	TOTAL				4059.84 W
	Add 1% water charges				40.60
	TOTAL				4100.44 X
	Add GST on "X" (multiplying factor 0.1405)				576.11
	TOTAL				4676.55 Y
	Add 15% CPOH on "Y"				701.48
	TOTAL				5378.03 Z
	Add Cess @1% on "Z"				53.78
	Cost of 40 sqm				5431.81
	Cost of 1 sqm				135.80
	Say				135.80

26.61 In-filling / sealing of joint between RCC lintel cum sunshade and wall (on external side) in all floors by pushing in Grout RW/equivalent in paste form and coving 20 mm x 20 mm after applying a coat of Zycosil/equivalent & zycoprime/equivalent solution before cement plastering of top, bottom and sides of RCC sunshade.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 40 sqm				
	MATERIAL				
8519	Zycosil / equivalent	litre	1.00	1800.00	1800.00
8518	Zycoprime / equivalent	litre	2.00	230.00	460.00
9999	Water, technical supervision, etc.	L.S.	6.00	2.12	12.72
	LABOUR				
0123	Mason (Brick layer) 1st class	day	0.28571	784.00	224.00
	Cost of 40 sqm				2496.72
	Cost of 1 metre (10mm thick)				0.62 A1
	Detail of cost for 48 metre				
	MATERIAL				
8520	Elastobar / equivalent	kg	1.00	300.00	300.00
0367	OPC Cement	tonne	0.0015	5000.00	7.50
9999	100 mesh silica, water, technical supervision, etc.	L.S.	3.00	2.12	6.36
	LABOUR				
0123	Mason (Brick layer) 1st class	day	1.50	784.00	1176.00
	Cost of 48 metre				1489.86
	Cost of 1 metre				31.04 A2
	TOTAL (A1+A2)				31.66 W
	Add 1% water charges				0.32
	TOTAL				31.98 X
	Add GST on "X" (multiplying factor 0.1405)				4.49
	TOTAL				36.47 Y
	Add 15% CPOH on "Y"				5.47
	TOTAL				41.94 Z
	Add Cess @1% on "Z"				0.42
	Cost of 1 metre				42.36
	Say				42.35

26.62 Designing, Providing, installing and fixing factory finished customed design pregalvanized high tensile steel joists manufactured from G350 Z275 confirming to IS:277-1992, minimum coating of galvanizing 275 gm/sqm, minimum yield stress 35 MPa & minimum tensile strength of 380 MPa placed 1.23 metre apart to support the load of slab etc as per the design & directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 212.816 kgs MATERIAL Covered area = 5.57x4.2m = 23.394 sqm (a) 250 series Joist (G 350) - 3mm thick - Galvanised = 4 Nos x4.18 metre length = 16.72 metre @ 10.59 kg/metre = 177.06 kg (b) Joist Shoe plate (E 250) - 12 mm thick MS Plate (Galvanised with 55 microns) = 2 Nos in each joist x 4 No. joist = 8 No's @ 2.4kg/each = 19.2kg (c) Bolts (M16 - Gr 8.8s), (Galvanised) (16? X 40 bolts With washer & Nuts)= 6No's in each joist x 4 No. joists=24 Nos 24 No's@0.135kg/each = 3.24 kg (d) Hanging Angle at corners to support lock bars L 75x40x1.6 (Galvanised) = 2x4.18 metre =8.36 metre @ 1.60kg/ metre = 13.376 kg Total weight = 177.06+19.2+3.24+ 13.376 = 212.816 kgs				
1012	Pregalvanized high tensile steel	kg	212.816	90.00	19153.44
	LABOUR (Reference item no 10.1)				
0116	Fitter (grade 1)	day	1.064	784.00	834.18
0103	Blacksmith 2nd class	day	1.596	714.00	1139.54
0114	Beldar	day	2.128	645.00	1372.56
	Total				22499.72 W
	Add 1 % Water charges on "W"				225.00
	TOTAL				22724.72 X
	Add GST on "X" (multiplying factor 0.1405)				3192.82
	TOTAL				25917.54 Y
	Add 15% CPOH on "Y"				3887.63
	TOTAL				29805.17 Z
	Add Cess @ 1% on "Z"				298.05
	Cost of 212.816 kgs				30103.22
	Cost of 1 kg				141.45
	Say				141.45

26.63 Providing and fixing special adjustable lockbars of mild steel E-250 to support the temporary plywood for work between joists during construction as per design & directions of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 298.75 kgs MATERIAL Assuming special adjustable lock bar of mild steel will become unserviceable after use of 50 times Taking salvage value after full use of material @ 35% of cost Lock bar of size 1230mmx75mmx10mm 45 Nos x 4.35kg/each = 195.75 kg. Lock bar of size 930mmx75mmx10mm 30 Nos x 3.3kg/each = 99.00 kg. Total weight = 298.75 kgs Assuming 50 repetition, Qty taken for cost of using once = 298.75/50 = 5.975 kgs Considering salvage value @ 35%, Quantity = 5.975x(100-35)/100 = 3.88 kgs				
7336	Lock Bar (E 250) - 10 thick MS Plate	kgs	3.88	76.00	294.88
	LABOUR (Reference item no 10.1)				
0116	Fitter (grade 1)	day	1.49	784.00	1168.16
0103	Blacksmith 2nd class	day	2.24	714.00	1599.36
0114	Beldar	day	2.99	645.00	1928.55
	Total				4990.95 W
	Add 1 % Water charges on "W"				49.91
	TOTAL				5040.86 X
	Add GST on "X" (multiplying factor 0.1405)				708.24
	TOTAL				5749.10 Y
	Add 15% CPOH on "Y"				862.37
	TOTAL				6611.47 Z
	Add Cess @ 1% on "Z"				66.11
	Cost of 298.75 kgs				6677.58
	Cost of 1 kg				22.35
	Say				22.35

26.64 Centering and shuttering with 12mm thick shuttering plywood confirming to IS 4990:2011 and removal of form at all heights. Plywood will be supported on lock bars.

26.64.1 Suspended floors, roofs, landings, balconies and access platform.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 13.50 sqm MATERIAL Assuming 12mm thick plywood will become unserviceable after use of 10 times				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Area of roof = 13.50 sqm + Add wastage @ 5% = 0.675 sqm. Total = 14.175 sqm. Qty taken for cost using once = 14.175/10 = 1.4175 sqm				
8659	12mm thick waterproofing plywood confirming to IS 4990:2011	sqm	1.4175	525.00	744.19
	LABOUR (Reference item no 5.9.20)				
0112	Carpenter 2nd class	day	0.125	714.00	89.25
0114	Beldar	day	0.125	645.00	80.63
	Total				914.06 W
	Add 1 % Water charges on "W"				9.14
	TOTAL				923.20 X
	Add GST on "X" (multiplying factor 0.1405)				129.71
	TOTAL				1052.91 Y
	Add 15% CPOH on "Y"				157.94
	TOTAL				1210.85 Z
	Add Cess @ 1% on "Z"				12.11
	Cost of 13.50 sqm				1222.96
	Cost of 1 sqm				90.59
	Say				90.60

26.65 Providing and fixing roofing consist of 0.8 mm thick galvanized steel deck sheet confirming to IS 277:1992 used as permanent shuttering over which MS wire mesh 3mm laid at 100x100 mm grid including edge trim covered with concrete. This metal deck will be supported on structural steel beam with shear studs. (Structural steel like Beam, column, joists etc. & concrete of different grade as per design will be paid separately).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
	Weight of GI sheet for 10sqm = 76.7 kgs + Add wastage @ 3% = 2.3 kg. Total = 79.00 kg				
8019	GI sheet 0.8 mm thick confirming to IS 277:1992	kg	79.00	90.00	7110.00
	Length wire mesh 200metre/10 sqm. Weight of wire @ 0.06 kg/m. total weight = 12 kgs + Add wastage @ 5% = 0.6 kgs. Total 12.6 kg				
1217	GI Wire mesh 100x100 mm	kg	12.60	75.00	945.00
2314	Carriage of sheet & wire	tonne	0.0916	145.72	13.35
1218	Shear stud	each	40.00	50.00	2000.00
9999	Nails/Tagged screws	L.S.	138.70	2.12	294.04
9999	Labour for fixing shear stud	L.S.	462.40	2.12	980.29
	Labour for sheeting (Ref item no 26.19.1)				
0130	Mistry	day	0.108	784.00	84.67
0112	Carpenter 2nd class	day	0.432	714.00	308.45

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.432	645.00	278.64
	Labour for laying wire mesh (Ref item no 5.22.2)				
0102	Blacksmith 1st class	day	0.12	784.00	94.08
0114	Beldar	day	0.120	645.00	77.40
	Total				12185.92 W
	Add 1 % Water charges on "W"				121.86
	TOTAL				12307.78 X
	Add GST on "X" (multiplying factor 0.1405)				1729.24
	TOTAL				14037.02 Y
	Add 15% CPOH on "Y"				2105.55
	TOTAL				16142.58 Z
	Add Cess @ 1% on "Z"				161.43
	Cost of 10 sqm				16304.00
	Cost of 1 sqm				1630.40
	Say				1630.40

26.66 Providing and fixing in position, 130 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shortcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia zinc coated G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall and connected by GI wire of 3mm dia at alternate row by welding. The EPS core shall consist of 60 mm thick EPS of density not less than 16 kg/ per cum. Both the outer faces of the panel shall be finished by applying the layer of 35 mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} with the help of shotcreting/guniting equipment etc at a pressure not less than 1 bar (100KN/m2) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1.20x3.00m = 3.60 sqm				
	MATERIAL				
	Area of EPS panel = 3.60 sqm + Add wastage @5%. Total = 3.78 sqm				
8020	Factory made EPS Core wall panel / roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh, with 50 mm pitch in both the directions, connected by G.I. wire of 3mm dia at alternate row by welding	sqm	3.78	600.00	2268.00
9999	Add for L-shape, U-shape & straight lap mesh	L.S.	208	2.12	440.96
	Cement mortar 1:3 (1cement:3 coarse sand) 2x1.20x3.00x0.035= 0.252 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.8	Rate as per Item No.3.8 of SH: Mortar 10 mm TMT bars 8 nos of 0.60 metre long. Total length = 4.8 m @ 0.617 kg/ metre. Total weight = 2.96 kg	cum	0.252	5024.15	1266.09
5.22.6	Rate as per 5.22.6 (SH:5 Reinforced Cement Concrete)	kg	2.9600	89.65	265.36 A
9999	Tag screw with washers for wire mesh fixing	L.S.	78	2.12	165.36
9999	For fixing wall with foundation	L.S.	312.15	2.12	661.76
	LABOUR				
9999	For carrying out shotcreting, shoring, leveling, and finishing the surface with trowel.	L.S.	707.5	2.12	1499.90
	Total				6567.43 W
	Add 1 % Water charges on "W-A"				63.02
	TOTAL				6630.45 X
	Add GST on "X-A" (multiplying factor 0.1405)				894.29
	TOTAL				7524.74 Y
	Add 15% CPOH on "Y-A"				1088.91
	TOTAL				8613.65 Z
	Add Cess @ 1% on "Z-A"				83.48
	Cost of 3.6 sqm				8697.13
	Cost of 1 sqm				2415.87
	Say				2415.85

26.67 Providing and fixing of external thermal insulation and composite system with First layer of self-extinguishing type Expanded Polystyrene (EPS) insulation boards of 120 mm thick (max 1mX0.5m section), confirming to IS 4671:1984, having thermal conductivity of 0.034 W/mK, (measured as per IS 3346-1980), density of 20-24 kg/m³ measured as per IS 5688-1982, Fire retardant property self-extinguishing type as per EN 13501-1, bonded with special polymer modified cementitious adhesive confirming to EOTA ETAG 004 (European Technical Approval) formulated to bond polystyrene insulation boards to typical mineral substrate (according to ETAG 004) and Polypropylene mechanical fasteners with plastic pin confirming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm on finished level wall and the junction between two adjacent EPS boards to be sealed with low expansion moisture cure Polyurethane Foam. Second layer consists of Fiberglass mesh covered with alkali-resistant coating, mass per unit area ?145 gm/m², mesh size: 3.9x4.0 mm ±10% embedded in special polymer modified cementitious Base Coat with hydrophobes and the corners will be protected with Corner-beads with alkali-resistant mesh wings at least 10 cm wide, mesh mass per unit area min 145 gm/m². The surface will be levelled, finished, made smooth complete in all respect as per manufactures specification and as per directions of Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	Material				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Area of insulation board = 10 sqm + Add wastage @ 10% = 1 sqm. Total = 11.00 sqm					
8562	Expanded Polystyrene insulation board 120 mm thick confirming to IS 4671-1984, Fire retardant property self-extinguishing type as per EN 13501-1	sqm	11.00	825.00	9075.00	
1252	Cementitious polymer base adhesive confirming to EOTA ETAG 004 (European Technical Approval)	kg	50.00	34.00	1700.00	
1253	Polypropylene mechanical fastener with plastic pin confirming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm	each	100.00	30.00	3000.00	
1254	Moisture cure Polyurethane Foam	750 ml	0.80	600.00	480.00	
1255	PVC Corner Bead of size 25mmx25mm fixed with glass fibre mesh (100mm x 100mm)	metre	5.00	90.00	450.00	
1256	Cementitious polymer base coat confirming to EOTA ETAG 004 (European Technical Approval)	kg	50.00	40.00	2000.00	
1257	Fiberglass mesh with alkali-resistant coating having mass per unit area ≥ 145 g/m2, mesh size: 3.9x4.0 mm ±10%	sqm	10.00	75.00	750.00	
	Labour					
0131	Painter	day	4.00	714.00	2856.00	
0114	Beldar	day	4.00	645.00	2580.00	
9999	Trowel, Angle Float, Brushes, sand paper etc.	L.S.	72.25	2.12	153.17	
9999	Sundries (PVC drip bead with glass fibre mesh wing (100mm x 100mm), expansion joint, starter track of 1mm thick aluminium alloy (120mm wide), polyurethane sealent, scaffolding etc.)	L.S.	1445.09	2.12	3063.59	
	Total				26107.76	W
	Add 1 % Water charges on "W"				261.08	
	TOTAL				26368.84	X
	Add GST on "X"				3704.82	
	TOTAL				30073.66	Y
	Add 15% CPOH on "Y"				4511.05	
	TOTAL				34584.71	Z
	Add Cess @ 1% on "Z"				345.85	
	Cost of 10 sqm				34930.56	
	Cost of 1 sqm				3493.06	
	Say				3493.05	

26.68 Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:

26.68.1 Cement mortar 1:6 (1 cement : 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum				
	MATERIAL:				
8658	Precast C&D waste concrete block	1000 Nos	0.1109	25150.00	2789.14
2201	Carriage of blocks	1000 Nos	0.1109	437.15	48.48
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per item No 3.11 of SH: Mortar	cum	0.113	3686.30	416.55
9999	Sundries	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.33	784.00	258.72
0124	Mason (brick layer) 2nd class	day	0.33	714.00	235.62
0115	Coolie	day	1.00	645.00	645.00
0101	Bhisti	day	0.18	714.00	128.52
	Total				4527.81 W
	Add 1 % Water charges on "W"				45.28
	TOTAL				4573.09 X
	Add GST on "X" (multiplying factor 0.1405)				642.52
	TOTAL				5215.61 Y
	Add 15% CPOH on "Y"				782.34
	TOTAL				5997.95 Z
	Add Cess @ 1% on "Z"				59.98
	Cost of 1 cum				6057.93
	Say				6057.95

