



GOVERNMENT OF INDIA



CENTRAL PUBLIC WORKS DEPARTMENT

ANALYSIS OF RATES FOR DELHI (Vol-2) 2018

Director General, CPWD, New Delhi



सत्यमेव जयते

GOVERNMENT OF INDIA

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2018



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PRABHAKAR SINGH
Director General



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Government of India



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FOREWORD

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

It was first compiled in the year 1950, followed by subsequent publication or revision in the years 1955, 1962, 1972, 1977, 1985, 1997, 2007, 2012, 2013, 2014 & 2016.

Last Delhi Analysis of Rates was published in the year 2016. Revision of this DAR has become necessary due to changes in wages of labour & price of materials, adoption of new construction technologies & materials as well as implementation of GST. This has necessitated revision of existing Analysis of Rates for Delhi 2016 to include the above changes. Accordingly, this Analysis of Rates for Delhi 2018 has been prepared.

The analysis of existing items has been updated in conformity with updated items of works in DSR 2018.

I wish to place on record the technical input and the effective coordination on the part of Shri A.S. Arora ADG (S&P), Dr K M Soni ADG(TD), Shri Manu Amitabh CE(CSQ) (Civil) and team efforts put in by Shri Divakar Agrawal SE(TAS), Shri D.S.Panwar EE(TAS-I), Shri M.L.Prasad EE(TAS-II), Shri D.S.Adhikari AE(QA), Shri Naveenkumar P JE(TAS) and team of officers in CSQ unit in finalizing Analysis of Rates for Delhi 2018 in a record time.

I am sure that C.P.W.D. Analysis of Rates for Delhi 2018 shall be very useful document to various Central Govt. Ministries, Departments & Public Sector Undertakings also besides various units of CPWD.

(PRABHAKAR SINGH)
Director General

Place : New Delhi

Date : December 14, 2018



DR K.M. SONI
Addl. Director General (TD)



भारत सरकार
Government of India



केन्द्रीय लोक निर्माण विभाग
निर्माण भवन, नई दिल्ली 110011
Central Public Works Department
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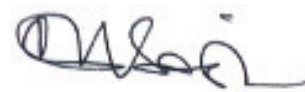
PREFACE

1. C.P.W.D. Analysis of Rates for Delhi 2018 is the revised edition of C.P.W.D. Analysis of Rates for Delhi 2016.
2. Analysis of Rates for Delhi 2018 incorporates most of the analysis of items of Analysis of Rates for Delhi 2016 with updated correction slips, including analysis of existing items and also corresponding new items introduced in DSR 2018.
3. Analysis of Rates for Delhi, 2018 is published in two volumes i.e. volume I & II 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
	22	Water Proofing
	23	Rain Water Harvesting & Tubewells

Volume Number	Sub-head No.	Content/ Sub-head
	24	Conservation of Heritage Buildings.
	25	Structural Glazing Aluminium Composite Panel
	26	New Technologies and Materials

4. Analysis of few existing items in sub head - 13 (Finishing) have been deleted. Similarly, analysis of many items have been modified correspond to items of DSR 2018. Several new analysis and existing subhead renamed in sub head 6 (Masonry work instead Brick work) Sub head 8 (Cladding work instead of Marble & Granite work) have been introduced in Analysis of Rates for Delhi 2018.
5. Analysis of Rates for Delhi 2018 is based on the study of current market rates of materials at Delhi, prevailing as on 01.10.2018. 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. 01.10.2018.
6. The nomenclatures of main items have been printed along with the analysis of first Sub item only to conserve the space and number of pages.
7. Sundries have been considered as 2.00 times based on Cost Index of Delhi as on 01.10.2018 (118) with base as per PAR-2012 as 100.
8. Lot of efforts has gone into the preparation of this Analysis of Rates for Delhi. I convey my deep appreciation and sincere thanks to:
 Shri Manu Amitabh CE(CSQ); Shri Divakar Agrawal SE (TAS); Shri Sudhir Kumar Dak, SE (C&M); Shri D.S. Panwar EE (TAS-I); Shri M.L. Prasad EE-(TAS-II); Shri P. Goyal EE-(TAD); Shri A.K. Sikka EE (QA) Shri M.C. Singal EE (QA); Shri S N Jaiswal EE (HQ); Shri Shivani Kaushal EE (M); Shri Sajal Mitra, EE (CON); Shri Kunwar Chandresh EE (TLC); Shri D.S. Adhikari AE (QA); Shri D.K. Malhotra AE (TAS); Shri Patta Madhukumar AE(TAS); Shri Prabhat Kumar Srivastav AE(TAS); Shri Gurmeet Singh AE (TAD); Shri H.K. Gupta AE, (M); Shri Mohammad Tarik AE, (QA); Shri S.K. Sharma, AE, (QA); Shri Gopal Warshney AE, (QA); Shri K.R. Meena AE, (CON); Shri Ved Khurana AE, (TLC); Shri Jai Bhagwan AE, (M); Shri Chalapaka Ramaraju JE, (TAD); Shri Naveenkumar P, JE (TAS); Shri Jay Prakash, Chief Estimator (TAS); Shri Bhim Singh Sr. D/man (TAS); Shri Hariram Sr. D/man (TAS); Shri. Prabhat Singh Sr. D/man (TAS) and other officers and staff of CSQ unit whose names are not mentioned here, for sincere efforts made in the preparation of this document in such a short time. Various Committees and field units, who contributed field inputs, also deserve appreciation for their timely help.
9. Due care has been taken to print the C.P.W.D. Analysis of Rates for Delhi as correctly as possible. It is, however possible that some errors might have crept in. In case any error or omission is noticed, it may be brought to the notice of the Superintending Engineer (TAS), CPWD, Room no. 418, A-wing, Nirman Bhawan, New Delhi.



(Dr K M SONI)
ADG (TD) CPWD

C O N T E N T S

Vol. 1

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Note: For Sub Heads 1 to 12 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 ₹
3.4	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3528.85	508.15
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				1994.54 W
	Add 1 % Water charges on "W"				19.95
	TOTAL				2014.49 X
	Add GST on "X" (multiplying factor 0.1405)				283.04
	TOTAL				2297.53 Y
	Add 15% CPOH on "Y"				344.63
	TOTAL				2642.15 Z
	Add Cess @ 1% on "Z"				26.42
	Cost of 10.00 sqm				2668.58
	Cost of 1.00 sqm				266.86
	Say				266.85

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.6	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 6 (1 cement : 6 fine sand) Rate as per Item Number 3.6 of SH: Mortars	cum	0.144	2874.65	413.95
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				1900.34 W
	Add 1 % Water charges on "W"				19.00
	TOTAL				1919.34 X
	Add GST on "X" (multiplying factor 0.1405)				269.67
	TOTAL				2189.01 Y
	Add 15% CPOH on "Y"				328.35
	TOTAL				2517.36 Z
	Add Cess @ 1% on "Z"				25.17
	Cost of 10.00 sqm				2542.54
	Cost of 1.00 sqm				254.25
	Say				254.25

**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 ₹
3.4	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.172	3528.85	606.96
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2301.25 W
	Add 1 % Water charges on "W"				23.01
	TOTAL				2324.26 X
	Add GST on "X" (multiplying factor 0.1405)				326.56
	TOTAL				2650.82 Y
	Add 15% CPOH on "Y"				397.62
	TOTAL				3048.45 Z
	Add Cess @ 1% on "Z"				30.48
	Cost of 10.00 sqm				3078.93
	Cost of 1.00 sqm				307.89
	Say				307.90

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.6	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 6 (1 cement : 6 fine sand) Rate as per Item Number 3.6 of SH: Mortars	cum	0.172	2874.65	494.44
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2188.73 W
	Add 1 % Water charges on "W"				21.89
	TOTAL				2210.62 X
	Add GST on "X" (multiplying factor 0.1405)				310.59
	TOTAL				2521.21 Y
	Add 15% CPOH on "Y"				378.18
	TOTAL				2899.39 Z
	Add Cess @ 1% on "Z"				28.99
	Cost of 10.00 sqm				2928.38
	Cost of 1.00 sqm				292.84
	Say				292.85

13.3 20 mm cement plaster of mix :
13.3.1 1:4 (1 cement: 4 fine sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.4	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.224	3528.85	790.46
	LABOUR				
0155	Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.10	617.00	678.70
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2730.00 W
	Add 1 % Water charges on "W"				27.30
	TOTAL				2757.30 X
	Add GST on "X" (multiplying factor 0.1405)				387.40
	TOTAL				3144.70 Y
	Add 15% CPOH on "Y"				471.71
	TOTAL				3616.41 Z
	Add Cess @ 1% on "Z"				36.16
	Cost of 10.00 sqm				3652.57
	Cost of 1.00 sqm				365.26
	Say				365.25

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.6	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 6 (1 cement : 6 fine sand) Rate as per Item Number 3.6 of SH: Mortars	cum	0.224	2874.65	643.92
	LABOUR				
0155	Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.10	617.00	678.70
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2583.46 W
	Add 1 % Water charges on "W"				25.83
	TOTAL				2609.30 X
	Add GST on "X" (multiplying factor 0.1405)				366.61
	TOTAL				2975.90 Y
	Add 15% CPOH on "Y"				446.39
	TOTAL				3422.29 Z
	Add Cess @ 1% on "Z"				34.22
	Cost of 10.00 sqm				3456.51
	Cost of 1.00 sqm				345.65
	Say				345.65

13.4 12 mm cement plaster of mix :
13.4.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.9	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 coarse sand) Rate as per Item Number 3.9 of SH: Mortars	cum	0.144	4010.35	577.49
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2063.88 W
	Add 1 % Water charges on "W"				20.64
	TOTAL				2084.52 X
	Add GST on "X" (multiplying factor 0.1405)				292.87
	TOTAL				2377.39 Y
	Add 15% CPOH on "Y"				356.61
	TOTAL				2734.00 Z
	Add Cess @ 1% on "Z"				27.34
	Cost of 10.00 sqm				2761.34
	Cost of 1.00 sqm				276.13
	Say				276.15

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.11	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 6 (1 cement : 6 coarse sand) Rate as per Item Number 3.11 of SH: Mortars	cum	0.144	3356.15	483.29
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				1969.68 W
	Add 1 % Water charges on "W"				19.70
	TOTAL				1989.37 X
	Add GST on "X" (multiplying factor 0.1405)				279.51
	TOTAL				2268.88 Y
	Add 15% CPOH on "Y"				340.33
	TOTAL				2609.21 Z
	Add Cess @ 1% on "Z"				26.09
	Cost of 10.00 sqm				2635.30
	Cost of 1.00 sqm				263.53
	Say				263.55

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 ₹
3.9	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 coarse sand) Rate as per Item Number 3.9 of SH: Mortars	cum	0.172	4010.35	689.78
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2384.07 W
	Add 1 % Water charges on "W"				23.84
	TOTAL				2407.91 X
	Add GST on "X" (multiplying factor 0.1405)				338.31
	TOTAL				2746.22 Y
	Add 15% CPOH on "Y"				411.93
	TOTAL				3158.16 Z
	Add Cess @ 1% on "Z"				31.58
	Cost of 10.00 sqm				3189.74
	Cost of 1.00 sqm				318.97
	Say				318.95

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.11	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 6 (1 cement : 6 coarse sand) Rate as per Item Number 3.11 of SH: Mortars	cum	0.172	3356.15	577.26
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2271.55 W
	Add 1 % Water charges on "W"				22.72
	TOTAL				2294.26 X
	Add GST on "X" (multiplying factor 0.1405)				322.34
	TOTAL				2616.61 Y
	Add 15% CPOH on "Y"				392.49
	TOTAL				3009.10 Z
	Add Cess @ 1% on "Z"				30.09
	Cost of 10.00 sqm				3039.19
	Cost of 1.00 sqm				303.92
	Say				303.90

13.6 20 mm cement plaster of mix :
13.6.1 1:4 (1 cement: 4 coarse sand)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.9	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 coarse sand) Rate as per Item Number 3.9 of SH: Mortars	cum	0.224	4010.35	898.32
	LABOUR				
0155	Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.10	617.00	678.70
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2837.86 W
	Add 1 % Water charges on "W"				28.38
	TOTAL				2866.24 X
	Add GST on "X" (multiplying factor 0.1405)				402.71
	TOTAL				3268.94 Y
	Add 15% CPOH on "Y"				490.34
	TOTAL				3759.28 Z
	Add Cess @ 1% on "Z"				37.59
	Cost of 10.00 sqm				3796.88
	Cost of 1.00 sqm				379.69
	Say				379.70

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.11	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 6 (1 cement : 6 coarse sand) Rate as per Item Number 3.11 of SH: Mortars	cum	0.224	3356.15	751.78
	LABOUR				
0155	Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.10	617.00	678.70
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2691.32 W
	Add 1 % Water charges on "W"				26.91
	TOTAL				2718.23 X
	Add GST on "X" (multiplying factor 0.1405)				381.91
	TOTAL				3100.14 Y
	Add 15% CPOH on "Y"				465.02
	TOTAL				3565.16 Z
	Add Cess @ 1% on "Z"				35.65
	Cost of 10.00 sqm				3600.82
	Cost of 1.00 sqm				360.08
	Say				360.10

**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) Rate as per Item Number 3.3 of SH: Mortars	cum	0.144	4183.05	602.36
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				2547.60 W
	Add 1 % Water charges on "W"				25.48
	TOTAL				2573.08 X
	Add GST on "X" (multiplying factor 0.1405)				361.52
	TOTAL				2934.60 Y
	Add 15% CPOH on "Y"				440.19
	TOTAL				3374.79 Z
	Add Cess @ 1% on "Z"				33.75
	Cost of 10.00 sqm				3408.54
	Cost of 1.00 sqm				340.85
	Say				340.85

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) Rate as per Item Number 3.4 of SH: Mortars	cum	0.144	3528.85	508.15
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				2453.40 W
	Add 1 % Water charges on "W"				24.53
	TOTAL				2477.93 X
	Add GST on "X" (multiplying factor 0.1405)				348.15
	TOTAL				2826.08 Y
	Add 15% CPOH on "Y"				423.91
	TOTAL				3250.00 Z
	Add Cess @ 1% on "Z"				32.50
	Cost of 10.00 sqm				3282.50
	Cost of 1.00 sqm				328.25
	Say				328.25

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	4183.05	719.48
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				2872.63 W
	Add 1 % Water charges on "W"				28.73
	TOTAL				2901.36 X
	Add GST on "X" (multiplying factor 0.1405)				407.64
	TOTAL				3309.00 Y
	Add 15% CPOH on "Y"				496.35
	TOTAL				3805.35 Z
	Add Cess @ 1% on "Z"				38.05
	Cost of 10.00 sqm				3843.40
	Cost of 1.00 sqm				384.34
	Say				384.35

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.4	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.172	3528.85	606.96
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				2760.11 W
	Add 1 % Water charges on "W"				27.60
	TOTAL				2787.71 X
	Add GST on "X" (multiplying factor 0.1405)				391.67
	TOTAL				3179.38 Y
	Add 15% CPOH on "Y"				476.91
	TOTAL				3656.29 Z
	Add Cess @ 1% on "Z"				36.56
	Cost of 10.00 sqm				3692.85
	Cost of 1.00 sqm				369.29
	Say				369.30

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 ₹
3.8	Detail of cost for 10 sqm MATERIAL Cement mortar 1:3 (1 cement : 3 coarse sand) Rate as per Item Number 3.8 of SH: Mortars	cum	0.144	4664.55	671.70
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				2616.94 W
	Add 1 % Water charges on "W"				26.17
	TOTAL				2643.11 X
	Add GST on "X" (multiplying factor 0.1405)				371.36
	TOTAL				3014.47 Y
	Add 15% CPOH on "Y"				452.17
	TOTAL				3466.64 Z
	Add Cess @ 1% on "Z"				34.67
	Cost of 10.00 sqm				3501.30
	Cost of 1.00 sqm				350.13
	Say				350.15

13.9.2 20 mm cement plaster

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.8	Detail of cost for 10 sqm MATERIAL Cement mortar 1:3 (1 cement : 3 coarse sand) Rate as per Item Number 3.8 of SH: Mortars	cum	0.224	4664.55	1044.86
	LABOUR				
0155	Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.10	617.00	678.70
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				3443.25 W
	Add 1 % Water charges on "W"				34.43
	TOTAL				3477.69 X
	Add GST on "X" (multiplying factor 0.1405)				488.61
	TOTAL				3966.30 Y
	Add 15% CPOH on "Y"				594.95
	TOTAL				4561.25 Z
	Add Cess @ 1% on "Z"				45.61
	Cost of 10.00 sqm				4606.86
	Cost of 1.00 sqm				460.69
	Say				460.70

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 ₹
3.8	Detail of cost for 10 sqm MATERIAL Cement mortar 1:3 (1 cement : 3 coarse sand) Rate as per Item Number 3.8 of SH: Mortars	cum	0.172	4664.55	802.30
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				2955.45 W
	Add 1 % Water charges on "W"				29.55
	TOTAL				2985.00 X
	Add GST on "X" (multiplying factor 0.1405)				419.39
	TOTAL				3404.39 Y
	Add 15% CPOH on "Y"				510.66
	TOTAL				3915.05 Z
	Add Cess @ 1% on "Z"				39.15
	Cost of 10.00 sqm				3954.20
	Cost of 1.00 sqm				395.42
	Say				395.40

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 ₹
3.10	Detail of cost for 10 sqm MATERIAL Under layer Cement mortar 1 : 5 (1 cement : 5 coarse sand) Rate as per Item Number 3.10 of SH: Mortars	cum	0.144	3658.10	526.77
3.6	Top layer Cement mortar 1 : 6 (1 cement : 6 fine sand) Rate as per Item Number 3.6 of SH: Mortars	cum	0.072	2874.65	206.97
	LABOUR				
0155	Mason (average)	day	1.21	709.00	857.89
0115	Coolie	day	1.29	558.00	719.82
0101	Bhisti	day	1.05	617.00	647.85

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2984.52 W
	Add 1 % Water charges on "W"				29.85
	TOTAL				3014.37 X
	Add GST on "X" (multiplying factor 0.1405)				423.52
	TOTAL				3437.88 Y
	Add 15% CPOH on "Y"				515.68
	TOTAL				3953.57 Z
	Add Cess @ 1% on "Z"				39.54
	Cost of 10.00 sqm				3993.10
	Cost of 1.00 sqm				399.31
	Say				399.30

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 ₹
3.10	Detail of cost for 10 sqm MATERIAL Under layer Cement mortar 1 : 5 (1 cement : 5 coarse sand) Rate as per Item Number 3.10 of SH: Mortars	cum	0.144	3658.10	526.77
3.8	Top layer Cement mortar 1:3 (1 cement : 3 coarse sand) Rate as per Item Number 3.8 of SH: Mortars	cum	0.072	4664.55	335.85
	LABOUR				
0155	Mason (average)	day	1.21	709.00	857.89
0115	Coolie	day	1.29	558.00	719.82
0101	Bhisti	day	1.05	617.00	647.85
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				3113.39 W
	Add 1 % Water charges on "W"				31.13
	TOTAL				3144.53 X
	Add GST on "X" (multiplying factor 0.1405)				441.81
	TOTAL				3586.33 Y
	Add 15% CPOH on "Y"				537.95
	TOTAL				4124.28 Z
	Add Cess @ 1% on "Z"				41.24
	Cost of 10.00 sqm				4165.53
	Cost of 1.00 sqm				416.55
	Say				416.55

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.12	Detail of cost for 10 sqm MATERIAL Cement mortar 1:2 (1 Cement : 2 stone dust) Rate as per Item Number 3.12 of SH: Mortars	cum	0.144	5108.05	735.56
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2221.95 W
	Add 1 % Water charges on "W"				22.22
	TOTAL				2244.17 X
	Add GST on "X" (multiplying factor 0.1405)				315.31
	TOTAL				2559.47 Y
	Add 15% CPOH on "Y"				383.92
	TOTAL				2943.40 Z
	Add Cess @ 1% on "Z"				29.43
	Cost of 10.00 sqm				2972.83
	Cost of 1.00 sqm				297.28
	Say				297.30

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 ₹
3.12	Detail of cost for 10 sqm MATERIAL Cement mortar 1:2 (1 Cement : 2 stone dust) Rate as per Item Number 3.12 of SH: Mortars	cum	0.172	5108.05	878.58
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0115	Coolie	day	0.88	558.00	491.04
0101	Bhisti	day	0.99	617.00	610.83
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2572.87 W
	Add 1 % Water charges on "W"				25.73
	TOTAL				2598.60 X
	Add GST on "X" (multiplying factor 0.1405)				365.10
	TOTAL				2963.71 Y
	Add 15% CPOH on "Y"				444.56
	TOTAL				3408.26 Z
	Add Cess @ 1% on "Z"				34.08
	Cost of 10.00 sqm				3442.35
	Cost of 1.00 sqm				344.23
	Say				344.25

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.12	Detail of cost for 10 sqm MATERIAL Cement mortar 1:2 (1 Cement : 2 stone dust) Rate as per Item Number 3.12 of SH: Mortars	cum	0.224	5108.05	1144.20
	LABOUR				
0155	Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.10	617.00	678.70
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				3083.74 W
	Add 1 % Water charges on "W"				30.84
	TOTAL				3114.58 X
	Add GST on "X" (multiplying factor 0.1405)				437.60
	TOTAL				3552.18 Y
	Add 15% CPOH on "Y"				532.83
	TOTAL				4085.01 Z
	Add Cess @ 1% on "Z"				40.85
	Cost of 10.00 sqm				4125.86
	Cost of 1.00 sqm				412.59
	Say				412.60

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.3	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 3 (1 cement : 3 fine sand) Rate as per Item Number 3.3 of SH: Mortars	cum	0.072	4183.05	301.18
	LABOUR				
0155	Mason (average)	day	0.51	709.00	361.59
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete.	L.S.	13.39	2.00	26.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	11.70	2.00	23.40
	TOTAL				1699.09 W
	Add 1 % Water charges on "W"				16.99
	TOTAL				1716.08 X
	Add GST on "X" (multiplying factor 0.1405)				241.11
	TOTAL				1957.19 Y
	Add 15% CPOH on "Y"				293.58
	TOTAL				2250.77 Z
	Add Cess @ 1% on "Z"				22.51
	Cost of 10.00 sqm				2273.28
	Cost of 1.00 sqm				227.33
	Say				227.35

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	4183.05	301.18
	LABOUR				
0155	Mason (average)	day	0.51	709.00	361.59
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Extra for removing burrs, cleaning with wire brushes, pock making with pointed tool etc. complete.	L.S.	13.39	2.00	26.78
9999	Scaffolding and sundries	L.S.	11.7	2.00	23.40
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
0776	Satna lime	quintal	0.01	370.00	3.70
9999	Indigo gum etc	L.S.	2.08	2.00	4.16
9999	Sundries ladder etc.	L.S.	0.52	2.00	1.04
0141	White Washer	day	0.07	617.00	43.19
0115	Coolie	day	0.07	558.00	39.06

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				2254.55 W
	Add 1 % Water charges on "W"				22.55
	TOTAL				2277.10 X
	Add GST on "X" (multiplying factor 0.1405)				319.93
	TOTAL				2597.03 Y
	Add 15% CPOH on "Y"				389.55
	TOTAL				2986.59 Z
	Add Cess @ 1% on "Z"				29.87
	Cost of 10.00 sqm				3016.45
	Cost of 1.00 sqm				301.65
	Say				301.65

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	4940.00	108.68
2209	Carriage of Cement	tonne	0.022	92.24	2.03
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				468.92 W
	Add 1 % Water charges on "W"				4.69
	TOTAL				473.61 X
	Add GST on "X" (multiplying factor 0.1405)				66.54
	TOTAL				540.15 Y
	Add 15% CPOH on "Y"				81.02
	TOTAL				621.17 Z
	Add Cess @ 1% on "Z"				6.21
	Cost of 10.00 sqm				627.38
	Cost of 1.00 sqm				62.74
	Say				62.75

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)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.9	Rate as per Item Number 3.9 of SH: Mortars LABOUR	cum	0.144	4010.35	577.49
0155	Mason (average)	day	0.67	709.00	475.03
0114	Beldar	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	9.88	2.00	19.76
	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	4183.05	501.97
0155	Mason (average)	day	0.61	709.00	432.49
0114	Beldar	day	0.69	558.00	385.02
0101	Bhisti	day	0.85	617.00	524.45
9999	Scaffolding and sundries	L.S.	9.88	2.00	19.76
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	0.10	900.00	90.00
0101	Bhisti	day	0.01	617.00	6.17
0777	Dry hydrated lime (factory made)	quintal	0.09	290.00	26.10
9977	Carriage of lime	L.S.	3.64	2.00	7.28
0155	Mason (average)	day	0.50	709.00	354.50
0114	Beldar	day	0.50	558.00	279.00
0101	Bhisti	day	0.10	617.00	61.70
9999	Scaffolding and sundries	L.S.	9.88	2.00	19.76
	Labour for scooping				
0123	Mason (brick layer) 1st class	day	0.25	738.00	184.50
0114	Beldar	day	0.25	558.00	139.50
	TOTAL				5090.62 W
	Add 1 % Water charges on "W"				50.91
	TOTAL				5141.52 X
	Add GST on "X" (multiplying factor 0.1405)				722.38
	TOTAL				5863.91 Y
	Add 15% CPOH on "Y"				879.59
	TOTAL				6743.49 Z
	Add Cess @ 1% on "Z"				67.43
	Cost of 10.00 sqm				6810.93
	Cost of 1.00 sqm				681.09
	Say				681.10

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.9	Cement mortar 1 : 4 (1 cement : 4 coarse sand) Rate as per Item Number 3.9 of SH: Mortars LABOUR	cum	0.144	4010.35	577.49
0155	Mason (average)	day	0.67	709.00	475.03
0114	Beldar	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	9.88	2.00	19.76
	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	4183.05	501.97
0155	Mason (average)	day	0.61	709.00	432.49
0114	Beldar	day	0.69	558.00	385.02
0101	Bhisti	day	0.85	617.00	524.45
9999	Scaffolding and sundries	L.S.	9.88	2.00	19.76
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	0.10	900.00	90.00
0101	Bhisti	day	0.01	617.00	6.17
0777	Dry hydrated lime (factory made)	quintal	0.09	290.00	26.10
9977	Carriage of lime	L.S.	3.64	2.00	7.28
0155	Mason (average)	day	0.50	709.00	354.50
0114	Beldar	day	0.50	558.00	279.00
0101	Bhisti	day	0.10	617.00	61.70
9999	Scaffolding and sundries	L.S.	9.88	2.00	19.76
9999	Scaffolding and sundries	L.S.	4.42	2.00	8.84
	TOTAL				4775.46 W
	Add 1 % Water charges on "W"				47.75
	TOTAL				4823.21 X
	Add GST on "X" (multiplying factor 0.1405)				677.66
	TOTAL				5500.87 Y
	Add 15% CPOH on "Y"				825.13
	TOTAL				6326.00 Z
	Add Cess @ 1% on "Z"				63.26
	Cost of 10.00 sqm				6389.26
	Cost of 1.00 sqm				638.93
	Say				638.95

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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1213	Water proofing materials	kilogram	1.48	35.00	51.80
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				66.10 W
	Add 1 % Water charges on "W"				0.66
	TOTAL				66.76 X
	Add GST on "X" (multiplying factor 0.1405)				9.38
	TOTAL				76.14 Y
	Add 15% CPOH on "Y"				11.42
	TOTAL				87.56 Z
	Add Cess @ 1% on "Z"				0.88
	Cost of 1.48 bags of cement used in the mix.				88.44
	Cost of 1.00 bag of 50 kg cement used in the mix.				59.76
	Say				59.75