26.69 Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level

26.69.1 Cement mortar 1:6 (1 cement : 6 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum				
	MATERIAL:				
8658	Precast C&D waste concrete block	1000 Nos	0.1109	25150.00	2789.14
2201	Carriage of blocks	1000 Nos	0.1109	437.15	48.48
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per item No 3.11 of SH: Mortar	cum	0.113	3686.30	416.55
9999	Sundries	L.S.	2.73	2.12	5.79
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.47	784.00	368.48
0124	Mason (brick layer) 2nd class	day	0.47	714.00	335.58
0115	Coolie	day	1.80	645.00	1161.00
0101	Bhisti	day	0.20	714.00	142.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding Extra labour element required for lifting of materials (above floor two level upto floor five level)	L.S.	22.36	2.12	47.40
0115	Coolie	day	1.13	645.00	728.85
	Total				6044.07 W
	Add 1 % Water charges on "W"				60.44
	TOTAL				6104.51 X
	Add GST on "X" (multiplying factor 0.1405)				857.68
	TOTAL				6962.19 Y
	Add 15% CPOH on "Y"				1044.33
	TOTAL				8006.52 Z
	Add Cess @ 1% on "Z"				80.07
	Cost of 1 cum				8086.59
	Say				8086.60

26.70 Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:

26.70.1 Cement mortar 1:4(1 cement : 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL:				
8658	Precast C&D waste concrete block	1000 Nos	0.1161	25150.00	2919.92
2201	Carriage of blocks	1000 Nos	0.1161	437.15	50.75
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per item No 3.9 of SH: Mortar	cum	0.0708	4355.20	308.35
9999	Sundries	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.45	784.00	352.80
0124	Mason (brick layer) 2nd class	day	0.45	714.00	321.30
0115	Coolie	day	1.55	645.00	999.75
0101	Bhisti	day	0.70	714.00	499.80
	Total				5481.33 W
	Add 1 % Water charges on "W"				54.81
	TOTAL				5536.14 X
	Add GST on "X" (multiplying factor 0.1405)				777.83
	TOTAL				6313.97 Y
	Add 15% CPOH on "Y"				947.10
	TOTAL				7261.07 Z
	Add Cess @ 1% on "Z"				72.61
	Cost of 10 sqm				7333.68
	Cost of 1 sqm				733.37
	Say				733.35

26.71 Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level:

26.71.1 Cement mortar 1:4 (1 cement : 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL:				
8658	Precast C&D waste concrete block	1000 Nos	0.1161	25150.00	2919.92
2201	Carriage of blocks	1000 Nos	0.1161	437.15	50.75
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per item No 3.9 of SH: Mortar	cum	0.0708	4355.20	308.35
9999	Sundries	L.S.	13.52	2.12	28.66
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.60	784.00	470.40
0124	Mason (brick layer) 2nd class	day	0.60	714.00	428.40
0115	Coolie	day	2.00	645.00	1290.00
0101	Bhisti	day	0.70	714.00	499.80
	Extra labour for lifting materials:				
0115	Coolie	day	1.29	645.00	832.05
	Total				6828.33 W
	Add 1 % Water charges on "W"				68.28
	TOTAL				6896.61 X
	Add GST on "X" (multiplying factor 0.1405)				968.97
	TOTAL				7865.59 Y
	Add 15% CPOH on "Y"				1179.84
	TOTAL				9045.42 Z
	Add Cess @ 1% on "Z"				90.45
	Cost of 10 sqm				9135.88
	Cost of 1 sqm				913.59
	Say				913.60

26.72 Providing and laying 60mm thick factory made cement concrete paver block of approved shape and colour of M -30 grade made of C&D waste by block making machine with vibratory compaction laid in required pattern and including over 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm				
	MATERIAL:				
7776	Concrete paver block of grade M-30 made of C&D waste (60mm thickness)	sqm	10.00	295.00	2950.00
	Bedding layer - 50mm thick 10x0.050=0.50 cum				
0982	Coarse sand (zone III)	cum	0.50	1500.00	750.00
2203	Carriage of Coarse sand	cum	0.50	163.93	81.97
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of fine sand	cum	0.15	163.93	24.59
	Laying charges (Based on actual observation)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	784.00	392.00
0124	Mason (brick layer) 2nd class	day	0.50	714.00	357.00
0114	Beldar	day	1.00	645.00	645.00
0115	Coolie	day	0.50	645.00	322.50
	Total				5658.05 W
	Add 1 % Water charges on "W"				56.58
	TOTAL				5714.64 X
	Add GST on "X" (multiplying factor 0.1405)				802.91
	TOTAL				6517.54 Y
	Add 15% CPOH on "Y"				977.63
	TOTAL				7495.17 Z
	Add Cess @ 1% on "Z"				74.95
	Cost of 10 sqm				7570.12
	Cost of 1 sqm				757.01
	Say				757.00

26.73 Fabrication & Manufacturing of Prestressed Hollow Core slab (Hollow area 25 to 30%) of different thickness & modular width 1200 mm in Controlled Factory Environment with approved methodology confirming to IS 10297:1982 by using long line casting method having arrangement of proper steel bed. Concreting should be done by batch mixing plant capable of producing zero slump concrete, transported through automatic shuttels of standard make & layed on bed with the help of extruder/Slipformer, finishing, curing and also provision of steam curing. Cutting, making necessary cutout/holes of required sizes for services in slab element after achieving required strength, yard handling & stacking all complete as per approved shop drawings & design mix as per the direction of the Engineer-in-charge. (Cost of strands should be paid separately).

Note: Excess/less cement over the specified cement content used as per design mix is payable/recoverable separately)

26.73.1 Concrete Grade-M-40 (cement content 400 kg)

26.73.1.1 100 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 10.80 cum (120 Rmt) 120 Rmt X 1.20 m X .10 (25 % hollow)				
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	10.80	10730.90	115893.72 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	5.40	688.45	3717.63 A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12
0031	Steam curing by using boiler /Heater	cum	10.80	500.00	5400.00
9999	Extra cost for preparing zero slump concrete	L.S.	936.00	2.12	1984.32
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36
9999	Sundries	L.S.	13.00	2.12	27.56

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.41.1	Rate as per item no 5.41.1 of				
	SH RCC (120x2x(1.20+0.10)=312)	sqm	312.00	57.50	17940.00 A
	TOTAL				148946.71 W
	Add 1 % Water charges on "W-A"				113.95
	TOTAL				149060.66 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1617.06
	TOTAL				150677.72 Y
	Add 15% CPOH on "Y-A"				1968.96
	TOTAL				152646.68 Z
	Add Cess @ 1% on "Z-A"				150.95
	Cost of 120 metre				152797.63
	Cost of 1 metre				1273.31
	Say				1273.30

26.73.1.2 120 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 12.96 cum (120 Rmt)				
	120 Rmt X 1.20 m X .12 (25 % hollow)				
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	12.96	10730.95	139072.46 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	6.48	688.45	4461.16 A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12
0031	Steam curing by using boiler /Heater	cum	12.96	500.00	6480.00
9999	Extra cost for preparing zero slump				
	concrete	L.S.	1124.00	2.12	2382.88
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36
9999	Sundries	L.S.	13.00	2.12	27.56
5.41.1	Rate as per item no 5.41.1 of				
	SH RCC (120x2x(1.20+0.12)=316.80)	sqm	316.80	57.50	18216.00 A
	TOTAL				174623.54 W
	Add 1 % Water charges on "W-A"				128.74
	TOTAL				174752.28 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				1826.87
	TOTAL				176579.15 Y
	Add 15% CPOH on "Y-A"				2224.43
	TOTAL				178803.58 Z
	Add Cess @ 1% on "Z-A"				170.54
	Cost of 120 metre				178974.12
	Cost of 1 metre				1491.45
	Say				1491.45

26.73.1.3 150 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 16.20 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.15 (25 % hollow)				
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	16.20	10730.90	173840.58 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	8.10	688.45	5576.45 A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
0031	Steam curing by using boiler /Heater	cum	16.20	500.00	8100.00	
9999	Extra cost for preparing zero slump concrete	L.S.	1405.00	2.12	2978.60	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36	
9999	Sundries	L.S.	13.00	2.12	27.56	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.15)=324.00)	sqm	324.00	57.50	18630.00	A
	TOTAL				213136.67	W
	Add 1 % Water charges on "W-A"				150.90	
	TOTAL				213287.56	X
	Add GST on "X-A" (multiplying factor 0.1405)				2141.30	
	TOTAL				215428.86	Y
	Add 15% CPOH on "Y-A"				2607.27	
	TOTAL				218036.13	Z
	Add Cess @ 1% on "Z-A"				199.89	
	Cost of 120 metre				218236.02	
	Cost of 1 metre				1818.63	
	Say				1818.65	

26.73.1.4 200 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 20.160 cum (120 Rmt) 120 Rmt X 1.20 m X0.20 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	20.16	10730.90	216334.94	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	10.08	688.45	6939.58	A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12	
0031	Steam curing by using boiler /Heater	cum	20.16	500.00	10080.00	
9999	Extra cost for preparing zero slump concrete	L.S.	1748.00	2.12	3705.76	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36	
9999	Sundries	L.S.	13.00	2.12	27.56	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.20)=336.00)	sqm	336.00	57.50	19320.00	A
	TOTAL				260391.32	W
	Add 1 % Water charges on "W-A"				177.97	
	TOTAL				260569.29	X
	Add GST on "X-A" (multiplying factor 0.1405)				2525.45	
	TOTAL				263094.74	Y
	Add 15% CPOH on "Y-A"				3075.03	
	TOTAL				266169.78	Z
	Add Cess @ 1% on "Z-A"				235.75	
	Cost of 120 metre				266405.53	
	Cost of 1 metre				2220.05	
	Say				2220.05	

26.73.1.5 250 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 25.20 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.25 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of					
	SH RCC	cum	25.20	10730.90	270418.68	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	12.60	688.45	8674.47	A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12	
0031	Steam curing by using boiler /Heater	cum	25.20	500.00	12600.00	
9999	Extra cost for preparing zero slump					
	concrete	L.S.	2185.00	2.12	4632.20	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36	
9999	Sundries	L.S.	13.00	2.12	27.56	
5.41.1	Rate as per item no 5.41.1 of					
	SH RCC (120x2x(1.20+0.25)=348.00)	sqm	348.00	57.50	20010.00	A
	TOTAL				320346.39	W
	Add 1 % Water charges on "W-A"				212.43	
	TOTAL				320558.82	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				3014.52	
	TOTAL				323573.34	Y
	Add 15% CPOH on "Y-A"				3670.53	
	TOTAL				327243.87	Z
	Add Cess @ 1% on "Z-A"				281.41	
	Cost of 120 metre				327525.28	
	Cost of 1 metre				2729.38	
	Say				2729.40	

26.73.1.6 300 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 30.24 cum (120 Rmt)					
	120 Rmt X 1.20 m X 0.30 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of					
	SH RCC	cum	30.24	10730.90	324502.42	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	15.12	688.45	10409.36	A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12	
0031	Steam curing by using boiler /Heater	cum	30.24	500.00	15120.00	
9999	Extra cost for preparing zero slump					
	concrete	L.S.	2622.00	2.12	5558.64	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36	
9999	Sundries	L.S.	13.00	2.12	27.56	
5.41.1	Rate as per item no 5.41.1 of					
	SH RCC (120x2x(1.20+0.30)=360.00)	sqm	360.00	57.50	20700.00	A
	TOTAL				380301.46	W
	Add 1 % Water charges on "W-A"				246.90	
	TOTAL				380548.36	X
	Add GST on "X-A" (multiplying					
	factor 0.1405)				3503.59	
	TOTAL				385051.95	Y
	Add 15% CPOH on "Y-A"				4266.02	
	TOTAL				388317.97	Z
	Add Cess @ 1% on "Z-A"				327.06	
	Cost of 120 metre				388645.03	
	Cost of 1 metre				3238.71	
	Say				3238.70	

26.73.1.7 350 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 35.28 cum (120 Rmt) 120 Rmt X 1.20 m X 0.35 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	35.28	10730.90	378586.15	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	17.64	688.45	12144.26	A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12	
0031	Steam curing by using boiler /Heater	cum	35.28	500.00	17640.00	
9999	Extra cost for preparing zero slump concrete	L.S.	3059.00	2.12	6485.08	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36	
9999	Sundries	L.S.	13.00	2.12	27.56	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.35)=372.00)	sqm	372.00	57.50	21390.00	A
	TOTAL				440256.53	W
	Add 1 % Water charges on "W-A"				281.36	
	TOTAL				440537.89	X
	Add GST on "X-A" (multiplying factor 0.1405)				3992.66	
	TOTAL				444530.55	Y
	Add 15% CPOH on "Y-A"				4861.52	
	TOTAL				449392.07	Z
	Add Cess @ 1% on "Z-A"				372.72	
	Cost of 120 metre				449764.78	
	Cost of 1 metre				3748.04	
	Say				3748.05	

26.73.1.8 400 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail cost of 40.32 cum (120 Rmt) 120 Rmt X 1.20 m X 0.40 (30 % hollow)					
5.33.2.4	Rate as per item no 5.33.2.4 of SH RCC	cum	40.32	10730.90	432669.89	A
5.35	Rate as per item no 5.35 of SH RCC	quintal	20.16	688.45	13879.15	A
9999	Hollow core bed cost	L.S.	1301.00	2.12	2758.12	
0031	Steam curing by using boiler /Heater	cum	40.32	500.00	20160.00	
9999	Extra cost for preparing zero slump concrete	L.S.	3496.00	2.12	7411.52	
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.12	1225.36	
9999	Sundries	L.S.	13.00	2.12	27.56	
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.40)=384.00)	sqm	384.00	57.50	22080.00	A
	TOTAL				500211.60	W
	Add 1 % Water charges on "W-A"				315.83	
	TOTAL				500527.43	X
	Add GST on "X-A" (multiplying factor 0.1405)				4481.72	
	TOTAL				505009.15	Y
	Add 15% CPOH on "Y-A"				5457.02	
	TOTAL				510466.17	Z
	Add Cess @ 1% on "Z-A"				418.37	
	Cost of 120 metre				510884.54	
	Cost of 1 metre				4257.37	
	Say				4257.35	

26.73.2 Extra for using M-50 (Cement content 425 kg) instead of M-40

26.73.2.1 100mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 10.80 cum (120 Rmt)				
	120 Rmt X 1.20 m X .10 (25 % hollow)				
	Cement for M-50 Mix = 4.590 T				
	Cement for M-40 Mix = 4.320 T				
	Difference 0.270 T				
0367	Portland Cement	tonne	0.270	5000.00	1350.00
2209	Carriage of cement	tonne	0.270	145.72	39.34
	Plasticizer for M-50 Mix = 91.800 Kgs				
	Plasticizer for M-40 Mix = 86.400 Kgs				
	Difference 5.400 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	5.400	29.00	156.60
	TOTAL				1545.94 W
	Add 1 % Water charges on "W"				15.46
	TOTAL				1561.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				219.38
	TOTAL				1780.78 Y
	Add 15% CPOH on "Y"				267.12
	TOTAL				2047.90 Z
	Add Cess @ 1% on "Z"				20.48
	Cost for 120 metre				2068.38
	Cost of 1 metre				17.24
	Say				17.25