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 ₹
9999	Detail of cost for 10 sqm Scaffolding and sundries	L.S.	53.82	2.00	107.64
	LABOUR				
0155	Mason (average)	day	0.20	709.00	141.80
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.10	617.00	61.70
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				492.84 W
	Add 1 % Water charges on "W"				4.93
	TOTAL				497.77 X
	Add GST on "X" (multiplying factor 0.1405)				69.94
	TOTAL				567.70 Y
	Add 15% CPOH on "Y"				85.16
	TOTAL				652.86 Z
	Add Cess @ 1% on "Z"				6.53
	Cost of 10.00 sqm				659.39
	Cost of 1.00 sqm				65.94
	Say				65.95

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	709.00	141.80
0114	Beldar	day	0.20	558.00	111.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				267.70 W
	Add 1 % Water charges on "W"				2.68
	TOTAL				270.38 X
	Add GST on "X" (multiplying factor 0.1405)				37.99
	TOTAL				308.36 Y
	Add 15% CPOH on "Y"				46.25
	TOTAL				354.62 Z
	Add Cess @ 1% on "Z"				3.55
	Cost of 10.00 sqm				358.17
	Cost of 1.00 sqm				35.82
	Say				35.80

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	709.00	212.70
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				406.88 W
	Add 1 % Water charges on "W"				4.07
	TOTAL				410.95 X
	Add GST on "X" (multiplying factor 0.1405)				57.74
	TOTAL				468.69 Y
	Add 15% CPOH on "Y"				70.30
	TOTAL				538.99 Z
	Add Cess @ 1% on "Z"				5.39
	Cost of 10.00 sqm				544.38
	Cost of 1.00 sqm				54.44
	Say				54.45

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	709.00	2127.00
0114	Beldar	day	2.00	558.00	1116.00
0115	Coolie	day	1.00	558.00	558.00
0101	Bhisti	day	0.25	617.00	154.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				3982.03 W
	Add 1 % Water charges on "W"				39.82
	TOTAL				4021.85 X
	Add GST on "X" (multiplying factor 0.1405)				565.07
	TOTAL				4586.92 Y
	Add 15% CPOH on "Y"				688.04
	TOTAL				5274.96 Z
	Add Cess @ 1% on "Z"				52.75
	Cost of 10.00 sqm				5327.71
	Cost of 1.00 sqm				532.77
	Say				532.75

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	709.00	3545.00
0114	Beldar	day	3.00	558.00	1674.00
0115	Coolie	day	2.00	558.00	1116.00
0101	Bhisti	day	0.33	617.00	203.61
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				6565.39 W
	Add 1 % Water charges on "W"				65.65
	TOTAL				6631.04 X
	Add GST on "X" (multiplying factor 0.1405)				931.66
	TOTAL				7562.71 Y
	Add 15% CPOH on "Y"				1134.41
	TOTAL				8697.11 Z
	Add Cess @ 1% on "Z"				86.97
	Cost of 10.00 sqm				8784.08
	Cost of 1.00 sqm				878.41
	Say				878.40

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	709.00	531.75
0114	Beldar	day	0.74	558.00	412.92

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	26.91	2.00	53.82
	TOTAL				998.49 W
	Add 1 % Water charges on "W"				9.98
	TOTAL				1008.47 X
	Add GST on "X" (multiplying factor 0.1405)				141.69
	TOTAL				1150.17 Y
	Add 15% CPOH on "Y"				172.52
	TOTAL				1322.69 Z
	Add Cess @ 1% on "Z"				13.23
	Cost of 10.00 sqm				1335.92
	Cost of 1.00 sqm				133.59
	Say				133.60

13.25.2 Groined ceiling

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.80	709.00	567.20
0114	Beldar	day	0.80	558.00	446.40
9999	Sundries	L.S.	34.06	2.00	68.12
	TOTAL				1081.72 W
	Add 1 % Water charges on "W"				10.82
	TOTAL				1092.54 X
	Add GST on "X" (multiplying factor 0.1405)				153.50
	TOTAL				1246.04 Y
	Add 15% CPOH on "Y"				186.91
	TOTAL				1432.94 Z
	Add Cess @ 1% on "Z"				14.33
	Cost of 10.00 sqm				1447.27
	Cost of 1.00 sqm				144.73
	Say				144.75

13.25.3 Flewing soffits

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	LABOUR				
0155	Mason (average)	day	0.50	709.00	354.50
0114	Beldar	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				660.28 W
	Add 1 % Water charges on "W"				6.60
	TOTAL				666.88 X
	Add GST on "X" (multiplying factor 0.1405)				93.70
	TOTAL				760.58 Y
	Add 15% CPOH on "Y"				114.09
	TOTAL				874.67 Z
	Add Cess @ 1% on "Z"				8.75
	Cost of 10.00 sqm				883.41
	Cost of 1.00 sqm				88.34
	Say				88.35

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. Say 23kg				
0869	Plaster of Paris	kilogram	23.00	5.00	115.00
9977	Carriage of plaster of paris	L.S.	3.90	2.00	7.80
	LABOUR				
0122	Mason (for plaster of paris work)				
	1st class	day	0.91	738.00	671.58
0114	Beldar	day	0.91	558.00	507.78
9999	Scaffolding and sundries	L.S.	83.98	2.00	167.96
	TOTAL				1470.12 W
	Add 1 % Water charges on "W"				14.70
	TOTAL				1484.82 X
	Add GST on "X" (multiplying factor 0.1405)				208.62
	TOTAL				1693.44 Y
	Add 15% CPOH on "Y"				254.02
	TOTAL				1947.45 Z
	Add Cess @ 1% on "Z"				19.47
	Cost of 10.00 sqm				1966.93
	Cost of 1.00 sqm				196.69
	Say				196.70

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	709.00	354.50
0114	Beldar	day	0.50	558.00	279.00
9999	Solution of lime putty	L.S.	1.82	2.00	3.64
	TOTAL				637.14 W
	Add 1 % Water charges on "W"				6.37
	TOTAL				643.51 X
	Add GST on "X" (multiplying factor 0.1405)				90.41
	TOTAL				733.92 Y
	Add 15% CPOH on "Y"				110.09
	TOTAL				844.01 Z
	Add Cess @ 1% on "Z"				8.44
	Cost of 10.00 sqm				852.45
	Cost of 1.00 sqm				85.25
	Say				85.25

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	3528.85	49.40
	LABOUR				
0155	Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
0101	Bhisti	day	0.05	617.00	30.85
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				425.20 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.46 X
	Add GST on "X" (multiplying factor 0.1405)				60.34
	TOTAL				489.79 Y
	Add 15% CPOH on "Y"				73.47
	TOTAL				563.26 Z
	Add Cess @ 1% on "Z"				5.63
	Cost of 10.00 metre long and 10 cm wide band				568.90
	Cost of 1.00 metre long and 1 cm wide band				5.69
	Say				5.70

13.28.2 Sunk Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.4	Detail of cost for 10 metre long and 10 cm wide band MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3528.85	49.40
	LABOUR				
0155	Mason (average)	day	0.30	709.00	212.70
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.05	617.00	30.85
9999	Sundries	L.S.	2.08	2.00	4.16
	TOTAL				464.51 W
	Add 1 % Water charges on "W"				4.65
	TOTAL				469.16 X
	Add GST on "X" (multiplying factor 0.1405)				65.92
	TOTAL				535.08 Y
	Add 15% CPOH on "Y"				80.26
	TOTAL				615.34 Z
	Add Cess @ 1% on "Z"				6.15
	Cost of 10.00 metre long and 10 cm wide band				621.49
	Cost of 1.00 metre long and 1 cm wide band				6.21
	Say				6.20

13.28.3 Raised Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.4	Detail of cost for 10 metre long and 10 cm wide band MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.014	3528.85	49.40
	LABOUR				
0155	Mason (average)	day	0.35	709.00	248.15
0115	Coolie	day	0.35	558.00	195.30
0101	Bhisti	day	0.05	617.00	30.85

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				529.16 W
	Add 1 % Water charges on "W"				5.29
	TOTAL				534.46 X
	Add GST on "X" (multiplying factor 0.1405)				75.09
	TOTAL				609.55 Y
	Add 15% CPOH on "Y"				91.43
	TOTAL				700.98 Z
	Add Cess @ 1% on "Z"				7.01
	Cost of 10.00 metre long and 10 cm wide band				707.99
	Cost of 1.00 metre long and 1 cm wide band				7.08
	Say				7.10

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	3528.85	49.40
	LABOUR				
0155	Mason (average)	day	0.65	709.00	460.85
0115	Coolie	day	0.65	558.00	362.70
0101	Bhisti	day	0.05	617.00	30.85
9999	Sundries	L.S.	1.56	2.00	3.12
	TOTAL				906.92 W
	Add 1 % Water charges on "W"				9.07
	TOTAL				915.99 X
	Add GST on "X" (multiplying factor 0.1405)				128.70
	TOTAL				1044.69 Y
	Add 15% CPOH on "Y"				156.70
	TOTAL				1201.39 Z
	Add Cess @ 1% on "Z"				12.01
	Cost of 10.00 metre long and 10 cm wide band				1213.41
	Cost of 1.00 metre long and 1 cm wide band				12.13
	Say				12.15

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 ₹
3.4	Detail of cost for 10 metre long and 10 cm wide band MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3528.85	70.58
	LABOUR				
0155	Mason (average)	day	0.32	709.00	226.88
0115	Coolie	day	0.32	558.00	178.56
0101	Bhisti	day	0.06	617.00	37.02
9999	Sundries	L.S.	2.08	2.00	4.16
	TOTAL				517.20 W
	Add 1 % Water charges on "W"				5.17
	TOTAL				522.37 X
	Add GST on "X" (multiplying factor 0.1405)				73.39
	TOTAL				595.76 Y
	Add 15% CPOH on "Y"				89.36
	TOTAL				685.13 Z
	Add Cess @ 1% on "Z"				6.85
	Cost of 10.00 metre long and 10 cm wide band				691.98
	Cost of 1.00 metre long and 1 cm wide band				6.92
	Say				6.90

13.29.2 Sunk Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.4	Detail of cost for 10 metre long and 10 cm wide band MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3528.85	70.58
	LABOUR				
0155	Mason (average)	day	0.36	709.00	255.24
0115	Coolie	day	0.36	558.00	200.88
0101	Bhisti	day	0.06	617.00	37.02

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				569.18 W
	Add 1 % Water charges on "W"				5.69
	TOTAL				574.87 X
	Add GST on "X" (multiplying factor 0.1405)				80.77
	TOTAL				655.64 Y
	Add 15% CPOH on "Y"				98.35
	TOTAL				753.98 Z
	Add Cess @ 1% on "Z"				7.54
	Cost of 10.00 metre long and 10 cm wide band				761.52
	Cost of 1.00 metre long and 1 cm wide band				7.62
	Say				7.60

13.29.3 Raised Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.4	Detail of cost for 10 metre long and 10 cm wide band MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3528.85	70.58
0155	LABOUR Mason (average)	day	0.42	709.00	297.78
0115	Coolie	day	0.42	558.00	234.36
0101	Bhisti	day	0.06	617.00	37.02
9999	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				648.58 W
	Add 1 % Water charges on "W"				6.49
	TOTAL				655.06 X
	Add GST on "X" (multiplying factor 0.1405)				92.04
	TOTAL				747.10 Y
	Add 15% CPOH on "Y"				112.06
	TOTAL				859.16 Z
	Add Cess @ 1% on "Z"				8.59
	Cost of 10.00 metre long and 10 cm wide band				867.76
	Cost of 1.00 metre long and 1 cm wide band				8.68
	Say				8.70

13.29.3 Raised Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 metre long and 10 cm wide band				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.4	MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.02	3528.85	70.58
	LABOUR				
0155	Mason (average)	day	0.42	709.00	297.78
0115	Coolie	day	0.42	558.00	234.36
0101	Bhisti	day	0.06	617.00	37.02
9999	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				648.58 W
	Add 1 % Water charges on "W"				6.49
	TOTAL				655.06 X
	Add GST on "X" (multiplying factor 0.1405)				92.04
	TOTAL				747.10 Y
	Add 15% CPOH on "Y"				112.06
	TOTAL				859.16 Z
	Add Cess @ 1% on "Z"				8.59
	Cost of 10.00 metre long and 10 cm wide band				867.76
	Cost of 1.00 metre long and 1 cm wide band				8.68
	Say				8.70

13.29.4 Moulded Band

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.10	Detail of cost for 10 metre long and 10 cm wide band MATERIAL Cement mortar 1 : 5 (1 cement : 5 coarse sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.024	3658.10	87.79
	LABOUR				
0155	Mason (average)	day	0.86	709.00	609.74
0115	Coolie	day	0.86	558.00	479.88
0101	Bhisti	day	0.05	617.00	30.85
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				1213.72 W
	Add 1 % Water charges on "W"				12.14
	TOTAL				1225.86 X
	Add GST on "X" (multiplying factor 0.1405)				172.23
	TOTAL				1398.10 Y
	Add 15% CPOH on "Y"				209.71
	TOTAL				1607.81 Z
	Add Cess @ 1% on "Z"				16.08
	Cost of 10.00 metre long and 10 cm wide band				1623.89
	Cost of 1.00 metre long and 1 cm wide band				16.24
	Say				16.25

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 ₹
3.10	Detail of cost for 10 metre long and 10 cm wide band MATERIAL Cement mortar 1 : 5 (1 cement : 5 coarse sand) Rate as per Item Number 3.10 of SH: Mortars	cum	0.014	3658.10	51.21
3.4	Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.01	3528.85	35.29
0155	LABOUR Mason (average)	day	0.86	709.00	609.74
0115	Coolie	day	0.86	558.00	479.88
0101	Bhisti	day	0.05	617.00	30.85
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				1212.43 W
	Add 1 % Water charges on "W"				12.12
	TOTAL				1224.56 X
	Add GST on "X" (multiplying factor 0.1405)				172.05
	TOTAL				1396.61 Y
	Add 15% CPOH on "Y"				209.49
	TOTAL				1606.10 Z
	Add Cess @ 1% on "Z"				16.06
	Cost of 10.00 metre long and 10 cm wide band				1622.16
	Cost of 1.00 metre long and 1 cm wide band				16.22
	Say				16.20