26.73.2.2 120mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 12.96 cum (120 Rmt)				
	120 Rmt X 1.20 m X .12 (25 % hollow)				
	Cement for M-50 Mix = 5.508 T				
	Cement for M-40 Mix = 5.184 T				
	Difference 0.324 T				
0367	Portland Cement	tonne	0.324	5000.00	1620.00
2209	Carriage of cement	tonne	0.324	145.72	47.21
	Plasticizer for M-50 Mix = 110.160 Kgs				
	Plasticizer for M-40 Mix = 103.680 Kgs				
	Difference 6.480 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	6.48	29.00	187.92
	TOTAL				1855.13 W
	Add 1 % Water charges on "W"				18.55
	TOTAL				1873.68 X
	Add GST on "X" (multiplying factor 0.1405)				263.25
	TOTAL				2136.94 Y
	Add 15% CPOH on "Y"				320.54
	TOTAL				2457.48 Z
	Add Cess @ 1% on "Z"				24.57
	Cost for 120 metre				2482.05
	Cost of 1 metre				20.68
	Say				20.70

26.73.2.3 150mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 16.20 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.15 (25 % hollow)				
	Cement for M-50 Mix = 6.885 T				
	Cement for M-40 Mix = 6.480 T				
	Difference 0.405 T				
0367	Portland Cement	tonne	0.405	5000.00	2025.00
2209	Carriage of cement	tonne	0.405	145.72	59.02
	Plasticizer for M-50 Mix = 137.700 Kgs				
	Plasticizer for M-40 Mix = 129.600 Kgs				
	Difference 8.100 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	8.10	29.00	234.90
	TOTAL				2318.92 W
	Add 1 % Water charges on "W"				23.19
	TOTAL				2342.11 X
	Add GST on "X" (multiplying factor 0.1405)				329.07
	TOTAL				2671.17 Y
	Add 15% CPOH on "Y"				400.68
	TOTAL				3071.85 Z
	Add Cess @ 1% on "Z"				30.72
	Cost for 120 metre				3102.57
	Cost of 1 metre				25.85
	Say				25.85

26.73.2.4 200mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 20.160 cum (120 Rmt)				
	120 Rmt X 1.20 m X0.20 (30 % hollow)				
	Cement for M-50 Mix = 8.568 T				
	Cement for M-40 Mix = 8.064 T				
	Difference 0.504 T				
0367	Portland Cement	tonne	0.504	5000.00	2520.00
2209	Carriage of cement	tonne	0.504	145.72	73.44
	Plasticizer for M-50 Mix = 171.360 Kgs				
	Plasticizer for M-40 Mix = 161.280 Kgs				
	Difference 10.080 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	10.08	29.00	292.32
	TOTAL				2885.76 W
	Add 1 % Water charges on "W"				28.86
	TOTAL				2914.62 X
	Add GST on "X" (multiplying factor 0.1405)				409.50
	TOTAL				3324.12 Y
	Add 15% CPOH on "Y"				498.62
	TOTAL				3822.74 Z
	Add Cess @ 1% on "Z"				38.23
	Cost for 120 metre				3860.97
	Cost of 1 metre				32.17
	Say				32.15

26.73.2.5 250mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 25.20 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.25 (30 % hollow)				
	Cement for M-50 Mix = 10.710 T				
	Cement for M-40 Mix = 10.080 T				
	Difference 0.630 T				
0367	Portland Cement	tonne	0.63	5000.00	3150.00
2209	Carriage of cement	tonne	0.63	145.72	91.80
	Plasticizer for M-50 Mix = 214.200 Kgs				
	Plasticizer for M-40 Mix = 201.600 Kgs				
	Difference 12.600 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	12.60	29.00	365.40
	TOTAL				3607.20 W
	Add 1 % Water charges on "W"				36.07
	TOTAL				3643.28 X
	Add GST on "X" (multiplying factor 0.1405)				511.88
	TOTAL				4155.16 Y
	Add 15% CPOH on "Y"				623.27
	TOTAL				4778.43 Z
	Add Cess @ 1% on "Z"				47.78
	Cost for 120 metre				4826.21
	Cost of 1 metre				40.22
	Say				40.20

26.73.2.6 300mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 30.24 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.30 (30 % hollow)				
	Cement for M-50 Mix = 12.852 T				
	Cement for M-40 Mix = 12.096 T				
	Difference 0.756 T				
0367	Portland Cement	tonne	0.756	5000.00	3780.00
2209	Carriage of cement	tonne	0.756	145.72	110.16
	Plasticizer for M-50 Mix = 257.040 Kgs				
	Plasticizer for M-40 Mix = 241.920 Kgs				
	Difference 15.1200 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	15.12	29.00	438.48
	TOTAL				4328.64 W
	Add 1 % Water charges on "W"				43.29
	TOTAL				4371.93 X
	Add GST on "X" (multiplying factor 0.1405)				614.26
	TOTAL				4986.19 Y
	Add 15% CPOH on "Y"				747.93
	TOTAL				5734.12 Z
	Add Cess @ 1% on "Z"				57.34
	Cost for 120 metre				5791.46
	Cost of 1 metre				48.26
	Say				48.25

26.73.2.7 350mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 35.28 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.35 (30 % hollow)				
	Cement for M-50 Mix = 14.994 T				
	Cement for M-40 Mix = 14.112 T				
	Difference 0.882 T				
0367	Portland Cement	tonne	0.882	5000.00	4410.00
2209	Carriage of cement	tonne	0.882	145.72	128.53
	Plasticizer for M-50 Mix = 299.880 Kgs				
	Plasticizer for M-40 Mix = 282.240 Kgs				
	Difference 17.640 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	17.64	29.00	511.56
	TOTAL				5050.09 W
	Add 1 % Water charges on "W"				50.50
	TOTAL				5100.59 X
	Add GST on "X" (multiplying factor 0.1405)				716.63
	TOTAL				5817.22 Y
	Add 15% CPOH on "Y"				872.58
	TOTAL				6689.80 Z
	Add Cess @ 1% on "Z"				66.90
	Cost for 120 metre				6756.70
	Cost of 1 metre				56.31
	Say				56.30

26.73.2.8 400mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 40.32 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.40 (30 % hollow)				
	Cement for M-50 Mix = 17.136 T				
	Cement for M-40 Mix = 16.128 T				
	Difference 1.008 T				
0367	Portland Cement	tonne	1.008	5000.00	5040.00
2209	Carriage of cement	tonne	1.008	145.72	146.89
	Plasticizer for M-50 Mix = 342.720 Kgs				
	Plasticizer for M-40 Mix = 322.560 Kgs				
	Difference 20.160 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	20.16	29.00	584.64
	TOTAL				5771.53 W
	Add 1 % Water charges on "W"				57.72
	TOTAL				5829.24 X
	Add GST on "X" (multiplying factor 0.1405)				819.01
	TOTAL				6648.25 Y
	Add 15% CPOH on "Y"				997.24
	TOTAL				7645.49 Z
	Add Cess @ 1% on "Z"				76.45
	Cost for 120 metre				7721.94
	Cost of 1 metre				64.35
	Say				64.35

26.73.3 Extra for using M-60 (Cement content 440 kg) instead of M-40

26.73.3.1 100mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 10.80 cum (120 Rmt)				
	120 Rmt X 1.20 m X .10 (25 % hollow)				
	Cement for M-60 Mix = 4.752 T				
	Cement for M-40 Mix = 4.320 T				
	Difference 0.432 T				
0367	Portland Cement	tonne	0.432	5000.00	2160.00
2209	Carriage of cement	tonne	0.432	145.72	62.95
	Plasticizer for M-60 Mix = 95.040 Kgs				
	Plasticizer for M-40 Mix = 86.400 Kgs				
	Difference 8.640 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	8.640	29.00	250.56
	TOTAL				2473.51 W
	Add 1 % Water charges on "W"				24.74
	TOTAL				2498.25 X
	Add GST on "X" (multiplying				
	factor 0.1405)				351.00
	TOTAL				2849.25 Y
	Add 15% CPOH on "Y"				427.39
	TOTAL				3276.64 Z
	Add Cess @ 1% on "Z"				32.77
	Cost for 120 metre				3309.40
	Cost of 1 metre				27.58
	Say				27.60

26.73.3.2 120mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 12.96 cum (120 Rmt)				
	120 Rmt X 1.20 m X .12 (25 % hollow)				
	Cement for M-60 Mix = 5.702 T				
	Cement for M-40 Mix = 5.184 T				
	Difference 0.518 T				
0367	Portland Cement	tonne	0.518	5000.00	2590.00
2209	Carriage of cement	tonne	0.518	145.72	75.48
	Plasticizer for M-60 Mix = 114.04 Kgs				
	Plasticizer for M-40 Mix = 103.680 Kgs				
	Difference 10.36 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	10.36	29.00	300.44
	TOTAL				2965.92 W
	Add 1 % Water charges on “W”				29.66
	TOTAL				2995.58 X
	Add GST on “X” (multiplying				
	factor 0.1405)				420.88
	TOTAL				3416.46 Y
	Add 15% CPOH on “Y”				512.47
	TOTAL				3928.93 Z
	Add Cess @ 1% on “Z”				39.29
	Cost for 120 metre				3968.22
	Cost of 1 metre				33.07
	Say				33.05

26.73.3.3 150mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 16.20 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.15 (25 % hollow)				
	Cement for M-60 Mix = 7.128 T				
	Cement for M-40 Mix = 6.480 T				
	Difference 0.648 T				
0367	Portland Cement	tonne	0.648	5000.00	3240.00
2209	Carriage of cement	tonne	0.648	145.72	94.43
	Plasticizer for M-60 Mix = 142.56 Kgs				
	Plasticizer for M-40 Mix = 129.600 Kgs				
	Difference 12.960 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	12.96	29.00	375.84
	TOTAL				3710.27 W
	Add 1 % Water charges on "W"				37.10
	TOTAL				3747.37 X
	Add GST on "X" (multiplying				
	factor 0.1405)				526.51
	TOTAL				4273.87 Y
	Add 15% CPOH on "Y"				641.08
	TOTAL				4914.96 Z
	Add Cess @ 1% on "Z"				49.15
	Cost for 120 metre				4964.11
	Cost of 1 metre				41.37
	Say				41.35

26.73.3.4 200mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 20.160 cum (120 Rmt)				
	120 Rmt X 1.20 m X0.20 (30 % hollow)				
	Cement for M-60 Mix = 8.870 T				
	Cement for M-40 Mix = 8.064 T				
	Difference 0.806 T				
0367	Portland Cement	tonne	0.806	5000.00	4030.00
2209	Carriage of cement	tonne	0.806	145.72	117.45
	Plasticizer for M-60 Mix = 177.40 Kgs				
	Plasticizer for M-40 Mix = 161.280 Kgs				
	Difference 16.12 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	16.12	29.00	467.48
	TOTAL				4614.93 W
	Add 1 % Water charges on "W"				46.15
	TOTAL				4661.08 X
	Add GST on "X" (multiplying				
	factor 0.1405)				654.88
	TOTAL				5315.96 Y
	Add 15% CPOH on "Y"				797.39
	TOTAL				6113.36 Z
	Add Cess @ 1% on "Z"				61.13
	Cost for 120 metre				6174.49
	Cost of 1 metre				51.45
	Say				51.45

26.73.3.5 250mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 25.20 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.25 (30 % hollow)				
	Cement for M-60 Mix = 11.088 T				
	Cement for M-40 Mix = 10.080 T				
	Difference 1.008 T				
0367	Portland Cement	tonne	1.008	5000.00	5040.00
2209	Carriage of cement	tonne	1.008	145.72	146.89
	Plasticizer for M-60 Mix = 221.760 Kgs				
	Plasticizer for M-40 Mix = 201.600 Kgs				
	Difference 20.160 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	20.16	29.00	584.64
	TOTAL				5771.53 W
	Add 1 % Water charges on "W"				57.72
	TOTAL				5829.24 X
	Add GST on "X" (multiplying				
	factor 0.1405)				819.01
	TOTAL				6648.25 Y
	Add 15% CPOH on "Y"				997.24
	TOTAL				7645.49 Z
	Add Cess @ 1% on "Z"				76.45
	Cost for 120 metre				7721.94
	Cost of 1 metre				64.35
	Say				64.35

26.73.3.6 300mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 30.24 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.30 (30 % hollow)				
	Cement for M-60 Mix = 13.306 T				
	Cement for M-40 Mix = 12.096 T				
	Difference 1.210 T				
0367	Portland Cement	tonne	1.21	5000.00	6050.00
2209	Carriage of cement	tonne	1.21	145.72	176.32
	Plasticizer for M-60 Mix = 266.12 Kgs				
	Plasticizer for M-40 Mix = 241.920 Kgs				
	Difference 24.20 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	24.20	29.00	701.80
	TOTAL				6928.12 W
	Add 1 % Water charges on "W"				69.28
	TOTAL				6997.40 X
	Add GST on "X" (multiplying				
	factor 0.1405)				983.14
	TOTAL				7980.54 Y
	Add 15% CPOH on "Y"				1197.08
	TOTAL				9177.62 Z
	Add Cess @ 1% on "Z"				91.78
	Cost for 120 metre				9269.39
	Cost of 1 metre				77.24
	Say				77.25

26.73.3.7 350mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 35.28 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.35 (30 % hollow)				
	Cement for M-60 Mix = 15.523 T				
	Cement for M-40 Mix = 14.112 T				
	Difference 1.411 T				
0367	Portland Cement	tonne	1.411	5000.00	7055.00
2209	Carriage of cement	tonne	1.411	145.72	205.61
	Plasticizer for M-60 Mix = 310.46 Kgs				
	Plasticizer for M-40 Mix = 282.240 Kgs				
	Difference 28.22 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	27.22	29.00	789.38
	TOTAL				8049.99 W
	Add 1 % Water charges on "W"				80.50
	TOTAL				8130.49 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1142.33
	TOTAL				9272.82 Y
	Add 15% CPOH on "Y"				1390.92
	TOTAL				10663.75 Z
	Add Cess @ 1% on "Z"				106.64
	Cost for 120 metre				10770.39
	Cost of 1 metre				89.75
	Say				89.75

26.73.3.8 400mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail cost of 40.32 cum (120 Rmt)				
	120 Rmt X 1.20 m X 0.40 (30 % hollow)				
	Cement for M-60 Mix = 17.741 T				
	Cement for M-40 Mix = 16.128 T				
	Difference 1.613 T				
0367	Portland Cement	tonne	1.613	5000.00	8065.00
2209	Carriage of cement	tonne	1.613	145.72	235.05
	Plasticizer for M-60 Mix = 352.82 Kgs				
	Plasticizer for M-40 Mix = 322.560 Kgs				
	Difference 32.26 Kgs				
7318	Plasticizer or Super Plasticizer 2%				
	of cement content	kg	32.26	29.00	935.54
	TOTAL				9235.59 W
	Add 1 % Water charges on "W"				92.36
	TOTAL				9327.94 X
	Add GST on "X" (multiplying				
	factor 0.1405)				1310.58
	TOTAL				10638.52 Y
	Add 15% CPOH on "Y"				1595.78
	TOTAL				12234.30 Z
	Add Cess @ 1% on "Z"				122.34
	Cost for 120 metre				12356.64
	Cost of 1 metre				102.97
	Say				102.95

26.74 Fabrication and manufacturing of solid precast concrete element with provisions of shear keys, connecting loops, dowel tubes and proper lifting accessories for walls, beams, slabs, stairs, column etc, of various thickness, shape and size of different concrete grades manufactured in controlled factory environment with approved methodology including moulds (Pallet system, Tilts form, table moulds, battery moulds, vertical moulds, beam moulds, column moulds, staircase moulds, Facade mould, etc.), mixing, transporting and placing of concrete, vibrating, curing, finishing, making necessary cutout/ holes of required sizes for services, yard handling & stacking all complete as per IS 11447:1985 and as per approved shop drawings and design mix as per the direction of Engineer-in-Charge (Cost of reinforcement, Mechanical, Electrical and Plumbing inserts will be paid separately).

Note: Excess/less cement over the specified cement content used as per design mix is payable/recoverable separately)

26.74.1 Concrete grade M-35 (Cement content 370 kgs)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Detail of cost for 1.26 Cum Considers a wall 2.80 X 3.00 X 0.15 = 1.260 Cum					
5.33.2.3	Rate as per item no 5.33.2.3 of SH RCC	cum	1.26	10,363.30	13057.76	A
5.35	Rate as per item no 5.35 of SH RCC (M-35 (370 kgs))	quintal	0.252	688.45	173.49	A
9999	Cost of hosting and fixing moulds	L.S	372.00	2.12	788.64	
5.9.1	Rate as per item 5.9.1 of SH RCC, Side Shuttering of walls ((2.8+3)x2x0.15=1.74)	sqm	1.74	307.95	535.83	A
9999	Table buffing & oiling	L.S	174.00	2.12	368.88	
9999	Sundries (Extra labour for Lifting, transportation, stacking of finished precast elements)	L.S	230.00	2.12	487.60	
5.41.1	Rate as per item no 5.41.1 of SH RCC (Curing using curing compound)	sqm	18.54	57.50	1066.05	A
7929	Shear loops (6mm dia GI wire rope) (For vertical joints) 6 nos on each side	each	12.00	210.00	2520.00	
7930	dowel tubes (Corrugated GI pipes 50 to 80mm dia) (For horizontal joints)	metre	3.00	144.00	432.00	
9999	Shear key (6mm thick mechanically folded MS plate)	L.S	115.00	2.12	243.80	
7931	Hooks for lifting (Alloy steel) having 2.5 tonne capacity	each	2.00	270.00	540.00	
	Labour for fixing accessories & inserts such as shear loops, shear keys, dowel tubes, lifting hooks					
0155	Mason (Average)	day	0.50	749.00	374.50	
0115	Coolie	day	0.50	645.00	322.50	
	Labour for operating of hoisting & fixing moulds					
0157	Operator	day	0.50	784.00	392.00	
0116	Fitter (Grade 1)	day	0.30	784.00	235.20	
0115	Coolie	day	0.30	645.00	193.50	

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (Labour cost such as crane, trailer(flat bed & a frames) & panel racks for stacking of precost concrete panel wall)	L.S	173.41	2.12	367.63
	TOTAL				22099.38 W
	Add 1 % Water charges on "W-A"				72.66
	TOTAL				22172.04 X
	Add GST on "X-A" (multiplying factor 0.1405)				1031.12
	TOTAL				23203.16 Y
	Add 15% CPOH on "Y-A"				1255.50
	TOTAL				24458.66 Z
	Add Cess @ 1% on "Z-A"				96.26
	Cost for 1.26 Cum				24554.92
	Cost of 1 Cum				19488.03
	Say				19488.05

26.74.2 Extra for using M-40 (Cement content 400 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cement for M-35 Mix = 0.370 T				
	Cement for M-40 Mix = 0.400 T				
	Difference 0.030 T				
0367	Portland Cement	tonne	0.03	5000.00	150.00
2209	Carriage of cement	tonne	0.03	145.72	4.37
	Plasticizer for M-35 Mix =7.400 Kgs				
	Plasticizer for M-40 Mix = 8.000 Kgs				
	Difference 0.600Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	0.60	29.00	17.40
	TOTAL				171.77 W
	Add 1 % Water charges on "W"				1.72
	TOTAL				173.49 X
	Add GST on "X" (multiplying factor 0.1405)				24.38
	TOTAL				197.86 Y
	Add 15% CPOH on "Y"				29.68
	TOTAL				227.54 Z
	Add Cess @ 1% on "Z"				2.28
	Cost of 1.00 Cum				229.82
	Say				229.80

26.74.3 Extra for using M-50 (Cement content 425 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cement for M-35 Mix = 0.370 T				
	Cement for M-50 Mix = 0.425 T				
	Difference 0.055 T				
0367	Portland Cement	tonne	0.055	5000.00	275.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2209	Carriage of cement Plasticizer for M-35 Mix =7.400 Kgs Plasticizer for M-50 Mix = 8.500 Kgs Difference 1.100Kgs	tonne	0.055	145.72	8.01
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	1.10	29.00	31.90
	TOTAL				314.91 W
	Add 1 % Water charges on "W"				3.15
	TOTAL				318.06 X
	Add GST on "X" (multiplying factor 0.1405)				44.69
	TOTAL				362.75 Y
	Add 15% CPOH on "Y"				54.41
	TOTAL				417.16 Z
	Add Cess @ 1% on "Z"				4.17
	Cost of 1.00 Cum				421.34
	Say				421.35

26.74.4 Extra for using M-60 (Cement content 440 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cement for M-35 Mix = 0.370 T Cement for M-60 Mix = 0.440 T Difference 0.070 T				
0367	Portland Cement	tonne	0.07	5000.00	350.00
2209	Carriage of cement Plasticizer for M-35 Mix =7.400 Kgs Plasticizer for M-60 Mix = 8.800 Kgs Difference 1.400Kgs	tonne	0.07	145.72	10.20
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	1.40	29.00	40.60
	TOTAL				400.80 W
	Add 1 % Water charges on "W"				4.01
	TOTAL				404.81 X
	Add GST on "X" (multiplying factor 0.1405)				56.88
	TOTAL				461.68 Y
	Add 15% CPOH on "Y"				69.25
	TOTAL				530.94 Z
	Add Cess @ 1% on "Z"				5.31
	Cost of 1.00 Cum				536.25
	Say				536.25

26.75 Providing & laying in position Prestressing steel strands (low relaxation) on hollow core bed by using mechanical pulling arrangement like Rabbit/ Bed master including all accessories for Stressing & destressing operations as per approved make conforming to IS1343 & grade FY-1860 etc, complete as per drawings and direction of Engineer -in-charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Considering Four beds 8 strands (each strand is of 9.53mm dia consisting of 7 wires) X 4 beds X 120 Rmt X 0.453 Unit wt = 1739.52 kgs. Say 1740kgs. Details of Cost for 1740 Kg MATERIALS Quantity = 17.40 quintal + Add wastage 10 % = 1.74 q. Total = 19.14 q				
0993	FY-1860 grade wire strands	quintal	19.14	5700.00	109098.00
2205	Carriage of material	tonne	1.914	145.72	278.91
	Cutting baldes required for strand cutting				
9999	Strand cutting by cutting saw machine	L.S.	555.00	2.12	1176.60
	Wedges				
9999	Cost of wedge	L.S.	617.00	2.12	1308.04
	Resources - For laying and fixing cables, anchorages				
0128	Mate	day	1.00	714.00	714.00
0102	Blacksmith 1st class	day	4.00	784.00	3136.00
0115	Coolie	day	3.00	645.00	1935.00
	Labour- For prestressting				
0128	Mate	day	2.00	714.00	1428.00
0116	Fitter (Grade-1)	day	3.00	784.00	2352.00
0157	Operators	day	2.00	784.00	1568.00
0115	Coolie	day	2.00	645.00	1290.00
	MACHINERY "(12 HRS Required to Lay 1.914 Ton strands on 4 beds)				
0032	Stressing Machine (jack with pump)	day	1.50	11500.00	17250.00
0028	Hire & Running Charges of Crane 20 Ton Capacity to handle strands (8 Nos. strand coils (averege weight 3Ton each) required to lay one bed of 8 strands as one coil can lay only one strand at a time. Therefore to operate one complete bed total 8 Nos strand coils required, hence total 3X8= 24 Ton weight will be handled for one bed)	day	1.50	7000.00	10500.00
0034	Cutting Saw Machine	day	1.50	1350.00	2025.00
0030	Hire charges of Generator 250 KVA	day	1.50	3000.00	4500.00
0035	Strands Roller machinery for laying strands	day	1.50	3500.00	5250.00
0036	Bed master (Pulling strands)	day	1.50	3000.00	4500.00
0028	Crane handling charges for bed master & stressing machine. One bed master approx wt = 03 Ton (to be placed on each bed with the help of crane for laying of strands) One stressing Machine approx wt = 2.5 Ton (to be				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	placed on each active ends of bed with the help of crane for initial pulling & stressing of strands). Handling & Shifting of bed master & stressing machine has to be done for each bed separately.	day	1.50	7000.00	10500.00
1235	Diesel for generator set (14 litres per hour for 11 hours)	Litre	154.00	80.87	12453.98
	TOTAL				191263.53 W
	Add 1 % Water charges on "W"				1912.64
	TOTAL				193176.16 X
	Add GST on "X" (multiplying factor 0.1405)				27141.25
	TOTAL				220317.41 Y
	Add 15% CPOH on "Y"				33047.61
	TOTAL				253365.03 Z
	Add Cess @ 1% on "Z"				2533.65
	Cost for 1740 kgs				255898.68
	Cost of 1 Kg				147.07
	Say				147.05

26.76 Transportation of Precast Elements by flat bed Trailor (Double / Triple axle 40ft Length with proper accessories like A frame etc) from factory, including the cost of loading, unloading & stacking at site with the help of required capacity cranes.

26.76.1 Lead within 15km

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Trailors having capcity 22MT Hire charges of truck trailors Number of trips in working day of 8 hours N=8/{(2L/S)+2)}. Where L=Lead in Km., S=Speed in Km.per hour, 1 hour is allowed for loading & 1 hour for unloading. L= 15 km. S= 15 km / hr N=8/{(30/15)+2)}=02 Trips / day				
9999	Charges of Trailors having capcity 22MT including cost of fuel & driver cost and maintenance	L.S.	1738.00	2.12	3,684.56
0028	Hire charges of Crane capacity of 30MT for loading from stock yard and unloading at site for 120 MT.	day	0.3667	7000.00	2,566.90
0128	Mate	day	0.50	714.00	357.00
0114	Beldar	day	0.50	645.00	322.50
9999	wooden battens for tranporatation	L.S.	57.80	2.12	122.54
9999	Chain for packing & binding precast elements	L.S.	57.80	2.12	122.54

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	sundries	L.S.	220.00	2.12	466.40
	TOTAL				7642.43 W
	Add 1 % Water charges on "W"				76.42
	TOTAL				7718.86 X
	Add GST on "X" (multiplying factor 0.1405)				1084.50
	TOTAL				8803.36 Y
	Add 15% CPOH on "Y"				1320.50
	TOTAL				10123.86 Z
	Add Cess @ 1% on "Z"				101.24
	Cost for 22 MT				10225.10
	Cost of 1 MT				464.78
	Say				464.80

26.76.2 Add/Deduct over item 26.76.1 for every additional lead of 5 km

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Extra for lead 5 km				
9999	Charges of Trailors having capcity 22MT including cost of fuel & driver and maintenance	L.S.	579.00	2.12	1227.48
9999	sundries	L.S.	220.00	2.12	466.40
	TOTAL				1693.88 W
	Add 1 % Water charges on "W"				16.94
	TOTAL				1710.82 X
	Add GST on "X" (multiplying factor 0.1405)				240.37
	TOTAL				1951.19 Y
	Add 15% CPOH on "Y"				292.68
	TOTAL				2243.87 Z
	Add Cess @ 1% on "Z"				22.44
	Cost for 22 MT				2266.31
	Cost of 1 MT				103.01
	Say				103.00

26.77 Erection & Installation of Precast/Prestressed Concrete elements in correct & final position with proper line level and plumb at site making all arrangements (i.e cranes, push-pull jacks & all another T & P for lifting Placing & Alignment of elements, within erection tolerance as per IS 15916 as per approved shop drawings and all complete as per the direction of Engineer-in-Charge but excluding the cost of sim pads, non shrink grout and steel works i.e hangers. All work up to fifth floor.

26.77.1 Prestressed hollow core Slab up to 200 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 150 Sqm. Length of element can be upto 8.00 metres. Mobile crane (Tyre mounted) upto 25m height 100 feet boom				
0044	Cost for crane upto 40 tonne capacity	day	1.00	8000.00	8000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Hire charges of props & Misc	L.S.	434.00	2.12	920.08
0070	Genrator hiring 100kva	hour	8.00	300.00	2400.00
	Labour cost for erection				
0111	Carpenter 1st class	day	1.00	784.00	784.00
0112	Carpenter 2nd class	day	2.00	714.00	1428.00
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0130	Mistry	day	2.00	784.00	1568.00
0114	Beldar	day	2.00	645.00	1290.00
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.12	1060.00
	TOTAL				19018.08 W
	Add 1 % Water charges on "W"				190.18
	TOTAL				19208.26 X
	Add GST on "X" (multiplying factor 0.1405)				2698.76
	TOTAL				21907.02 Y
	Add 15% CPOH on "Y"				3286.05
	TOTAL				25193.07 Z
	Add Cess @ 1% on "Z"				251.93
	Cost for 150 Sqm				25445.01
	Cost of 1 Sqm				169.63
	Say				169.65

26.77.2 Prestressed hollow core slab above 200 mm up to 400 mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 120 Sqm. Length of element can be more than 8.00 metre and upto 14.00 metres.				
0067	Cost for crane upto 80 tonne capacity	day	1.00	15000.00	15000.00
9999	Hire charges of props & Misc	L.S.	347.00	2.12	735.64
0070	Genrator hiring 100kva	hour	8.00	300.00	2400.00
	Labour cost for erection				
0111	Carpenter 1st class	day	1.00	784.00	784.00
0112	Carpenter 2nd class	day	2.00	714.00	1428.00
0116	Fitter (grade 1)	day	2.00	784.00	1568.00
0130	Mistry	day	2.00	784.00	1568.00
0114	Beldar	day	2.00	645.00	1290.00
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.12	1060.00
	TOTAL				25833.64 W
	Add 1 % Water charges on "W"				258.34
	TOTAL				26091.98 X
	Add GST on "X" (multiplying factor 0.1405)				3665.92
	TOTAL				29757.90 Y
	Add 15% CPOH on "Y"				4463.68
	TOTAL				34221.58 Z
	Add Cess @ 1% on "Z"				342.22
	Cost for 120 Sqm				34563.80
	Cost of 1 Sqm				288.03
	Say				288.05

26.77.3 Solid concrete wall elements

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 18 Cum. / Day Considering volume of different type of elements wall elements = 15 cum (13 nos) Beams / portal = 3 cum (02 nos) Total no of elements = 15 nos				
0072	Cost for crane (50 MT) duration 01 day	day	1.00	8500.00	8500.00
9999	Shifting of elements	L.S.	434.00	2.12	920.08
9999	Hire charges of props & Misc for 3 days (3x3 = 9 / pc)	L.S.	780.00	2.12	1653.60
1027	Erection Bolts (Minimum 04 nos for each element)	each	60.00	25.00	1500.00
0070	Genrator hiring 100kva	hour	8.00	300.00	2400.00
	Labour cost				
0111	Carpenter 1st class	day	2.00	784.00	1568
0112	Carpenter 2nd class	day	2.00	714.00	1428
0116	Fitter (grade 1)	day	2.00	784.00	1568
0130	Mistry	day	3.00	784.00	2352
0116	Fitter (grade 1)	day	2.00	784.00	1568
0114	Beldar	day	8.00	645.00	5160
9999	Scaffolding, hire charge of drill machine etc.	L.S.	500.00	2.12	1060
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.12	1060
	TOTAL				30737.68 W
	Add 1 % Water charges on "W"				307.38
	TOTAL				31045.06 X
	Add GST on "X" (multiplying factor 0.1405)				4361.83
	TOTAL				35406.89 Y
	Add 15% CPOH on "Y"				5311.03
	TOTAL				40717.92 Z
	Add Cess @ 1% on "Z"				407.18
	Cost for 18 cum				41125.10
	Cost of 1 cum				2284.73
	Say				2284.75

26.78 Providing & Applying weather proof sealant on outer joints of approved make confirming to IS & directed by Engineer-in-charge.