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 ₹
3.3	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 3 (1 cement : 3 fine sand) Rate as per Item Number 3.3 of SH: Mortars	cum	0.03	4183.05	125.49
	LABOUR				
0155	Mason (average)	day	0.50	709.00	354.50
0115	Coolie	day	0.60	558.00	334.80
0101	Bhisti	day	0.93	617.00	573.81
9999	Sundries	L.S.	7.15	2.00	14.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and racking out joints including sundries	L.S.	14.30	2.00	28.60
	TOTAL				1431.50 W
	Add 1 % Water charges on "W"				14.32
	TOTAL				1445.82 X
	Add GST on "X" (multiplying factor 0.1405)				203.14
	TOTAL				1648.95 Y
	Add 15% CPOH on "Y"				247.34
	TOTAL				1896.30 Z
	Add Cess @ 1% on "Z"				18.96
	Cost of 10.00 sqm				1915.26
	Cost of 1.00 sqm				191.53
	Say				191.55

13.31.2 Raised and cut pointing

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.3	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 3 (1 cement : 3 fine sand) Rate as per Item Number 3.3 of SH: Mortars	cum	0.046	4183.05	192.42
	LABOUR				
0155	Mason (average)	day	1.07	709.00	758.63
0115	Coolie	day	1.31	558.00	730.98
0101	Bhisti	day	1.00	617.00	617.00
9999	Sundries	L.S.	7.15	2.00	14.30
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.00	32.24
	TOTAL				2345.57 W
	Add 1 % Water charges on "W"				23.46
	TOTAL				2369.03 X
	Add GST on "X" (multiplying factor 0.1405)				332.85
	TOTAL				2701.87 Y
	Add 15% CPOH on "Y"				405.28
	TOTAL				3107.16 Z
	Add Cess @ 1% on "Z"				31.07
	Cost of 10.00 sqm				3138.23
	Cost of 1.00 sqm				313.82
	Say				313.80

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)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.3	Rate as per Item Number 3.3 of				
	SH: Mortars	cum	0.046	4183.05	192.42
9999	Sundries	L.S.	7.15	2.00	14.30
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.80	558.00	446.40
0101	Bhisti	day	1.28	617.00	789.76
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.00	32.24
	TOTAL				1950.15 W
	Add 1 % Water charges on "W"				19.50
	TOTAL				1969.65 X
	Add GST on "X" (multiplying factor 0.1405)				276.74
	TOTAL				2246.39 Y
	Add 15% CPOH on "Y"				336.96
	TOTAL				2583.35 Z
	Add Cess @ 1% on "Z"				25.83
	Cost of 10.00 sqm				2609.18
	Cost of 1.00 sqm				260.92
	Say				260.90

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)				
3.3	Rate as per Item Number 3.3 of				
	SH: Mortars	cum	0.023	4183.05	96.21
9999	Sundries	L.S.	7.15	2.00	14.30
	LABOUR				
0155	Mason (average)	day	0.92	709.00	652.28
0115	Coolie	day	1.37	558.00	764.46
0101	Bhisti	day	0.93	617.00	573.81
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.00	32.24
	TOTAL				2133.30 W
	Add 1 % Water charges on "W"				21.33
	TOTAL				2154.63 X
	Add GST on "X" (multiplying factor 0.1405)				302.73
	TOTAL				2457.36 Y
	Add 15% CPOH on "Y"				368.60
	TOTAL				2825.96 Z
	Add Cess @ 1% on "Z"				28.26
	Cost of 10.00 sqm				2854.22
	Cost of 1.00 sqm				285.42
	Say				285.40

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	4183.05	158.96
9999	Sundries	L.S.	7.15	2.00	14.30
	LABOUR				
0155	Mason (average)	day	2.00	709.00	1418.00
0115	Coolie	day	2.96	558.00	1651.68
0101	Bhisti	day	1.00	617.00	617.00
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.00	32.24
	TOTAL				3892.18 W
	Add 1 % Water charges on "W"				38.92
	TOTAL				3931.10 X
	Add GST on "X" (multiplying factor 0.1405)				552.32
	TOTAL				4483.42 Y
	Add 15% CPOH on "Y"				672.51
	TOTAL				5155.93 Z
	Add Cess @ 1% on "Z"				51.56
	Cost of 10.00 sqm				5207.49
	Cost of 1.00 sqm				520.75
	Say				520.75

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	7621.75	289.63
9999	Sundries	L.S.	7.15	2.00	14.30
	LABOUR				
0155	Mason (average)	day	2.00	709.00	1418.00
0115	Coolie	day	2.96	558.00	1651.68
0101	Bhisti	day	1.00	617.00	617.00
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.00	32.24
	TOTAL				4022.85 W
	Add 1 % Water charges on "W"				40.23
	TOTAL				4063.07 X
	Add GST on "X" (multiplying factor 0.1405)				570.86
	TOTAL				4633.94 Y
	Add 15% CPOH on "Y"				695.09
	TOTAL				5329.03 Z
	Add Cess @ 1% on "Z"				53.29
	Cost of 10.00 sqm				5382.32
	Cost of 1.00 sqm				538.23
	Say				538.25

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 ₹
3.2	Detail of cost for 10 sqm MATERIAL Cement mortar 1:2 (1 cement : 2 fine sand) Rate as per Item Number 3.2 of SH: Mortars	cum	0.015	4918.05	73.77
0155	LABOUR Mason (average)	day	0.47	709.00	333.23
0115	Coolie	day	0.69	558.00	385.02
0101	Bhisti	day	0.59	617.00	364.03
9999	Scaffolding and racking out joints including sundries	L.S.	16.12	2.00	32.24
	TOTAL				1188.29 W
	Add 1 % Water charges on "W"				11.88
	TOTAL				1200.17 X
	Add GST on "X" (multiplying factor 0.1405)				168.62
	TOTAL				1368.80 Y
	Add 15% CPOH on "Y"				205.32
	TOTAL				1574.12 Z
	Add Cess @ 1% on "Z"				15.74
	Cost of 10.00 sqm				1589.86
	Cost of 1.00 sqm				158.99
	Say				159.00

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	2.00	26.78
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				53.56 W
	Add 1 % Water charges on "W"				0.54
	TOTAL				54.10 X
	Add GST on "X" (multiplying factor 0.1405)				7.60
	TOTAL				61.70 Y
	Add 15% CPOH on "Y"				9.25
	TOTAL				70.95 Z
	Add Cess @ 1% on "Z"				0.71
	Cost of 10.00 sqm				71.66
	Cost of 1.00 sqm				7.17
	Say				7.15

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	2.00	1.82
	LABOUR				
0141	White Washer	day	0.20	617.00	123.40
0115	Coolie	day	0.10	558.00	55.80
9999	Indigo gum etc	L.S.	4.42	2.00	8.84
9999	Sundries ladders etc	L.S.	2.73	2.00	5.46
	TOTAL				213.32 W
	Add 1 % Water charges on "W"				2.13
	TOTAL				215.45 X
	Add GST on "X" (multiplying factor 0.1405)				30.27
	TOTAL				245.72 Y
	Add 15% CPOH on "Y"				36.86
	TOTAL				282.58 Z
	Add Cess @ 1% on "Z"				2.83
	Cost of 10.00 sqm				285.41
	Cost of 1.00 sqm				28.54
	Say				28.55

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	2.00	4.16
9999	Indigo gum etc	L.S.	0.52	2.00	1.04
	LABOUR				
0141	White Washer	day	0.08	617.00	49.36
0115	Coolie	day	0.04	558.00	22.32
9999	Sundries ladders etc	L.S.	2.73	2.00	5.46
	TOTAL				86.04 W
	Add 1 % Water charges on "W"				0.86
	TOTAL				86.90 X
	Add GST on "X" (multiplying factor 0.1405)				12.21
	TOTAL				99.11 Y
	Add 15% CPOH on "Y"				14.87
	TOTAL				113.98 Z
	Add Cess @ 1% on "Z"				1.14
	Cost of 10.00 sqm				115.12
	Cost of 1.00 sqm				11.51
	Say				11.50

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	2.00	16.12
9999	Add for colouring stuff	L.S.	0.91	2.00	1.82
	LABOUR				
0141	White Washer	day	0.30	617.00	185.10
0115	Coolie	day	0.10	558.00	55.80
9999	Indigo gum etc	L.S.	4.42	2.00	8.84
9999	Sundries ladders etc	L.S.	2.73	2.00	5.46
	TOTAL				291.14 W
	Add 1 % Water charges on "W"				2.91
	TOTAL				294.05 X
	Add GST on "X" (multiplying factor 0.1405)				41.31
	TOTAL				335.37 Y
	Add 15% CPOH on "Y"				50.30
	TOTAL				385.67 Z
	Add Cess @ 1% on "Z"				3.86
	Cost of 10.00 sqm				389.53
	Cost of 1.00 sqm				38.95
	Say				38.95

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

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	2.00	16.12
9999	Add for colouring stuff	L.S.	0.91	2.00	1.82
	LABOUR				
0141	White Washer	day	0.30	617.00	185.10
0115	Coolie	day	0.10	558.00	55.80
9999	Indigo gum etc	L.S.	2.73	2.00	5.46
9999	Sundries ladders etc	L.S.	2.73	2.00	5.46
	TOTAL				287.76 W
	Add 1 % Water charges on "W"				2.88
	TOTAL				290.64 X
	Add GST on "X" (multiplying factor 0.1405)				40.83
	TOTAL				331.47 Y
	Add 15% CPOH on "Y"				49.72
	TOTAL				381.19 Z
	Add Cess @ 1% on "Z"				3.81
	Cost of 10.00 sqm				385.00
	Cost of 1.00 sqm				38.50
	Say				38.50

13.40 Distempering with dry distemper of approved brand and manufacture (two or more coats) of required shade on new work, over and including water thinnable priming coat to give an even shade.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0808	Detail of cost for 10 sqm MATERIAL Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/lit.	litre	0.70	50.00	35.00
9999	Putty, glue etc For distempering	L.S.	2.73	2.00	5.46
0815	Dry distemper	kilogram	1.50	30.00	45.00
9977	Carriage of material	L.S.	1.56	2.00	3.12
9999	Brushes, sand paper etc LABOUR	L.S.	7.15	2.00	14.30
0131	Painter	day	0.80	679.00	543.20
0115	Coolie	day	0.40	558.00	223.20
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				879.94 W
	Add 1 % Water charges on "W"				8.80
	TOTAL				888.74 X
	Add GST on "X" (multiplying factor 0.1405)				124.87
	TOTAL				1013.61 Y
	Add 15% CPOH on "Y"				152.04
	TOTAL				1165.65 Z
	Add Cess @ 1% on "Z"				11.66
	Cost of 10.00 sqm				1177.30
	Cost of 1.00 sqm				117.73
	Say				117.75

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 ₹
0808	Detail of cost for 10 sqm MATERIAL 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	2.00	14.30
9988	Sundries including Carriage	L.S.	8.06	2.00	16.12
0816	1st quality Acrylic distemper(Ready mix) having VOC content less than 50 grams/ litre	kilogram	1.50	50.00	75.00
9977	Carriage of material	L.S.	4.42	2.00	8.84
9999	Brushes, sand paper and putty for filling holes LABOUR	L.S.	11.70	2.00	23.40
0131	Painter	day	1.00	679.00	679.00
0115	Coolie	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1146.78 W
	Add 1 % Water charges on "W"				11.47
	TOTAL				1158.25 X
	Add GST on "X" (multiplying factor 0.1405)				162.73
	TOTAL				1320.98 Y
	Add 15% CPOH on "Y"				198.15
	TOTAL				1519.13 Z
	Add Cess @ 1% on "Z"				15.19
	Cost of 10.00 sqm				1534.32
	Cost of 1.00 sqm				153.43
	Say				153.45

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				
0816	Oil bound washable distemper/ Acrylic distemper	kilogram	1.50	50.00	75.00
9977	Carriage of material	L.S.	4.42	2.00	8.84
9999	Brushes, sand paper and putty for filling holes	L.S.	11.57	2.00	23.14
	LABOUR				
0131	Painter	day	0.40	679.00	271.60
0114	Beldar	day	0.46	558.00	256.68
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				651.38 W
	Add 1 % Water charges on "W"				6.51
	TOTAL				657.89 X
	Add GST on "X" (multiplying factor 0.1405)				92.43
	TOTAL				750.33 Y
	Add 15% CPOH on "Y"				112.55
	TOTAL				862.88 Z
	Add Cess @ 1% on "Z"				8.63
	Cost of 10.00 sqm				871.51
	Cost of 1.00 sqm				87.15
	Say				87.15

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				
0808	MATERIAL				
	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	2.00	14.30
	LABOUR				
0131	Painter	day	0.40	679.00	271.60
0115	Coolie	day	0.20	558.00	111.60
9988	Sundries including carriage	L.S.	8.06	2.00	16.12
	TOTAL				448.62 W
	Add 1 % Water charges on "W"				4.49
	TOTAL				453.11 X
	Add GST on "X" (multiplying factor 0.1405)				63.66
	TOTAL				516.77 Y
	Add 15% CPOH on "Y"				77.52
	TOTAL				594.28 Z
	Add Cess @ 1% on "Z"				5.94
	Cost of 10.00 sqm				600.23
	Cost of 1.00 sqm				60.02
	Say				60.00

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				
0851	MATERIAL				
	Water proofing cement paint	kilogram	3.84	38.00	145.92
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.46	679.00	312.34
0115	Coolie	day	0.23	558.00	128.34
0101	Bhisti	day	0.10	617.00	61.70
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				681.84 W
	Add 1 % Water charges on "W"				6.82
	TOTAL				688.66 X
	Add GST on "X" (multiplying factor 0.1405)				96.76
	TOTAL				785.41 Y
	Add 15% CPOH on "Y"				117.81
	TOTAL				903.23 Z
	Add Cess @ 1% on "Z"				9.03
	Cost of 10.00 sqm				912.26
	Cost of 1.00 sqm				91.23
	Say				91.25