26.78.1 Sealant 25mmx10mm at joints

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of material required for = 1.00 metre including 5 % wastage				
8646	Silicon sealant (including 5% wastage)	cartridge	0.87	112.00	97.44
8654	Masking tape	metre	2.00	2.18	4.36
9999	Scaffolding, hire charge etc.	L.S.	2.87	2.12	6.08

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.87	2.12	6.08
	TOTAL				113.97 W
	Add 1 % Water charges on "W"				1.14
	TOTAL				115.11 X
	Add GST on "X" (multiplying factor 0.1405)				16.17
	TOTAL				131.28 Y
	Add 15% CPOH on "Y"				19.69
	TOTAL				150.97 Z
	Add Cess @ 1% on "Z"				1.51
	Cost of 1 metre				152.48
	Say				152.50

26.79 Providing & Laying of levelling sim pads required sizes (5x5cm to 10x10cm) of PVC / Rubber to adjust level of bearing surface of supporting members as per the direction of Engineer in charge.

26.79.1 2mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 nos				
	MATERIAL				
0246	2 mm thick sim pad	each	100.00	10.00	1000.00
9977	Carriage of material	L.S.	5.00	2.12	10.60
	LABOUR				
0116	Fitter (Grade-1)	day	1.00	784.00	784.00
9999	Sundries	L.S.	10.00	2.12	21.20
	TOTAL				1815.80 W
	Add 1 % Water charges on "W"				18.16
	TOTAL				1833.96 X
	Add GST on "X" (multiplying factor 0.1405)				257.67
	TOTAL				2091.63 Y
	Add 15% CPOH on "Y"				313.74
	TOTAL				2405.37 Z
	Add Cess @ 1% on "Z"				24.05
	Cost for100 Nos				2429.43
	Cost of each				24.29
	Say				24.30

26.79.2 5 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 nos				
	MATERIAL				
0247	5 mm thick sim pad	each	100.00	15.00	1500.00
9977	Carriage of material	L.S.	5.00	2.12	10.60
	LABOUR				
0116	Fitter (Grade-1)	day	1.00	784.00	784.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	10.00	2.12	21.20
	TOTAL				2315.80 W
	Add 1 % Water charges on “W”				23.16
	TOTAL				2338.96 X
	Add GST on “X” (multiplying factor 0.1405)				328.62
	TOTAL				2667.58 Y
	Add 15% CPOH on “Y”				400.14
	TOTAL				3067.72 Z
	Add Cess @ 1% on “Z”				30.68
	Cost for100 Nos				3098.40
	Cost of each				30.98
	Say				31.00

26.79.3 10 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 nos				
	MATERIAL				
0248	10 mm thick sim pad	each	100.00	25.00	2500.00
9977	Carriage of material	L.S	5.00	2.12	10.60
	LABOUR				
0116	Fitter (Grade-1)	day	1.00	784.00	784.00
9999	Sundries	LS	10.00	2.12	21.20
	TOTAL				3315.80 W
	Add 1 % Water charges on "W"				33.16
	TOTAL				3348.96 X
	Add GST on "X" (multiplying factor 0.1405)				470.53
	TOTAL				3819.49 Y
	Add 15% CPOH on "Y"				572.92
	TOTAL				4392.41 Z
	Add Cess @ 1% on "Z"				43.92
	Cost for100 Nos				4436.33
	Cost of each				44.36
	Say				44.35

26.80 Providing & Grouting of dowel tubes / Shear keys / Joints of precast members with M-60 grade cementitious grout (Non Shrink) of approved make by suitable means (Free flowing /pump),curing etc. Complete as per directions of Engineer-in-charge. (The payment shall be made on the basis of actual weight of approved grout injected.)

26.80.1 Stirrer mixed cementitious grout (non shrink) of approved make in dowel tubes / Shear keys / Joints of precast members.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 250 kgs non shrink cementitious grout				
	including 5 % wastage				
1251	M-60 grade cemetitious grout (Non Shrink)	kg	262.50	28.00	7350.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2209	Carriage of cementitious material	tonne	0.25	145.72	36.43
9999	Grouting charges of Stirrer mixed cementitious grout, rubber, pipe and other accessories hire charges of plant, machinery including necessary fuel and transportation of site	L.S.	2250.00	2.12	4770.00
	LABOUR				
0122	Mason (for plaster of paris work) 1st class	day	1.00	784.00	784.00
0155	Masson (Average)	day	1.00	749.00	749.00
0161	Helper (Technician)	day	1.00	645.00	645.00
	TOTAL				14334.43 W
	Add 1 % Water charges on "W"				143.34
	TOTAL				14477.77 X
	Add GST on "X" (multiplying factor 0.1405)				2034.13
	TOTAL				16511.90 Y
	Add 15% CPOH on "Y"				2476.79
	TOTAL				18988.69 Z
	Add Cess @ 1% on "Z"				189.89
	Cost for 250 Kgs				19178.57
	Cost of 1 Kg				76.71
	Say				76.70

26.81 Providing and fixing Scaffolding net of required width made of high density Polyethylene UV stabilized knitted on warp knitting machines having density 100grams/sqm and shading coefficient minimum 75% around the construction site/ for vertical extension as per requirement including fastening/tying with building/scaffolding pipes or with any other fixtures etc. complete as per direction of Engineer-in-Charge. (One time payment shall be made for providing Scaffolding net from start of work till completion of work including shifting if any. The Scaffolding net shall be the property of the contractor on completion of the work)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 300 sqm.				
	MATERIALS:				
8761	Scaffolding net	sqm	300.00	22.00	6600.00 P
9999	Carriage	L.S.	3.00	2.12	6.36
	Less Salvage value taken 25% on (P)				-1650.00
	LABOUR:				
0114	Beldar	day	1.00	645.00	645.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries for tying the net	L.S.	10.00	2.12	21.20
	Total				5622.56 W
	Add 1% for water charges				56.23
	Total				5678.79 X
	Add GST on "X" (multiplying factor 0.1405)				797.87
	Total				6476.65 Y
	Add CPOH @ 15% on "Y"				971.50
	Total				7448.15 Z
	Add Cess @ 1% on "Z"				74.48
	Cost of 300 Sqm.				7522.63
	Cost of 1 Sqm.				25.08
	Say				25.10

26.82 Providing and laying rigid EPS (cellular plastic material) blocks conforming to ASTM standards/specifications of minimum density 21.60 Kg/cum on floors, steps, stage etc. of required size and shape as per direction of the Engineer-in-Charge. This shall include the following operation.
The EPS blocks shall be cut to required shape and sizes including cuttings for passing of services, joined together with synthetic resin adhesives as per relevant specifications and packed/placed in position for stepped floor or platform formation. The top and sides surfaces to be provided with GI woven wire mesh of aperture 5.45 mm (with wire dia 0.90 mm) secured to EPS blocks with wire pins/clips. Horizontal top surface to be provided with 20 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate upto 6mm chippings) and vertical surface to be provided with 12mm cement plaster 1:4 (1 cement : 4 coarse sand). The concrete/plastered surfaces so prepared shall be scratched with wire brushes to form burrs, so as to act as base for flooring or veneering/panelling to be done later as per approved design (which shall be paid for separately complete as per direction of the Engineer-in-Charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for a Lecture Hall of area 8.40 x 16.00= 134.40 Sqm Assuming stepped floor for a Lecture Hall having 8 rows and each row by 100mm higher than the previous one. (Assuming 8 rows 1.50 meter wide and four columns also 1.5 meter wide with 1.2 meter wide passage between row 1 and 2, 3 and 4 and front lecturer pedestrian. Material EPS blocks in sizes of = 1.20x1.20x0.10 m 8.40 m x 12 m x 0.45 m = 45.90 cum 8.40 m x 3 m x 0.15 m = 3.78 cum 49.68 cum Say = 50.00 cum 50 cum @ 21.60 Kg/cum. Total = 1080.00 kg				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5744	EPS blocks	kg	1080.00	150.00	162000.00	
	GI woven mesh of aperture 5.45 mm (with wire of dia 0.90 mm = 134.40 sqm + 13.60 sqm = 150.00 sqm @ 1.61 Kg/sqm. Total = 241.50 kgs					
5745	GI woven mesh of aperture 5.45 mm (with wire of dia 0.90 mm	kg	241.50	60.00	14490.00	
	Total surface area to be joined 504 sqm considering 1/6th area for adhesive i.e. 84 sqm @ 100 Gm/sqm. Total = 8.50 kgs					
5746	SR adhesive for joining EPS blocks	kg	8.50	180.00	1530.00	
9999	Wire pins/clips to secure IRC mesh to EPS blocks	L.S.	675.00	2.12	1431.00	
9999	T&P sundries i/c cutting tools etc.	L.S.	340.00	2.12	720.80	
	Labour:- For cutting arranging & packing the EPS blocks in position including jointing with SR adhesive and making arranging/cutting for fixing of services and fixing IRC welded mesh to EPS blocks.					
0156	Fitter/Carpenter (average)	day	2.00	749.00	1498.00	
0114	Beldar	day	1.00	645.00	645.00	
	Cement concrete 1:2:4 (1 cement : 2 cement sand : 4 graded stone clippings upto 6 mm size)					
	134.4x0.025 = 3.36 cum					
4.1.3	Rate as per item no 4.1.3					
	SH:4 (Cement Concrete)	cum	3.36	7365.15	24746.90	A
	12mm cement plaster					
	1:4 (1 cement : 4 coarse sand)					
13.4.1	Rate as per item no 13.4.1					
	SH:13 (Finishing)	sqm	9.24	307.25	2838.99	A
0155	Mason (average) for making burrs	day	1.00	749.00	749.00	
	Total				210649.69	W
	Add 1 % Water charges on "W-A"				1830.64	
	TOTAL				212480.33	X
	Add GST on "X-A" (multiplying factor 0.1405)				25977.67	
	TOTAL				238458.00	Y
	Add 15% CPOH on "Y-A"				31630.82	
	TOTAL				270088.82	Z
	Add Cess @ 1% on "Z-A"				2425.03	
	Cost of 134.40 sqm				272513.85	
	Cost of 1 sqm				2027.63	
	Say				2027.65	

26.83 Applying stamping finish to the top surface of freshly laid plain/reinforced cement concrete of specified grade in porticos, sidewalks, driveways, pool decks and open yards as per direction of the Engineer-in-Charge. The process shall include the following:-

• The concrete shall be placed and screeded to the finished grade, and floated to a uniform surface by using standard finishing techniques. The approved color hardener @ 2.7 kg/sqm shall be applied evenly to the surface of the fresh concrete by the dry shake method by sprinkling in two or more shakes, floated after each shake and trowelled only after the final floating. The approved release agent @ 0.113 kg/sqm shall be applied evenly to the trowelled surface before stamping or the said release agent can be applied to the flexible polyurethane stamp moulds of approved design and in required sizes to achieve final stamped pattern. These stampings shall be placed on the surface of concrete in three to four pieces at a time and tapped gently with rammers of sufficient size & weight to leave proper stamp marks and the process repeated for the remaining concrete surface till the whole surface to be stamped is completed within the time while concrete is in plastic stage of setting.

• After stamping, the curing shall be done as per manufactures specifications. After initial curing the imprinted joints shall be grouted using cement slurry mixed with color hardener as per the requirement. The surface shall be sealed by applying acrylic based sealer not less than 0.167 litre/sqm.on finished surface.

• The construction joints shall be provided by groove cutting of size 4mm x 20mm in panel size 3m x 3 m or lesser as per the site conditions and filling the same with 10 mm baker rod and providing and laying (PU) Polyurethane based joint sealer of approved make as per manufacturer's specifications and finished by applying Polyurethane resin based top protective clear coat of minimum 80 micron applied with rollers on properly cured and dry clean surface. (Cost of concrete for flooring is not included in this item which shall be paid separately.)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 Sqm				
	Material				
7224	Concrete hardener	Kg	297.00	20.00	5940.00
7225	Release agent	Litres	1.35	200.00	270.00
7226	Sealer	Kg	17.50	260.00	4550.00
7227	PU resin top coat	Kg	23.00	225.00	5175.00
9999	T&P like tollers of various sizes dewatering machines i/c floaters and suckers, brushes and water jet etc. (rentals only)	L.S.	6000.00	2.12	12720.00
	Labour for spreading/sprinkling the floor hardeners, floating, trowelling, spreading the release agent, stamp molds, tapping of molds into concrete shifting of molds for repeat process, grouting the joints and applying sealers and finishing etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0169	Specialized technicians	day	6.00	853.00	5118.00
0124	Assistant/Operators (Second Class Mason)	day	6.00	714.00	4284.00
0123	Mason 1st class for grouting repairs & applying sealer etc.	day	2.00	784.00	1568.00
0131	Painter	day	1.00	714.00	714.00
0114	Helper/Beldar	day	10.00	645.00	6450.00
9999	Sundries for grouts pigments etc.	L.S.	500.00	2.12	1060.00
	Total				47849.00 W
	Add 1 % Water charges on "W"				478.49
	TOTAL				48327.49 X
	Add GST on "X" (multiplying factor 0.1405)				6790.01
	TOTAL				55117.50 Y
	Add 15% CPOH on "Y"				8267.63
	TOTAL				63385.13 Z
	Add Cess @ 1% on "Z"				633.85
	Cost of 100 sqm				64018.98
	Cost of 1 sqm				640.19
	Say				640.20

26.84 Supplying and laying of Uni-Axial Woven Polyster Geogrid conforming to MORTH 3100 and IRC113, as soil reinforcement/basal reinforcement including accessories like tie-strips, nuts & bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geo-grids and all other activities required for reinforced soil walls, slopes etc complete as per design requirements, manufacturer specifications and as per direction of engineer-in- charge.