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	240.00	787.20
0809	Exterior primer	kilogram	2.20	140.00	308.00
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	7.02	2.00	14.04
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1734.13 W
	Add 1 % Water charges on "W"				17.34
	TOTAL				1751.47 X
	Add GST on "X" (multiplying factor 0.1405)				246.08
	TOTAL				1997.55 Y
	Add 15% CPOH on "Y"				299.63
	TOTAL				2297.19 Z
	Add Cess @ 1% on "Z"				22.97
	Cost of 10.00 sqm				2320.16
	Cost of 1.00 sqm				232.02
	Say				232.00

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	170.00	283.90
0809	Exterior Primer	Kg	2.20	140.00	308.00
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1231.09 W
	Add 1 % Water charges on "W"				12.31
	TOTAL				1243.40 X
	Add GST on "X" (multiplying factor 0.1405)				174.70
	TOTAL				1418.10 Y
	Add 15% CPOH on "Y"				212.71
	TOTAL				1630.81 Z
	Add Cess @ 1% on "Z"				16.31
	Cost of 10.00 sqm				1647.12
	Cost of 1.00 sqm				164.71
	Say				164.70

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	180.00	257.40
0809	Exterior primer	kilogram	2.20	140.00	308.00
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1204.59 W
	Add 1 % Water charges on "W"				12.05
	TOTAL				1216.64 X
	Add GST on "X" (multiplying factor 0.1405)				170.94
	TOTAL				1387.57 Y
	Add 15% CPOH on "Y"				208.14
	TOTAL				1595.71 Z
	Add Cess @ 1% on "Z"				15.96
	Cost of 10.00 sqm				1611.67
	Cost of 1.00 sqm				161.17
	Say				161.15

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	255.00	318.75
8509	Special Primer (C.W.)	litre	0.75	140.00	105.00
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	7.02	2.00	14.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1062.68 W
	Add 1 % Water charges on "W"				10.63
	TOTAL				1073.31 X
	Add GST on "X" (multiplying factor 0.1405)				150.80
	TOTAL				1224.11 Y
	Add 15% CPOH on "Y"				183.62
	TOTAL				1407.72 Z
	Add Cess @ 1% on "Z"				14.08
	Cost of 10.00 sqm				1421.80
	Cost of 1.00 sqm				142.18
	Say				142.20

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	255.00	229.50
8509	Special Primer (C.W.)	litre	0.75	140.00	105.00
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	7.02	2.00	14.04
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				973.43 W
	Add 1 % Water charges on "W"				9.73
	TOTAL				983.16 X
	Add GST on "X" (multiplying factor 0.1405)				138.13
	TOTAL				1121.30 Y
	Add 15% CPOH on "Y"				168.19
	TOTAL				1289.49 Z
	Add Cess @ 1% on "Z"				12.89
	Cost of 10.00 sqm				1302.39
	Cost of 1.00 sqm				130.24
	Say				130.25

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	255.00	229.50
8510	Metal Primer (U.G.)	litre	0.80	90.00	72.00
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.30	558.00	167.40
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	7.02	2.00	14.04
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				940.43 W
	Add 1 % Water charges on "W"				9.40
	TOTAL				949.83 X
	Add GST on "X" (multiplying factor 0.1405)				133.45
	TOTAL				1083.29 Y
	Add 15% CPOH on "Y"				162.49
	TOTAL				1245.78 Z
	Add Cess @ 1% on "Z"				12.46
	Cost of 10.00 sqm				1258.24
	Cost of 1.00 sqm				125.82
	Say				125.80

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	2.00	3.12
	Labour				
0131	Painter	day	0.45	679.00	305.55
0101	Bhisti	day	0.45	617.00	277.65
9999	Brushes, sand paper etc.	L.S.	7.15	2.00	14.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.00	16.12
	Total				1092.84 W
	Add 1 % Water charges on "W"				10.93
	TOTAL				1103.77 X
	Add GST on "X" (multiplying factor 0.1405)				155.08
	TOTAL				1258.85 Y
	Add 15% CPOH on "Y"				188.83
	TOTAL				1447.68 Z
	Add Cess @ 1% on "Z"				14.48
	Cost of 10 sqm				1462.15
	Cost of 1 sqm				146.22
	Say				146.20

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				
0823	Pink primer (for wood)	litre	0.75	105.00	78.75
9999	Putty	L.S.	2.73	2.00	5.46
9977	Carriage	L.S.	0.39	2.00	0.78
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0115	Coolie	day	0.25	558.00	139.50
9999	Brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	10.79	2.00	21.58
	TOTAL				426.48 W
	Add 1 % Water charges on "W"				4.26
	TOTAL				430.74 X
	Add GST on "X" (multiplying factor 0.1405)				60.52
	TOTAL				491.26 Y
	Add 15% CPOH on "Y"				73.69
	TOTAL				564.95 Z
	Add Cess @ 1% on "Z"				5.65
	Cost of 10.00 sqm				570.60
	Cost of 1.00 sqm				57.06
	Say				57.05

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	110.00	82.50
9999	Putty	L.S.	2.73	2.00	5.46
9977	Carriage	L.S.	0.39	2.00	0.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0115	Coolie	day	0.25	558.00	139.50
9999	Brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	10.79	2.00	21.58
	TOTAL				430.23 W
	Add 1 % Water charges on "W"				4.30
	TOTAL				434.53 X
	Add GST on "X" (multiplying factor 0.1405)				61.05
	TOTAL				495.58 Y
	Add 15% CPOH on "Y"				74.34
	TOTAL				569.92 Z
	Add Cess @ 1% on "Z"				5.70
	Cost of 10.00 sqm				575.62
	Cost of 1.00 sqm				57.56
	Say				57.55

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	110.00	59.40
9977	Carriage	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.24	679.00	162.96
0115	Coolie	day	0.24	558.00	133.92
9999	Brushes,sand paper including sundries	L.S.	10.79	2.00	21.58
	TOTAL				378.90 W
	Add 1 % Water charges on "W"				3.79
	TOTAL				382.69 X
	Add GST on "X" (multiplying factor 0.1405)				53.77
	TOTAL				436.46 Y
	Add 15% CPOH on "Y"				65.47
	TOTAL				501.93 Z
	Add Cess @ 1% on "Z"				5.02
	Cost of 10.00 sqm				506.94
	Cost of 1.00 sqm				50.69
	Say				50.70

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	110.00	39.60
9977	Carriage	L.S.	0.39	2.00	0.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0131	LABOUR Painter	day	0.12	679.00	81.48
0115	Coolie	day	0.12	558.00	66.96
9999	Brushes,sand paper including	L.S.	7.15	2.00	14.30
	TOTAL				203.12 W
	Add 1 % Water charges on "W"				2.03
	TOTAL				205.15 X
	Add GST on "X" (multiplying factor 0.1405)				28.82
	TOTAL				233.97 Y
	Add 15% CPOH on "Y"				35.10
	TOTAL				269.07 Z
	Add Cess @ 1% on "Z"				2.69
	Cost of 10.00 sqm				271.76
	Cost of 1.00 sqm				27.18
	Say				27.20

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	130.00	234.00
9977	Carriage of material	L.S.	0.52	2.00	1.04
9999	Putty etc	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.27	679.00	183.33
0115	Coolie	day	0.27	558.00	150.66
9999	Brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	10.79	2.00	21.58
	TOTAL				606.73 W
	Add 1 % Water charges on "W"				6.07
	TOTAL				612.80 X
	Add GST on "X" (multiplying factor 0.1405)				86.10
	TOTAL				698.90 Y
	Add 15% CPOH on "Y"				104.83
	TOTAL				803.73 Z
	Add Cess @ 1% on "Z"				8.04
	Cost of 10.00 sqm				811.77
	Cost of 1.00 sqm				81.18
	Say				81.20

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	130.00	374.40
9977	Carriage of material	L.S.	0.52	2.00	1.04
9999	Putty etc	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.43	679.00	291.97
0115	Coolie	day	0.43	558.00	239.94
9999	Brushes, sand paper etc	L.S.	8.53	2.00	17.06
9999	Sundries	L.S.	17.26	2.00	34.52
	TOTAL				964.39 W
	Add 1 % Water charges on "W"				9.64
	TOTAL				974.03 X
	Add GST on "X" (multiplying factor 0.1405)				136.85
	TOTAL				1110.89 Y
	Add 15% CPOH on "Y"				166.63
	TOTAL				1277.52 Z
	Add Cess @ 1% on "Z"				12.78
	Cost of 10.00 sqm				1290.29
	Cost of 1.00 sqm				129.03
	Say				129.05

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				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.75	110.00	82.50
9999	Putty	L.S.	2.73	2.00	5.46
9977	Carriage	L.S.	0.39	2.00	0.78
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0115	Coolie	day	0.25	558.00	139.50
9999	Brushes, sand paper etc	L.S.	5.46	2.00	10.92
9999	Sundries	L.S.	10.66	2.00	21.32
	EPOXY PAINTING				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
7239	Epoxy paint	litre	1.25	230.00	287.50
9977	Carriage of material	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1418.21 W
	Add 1 % Water charges on "W"				14.18
	TOTAL				1432.39 X
	Add GST on "X" (multiplying factor 0.1405)				201.25
	TOTAL				1633.64 Y
	Add 15% CPOH on "Y"				245.05
	TOTAL				1878.69 Z
	Add Cess @ 1% on "Z"				18.79
	Cost of 10.00 sqm				1897.48
	Cost of 1.00 sqm				189.75
	Say				189.75

13.52.2 On concrete work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	PRIMING COAT				
	MATERIAL				
0821	Distemper primer	litre	0.84	70.00	58.80
9999	Putty	L.S.	13.52	2.00	27.04
9977	Carriage	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0115	Coolie	day	0.25	558.00	139.50
9999	Brushes, sand paper etc	L.S.	2.73	2.00	5.46
9999	Sundries	L.S.	8.06	2.00	16.12
	EPOXY PAINTING				
	MATERIAL				
7239	Epoxy paint	litre	1.21	230.00	278.30
9999	Materials for filling in holes and cracks	L.S.	6.76	2.00	13.52
9977	Carriage of material	L.S.	1.43	2.00	2.86

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Putty, brushes, sand paper etc	L.S.	10.79	2.00	21.58
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				1415.47 W
	Add 1 % Water charges on "W"				14.15
	TOTAL				1429.62 X
	Add GST on "X" (multiplying factor 0.1405)				200.86
	TOTAL				1630.49 Y
	Add 15% CPOH on "Y"				244.57
	TOTAL				1875.06 Z
	Add Cess @ 1% on "Z"				18.75
	Cost of 10.00 sqm				1893.81
	Cost of 1.00 sqm				189.38
	Say				189.40

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	110.00	39.60
9977	Carriage	L.S.	0.39	2.00	0.78
	LABOUR				
0131	Painter	day	0.12	679.00	81.48
0114	Beldar	day	0.12	558.00	66.96
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
	EPOXY PAINTING				
	MATERIAL				
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.80	160.00	128.00
9977	Carriage	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.00	13.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1031.60 W
	Add 1 % Water charges on "W"				10.32
	TOTAL				1041.92 X
	Add GST on "X" (multiplying factor 0.1405)				146.39
	TOTAL				1188.31 Y
	Add 15% CPOH on "Y"				178.25
	TOTAL				1366.55 Z
	Add Cess @ 1% on "Z"				13.67
	Cost of 10.00 sqm				1380.22
	Cost of 1.00 sqm				138.02
	Say				138.00

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	285.00	10.83
9999	Soft Water	L.S.	1.82	2.00	3.64
9977	Carriage	L.S.	0.91	2.00	1.82
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.60	558.00	334.80
9999	Brushes, sand paper etc	L.S.	35.88	2.00	71.76
9999	Sundries	L.S.	35.88	2.00	71.76
	TOTAL				902.01 W
	Add 1 % Water charges on "W"				9.02
	TOTAL				911.03 X
	Add GST on "X" (multiplying factor 0.1405)				128.00
	TOTAL				1039.03 Y
	Add 15% CPOH on "Y"				155.85
	TOTAL				1194.88 Z
	Add Cess @ 1% on "Z"				11.95
	Cost of 25 sqm				1206.83
	Cost of 1.00 sqm				48.27
	Say				48.25

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	33.00	0.43

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4205	Copper chloride	kilogram	0.013	270.00	3.51
4206	Copper nitrate	kilogram	0.013	210.00	2.73
4207	Ammonium chloride	kilogram	0.013	20.00	0.26
9999	Soft Water	L.S.	1.82	2.00	3.64
9977	Carriage	L.S.	0.91	2.00	1.82
	LABOUR				
0131	Painter	day	0.60	679.00	407.40
0115	Coolie	day	0.60	558.00	334.80
9999	Brushes, sand paper etc	L.S.	35.88	2.00	71.76
9999	Sundries	L.S.	35.88	2.00	71.76
	TOTAL				898.11 W
	Add 1 % Water charges on "W"				8.98
	TOTAL				907.09 X
	Add GST on "X" (multiplying factor 0.1405)				127.45
	TOTAL				1034.54 Y
	Add 15% CPOH on "Y"				155.18
	TOTAL				1189.72 Z
	Add Cess @ 1% on "Z"				11.90
	Cost of 25 sqm				1201.61
	Cost of 1.00 sqm				48.06
	Say				48.05

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	110.00	59.40
9977	Carriage	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.24	679.00	162.96
0115	Coolie	day	0.24	558.00	133.92
9999	Brushes, sand paper etc	L.S.	10.79	2.00	21.58
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.95	100.00	95.00
9977	Carriage	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Putty, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
9999	Wire brushes for cleaning	L.S.	5.33	2.00	10.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Extra for delays	L.S.	61.10	2.00	122.20
	TOTAL				1304.38 W
	Add 1 % Water charges on "W"				13.04
	TOTAL				1317.42 X
	Add GST on "X" (multiplying factor 0.1405)				185.10
	TOTAL				1502.52 Y
	Add 15% CPOH on "Y"				225.38
	TOTAL				1727.90 Z
	Add Cess @ 1% on "Z"				17.28
	Cost of 30.00 mtrs				1745.18
	Cost of 1.00 metre				58.17
	Say				58.15