26.84.1 Uni Axial Woven polyster geogrid of minimum tensile strength 40KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8979	Uni Axial Woven polyster geogrid of minimum tensile strength 40KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.	sqm	300.00	139.00	41700.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.				
	i.e 5% of (P)				2085.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				50054.04 W
	Add 1 % Water charges on "W"				500.54
	TOTAL				50554.58 X
	Add GST on "X" (multiplying factor 0.1405)				7102.92
	TOTAL				57657.50 Y
	Add 15% CPOH on "Y"				8648.62
	TOTAL				66306.12 Z
	Add Cess @ 1% on "Z"				663.06
	Cost of 300 sqm				66969.19
	Cost of 1 sqm				223.23
	Say				223.25

26.84.2 Uni Axial Woven polyster geogrid of minimum tensile strength 60KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8980	Uni Axial Woven polyster geogrid of minimum tensile strength 60KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.	sqm	300.00	161.00	48300.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				2415.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				56984.04 W
	Add 1 % Water charges on "W"				569.84
	TOTAL				57553.88 X
	Add GST on "X" (multiplying factor 0.1405)				8086.32
	TOTAL				65640.20 Y
	Add 15% CPOH on "Y"				9846.03
	TOTAL				75486.23 Z
	Add Cess @ 1% on "Z"				754.86
	Cost of 300 sqm				76241.09
	Cost of 1 sqm				254.14
	Say				254.15

26.84.3 Uni Axial Woven polyster geogrid of minimum tensile strength 80 KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8981	Uni Axial Woven polyster geogrid of minimum tensile strength 80 KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.	sqm	300.00	205.00	61500.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				3075.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				70844.04 W
	Add 1 % Water charges on "W"				708.44
	TOTAL				71552.48 X
	Add GST on "X" (multiplying factor 0.1405)				10053.12
	TOTAL				81605.60 Y
	Add 15% CPOH on "Y"				12240.84
	TOTAL				93846.44 Z
	Add Cess @ 1% on "Z"				938.46
	Cost of 300 sqm				94784.91
	Cost of 1 sqm				315.95
	Say				315.95

26.84.4 Uni Axial Woven polyster geogrid of minimum tensile strength 100KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8982	Uni Axial Woven polyster geogrid of minimum tensile strength 100KN/m in the Longitudinal direction and 30KN/m in the Transverse direction.	sqm	300.00	237.00	71100.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	item in all respect including transportation.i.e 5% of (P)				3555.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				80924.04 W
	Add 1 % Water charges on "W"				809.24
	TOTAL				81733.28 X
	Add GST on "X" (multiplying factor 0.1405)				11483.53
	TOTAL				93216.81 Y
	Add 15% CPOH on "Y"				13982.52
	TOTAL				107199.33 Z
	Add Cess @ 1% on "Z"				1071.99
	Cost of 300 sqm				108271.32
	Cost of 1 sqm				360.90
	Say				360.90

26.84.5 Uni Axial Woven polyster geogrid of minimum tensile strength 120KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8983	Uni Axial Woven polyster geogrid of minimum tensile strength 120KN/m in the Longitudinal direction and 30KN/m in the Transverse direction. Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)	sqm	300.00	254.00	76200.00 P 3810.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				86279.04 W
	Add 1 % Water charges on "W"				862.79
	TOTAL				87141.83 X
	Add GST on "X" (multiplying factor 0.1405)				12243.43
	TOTAL				99385.26 Y
	Add 15% CPOH on "Y"				14907.79
	TOTAL				114293.05 Z
	Add Cess @ 1% on "Z"				1142.93
	Cost of 300 sqm				115435.98
	Cost of 1 sqm				384.79
	Say				384.80

26.84.6 Uni Axial Woven polyster geogrid of minimum tensile strength 150KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8984	Uni Axial Woven polyster geogrid of minimum tensile strength 150KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.	sqm	300.00	319.00	95700.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation. i.e 5% of (P)				4785.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				106754.04 W
	Add 1 % Water charges on "W"				1067.54
	TOTAL				107821.58 X
	Add GST on "X" (multiplying factor 0.1405)				15148.93
	TOTAL				122970.51 Y
	Add 15% CPOH on "Y"				18445.58
	TOTAL				141416.09 Z
	Add Cess @ 1% on "Z"				1414.16
	Cost of 300 sqm				142830.25
	Cost of 1 sqm				476.10
	Say				476.10

26.84.7 Uni Axial Woven polyster geogrid of minimum tensile strength 200KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8985	Uni Axial Woven polyster geogrid of minimum tensile strength 200KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.	sqm	300.00	375.00	112500.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	item in all respect including transportation.i.e 5% of (P)				5625.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				124394.04 W
	Add 1 % Water charges on "W"				1243.94
	TOTAL				125637.98 X
	Add GST on "X" (multiplying factor 0.1405)				17652.14
	TOTAL				143290.12 Y
	Add 15% CPOH on "Y"				21493.52
	TOTAL				164783.63 Z
	Add Cess @ 1% on "Z"				1647.84
	Cost of 300 sqm				166431.47
	Cost of 1 sqm				554.77
	Say				554.75

26.84.8 Uni Axial Woven polyster geogrid of minimum tensile strength 250KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8986	Uni Axial Woven polyster geogrid of minimum tensile strength 250KN/m in the Longitudinal direction and 30KN/m in the Transverse direction. Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation. i.e 5% of (P)	sqm	300.00	458.00	137400.00 P 6870.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				150539.04 W
	Add 1 % Water charges on "W"				1505.39
	TOTAL				152044.43 X
	Add GST on "X" (multiplying factor 0.1405)				21362.24
	TOTAL				173406.67 Y
	Add 15% CPOH on "Y"				26011.00
	TOTAL				199417.67 Z
	Add Cess @ 1% on "Z"				1994.18
	Cost of 300 sqm				201411.85
	Cost of 1 sqm				671.37
	Say				671.35

26.84.9 Uni Axial Woven polyster geogrid of minimum tensile strength 300KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8987	Uni Axial Woven polyster geogrid of minimum tensile strength 300KN/m in the Longitudinal direction and 30KN/m in the Transverse direction.	sqm	300.00	529.00	158700.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation. i.e 5% of (P)				7935.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				172904.04 W
	Add 1 % Water charges on "W"				1729.04
	TOTAL				174633.08 X
	Add GST on "X" (multiplying factor 0.1405)				24535.95
	TOTAL				199169.03 Y
	Add 15% CPOH on "Y"				29875.35
	TOTAL				229044.38 Z
	Add Cess @ 1% on "Z"				2290.44
	Cost of 300 sqm				231334.83
	Cost of 1 sqm				771.12
	Say				771.10

26.85 Supplying and laying of Bi-Axial Woven Polyster Geogrid conforming to MORTH 3100 and IRC113, as soil reinforcement/basal reinforcement of granular road base and sub base, area stalilization, track bed stabilization, load transfer platforms Including accessories like tie-strips, nuts & bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geo-grids and all other activities required etc. complete as per design requirements, manufacturer specifications and as per direction of engineer-in- charge.

26.85.1 Bi Axial Woven polyster geogrid of minimum tensile strength 20KN/m in both Longitudinal and Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8988	Bi Axial Woven polyster geogrid of minimum tensile strength 20KN/m in both Longitudinal and Transverse direction.	sqm	300.00	114.00	34200.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				1710.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				42179.04 W
	Add 1 % Water charges on "W"				421.79
	TOTAL				42600.83 X
	Add GST on "X" (multiplying factor 0.1405)				5985.42
	TOTAL				48586.25 Y
	Add 15% CPOH on "Y"				7287.94
	TOTAL				55874.18 Z
	Add Cess @ 1% on "Z"				558.74
	Cost of 300 sqm				56432.93
	Cost of 1 sqm				188.11
	Say				188.10

26.85.2 Bi Axial Woven polyster geogrid of minimum tensile strength 40KN/m in both Longitudinal and Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8989	Bi Axial Woven polyster geogrid of minimume tensile strength 40KN/m in both Longitudinal and Transverse direction.	sqm	300.00	173.00	51900.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				2595.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				60764.04 W
	Add 1 % Water charges on "W"				607.64
	TOTAL				61371.68 X
	Add GST on "X" (multiplying factor 0.1405)				8622.72
	TOTAL				69994.40 Y
	Add 15% CPOH on "Y"				10499.16
	TOTAL				80493.56 Z
	Add Cess @ 1% on "Z"				804.94
	Cost of 300 sqm				81298.50
	Cost of 1 sqm				270.99
	Say				271.00

26.85.3 Bi Axial Woven polyster geogrid of minimum tensile strength 60KN/m in both Longitudinal and Transverse direction.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of Cost for 300 Sqm.				
	MATERIALS:				
8990	Bi Axial Woven polyster geogrid of minimum tensile strength 60KN/m in both Longitudinal and Transverse direction.	sqm	300.00	223.00	66900.00 P
	Add 5 percent of the cost of reinforcing elements geogrid for wastage and accessories like tie-strips, nuts and bolts and loops/lungs for joining reinforcing elements with the facia panels, overlaps and other protective elements for geogrid and all other activities required to complete the item in all respect including transportation.i.e 5% of (P)				3345.00
	LABOUR:				
0128	Mate	day	0.36	714.00	257.04
0114	Beldar	day	6.00	645.00	3870.00
0139	Skilled Beldar	day	3.00	714.00	2142.00
	Total				76514.04 W
	Add 1 % Water charges on "W"				765.14
	TOTAL				77279.18 X
	Add GST on "X" (multiplying factor 0.1405)				10857.72
	TOTAL				88136.91 Y
	Add 15% CPOH on "Y"				13220.54
	TOTAL				101357.44 Z
	Add Cess @ 1% on "Z"				1013.57
	Cost of 300 sqm				102371.02
	Cost of 1 sqm				341.24
	Say				341.25

26.86 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/Ceosetory windows & other Frames/Chowkhat comprising of virgin PVC polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm2, modulus of elasticity 900 N/ mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S hold fast/lugs/SS dash fasteners of required dia and length complete as per direction of Engineer-In- Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for separately).

Note: For WPC solid door/window frames, minus 5mm tolerance in dimensions i.e depth and width of profile shall be acceptable. Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made.

26.86.1 Frame size 45 x 70 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
	Details of cost for 5.20 metre of door frame/chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre)"					
	MATERIAL					
5747	Factory made single extruded WPC (Wood Polymer Composite) solid door/ window, clerestory windows & other Frames/Chowkhat of frame size 45 x 70 mm including carriage of frame	metre	5.20	375.00	1950.00	
	LABOUR					
	For fabrication and fixing in position					
0156	Carpenter (average)	day	0.10	749.00	74.90	
0155	Mason (average)	day	0.17	749.00	127.33	
0114	Beldar	day	0.44	645.00	283.80	
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.12	21.20	
	TOTAL				2457.23	W
	Add 1 % Water charges on "W"				24.57	
	TOTAL				2481.80	X
	Add GST on "X" (multiplying factor 0.1405)				348.69	
	TOTAL				2830.50	Y
	Add 15% CPOH on "Y"				424.57	
	TOTAL				3319.35	Z
	Add Cess @ 1% on "Z"				33.19	
	Cost of 5.20 metre				3352.54	
	Cost of 1 metre				644.72	
	Say				644.70	

26.86.2 Frame size 45 x 85 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5.20 metre of door frame/chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)				
	MATERIAL				
5748	Factory made single extruded WPC (Wood Polymer Composite) solid door/ window, clerestory windows & other Frames/Chowkhat of frame size 45 x 85 mm including carriage of frame	metre	5.20	525.00	2730.00
	LABOUR				
	For fabrication and fixing in position				
0156	Carpenter (average)	day	0.10	749.00	74.90
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.44	645.00	283.80
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.12	21.20
	TOTAL				3237.23 W
	Add 1 % Water charges on "W"				32.37
	TOTAL				3269.60 X
	Add GST on "X" (multiplying factor 0.1405)				459.38
	TOTAL				3728.98 Y
	Add 15% CPOH on "Y"				559.35
	TOTAL				4288.33 Z
	Add Cess @ 1% on "Z"				42.88
	Cost of 5.20 metre				4331.21
	Cost of 1 metre				832.93
	Say				832.95

26.86.3 Frame size 50 x 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5.20 metre of door frame/chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre)				
	MATERIAL				
5749	Factory made single extruded WPC (Wood Polymer Composite) solid door/ window, clerestory windows & other Frames/Chowkhat of frame size 50 x 100 mm including carriage of frame	metre	5.20	540.00	2808.00
	LABOUR				
	For fabrication and fixing in position				
0156	Carpenter (average)	day	0.10	749.00	74.90
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.44	645.00	283.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.12	21.20
	TOTAL				3315.23 W
	Add 1 % Water charges on "W"				33.15
	TOTAL				3348.38 X
	Add GST on "X" (multiplying factor 0.1405)				470.45
	TOTAL				3818.83 Y
	Add 15% CPOH on "Y"				572.82
	TOTAL				4391.65 Z
	Add Cess @ 1% on "Z"				43.92
	Cost of 5.20 metre				4435.57
	Cost of 1 metre				852.99
	Say				853.00

26.86.4 Frame size 50 x 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5.20 metre of door frame/chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)				
	MATERIAL				
5750	Factory made single extruded WPC (Wood Polymer Composite) solid door/ window, clerestory windows & other Frames/Chowkhat of frame size 50 x 125 mm including carriage of frame	metre	5.20	630.00	3276.00
	LABOUR				
	For fabrication and fixing in position				
0156	Carpenter (average)	day	0.10	749.00	74.90
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.44	645.00	283.80
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.12	21.20
	TOTAL				3783.23 W
	Add 1 % Water charges on "W"				37.83
	TOTAL				3821.06 X
	Add GST on "X" (multiplying factor 0.1405)				536.86
	TOTAL				4357.92 Y
	Add 15% CPOH on "Y"				653.69
	TOTAL				5011.61 Z
	Add Cess @ 1% on "Z"				50.12
	Cost of 5.20 metre				5061.73
	Cost of 1 metre				973.41
	Say				973.40

26.86.5 Frame size 65 x 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5.20 metre of door frame/chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)				
	MATERIAL				
5751	Factory made single extruded WPC (Wood Polymer Composite) solid door/ window, clerestory windows & other Frames/Chowkhat of frame size 65 x 100 mm including carriage of frame	metre	5.20	650.00	3380.00
	LABOUR				
	For fabrication and fixing in position				
0156	Carpenter (average)	day	0.10	749.00	74.90
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.44	645.00	283.80
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.12	21.20
	TOTAL				3887.23 W
	Add 1 % Water charges on "W"				38.87
	TOTAL				3926.10 X
	Add GST on "X" (multiplying factor 0.1405)				551.62
	TOTAL				4477.72 Y
	Add 15% CPOH on "Y"				671.66
	TOTAL				5149.38 Z
	Add Cess @ 1% on "Z"				51.49
	Cost of 5.20 metre				5200.87
	Cost of 1 metre				1000.17
	Say				1000.15

26.86.6 Frame size 65 x 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5.20 metre of door frame/chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)				
	MATERIAL				
5752	Factory made single extruded WPC (Wood Polymer Composite) solid door/ window, clerestory windows & other Frames/Chowkhat of frame size 65 x 125 mm including carriage of frame	metre	5.20	835.00	4342.00
	LABOUR				
	For fabrication and fixing in position				
0156	Carpenter (average)	day	0.10	749.00	74.90
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.44	645.00	283.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.12	21.20
	TOTAL				4849.23 W
	Add 1 % Water charges on "W"				48.49
	TOTAL				4897.72 X
	Add GST on "X" (multiplying factor 0.1405)				688.13
	TOTAL				5585.85 Y
	Add 15% CPOH on "Y"				837.88
	TOTAL				6423.73 Z
	Add Cess @ 1% on "Z"				64.24
	Cost of 5.20 metre				6487.97
	Cost of 1 metre				1247.69
	Say				1247.70

26.86.7 Frame size 65 x 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 5.20 metre of door frame/chowkhat size 1.00 x 2.10 metre. (1.00+2.10+2.10=5.20 metre.)				
	MATERIAL				
5753	Factory made single extruded WPC (Wood Polymer Composite) solid door/ window, clerestory windows & other Frames/Chowkhat of frame size 65 x 150 mm including carriage of frame	metre	5.20	1010.00	5252.00
	LABOUR				
	For fabrication and fixing in position				
0156	Carpenter (average)	day	0.10	749.00	74.90
0155	Mason (average)	day	0.17	749.00	127.33
0114	Beldar	day	0.44	645.00	283.80
9999	Sundries includes PVC solvent cement and SS screws etc.	L.S.	10.00	2.12	21.20
	TOTAL				5759.23 W
	Add 1 % Water charges on "W"				57.59
	TOTAL				5816.82 X
	Add GST on "X" (multiplying factor 0.1405)				817.26
	TOTAL				6634.09 Y
	Add 15% CPOH on "Y"				995.11
	TOTAL				7629.20 Z
	Add Cess @ 1% on "Z"				76.29
	Cost of 5.20 metre				7705.49
	Cost of 1 metre				1481.83
	Say				1481.85

26.87 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In-Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)