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	110.00	88.00
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc	L.S.	15.99	2.00	31.98
9977	Carriage	L.S.	0.91	2.00	1.82
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	1.41	100.00	141.00
9977	Carriage	L.S.	2.08	2.00	4.16
	LABOUR				
0131	Painter	day	0.80	679.00	543.20
0115	Coolie	day	0.80	558.00	446.40
9999	Putty, sand paper etc	L.S.	8.06	2.00	16.12
9999	Sundries	L.S.	11.96	2.00	23.92
9999	Wire brushes for cleaning	L.S.	7.15	2.00	14.30
9999	Extra for delays	L.S.	94.12	2.00	188.24
	TOTAL				1944.46 W
	Add 1 % Water charges on "W"				19.44
	TOTAL				1963.90 X
	Add GST on "X" (multiplying factor 0.1405)				275.93
	TOTAL				2239.83 Y
	Add 15% CPOH on "Y"				335.97
	TOTAL				2575.81 Z
	Add Cess @ 1% on "Z"				25.76
	Cost of 30.00 mtrs				2601.57
	Cost of 1.00 metre				86.72
	Say				86.70

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	110.00	59.40
9977	Carriage	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.24	679.00	162.96
0115	Coolie	day	0.24	558.00	133.92
9999	Sundries	L.S.	10.79	2.00	21.58
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	170.00	197.20
9977	Carriage	L.S.	1.43	2.00	2.86
9999	Putty, sand paper etc	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Sundries	L.S.	6.76	2.00	13.52
9999	Wire brushes for cleaning	L.S.	11.96	2.00	23.92
9999	Extra for delays	L.S.	66.43	2.00	132.86
	TOTAL				1427.90 W
	Add 1 % Water charges on "W"				14.28
	TOTAL				1442.18 X
	Add GST on "X" (multiplying factor 0.1405)				202.63
	TOTAL				1644.81 Y
	Add 15% CPOH on "Y"				246.72
	TOTAL				1891.53 Z
	Add Cess @ 1% on "Z"				18.92
	Cost of 30.00 mtrs				1910.44
	Cost of 1.00 metre				63.68
	Say				63.70

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	110.00	88.00
9977	Carriage	L.S.	0.65	2.00	1.30
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Sundries	L.S.	15.99	2.00	31.98
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.72	170.00	292.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage	L.S.	2.08	2.00	4.16
9999	Putty, sand paper etc	L.S.	7.93	2.00	15.86
	LABOUR				
0131	Painter	day	0.80	679.00	543.20
0115	Coolie	day	0.80	558.00	446.40
9999	Sundries	L.S.	10.01	2.00	20.02
9999	Wire brushes for cleaning	L.S.	17.81	2.00	35.62
9999	Extra for delays	L.S.	101.40	2.00	202.80
	TOTAL				2127.06 W
	Add 1 % Water charges on "W"				21.27
	TOTAL				2148.33 X
	Add GST on "X" (multiplying factor 0.1405)				301.84
	TOTAL				2450.17 Y
	Add 15% CPOH on "Y"				367.53
	TOTAL				2817.70 Z
	Add Cess @ 1% on "Z"				28.18
	Cost of 30.00 mtrs				2845.87
	Cost of 1.00 metre				94.86
	Say				94.85

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	2.00	1.04
	LABOUR				
0131	Painter	day	0.15	679.00	101.85
0115	Coolie	day	0.15	558.00	83.70
9999	Brushes etc	L.S.	4.16	2.00	8.32
9999	Sundries	L.S.	3.90	2.00	7.80
	TOTAL				332.71 W
	Add 1 % Water charges on "W"				3.33
	TOTAL				336.04 X
	Add GST on "X" (multiplying factor 0.1405)				47.21
	TOTAL				383.25 Y
	Add 15% CPOH on "Y"				57.49
	TOTAL				440.74 Z
	Add Cess @ 1% on "Z"				4.41
	Cost of 10.00 sqm				445.15
	Cost of 1.00 sqm				44.51
	Say				44.50

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	260.00	1482.00
9977	Carriage of material	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0114	Beldar	day	0.54	558.00	301.32
9999	Putty, brushes, sand paper etc	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				2182.48 W
	Add 1 % Water charges on "W"				21.82
	TOTAL				2204.30 X
	Add GST on "X" (multiplying factor 0.1405)				309.70
	TOTAL				2514.01 Y
	Add 15% CPOH on "Y"				377.10
	TOTAL				2891.11 Z
	Add Cess @ 1% on "Z"				28.91
	Cost of 10.00 sqm				2920.02
	Cost of 1.00 sqm				292.00
	Say				292.00

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	2.00	2.86
0324	Coal Tar	litre	2.80	30.00	84.00
9977	Carriage of material	L.S.	1.43	2.00	2.86
0771	Kerosene oil	litre	0.50	50.00	25.00
	LABOUR				
0114	Beldar	day	0.43	558.00	239.94
9999	Brushes etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				375.98 W
	Add 1 % Water charges on "W"				3.76
	TOTAL				379.74 X
	Add GST on "X" (multiplying factor 0.1405)				53.35
	TOTAL				433.09 Y
	Add 15% CPOH on "Y"				64.96
	TOTAL				498.06 Z
	Add Cess @ 1% on "Z"				4.98
	Cost of 10.00 sqm				503.04
	Cost of 1.00 sqm				50.30
	Say				50.30

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				
0835	Plastic emulsion paint	litre	1.21	200.00	242.00
9999	For filling holes and cracks with putty etc	L.S.	6.76	2.00	13.52
9977	Carriage of material	L.S.	1.43	2.00	2.86
	LABOUR				0.00
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc	L.S.	10.79	2.00	21.58
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				961.46 W
	Add 1 % Water charges on "W"				9.61
	TOTAL				971.07 X
	Add GST on "X" (multiplying factor 0.1405)				136.44
	TOTAL				1107.51 Y
	Add 15% CPOH on "Y"				166.13
	TOTAL				1273.64 Z
	Add Cess @ 1% on "Z"				12.74
	Cost of 10.00 sqm				1286.37
	Cost of 1.00 sqm				128.64
	Say				128.65

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	170.00	197.20
9999	For filling holes and cracks with putty etc	L.S.	5.33	2.00	10.66
9977	Carriage	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				908.34 W
	Add 1 % Water charges on "W"				9.08
	TOTAL				917.42 X
	Add GST on "X" (multiplying factor 0.1405)				128.90
	TOTAL				1046.32 Y
	Add 15% CPOH on "Y"				156.95
	TOTAL				1203.27 Z
	Add Cess @ 1% on "Z"				12.03
	Cost of 10.00 sqm				1215.30
	Cost of 1.00 sqm				121.53
	Say				121.55

- 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				
0823	Pink primer (for wood)	litre	0.75	105.00	78.75
9999	Putty	L.S.	2.73	2.00	5.46
9977	Carriage	L.S.	0.39	2.00	0.78
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0115	Coolie	day	0.25	558.00	139.50
9999	Brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	10.79	2.00	21.58
	MATERIAL				
0833	Synthetic enamel paint in black or chocolate shade	litre	1.16	170.00	197.20
9977	Carriage of paint and material	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1324.16 W
	Add 1 % Water charges on "W"				13.24
	TOTAL				1337.40 X
	Add GST on "X" (multiplying factor 0.1405)				187.90
	TOTAL				1525.31 Y
	Add 15% CPOH on "Y"				228.80
	TOTAL				1754.10 Z
	Add Cess @ 1% on "Z"				17.54
	Cost of 10.00 sqm				1771.64
	Cost of 1.00 sqm				177.16
	Say				177.15

- 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	2.00	2.86
9999	Putty etc	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc	L.S.	6.76	2.00	13.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	11.96	2.00	23.92
	TOTAL				838.94 W
	Add 1 % Water charges on "W"				8.39
	TOTAL				847.33 X
	Add GST on "X" (multiplying factor 0.1405)				119.05
	TOTAL				966.38 Y
	Add 15% CPOH on "Y"				144.96
	TOTAL				1111.34 Z
	Add Cess @ 1% on "Z"				11.11
	Cost of 10.00 sqm				1122.45
	Cost of 1.00 sqm				112.24
	Say				112.25

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
9977	Carriage of paint	L.S.	1.43	2.00	2.86
9999	Putty etc	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				972.14 W
	Add 1 % Water charges on "W"				9.72
	TOTAL				981.86 X
	Add GST on "X" (multiplying factor 0.1405)				137.95
	TOTAL				1119.81 Y
	Add 15% CPOH on "Y"				167.97
	TOTAL				1287.78 Z
	Add Cess @ 1% on "Z"				12.88
	Cost of 10.00 sqm				1300.66
	Cost of 1.00 sqm				130.07
	Say				130.05

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	2.00	2.86
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				792.62 W
	Add 1 % Water charges on "W"				7.93
	TOTAL				800.55 X
	Add GST on "X" (multiplying factor 0.1405)				112.48
	TOTAL				913.02 Y
	Add 15% CPOH on "Y"				136.95
	TOTAL				1049.98 Z
	Add Cess @ 1% on "Z"				10.50
	Cost of 10.00 sqm				1060.48
	Cost of 1.00 sqm				106.05
	Say				106.05

13.66 Floor painting with floor enamel paint of approved brand and manufacture of required colour to give an even shade :
13.66.1 Two or more coats on new work

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
	MATERIAL				
0831	Floor enamel paint in all shades except green	litre	1.48	250.00	370.00
9977	Carriage	L.S.	1.43	2.00	2.86
9999	Putty etc	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1081.14 W
	Add 1 % Water charges on "W"				10.81
	TOTAL				1091.95 X
	Add GST on "X" (multiplying factor 0.1405)				153.42
	TOTAL				1245.37 Y
	Add 15% CPOH on "Y"				186.81
	TOTAL				1432.18 Z
	Add Cess @ 1% on "Z"				14.32
	Cost of 10.00 sqm				1446.50
	Cost of 1.00 sqm				144.65
	Say				144.65

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	2.00	2.86
9999	Putty for repair to holes etc	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.90	679.00	611.10
	(0.36+0.54=0.90)				
0115	Coolie	day	0.90	558.00	502.20
	(0.36+0.54=0.90)				
9999	Brushes, sand paper etc	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				1363.29 W
	Add 1 % Water charges on "W"				13.63
	TOTAL				1376.92 X
	Add GST on "X" (multiplying factor 0.1405)				193.46
	TOTAL				1570.38 Y
	Add 15% CPOH on "Y"				235.56
	TOTAL				1805.94 Z
	Add Cess @ 1% on "Z"				18.06
	Cost of 10.00 sqm				1824.00
	Cost of 1.00 sqm				182.40
	Say				182.40

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	2.00	2.86
9999	Repair etc	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.90	679.00	611.10
	(0.36+0.54=0.90)				
0115	Coolie	day	0.90	558.00	502.20
	(0.36+0.54=0.90)				
9999	Brushes, sand paper etc	L.S.	6.76	2.00	13.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				1369.59 W
	Add 1 % Water charges on "W"				13.70
	TOTAL				1383.29 X
	Add GST on "X" (multiplying factor 0.1405)				194.35
	TOTAL				1577.64 Y
	Add 15% CPOH on "Y"				236.65
	TOTAL				1814.28 Z
	Add Cess @ 1% on "Z"				18.14
	Cost of 10.00 sqm				1832.43
	Cost of 1.00 sqm				183.24
	Say				183.25

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	2.00	14.30
0999	Shellac	kilogram	0.24	300.00	72.00
9977	Carriage of material	L.S.	2.73	2.00	5.46
9999	White woolen cloth, putty	L.S.	16.12	2.00	32.24
9999	Sand paper cotton etc	L.S.	13.39	2.00	26.78
9999	Linseed oil	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	3.50	679.00	2376.50
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				2624.50 W
	Add 1 % Water charges on "W"				26.25
	TOTAL				2650.75 X
	Add GST on "X" (multiplying factor 0.1405)				372.43
	TOTAL				3023.17 Y
	Add 15% CPOH on "Y"				453.48
	TOTAL				3476.65 Z
	Add Cess @ 1% on "Z"				34.77
	Cost of 10.00 sqm				3511.42
	Cost of 1.00 sqm				351.14
	Say				351.15

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	2.00	0.78
	LABOUR				
0131	Painter	day	0.80	679.00	543.20
0115	Coolie	day	0.80	558.00	446.40
9999	Soap, brushes, cloth etc	L.S.	4.16	2.00	8.32
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				1128.00 W
	Add 1 % Water charges on "W"				11.28
	TOTAL				1139.28 X
	Add GST on "X" (multiplying factor 0.1405)				160.07
	TOTAL				1299.35 Y
	Add 15% CPOH on "Y"				194.90
	TOTAL				1494.25 Z
	Add Cess @ 1% on "Z"				14.94
	Cost of 10.00 sqm				1509.19
	Cost of 1.00 sqm				150.92
	Say				150.90

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	679.00	271.60
0115	Coolie	day	0.40	558.00	223.20
9999	Acetic acid soap, cloth etc	L.S.	5.33	2.00	10.66
9988	Sundries including Carriage	L.S.	8.06	2.00	16.12
	TOTAL				544.58 W
	Add 1 % Water charges on "W"				5.45
	TOTAL				550.03 X
	Add GST on "X" (multiplying factor 0.1405)				77.28
	TOTAL				627.30 Y
	Add 15% CPOH on "Y"				94.10
	TOTAL				721.40 Z
	Add Cess @ 1% on "Z"				7.21
	Cost of 10.00 sqm				728.61
	Cost of 1.00 sqm				72.86
	Say				72.85

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	2.00	1.82
	LABOUR				
0131	Painter	day	6.00	679.00	4074.00
0115	Coolie	day	2.00	558.00	1116.00
9999	Painting brushes, turpentine, stencil etc	L.S.	13.39	2.00	26.78
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				5285.12 W
	Add 1 % Water charges on "W"				52.85
	TOTAL				5337.97 X
	Add GST on "X" (multiplying factor 0.1405)				749.98
	TOTAL				6087.96 Y
	Add 15% CPOH on "Y"				913.19
	TOTAL				7001.15 Z
	Add Cess @ 1% on "Z"				70.01
	Cost of 100 letters of 15 cm height				7071.16
	Cost of 1 letters of 1 cm height				4.71
	Say				4.70

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				
	LABOUR	cum	0.144	4010.35	577.49
0155	Mason (average)	day	0.67	709.00	475.03
0114	Beldar	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding	L.S.	8.97	2.00	17.94
	Applying cement slurry				
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
0114	Beldar	day	0.25	558.00	139.50
	Top layer 15 mm thick stone chipping plaster Quantity required = 0.172 cum including wastage				
	Preparation of cement concrete mix 1:1/2:2				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2911	(1 cement : 1/2 coarse sand : 2 stone chipping 10 mm nominal size)				
	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.14	1150.00	161.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.14	103.77	14.53
0982	Coarse sand (zone III)	cum	0.04	1350.00	54.00
2203	Carriage of Coarse sand	cum	0.04	103.77	4.15
0367	Portland Cement (OPC-43 grade)	tonne	0.10	4940.00	494.00
2209	Carriage of Cement	tonne	0.10	92.24	9.22
0114	Beldar	day	0.10	558.00	55.80
0101	Bhisti	day	0.05	617.00	30.85
9999	Hire and running charges of mechanical mixer	L.S.	4.29	2.00	8.58
9999	Sundries	L.S.	2.08	2.00	4.16
	LABOUR				
0123	Mason (brick layer) 1st class	Day	1.75	738.00	1291.50
0114	Beldar	Day	1.75	558.00	976.50
0101	Bhisti	Day	0.30	617.00	185.10
9999	Scaffolding	L.S.	24.44	2.00	48.88
	Labour for washing				
0123	Mason (brick layer) 1st class	Day	1.00	738.00	738.00
0115	Coolie	Day	0.50	558.00	279.00
9999	Sundries soft brushes etc	L.S.	25.22	2.00	50.44
	TOTAL				6702.46 W
	Add 1 % Water charges on "W"				67.02
	TOTAL				6769.48 X
	Add GST on "X" (multiplying factor 0.1405)				951.11
	TOTAL				7720.59 Y
	Add 15% CPOH on "Y"				1158.09
	TOTAL				8878.68 Z
	Add Cess @ 1% on "Z"				88.79
	Cost of 10.00 sqm				8967.47
	Cost of 1.00 sqm				896.75
	Say				896.75

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cost for using once = $7.43 / 5 = 1.48$ cu dm				
	MATERIAL				
1198	Second class kail wood in planks	10 cu dm	0.148	260.00	38.48
9977	Carriage of wood	L.S.	0.39	2.00	0.78
	Labour for making battens				
0112	Carpenter 2nd class	day	0.15	679.00	101.85
0114	Beldar	day	0.15	558.00	83.70
9999	Sundries	L.S.	2.86	2.00	5.72
	Labour for nailing the battens to under layer and finishing and repairing grooves				
0123	Mason (brick layer) 1st class	day	0.70	738.00	516.60
0114	Beldar	day	0.70	558.00	390.60
9999	Nails and cement mortar	L.S.	71.76	2.00	143.52
	TOTAL				1281.25 W
	Add 1 % Water charges on "W"				12.81
	TOTAL				1294.06 X
	Add GST on "X" (multiplying factor 0.1405)				181.82
	TOTAL				1475.88 Y
	Add 15% CPOH on "Y"				221.38
	TOTAL				1697.26 Z
	Add Cess @ 1% on "Z"				16.97
	Cost of 30.00 mtrs				1714.23
	Cost of 1.00 metre				57.14
	Say				57.15

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				
	$30 \times 0.02 \times 0.015\text{m} = 9.00$ cu dm				
	Wastage @ 10% = 0.90				
	Total = 9.90 cu dm				
	Assuming that the battens shall become unserviceable after using 5 times				
	Cost for using once = $9.9 / 5 = 1.98$ cu dm				
	MATERIAL				
1198	Second class kail wood in planks	10 cu dm	0.198	260.00	51.48
9977	Carriage of wood	L.S.	0.52	2.00	1.04
	Labour for making battens				
0112	Carpenter 2nd class	day	0.15	679.00	101.85
0114	Beldar	day	0.15	558.00	83.70
9999	Sundries	L.S.	2.86	2.00	5.72
	Labour for nailing the battens to under layer and finishing and repairing grooves				
0123	Mason (brick layer) 1st class	day	0.70	738.00	516.60
0114	Beldar	day	0.70	558.00	390.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Nails and cement mortar	L.S.	71.76	2.00	143.52
	TOTAL				1294.51 W
	Add 1 % Water charges on "W"				12.95
	TOTAL				1307.46 X
	Add GST on "X" (multiplying factor 0.1405)				183.70
	TOTAL				1491.15 Y
	Add 15% CPOH on "Y"				223.67
	TOTAL				1714.83 Z
	Add Cess @ 1% on "Z"				17.15
	Cost of 30.00 mtrs				1731.97
	Cost of 1.00 metre				57.73
	Say				57.75

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	2.00	430.56
0123	Mason (brick layer) 1st class	day	0.30	738.00	221.40
0114	Beldar	day	0.30	558.00	167.40
0101	Bhisti	day	0.15	617.00	92.55
9999	Sundries	L.S.	28.60	2.00	57.20
	TOTAL				969.11 W
	Add 1 % Water charges on "W"				9.69
	TOTAL				978.80 X
	Add GST on "X" (multiplying factor 0.1405)				137.52
	TOTAL				1116.32 Y
	Add 15% CPOH on "Y"				167.45
	TOTAL				1283.77 Z
	Add Cess @ 1% on "Z"				12.84
	Cost of 10.00 sqm				1296.61
	Cost of 1.00 sqm				129.66
	Say				129.65

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	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	53.82	2.00	107.64
	TOTAL				755.64 W
	Add 1 % Water charges on "W"				7.56
	TOTAL				763.20 X
	Add GST on "X" (multiplying factor 0.1405)				107.23
	TOTAL				870.43 Y
	Add 15% CPOH on "Y"				130.56
	TOTAL				1000.99 Z
	Add Cess @ 1% on "Z"				10.01
	Cost of 10.00 sqm				1011.00
	Cost of 1.00 sqm				101.10
	Say				101.10

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 of timber	L.S.	38.98	2.00	77.96
	Labour for fixing				
0117	Assistant Fitter or 2nd class Fitter	day	0.46	679.00	312.34
0114	Beldar	day	0.15	558.00	83.70
9999	Sundries	L.S.	2.86	2.00	5.72
9999	Nails and cement mortar	L.S.	71.76	2.00	143.52
	TOTAL				1945.64 W
	Add 1 % Water charges on "W"				19.46
	TOTAL				1965.10 X
	Add GST on "X" (multiplying factor 0.1405)				276.10
	TOTAL				2241.19 Y
	Add 15% CPOH on "Y"				336.18
	TOTAL				2577.37 Z
	Add Cess @ 1% on "Z"				25.77
	Cost of 30.00 mtrs				2603.15
	Cost of 1.00 metre				86.77
	Say				86.75

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				
0368	Add for White Cement	tonne	0.10	11200.00	1120.00
0367	Deduct for ordinary cement Portland Cement (OPC-43 grade)	tonne	-0.10	4940.00	-494.00
	TOTAL				626.00 W
	Add 1 % Water charges on "W"				6.26
	TOTAL				632.26 X
	Add GST on "X" (multiplying factor 0.1405)				88.83
	TOTAL				721.09 Y
	Add 15% CPOH on "Y"				108.16
	TOTAL				829.26 Z
	Add Cess @ 1% on "Z"				8.29
	Cost of 10.00 sqm				837.55
	Cost of 1.00 sqm				83.75
	Say				83.75

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				
0868	Premixed super white gypsum plaster @ 16.14kg /sqm = 61.40 + 5% wastage = 161.40+8.07= 169.47 kg Premixed super white gypsum plaster.	kg	169.47	6.00	1016.82
	LABOUR				
0155	Mason (average)	day	1.20	709.00	850.80
0115	Coolie	day	1.20	558.00	669.60
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2562.44 W
	Add 1 % Water charges on "W"				25.62
	TOTAL				2588.06 X
	Add GST on "X" (multiplying factor 0.1405)				363.62
	TOTAL				2951.69 Y
	Add 15% CPOH on "Y"				442.75
	TOTAL				3394.44 Z
	Add Cess @ 1% on "Z"				33.94
	Cost of 10.00 sqm				3428.38
	Cost of 1.00 sqm				342.84
	Say				342.85

- 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 ₹
8733	Detail of cost for per bag of 50 kg of cement used in mortar MATERIAL 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 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 bag of cement Say	kg	0.125	400.00	50.00 50.00 W 0.50 50.50 X 7.10 57.60 Y 8.64 66.23 Z 0.66 66.90 66.90

- 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 ₹
0824	Detail of cost for 10 sqm MATERIAL Cement base wall care putty 10x0.001x1429 = 14.29kg Add 2% wastage= 0.29kg Total = 14.58kg Say 14.58 kg	kg	14.58	13.00	189.54
9977	Carriage LABOUR	L.S.	3.90	2.00	7.80
0122	Mason (for plaster of paris work) 1st class	day	0.45	738.00	332.10
0114	Beldar	day	0.45	558.00	251.10
9999	Scaffolding and sundries 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 10.00 sqm Cost of 1.00 sqm Say	L.S.	40.00	2.00	80.00 860.54 W 8.61 869.15 X 122.11 991.26 Y 148.69 1139.95 Z 11.40 1151.35 115.13 115.15

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	36.00	22.32
9999	Brushes, putty etc.	L.S.	0.52	2.00	1.04
9988	Sundries including carriage	L.S.	10.79	2.00	21.58
	LABOUR				
0131	Painter	day	0.33	679.00	224.07
0115	Coolie	day	0.17	558.00	94.86
9999	Scaffolding and sundries	L.S.	7.15	2.00	14.30
	TOTAL				378.17 W
	Add 1 % Water charges on "W"				3.78
	TOTAL				381.95 X
	Add GST on "X" (multiplying factor 0.1405)				53.66
	TOTAL				435.62 Y
	Add 15% CPOH on "Y"				65.34
	TOTAL				500.96 Z
	Add Cess @ 1% on "Z"				5.01
	Cost of 10.00 sqm				505.97
	Cost of 1.00 sqm				50.60
	Say				50.60

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	36.00	35.64
9999	Brushes, putty etc.	L.S.	11.57	2.00	23.14
9988	Sundries including carriage	L.S.	4.42	2.00	8.84
	LABOUR				
0131	Painter	day	0.40	679.00	271.60
0115	Coolie	day	0.46	558.00	256.68
9999	Scaffolding and sundries	L.S.	8.06	2.00	16.12
	TOTAL				612.02 W
	Add 1 % Water charges on "W"				6.12
	TOTAL				618.14 X
	Add GST on "X" (multiplying factor 0.1405)				86.85
	TOTAL				704.99 Y
	Add 15% CPOH on "Y"				105.75
	TOTAL				810.74 Z
	Add Cess @ 1% on "Z"				8.11
	Cost of 10.00 sqm				818.84
	Cost of 1.00 sqm				81.88
	Say				81.90

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	2.00	1.04
9977	Carriage of material	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc.	L.S.	8.06	2.00	16.12
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				536.48 W
	Add 1 % Water charges on "W"				5.36
	TOTAL				541.84 X
	Add GST on "X" (multiplying factor 0.1405)				76.13
	TOTAL				617.97 Y
	Add 15% CPOH on "Y"				92.70
	TOTAL				710.67 Z
	Add Cess @ 1% on "Z"				7.11
	Cost of 10.00 sqm				717.78
	Cost of 1.00 sqm				71.78
	Say				71.80

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	2.00	2.86
9977	Carriage of material	L.S.	6.76	2.00	13.52
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc.	L.S.	10.79	2.00	21.58
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				798.42 W
	Add 1 % Water charges on "W"				7.98
	TOTAL				806.40 X
	Add GST on "X" (multiplying factor 0.1405)				113.30
	TOTAL				919.70 Y
	Add 15% CPOH on "Y"				137.96
	TOTAL				1057.66 Z
	Add Cess @ 1% on "Z"				10.58
	Cost of 10.00 sqm				1068.24
	Cost of 1.00 sqm				106.82
	Say				106.80

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				
0804	MATERIAL Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/ltr.	litre	0.38	220.00	83.60
9999	For filling holes and cracks with putty etc	L.S.	0.52	2.00	1.04
9977	Carriage of material	L.S.	0.91	2.00	1.82
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc.	L.S.	8.06	2.00	16.12
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				561.42 W
	Add 1 % Water charges on "W"				5.61
	TOTAL				567.03 X
	Add GST on "X" (multiplying factor 0.1405)				79.67
	TOTAL				646.70 Y
	Add 15% CPOH on "Y"				97.01
	TOTAL				743.71 Z
	Add Cess @ 1% on "Z"				7.44
	Cost of 10.00 sqm				751.14
	Cost of 1.00 sqm				75.11
	Say				75.10

13.83.2 Two coats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 sqm				
0804	MATERIAL Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/ltr.	litre	0.60	220.00	132.00
9999	For filling holes and cracks with putty etc	L.S.	1.43	2.00	2.86
9977	Carriage of material	L.S.	6.76	2.00	13.52
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0115	Coolie	day	0.54	558.00	301.32
9999	Brushes, sand paper etc.	L.S.	10.79	2.00	21.58