26.87.1 30 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for door shutter of size 2.20 sqm.				
	MATERIAL				
5754	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 30mm thick	sqm	2.20	2800.00	6160.00
9977	Carriage of door shutter	L.S.	29.64	2.12	62.84
	LABOUR				
	For fixing shutter				
0156	Carpenter (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				6501.64 W
	Add 1 % Water charges on "W"				65.02
	TOTAL				6566.65 X
	Add GST on "X" (multiplying factor 0.1405)				922.61
	TOTAL				7489.27 Y
	Add 15% CPOH on "Y"				1123.39
	TOTAL				8612.66 Z
	Add Cess @ 1% on "Z"				86.13
	Cost of 2.20 sqm.				8698.78
	Cost of 1 sqm.				3953.99
	Say				3954.00

26.87.2 35 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for door shutter of size 2.20 sqm.				
	MATERIAL				
5755	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 35 mm thick	sqm	2.20	3250.00	7150.00
9977	Carriage of door shutter	L.S.	29.64	2.12	62.84
	LABOUR				
	For fixing shutter				
0156	Carpenter (average)	day	0.20	749.00	149.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				7491.64 W
	Add 1 % Water charges on "W"				74.92
	TOTAL				7566.55 X
	Add GST on "X" (multiplying factor 0.1405)				1063.10
	TOTAL				8629.65 Y
	Add 15% CPOH on "Y"				1294.45
	TOTAL				9924.10 Z
	Add Cess @ 1% on "Z"				99.24
	Cost of 2.20 sqm.				10023.34
	Cost of 1 sqm.				4556.06
	Say				4556.05

26.88 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In-Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)

26.88.1 30 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for door shutter of size 2.20 sqm.				
	MATERIAL				
5754	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 30mm thick	sqm	2.20	2800.00	6160.00
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	4.40	125.00	550.00
9977	Carriage of door shutter	L.S.	29.64	2.12	62.84
	LABOUR				
	For pasting PVC laminated foil to door shutter and fixing door shutter at position				
0156	Carpenter (average)	day	0.20	749.00	149.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.30	645.00	193.50
	TOTAL				7116.14 W
	Add 1 % Water charges on "W"				71.16
	TOTAL				7187.30 X
	Add GST on "X" (multiplying factor 0.1405)				1009.82
	TOTAL				8197.11 Y
	Add 15% CPOH on "Y"				1229.57
	TOTAL				9426.68 Z
	Add Cess @ 1% on "Z"				94.27
	Cost of 2.20 sqm.				9520.95
	Cost of 1 sqm.				4327.70
	Say				4327.70

26.88.2 35 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for door shutter of size 2.20 sqm.				
	MATERIAL				
5755	Factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter 35 mm thick	sqm	2.20	3250.00	7150.00
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	4.40	125.00	550.00
9977	Carriage of door shutter	L.S.	29.64	2.12	62.84
	LABOUR				
	For pasting PVC laminated foil to door shutter and fixing door shutter at position				
0156	Carpenter (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.30	645.00	193.50
	TOTAL				8106.14 W
	Add 1 % Water charges on "W"				81.06
	TOTAL				8187.20 X
	Add GST on "X" (multiplying factor 0.1405)				1150.30
	TOTAL				9337.50 Y
	Add 15% CPOH on "Y"				1400.62
	TOTAL				10738.12 Z
	Add Cess @ 1% on "Z"				107.38
	Cost of 2.20 sqm.				10845.51
	Cost of 1 sqm.				4929.78
	Say				4929.80

26.89 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white color and other side of board laminted with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/soft close clip on concealed hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In-Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately)

26.89.1 18 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 18 mm thick WPC board for cupboard shutter of size 2.0x1.08 metre = 2.16 sqm				
	MATERIAL				
5756	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 18 mm thick	sqm	2.16	1750.00	3780.00
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	2.16	125.00	270.00
9977	Carriage of board	L.S.	5.00	2.12	10.60
9999	Sundries	L.S.	20.00	2.12	42.40
	LABOUR				
0156	Carpenter (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				4381.80 W
	Add 1 % Water charges on "W"				43.82
	TOTAL				4425.62 X
	Add GST on "X" (multiplying factor 0.1405)				621.80
	TOTAL				5047.42 Y
	Add 15% CPOH on "Y"				757.11
	TOTAL				5804.53 Z
	Add Cess @ 1% on "Z"				58.05
	Cost of 2.16 sqm.				5862.58
	Cost of 1 sqm.				2714.16
	Say				2714.15

26.89.2 25 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 25 mm thick WPC board for cupboard shutter of size 2.0x1.08 metre = 2.16 sqm				
	MATERIAL				
5757	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 25 mm thick	sqm	2.16	2360.00	5097.60
5761	PVC laminated foil of minimum thickness of 14 microns of approved design	sqm	2.16	125.00	270.00
9977	Carriage of board	L.S.	5.00	2.12	10.60
9999	Sundries	L.S.	20.00	2.12	42.40
	LABOUR				
0156	Carpenter (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				5699.40 W
	Add 1 % Water charges on "W"				56.99
	TOTAL				5756.39 X
	Add GST on "X" (multiplying factor 0.1405)				808.77
	TOTAL				6565.17 Y
	Add 15% CPOH on "Y"				984.78
	TOTAL				7549.94 Z
	Add Cess @ 1% on "Z"				75.50
	Cost of 2.16 sqm.				7625.44
	Cost of 1 sqm.				3530.30
	Say				3530.30

26.90 Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain white color board for backing of cup boards and bathroom/kitchen cabinets etc. of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel screws etc. all as per direction of Engineer-In- Charge. (Note: stainless steel screws shall be paid separately)

26.90.1 6 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 6 mm thick WPC board for backing of cupboard of size 2.0x1.08 metre = 2.16 sqm				
	MATERIAL				
5758	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 6 mm thick	sqm	2.16	600.00	1296.00
9977	Carriage of board	L.S.	5.00	2.12	10.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0156	Carpenter (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				1585.40 W
	Add 1 % Water charges on "W"				15.85
	TOTAL				1601.25 X
	Add GST on "X" (multiplying factor 0.1405)				224.98
	TOTAL				1826.23 Y
	Add 15% CPOH on "Y"				273.93
	TOTAL				2100.16 Z
	Add Cess @ 1% on "Z"				21.00
	Cost of 2.16 sqm.				2121.17
	Cost of 1 sqm.				982.02
	Say				982.00

26.90.2 12 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 12 mm thick WPC board for cupboard shutter of size 2.0x1.08 metre = 2.16 sqm				
	MATERIAL				
5759	Factory made single extruded WPC (Wood Polymer Composite) solid plain white colored board of 12 mm thick	sqm	2.16	1020.00	2203.20
9977	Carriage of board	L.S.	5.00	2.12	10.60
	LABOUR				
0156	Carpenter (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.20	645.00	129.00
	TOTAL				2492.60 W
	Add 1 % Water charges on "W"				24.93
	TOTAL				2517.53 X
	Add GST on "X" (multiplying factor 0.1405)				353.71
	TOTAL				2871.24 Y
	Add 15% CPOH on "Y"				430.69
	TOTAL				3301.92 Z
	Add Cess @ 1% on "Z"				33.02
	Cost of 2.16 sqm.				3334.94
	Cost of 1 sqm.				1543.96
	Say				1543.95

26.91 Providing and fixing factory made 18 mm thick single extruded WPC (Wood Polymer Composite) solid plain white colour board Jali, CNC (Computer numeric control) routed of approved design by Engineer-in -charge which are machine cut for duct/shaft covering, partitions and facades comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium corbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives(maximum toxicity index of 12 for 100 gms) having minimum density

of 650 kg/cum and screw withdrawal strength of 1800 N (Face) minimum compressive strength 50 N/mm2, modulus of elasticity 850 N/mm2 and resistance to spread of flame of Class A category with properties of being termite/borer proof, water/moisture proof and fire retardant and fixing on M.S (mild steel) frame made of 25 x 25 x 1.5 mm square hollow box section including applying a priming coat of approved steel primer, placed at grid made at 1.0 x 1.0 m or as per requirement at site with necessary stainless steel fasteners and SS screws etc., all complete as per direction of Engineer-In- Charge.
(Note: M.S (mild steel) framework with priming coat and necessary SS fasteners and SS screws shall be paid separately.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for WPC jali of size 1.80 x 2.40 metre = 4.32 sqm				
	MATERIAL				
5760	Factory made 18 mm thick single extruded WPC (Wood Polymer Composite) solid plain white colour board Jali including carriage	sqm	4.32	2260.00	9763.20
9999	Sundries	L.S.	10.00	2.12	21.20
	LABOUR				
0156	Carpenter (average)	day	0.20	749.00	149.80
0114	Beldar	day	0.30	645.00	193.50
	TOTAL				10127.70 W
	Add 1 % Water charges on "W"				101.28
	TOTAL				10228.98 X
	Add GST on "X" (multiplying factor 0.1405)				1437.17
	TOTAL				11666.15 Y
	Add 15% CPOH on "Y"				1749.92
	TOTAL				13416.07 Z
	Add Cess @ 1% on "Z"				134.16
	Cost of 4.32 sqm.				13550.23
	Cost of 1 sqm.				3136.63
	Say				3136.65

26.92 Providing and fixing of façade at all heights with extruded hollow Clay / Terracotta ventilated rainscreen tiles of height 250/ 300/ 400mm and length of 595 mm of approved texture,design and pattern having Flexural Strength/ Modulus of Rupture of ? 14 N/m² and maximum water absorption of 10% tested as per ISO 10545-4:2004(E) and ISO 10545-3:1995 respectively in true level fixed to a supporting aluminium framework(Alloy 6063 T5/T6) consisting of vertical 'T' (for intermediates)/ 'L'(for ends/ termination)/ Tubular sections (at corners)of size 80x60x2mm/ 40x60x2mm/ 40x40x2mm respectively, spaced at maximum spacing of 600mm c/c matching to the tile vertical grid, and horizontal aluminium 'C'-clamps of size 56x25x2mm thickness of length 150mm at junction of tiles and of length 75mm at wall ends/ corners fixed on top of the vertical sections at spacing of 250/ 300/ 400mm c/c matching to the tile horizontal grid with two numbers of self-drilling / self-tapping SS screws of size 5.5x25 mm with EPDM washers.

The vertical 'T'/'L/ Tubular' sections shall be fixed to the wall using HDG (hot-dip-galvanized) steel L-brackets (galvanizing thickness of minimum 80 microns)of size 110x80x6 mm at intermediate vertical aluminium profiles and of size 220x110x12 mm at outer corners and stainless steel grade 304,M10 full threaded anchor fasteners with nylon sleeve 100mm long (for brick work) and M8 expansion anchor fasteners 75mm long for concrete surface, spacing of brackets to be based on a structural/ static calculation. The brackets shall be of length 175mm at junction of two vertical aluminium profiles and of length 100mm at intermediate points of vertical profiles and shall be fixed to the vertical aluminium T / L / Tubular profiles using two numbers self-drilling/ self-tapping SS screws of size 5.5x25mm with EPDM washers.

EPDM gaskets to be fixed in between brackets and vertical profiles. The tiles shall be mounted on the 'C' clamps such that the tiles are supported at top and bottom at both ends. The tiles shall be additionally secured to the horizontal 'C' clamps using special SS clips of required size which shall be inserted and pressed into position on the 'C' clamps holding the tiles and the cut-tiles shall be glued at points to the horizontal 'C' clamps by using MS Polymer sealant adhesive. The vertical joint open groove between two adjacent tiles shall be 5mm. The tiles and system shall be designed to resist wind load as per IS 875 (Part 3) according to different zones. The tiles shall be installed using the ventilated rain screen principle with provision for natural ventilation of the space between the façade tiles and the structural wall. The work shall be carried out as per specification, drawing and as per direction of the Engineer-in-Charge.

Note : Scaffolding wherever required to be paid separately.

26.92.1 With 16mm thickness (+/- 10%) terracotta tiles of grey colour

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10.80 sqm (3.60 x 3.0 metre)				
	MATERIAL				
	Façade area = 10.80 sqm + Wastage @ 5% = 0.54 sqm. Total = 11.34 sqm				
5762	16mm thick extruded terracotta tiles of grey colour of size 300 x 595mm	sqm	11.34	2152.80	24412.75
7306	Aluminium Tube / T Profile	kgs	17.10	190.00	3249.00
	1). At outer corners tubular section 40x40x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.82 kg/mtr. = 4.92 kg				
	2). At ends/termination angle 40x60x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.53 kg/mtr. = 3.18 kg				
	3). At intermediate T section 80x60x2mm = 4 nos. 3 mtr. long = 12.00 mtr. @ 0.75 kg/mtr. = 9.00 kg				
	(Total = 4.92+3.18+9.00 = 17.10 kg.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7306	Aluminium "C" Clamps of size 80x25x2 mm - 150mm (i) 150mm longh = 4x11 no. = 44.00 nos. x 0.15 = 6.6 mtr. @ 0.628 kg/mtr. = 4.14 kg (ii) 75mm long 6x11=66.00 nos. x 0.075 = 4.95 mtr. @ 0.628 kg/mtr.= 3.10 kg. Total=4.14 + 3.10 = 7.24 kg	kgs	7.24	190.00	1375.60
7216	Self-Drilling/Self-Tapping Screws M-6 25mm long (a) Bracket to vertical profile - 32 Nos. (brackets) x2.00 nos. = 64.00 Nos b) For fixing of C" clamps to vertical profile (44+66=110)x2=220 nos. Total = 220 Nos + 64 Nos = 284.00 Nos	each	284.00	3.00	852.00
1007	HDG Mild Steel Brackets (Minimum 18 microns Galvanizing) a) Wall bracket = 110x80x6 mm thick (i) 100 mm long = 12x0.10= 1.20 Mtr @ 8.65 kg/mtr. = 10.38 kg "(ii) 175mm long = 12x0.175=2.10 mtr. @ 8.65 kg/mtr. = 18.17 kg Total = 10.38 + 18.17 = 28.55 kg b) Corner Bracket of size 200 x 100 x 12mm thick (a) 100mm long - 4 Nos x0.10x = 0.40 mtr. @ 28.90 Kgs = 11.56 Kg (b) 175mm long 4x0.175= 0.70 mtr. @ 28.90 kg/mtr. = 20.23 kg Total = 11.56 + 20.23 = 31.79 kg. Total quantity of wall and corner bracket = 60.34 kgs = 0.6034 quintal	quintal	0.6034	4950.00	2986.83
7217	SS anchor Fasteners (RCC / Brick) – M-8x75mm/M-10x100mm 8x4 nos. = 32 Nos Bracket	each	32.00	70.00	2240.00
7390	EPDM Gaskets of size 100x80 mm 32x0.10=3.20 mtr.	metre	3.20	15.00	48.00
7218	MS Polymer Sealant Adhesive Area = 10.8 Sqm + wastage @ 0.54 sqm. = 11.34 Sqm Adhesive required = Approx. 150ml or 0.15 Ltr.	litre	0.15	1200.00	180.00
	SS Clips				
7219	SS Double Clip at intermediate 7x10=70.00 Nos. x 2 clips = 140.00 clips	each	140.00	7.00	980.00
7220	SS Single clip at top and bottom 7x4= 28 Nos. clips	each	28.00	4.00	112.00
	LABOUR				
0166	Installation charges for fixing of façade at all heights with extruded hollow clay/ terracotta ventillated rain screen tiles	sqm	10.80	645.00	6966.00
9999	Carriage of materials	L.S.	125.00	2.12	265.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	T&P and materials Lead & Lift	L.S.	250.00	2.12	530.00
	TOTAL				44197.18 W
	Add 1 % Water charges on "W"				441.97
	TOTAL				44639.15 X
	Add GST on "X" (multiplying factor 0.1405)				6271.80
	TOTAL				50910.95 Y
	Add 15% CPOH on "Y"				7636.64
	TOTAL				58547.60 Z
	Add Cess @ 1% on "Z"				585.48
	Cost of 10.80 sqm.				59133.07
	Cost of 1 sqm				5475.28
	Say				5475.30

26.92.2 With 16mm thickness (+/- 10%) terracotta tiles of other than grey colors

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10.80 sqm (3.60 x 3.0 metre)				
	MATERIAL				
	Façade area = 10.80 sqm + Wastage @ 5% = 0.54sqm. Total = 11.34 sqm				
5763	16mm thick extruded terracotta tiles of other than grey colour of size 300 x 595mm	sqm	11.34	1991.30	22581.34
7306	Aluminium Tube / T Profile 1). At outer corners tubular section 40x40x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.82 kg/mtr. = 4.92 kg 2). At ends/termination angle 40x60x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.53 kg/mtr. = 3.18 kg 3). At intermediate T section 80x60x2mm = 4 nos. 3 mtr. long = 12.00 mtr. @ 0.75 kg/mtr. = 9.00 kg (Total = 4.92+3.18+9.00 = 17.10 kg.	kgs	17.10	190.00	3249.00
7306	Aluminium “C” Clamps of size 56x25x2mm (i) 150mm long = 4x11 no. = 44.00 nos. x 0.15 = 6.6 mtr. @ 0.628 kg/mtr. = 4.14 kg (ii) 75mm long 6x11=66.00 nos. x 0.075 = 4.95 mtr. @ 0.628 kg/ mtr.= 3.10 kg. Total=4.14 + 3.10 = 7.24 kg	kgs	7.24	190.00	1375.60
7216	Self-Drilling/Self-Tapping Screws M-6 25mm long (a) Bracket to vertical profile - 32 Nos.x2.00 nos. = 64.00 Nos b) For fixing of brackets to “C” clamps (44+66=110)x2=220 nos. Total = 220 Nos + 64 Nos = 284.00 Nos	each	284.00	3.00	852.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1007	HDG Mild Steel Brackets (Minimum 18 microns Galvanizing) a) Wall bracket - Average 110 x 80 = 6mm thick (i) 100 mm long = 12x0.10= 1.20 Mtr @ 8.65 kg/mtr. = 10.38 kg (ii) 175mm long = 12x0.175=2.10 mtr. @ 8.65 kg/mtr. = 18.17 kg Total = 10.38 + 18.17 = 28.55 kg b) Corner Bracket of size 200 x 100 x 12mm thick (a) 100mm long - 4 Nos x0.10x = 0.40 mtr. @ 28.90 Kgs = 11.56 Kg (b) 175mm long 4x0.175= 0.70 mtr. @ 28.90 kg/mtr. = 20.23 kg Total = 11.56 + 20.23 = 31.79 kg. Total quantity of wall and corner bracket = 60.34 kgs = 0.6034 quintal	quintal	0.6034	4950.00	2986.83
7217	SS anchor Fasteners (RCC / Brick) – M-8x75 mm/M-10x100mm 8x4 nos. = 32 Nos Bracket	each	32.00	70.00	2240.00
7390	EPDM Gaskets of size 100x80 mm 32x0.10=3.20 mtr.	metre	3.20	15.00	48.00
7218	MS Polymer Sealant Adhesive Area - 10.8 Sqm + wastage @ 0.54 sqm. Total =11.34 Sqm Adhesive required = Approx. 150ml or 0.15 ltr.	litre	0.15	1200.00	180.00
	SS Clips				
7219	SS Double Clip at intermediate 7x10=70.00 Nos. x 2 clips = 140.00 clips	each	140.00	7.00	980.00
7220	SS Single clip at Top and Bottom 7x4= 28 Nos. clips	each	28.00	4.00	112.00
	LABOUR				
0166	Installation charges for fixing of façade at all heights with extruded hollow clay/ terracotta ventillated rain screen tiles	sqm	10.80	645.00	6966.00
9999	Carriage of materials	L.S.	125.00	2.12	265.00
9999	T&P and materials Lead & Lift	L.S.	250.00	2.12	530.00
	TOTAL				42365.77 W
	Add 1 % Water charges on "W"				423.66
	TOTAL				42789.43 X
	Add GST on "X" (multiplying factor 0.1405)				6011.91
	TOTAL				48801.34 Y
	Add 15% CPOH on "Y"				7320.20
	TOTAL				56121.55 Z
	Add Cess @ 1% on "Z"				561.22
	Cost of 10.80 sqm.				56682.76
	Cost of 1 sqm				5248.40
	Say				5248.40

26.93 Providing and fixing of façade at all heights with extruded hollow Clay / Terracotta ventilated rainscreen tiles of height 259/ 309/ 409mm and lengthof 1190 mm of approved texture,design and pattern having Flexural Strength/ Modulus of Rupture of ? 14 N/m² and maximum water absorption of 10% tested as per ISO 10545-4:2004(E) and ISO 10545-3:1995 respectively in true level fixed to a supporting aluminium framework (Alloy 6063 T5/T6) consisting of vertical 'T' (for intermediates)/ 'L' (for ends/ termination)/ Tubular sections (at corners)of size 80x60x2mm/ 40x60x2mm/ 40x40x2mm respectively, spaced at maximum spacing of 1200mm c/c matching to the tile vertical grid, and horizontal aluminium 'C'-clamps of size 56x34x2 mm thickness of length 150mm at junction of tiles and of length 75mm at wall ends/ corners fixed on top of the vertical sections at spacing of 250/ 300/ 400mm c/c matching to the tile horizontal grid with two numbers of self-drilling / self-tapping SS screws of size 5.5x25 mm with EPDM washers.

The vertical 'T'/'L/ Tubular' sections shall be fixed to the wall using HDG (hot-dip-galvanized) steel L-brackets (galvanizing thickness of minimum 80 microns) of size 110x80x6 mm at intermediate vertical aluminium profiles and of size 220x110x12 mmat outer corners and stainless steel grade 304,M10 full threaded anchor fasteners with nylon sleeve 100mm long (for brick work) and M8 expansion anchor fasteners 75mm long for concrete surface, spacing of brackets to be based on a structural/ static calculation. The brackets shall be of length 175mm at junction of two vertical aluminium profiles and of length 100mm at intermediate points of vertical profiles and shall be fixed to the vertical aluminium T / L / Tubular profiles using two numbers self-drilling/ self-tapping SS screws of size 5.5x25 mm with EPDM washers.

EPDM gaskets to be fixed in between brackets and vertical profiles. The tiles shall be mounted on the 'C' clamps such that the tiles are supported at top and bottom at both ends. The tiles shall be mounted on the C-clamps with EPDM profiles in between such that the tiles are supported at top and bottom at both ends. The vertical joint open groove between two adjacent tiles shall be 10mm. The tiles and system shall be designed to resist wind load as per IS 875 (Part 3) according to different zones. The tiles shall be installed using the ventilated rain screen principle with provision for natural ventilation of the space between the façade tiles and the structural wall. The work shall be carried out as per specification, drawing and as per direction of the Engineer-in-Charge."Note : Scaffolding wherever required to be paid separately.

26.93.1 With 24mm thickness (+/- 10%) terracotta tiles of grey colour

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 12.60 sqm (4.2 (0.3+3.6+0.3) x 3.0 metre) MATERIAL Façade area = 12.60 sqm + Wastage @ 5% = 0.63 sqm. Total = 13.23 sqm				
5764	24mm thick extruded terracotta tiles of grey color of size 309x1190 mm and length 1190mm	sqm	13.23	2475.00	32744.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7306	Aluminium Tube / T Profile 1). At outer corners tubular section 40x40x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.82 kg/mtr. = 4.92 kg 2). At ends/termination angle 40x60x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.53 kg/mtr. = 3.18 kg 3). At intermediate T section 80x60x2mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.75 kg/mtr. = 4.50 kg (Total = 4.92+3.18+4.50 = 12.60 kg	kgs	12.60	190.00	2394.00
7306	Aluminium C Clamps of size 56x34x2.0 mm (i) 150mm long - 2x11 no. = 22.00 nos. x 0.15 = 3.3 mtr. @ 0.615 kg/mtr. = 2.03 kg (ii) 75mm long - 6x11=66.00 nos. x 0.075 = 4.95 mtr. @ 0.615 kg/mtr.= 3.04 kg Total=2.03 + 3.04 = 5.07 kg	kgs	5.07	190.00	963.30
7221	Self-Drilling/Self-Tapping Screws 5.5x25 mm long (a) Bracket to vertical profile - 30 Nos.x2.00 nos. = 60.00 Nos b) For fixing of brackets to “C” clamps (22+66=88)x2=176 nos. Total = 176 Nos + 60 = 236.00 Nos	each	236.00	3.00	708.00
1007	HDG Mild Steel Brackets (Minimum 80 microns Galvanizing) a) Wall bracket - 110 x 80x6mm thick (i) 100 mm long = 10x0.10= 1.00 Mtr @ 8.65 kg/mtr. = 8.65 kg (ii) 175mm long = 10x0.175=1.75 mtr. @ 8.65 kg/mtr. = 15.13 kg Total = 8.65 + 15.13 = 23.85 kg b) Corner Bracket of size 220 x 110 x 12mm thick (a) 100mm long - 5 Nos x0.10 = 0.50 mtr. @ 28.90 kg/mtr. = 14.45 Kg (b) 175mm long - 5x0.175= 0.875 mtr. @ 28.90 kg/mtr. = 25.28 kg Total = 14.45 + 25.28 = 39.73 kg Gross total = 23.85+39.73 = 63.58 kg = 0.6358 quintal	quintal	0.6358	4950.00	3147.21
7222	SS Anchor Fasteners (RCC / Brick) – M-8x100 mm 6x5 nos. = 30 Nos Bracket	each	30.00	70.00	2100.00
7390	EPDM Gaskets of size 100x80 mm 30x0.10=3.00 mtr.	metre	3.00	15.00	45.00
7218	MS Polymer Sealant Adhesive Area = 12.60 Sqm + 5% = 13.23 Sqm Adhesive required = 175 ml. or 0.175 ltr.	litre	0.175	1200.00	210.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7390	EPDM gasket for tiles mounting on C - clamps (i) 150mm long - 2x11 no. = 22.00 nos. x 0.15 =3.3 mtr. (ii) 75mm long - 6x11=66.00 nos. x 0.075 = 4.95 mtr. Total = 3.3 + 4.95 = 8.25 mtr.	metre	8.25	15.00	123.75
	LABOUR				
0166	Installation charges for fixing of façade at all heights with extruded hollow clay/ terracotta ventillated rain screen tiles	sqm	12.60	645.00	8127.00
9999	Carriage of materials	L.S.	125.00	2.12	265.00
9999	T&P and materials Lead & Lift	L.S.	250.00	2.12	530.00
	TOTAL				51357.51 W
	Add 1 % Water charges on "W"				513.58
	TOTAL				51871.09 X
	Add GST on "X" (multiplying factor 0.1405)				7287.89
	TOTAL				59158.97 Y
	Add 15% CPOH on "Y"				8873.85
	TOTAL				69676.38 Z
	Add Cess @ 1% on "Z"				696.76
	Cost of 12.60 sqm.				70373.14
	Cost of 1 sqm				5585.17
	Say				5585.15

26.93.2 With 24mm thickness (+/- 10%) terracotta tiles of other than grey colors

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 12.60 sqm (4.2 (0.3+3.6+0.3) x 3.0 metre)				
	MATERIAL				
	Façade area = 12.60 sqm + Wastage @ 5% = 0.63 sqm. Total = 13.23 sqm				
5765	24mm thick extruded terracotta tiles of grey color of size 309x1190 mm and length 1190mm	sqm	13.23	2260.00	29899.80
7306	Aluminium Tube / T Profile 1). At outer corners tubular section 40x40x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.82 kg/mtr. = 4.92 kg 2). At ends/termination angle 40x60x2 mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.53 kg/mtr. = 3.18 kg 3). At intermediate T section 80x60x2mm = 2 nos. 3 mtr. long = 6.00 mtr. @ 0.75 kg/mtr. = 4.50 kg (Total = 4.92+3.18+4.50 = 12.60 kg)	kgs	12.60	190.00	2394.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7306	Aluminium C Clamps of size 56x34x2.0 mm (i) 150mm long - 2x11 no. = 22.00 nos. x 0.15 = 3.3 mtr. @ 0.615 kg/mtr. = 2.03 kg (ii) 75mm long - 6x11=66.00 nos. x 0.075 = 4.95 mtr. @ 0.615 kg/mtr.= 3.04 kg Total=2.03 + 3.04 = 5.07 kg	kgs	5.07	190.00	963.30
7221	Self-Drilling/Self-Tapping Screws 5.5x25 mm long (a) Bracket to vertical profile - 30 Nos.x2.00 nos. = 60.00 Nos b) For fixing of brackets to "C" clamps (22+66=88)x2=176 nos. Total = 176 Nos + 60 = 236.00 Nos	each	236.00	3.00	708.00
1007	HDG Mild Steel Brackets (Minimum 80 microns Galvanizing) a) Wall bracket - 110 x 80x6mm thick (i) 100 mm long = 10x0.10= 1.00 Mtr @ 8.65 kg/mtr. = 8.65 kg (ii) 175mm long = 10x0.175=1.75 mtr. @ 8.65 kg/mtr. = 15.13 kg Total = 8.65 + 15.13 = 23.85 kg b) Corner Bracket of size 220 x 110 x 12mm thick (a) 100mm long - 5 Nos x0.10 = 0.50 mtr. @ 28.90 Kg/mtr. = 14.45 Kg (b) 175mm long - 5x0.175= 0.875 mtr. @ 28.90 kg/mtr. = 25.28 kg Total = 14.45 + 25.28 = 39.73 kg Gross total = 23.85+39.73 = 63.58 kg = 0.6358 quintal	quintal	0.6358	4950.00	3147.21
7222	SS Anchor Fasteners (RCC / Brick) – M-8x100 mm 6x5 nos. = 30 Nos Bracket	each	30.00	70.00	2100.00
7390	EPDM Gaskets of size 100x80 mm 30x0.10=3.00 mtr.	metre	3.00	15.00	45.00
7218	MS Polymer Sealant Adhesive Area = 12.60 Sqm + 5% = 13.23 Sqm Adhesive required = 175 ml. or 0.175 ltr.	litre	0.175	1200.00	210.00
7390	EPDM gasket for tiles mounting on C - clamps (i) 150mm long - 2x11 no. = 22.00 nos. x 0.15 =3.3 mtr. (ii) 75mm long - 6x11=66.00 nos. x 0.075 = 4.95 mtr. Total = 3.3 + 4.95 = 8.25 mtr.	metre	8.25	15.00	123.75
	LABOUR				
0166	Installation charges for fixing of façade at all heights with extruded hollow clay/ terracotta ventillated rain screen tiles	sqm	12.60	645.00	8127.00
9999	Carriage of materials	L.S.	125.00	2.12	265.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	T&P and materials Lead & Lift	L.S.	250.00	2.12	530.00
	TOTAL				48513.06 W
	Add 1 % Water charges on "W"				485.13
	TOTAL				48998.19 X
	Add GST on "X" (multiplying factor 0.1405)				6884.25
	TOTAL				55882.44 Y
	Add 15% CPOH on "Y"				8382.37
	TOTAL				64264.80 Z
	Add Cess @ 1% on "Z"				642.65
	Cost of 12.60 sqm.				64907.45
	Cost of 1 sqm				5151.38
	Say				5151.40

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