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				851.46 W
	Add 1 % Water charges on "W"				8.51
	TOTAL				859.97 X
	Add GST on "X" (multiplying factor 0.1405)				120.83
	TOTAL				980.80 Y
	Add 15% CPOH on "Y"				147.12
	TOTAL				1127.92 Z
	Add Cess @ 1% on "Z"				11.28
	Cost of 10.00 sqm				1139.20
	Cost of 1.00 sqm				113.92
	Say				113.90

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 ₹
0806	Detail of cost for 10 sqm MATERIAL 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	2.00	5.46
9977	Carriage of material	L.S.	0.39	2.00	0.78
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0115	Coolie	day	0.25	558.00	139.50
9999	Brushes, sand paper etc.	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	10.79	2.00	21.58
	TOTAL				426.48 W
	Add 1 % Water charges on "W"				4.26
	TOTAL				430.74 X
	Add GST on "X" (multiplying factor 0.1405)				60.52
	TOTAL				491.26 Y
	Add 15% CPOH on "Y"				73.69
	TOTAL				564.95 Z
	Add Cess @ 1% on "Z"				5.65
	Cost of 10.00 sqm				570.60
	Cost of 1.00 sqm				57.06
	Say				57.05

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 ₹
0808	Detail of cost for 10 sqm MATERIAL 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 LABOUR	L.S.	8.06	2.00	16.12
0131	Painter	day	0.40	679.00	271.60
0115	Coolie	day	0.20	558.00	111.60
9999	Brushes, sand paper etc.	L.S.	7.15	2.00	14.30
	TOTAL				448.62 W
	Add 1 % Water charges on "W"				4.49
	TOTAL				453.11 X
	Add GST on "X" (multiplying factor 0.1405)				63.66
	TOTAL				516.77 Y
	Add 15% CPOH on "Y"				77.52
	TOTAL				594.28 Z
	Add Cess @ 1% on "Z"				5.94
	Cost of 10.00 sqm				600.23
	Cost of 1.00 sqm				60.02
	Say				60.00

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 ₹
0772	Detail of cost for 10 sqm MATERIAL 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 LABOUR	L.S.	7.80	2.00	15.60
0155	Mason (average)	day	0.51	709.00	361.59
0115	Coolie	day	0.75	558.00	418.50
9999	Extra for removing burrs, cleaning with wire brushes and pock making with pointed tools etc.	L.S.	13.39	2.00	26.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	11.70	2.00	23.40
	TOTAL				1535.87 W
	Add 1 % Water charges on "W"				15.36
	TOTAL				1551.23 X
	Add GST on "X" (multiplying factor 0.1405)				217.95
	TOTAL				1769.18 Y
	Add 15% CPOH on "Y"				265.38
	TOTAL				2034.55 Z
	Add Cess @ 1% on "Z"				20.35
	Cost of 10 sqm				2054.90
	Cost of 1 sqm				205.49
	Say				205.50

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	2.00	1.04
	LABOUR				
0141	White Washer	day	0.11	617.00	67.87
0115	Coolie	day	0.06	558.00	33.48
9999	Indigo gum etc	L.S.	2.73	2.00	5.46
9999	Sundries ladders etc	L.S.	2.73	2.00	5.46
	TOTAL				125.31 W
	Add 1 % Water charges on "W"				1.25
	TOTAL				126.56 X
	Add GST on "X" (multiplying factor 0.1405)				17.78
	TOTAL				144.35 Y
	Add 15% CPOH on "Y"				21.65
	TOTAL				166.00 Z
	Add Cess @ 1% on "Z"				1.66
	Cost of 10.00 sqm				167.66
	Cost of 1.00 sqm				16.77
	Say				16.75

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	2.00	1.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0141	White Washer	day	0.07	617.00	43.19
0115	Coolie	day	0.03	558.00	16.74
9999	Indigo gum etc	L.S.	2.08	2.00	4.16
9999	Sundries ladders etc	L.S.	2.73	2.00	5.46
	TOTAL				76.59 W
	Add 1 % Water charges on "W"				0.77
	TOTAL				77.36 X
	Add GST on "X" (multiplying factor 0.1405)				10.87
	TOTAL				88.22 Y
	Add 15% CPOH on "Y"				13.23
	TOTAL				101.46 Z
	Add Cess @ 1% on "Z"				1.01
	Cost of 10.00 sqm				102.47
	Cost of 1.00 sqm				10.25
	Say				10.25

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	558.00	50.22
0115	Coolie	day	0.04	558.00	22.32
0101	Bhisti	day	0.04	617.00	24.68
9999	Sundries such as sand paper and scrapper	L.S.	2.73	2.00	5.46
9999	Repair to scraches	L.S.	1.82	2.00	3.64
	TOTAL				106.32 W
	Add 1 % Water charges on "W"				1.06
	TOTAL				107.38 X
	Add GST on "X" (multiplying factor 0.1405)				15.09
	TOTAL				122.47 Y
	Add 15% CPOH on "Y"				18.37
	TOTAL				140.84 Z
	Add Cess @ 1% on "Z"				1.41
	Cost of 10 sqm.				142.25
	Cost of 1 sqm.				14.22
	Say				14.20

13.89 Distempering with dry distemper of approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 sqm.				
	MATERIAL				
0815	Dry distemper	kilogram	1.00	30.00	30.00
9977	Carriage of distemper	L.S.	0.91	2.00	1.82
9999	Brushes, sand-paper etc.	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.33	679.00	224.07
0115	Coolie	day	0.17	558.00	94.86
9999	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				370.25 W
	Add 1 % Water charges on "W"				3.70
	TOTAL				373.95 X
	Add GST on "X" (multiplying factor 0.1405)				52.54
	TOTAL				426.49 Y
	Add 15% CPOH on "Y"				63.97
	TOTAL				490.47 Z
	Add Cess @ 1% on "Z"				4.90
	Cost of 10 sqm.				495.37
	Cost of 1 sqm.				49.54
	Say				49.55

13.90 Distempering with 1st quality acrylic distemper (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				
0816	1st quality Acrylic distemper (Ready mix) having VOC content less than 50 grams/ litre	kilogram	1.00	50.00	50.00
9999	Brushes, putty etc.	L.S.	0.52	2.00	1.04
9988	Sundries including carriage	L.S.	10.79	2.00	21.58
	LABOUR				
0131	Painter	day	0.33	679.00	224.07
0115	Coolie	day	0.17	558.00	94.86
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				405.85 W
	Add 1 % Water charges on "W"				4.06
	TOTAL				409.91 X
	Add GST on "X" (multiplying factor 0.1405)				57.59
	TOTAL				467.50 Y
	Add 15% CPOH on "Y"				70.13
	TOTAL				537.63 Z
	Add Cess @ 1% on "Z"				5.38
	Cost of 10 sqm.				543.00
	Cost of 1 sqm.				54.30
	Say				54.30

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	558.00	61.38
0115	Coolie	day	0.05	558.00	27.90
0101	Bhisti	day	0.05	617.00	30.85
9999	Scraper, sand paper etc.	L.S.	6.24	2.00	12.48
9999	Sundries including mortar to repair the surface	L.S.	1.82	2.00	3.64
	TOTAL				136.25 W
	Add 1 % Water charges on "W"				1.36
	TOTAL				137.61 X
	Add GST on "X" (multiplying factor 0.1405)				19.33
	TOTAL				156.95 Y
	Add 15% CPOH on "Y"				23.54
	TOTAL				180.49 Z
	Add Cess @ 1% on "Z"				1.80
	Cost of 10 sqm.				182.29
	Cost of 1 sqm.				18.23
	Say				18.25

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
9977	Carriage	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Putty, brushes sand paper etc.	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				531.20 W
	Add 1 % Water charges on "W"				5.31
	TOTAL				536.51 X
	Add GST on "X" (multiplying factor 0.1405)				75.38
	TOTAL				611.89 Y
	Add 15% CPOH on "Y"				91.78
	TOTAL				703.68 Z
	Add Cess @ 1% on "Z"				7.04
	Cost of 10 sqm.				710.71
	Cost of 1 sqm.				71.07
	Say				71.05

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	110.00	45.10
9977	Carraige	L.S.	0.39	2.00	0.78
	LABOUR				
0131	Painter	day	0.18	679.00	122.22
0115	Coolie	day	0.18	558.00	100.44
9999	Brushes, sand paper etc	L.S.	8.19	2.00	16.38
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.73	100.00	73.00
9977	Carraige	L.S.	1.04	2.00	2.08
	LABOUR				
0131	Painter	day	0.41	679.00	278.39
0115	Coolie	day	0.41	558.00	228.78
9999	Putty, sand paper etc	L.S.	4.16	2.00	8.32
9999	Sundries	L.S.	6.24	2.00	12.48
9999	Wire brushes for cleaning	L.S.	4.42	2.00	8.84
9999	Extra for delays	L.S.	40.3	2.00	80.60
	TOTAL				977.41 W
	Add 1 % Water charges on "W"				9.77
	TOTAL				987.18 X
	Add GST on "X" (multiplying factor 0.1405)				138.70
	TOTAL				1125.88 Y
	Add 15% CPOH on "Y"				168.88
	TOTAL				1294.77 Z
	Add Cess @ 1% on "Z"				12.95
	Cost of 30.00 metres				1307.71
	Cost of 1.00 metre				43.59
	Say				43.60

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	2.00	0.78
	LABOUR				
0131	Painter	day	0.27	679.00	183.33
0115	Coolie	day	0.27	558.00	150.66
9999	Putty, sand paper etc	L.S.	4.16	2.00	8.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	6.24	2.00	12.48
9999	Wire brushes for cleaning	L.S.	4.42	2.00	8.84
9999	Extra for delays	L.S.	26.91	2.00	53.82
	TOTAL				461.23 W
	Add 1 % Water charges on "W"				4.61
	TOTAL				465.84 X
	Add GST on "X" (multiplying factor 0.1405)				65.45
	TOTAL				531.29 Y
	Add 15% CPOH on "Y"				79.69
	TOTAL				610.99 Z
	Add Cess @ 1% on "Z"				6.11
	Cost of 30.00 metres				617.10
	Cost of 1.00 metre				20.57
	Say				20.55

13.94.2 100 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres Area = $22/7 \times 106.4 \text{ mm} \times 30 \text{ m} = 10.032 \text{ sqm}$ MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.57	100.00	57.00
9977	Carriage	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
9999	Wire brushes for cleaning	L.S.	5.33	2.00	10.66
9999	Extra for delay	L.S.	34.06	2.00	68.12
	TOTAL				608.92 W
	Add 1 % Water charges on "W"				6.09
	TOTAL				615.01 X
	Add GST on "X" (multiplying factor 0.1405)				86.41
	TOTAL				701.42 Y
	Add 15% CPOH on "Y"				105.21
	TOTAL				806.63 Z
	Add Cess @ 1% on "Z"				8.07
	Cost of 30.00 metres				814.70
	Cost of 1.00 metre				27.16
	Say				27.15

13.94.3 150 mm diameter pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 30 metres Area = $22/7 \times 157.2 \text{ mm} \times 30 \text{ m} = 14.82 \text{ sqm}$				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL				
0828	Anticorrosive bituminous paint (black)	litre	0.85	100.00	85.00
9977	Carriage	L.S.	0.65	2.00	1.30
	LABOUR				
0131	Painter	day	0.53	679.00	359.87
0115	Coolie	day	0.53	558.00	295.74
9999	Putty, sand paper brushes etc.	L.S.	8.06	2.00	16.12
9999	Sundries	L.S.	11.96	2.00	23.92
9999	Wire brushes for cleaning	L.S.	7.14	2.00	14.28
9999	Extra for delay	L.S.	40.30	2.00	80.60
	TOTAL				876.83 W
	Add 1 % Water charges on "W"				8.77
	TOTAL				885.60 X
	Add GST on "X" (multiplying factor 0.1405)				124.43
	TOTAL				1010.02 Y
	Add 15% CPOH on "Y"				151.50
	TOTAL				1161.53 Z
	Add Cess @ 1% on "Z"				11.62
	Cost of 30.00 metres				1173.14
	Cost of 1.00 metre				39.10
	Say				39.10

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				
	MATERIAL				
4202	Red oxide Zinc chromate primer	litre	0.41	110.00	45.10
9977	Carriage	L.S.	0.39	2.00	0.78
	LABOUR				
0131	Painter	day	0.18	679.00	122.22
0115	Coolie	day	0.18	558.00	100.44
9999	Sundries	L.S.	8.19	2.00	16.38
	MATERIAL				
0826	Aluminium paint	litre	0.61	150.00	91.50
9977	Carriage	L.S.	1.04	2.00	2.08
9999	Putty, sand paper etc	L.S.	4.16	2.00	8.32
	LABOUR				
0131	Painter	day	0.41	679.00	278.39
0115	Coolie	day	0.41	558.00	228.78
9999	Sundries	L.S.	5.20	2.00	10.40
9999	Wire brushes for cleaning	L.S.	9.10	2.00	18.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Extra for delays	L.S.	44.85	2.00	89.70
	TOTAL				1012.29 W
	Add 1 % Water charges on "W"				10.12
	TOTAL				1022.41 X
	Add GST on "X" (multiplying factor 0.1405)				143.65
	TOTAL				1166.06 Y
	Add 15% CPOH on "Y"				174.91
	TOTAL				1340.97 Z
	Add Cess @ 1% on "Z"				13.41
	Cost of 30.00 metres				1354.38
	Cost of 1.00 metre				45.15
	Say				45.15

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	110.00	59.40
9977	Carriage	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.24	679.00	162.96
	0.18 x 10.032 / 7.67 = 0.24				
0115	Coolie	day	0.24	558.00	133.92
9999	Sundries	L.S.	10.79	2.00	21.58
	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	2.00	2.86
9999	Putty, sand paper etc	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
	0.41 x 10.032 / 7.67 = 0.54				
0115	Coolie	day	0.54	558.00	301.32
9999	Sundries	L.S.	6.76	2.00	13.52
9999	Wire brushes for cleaning	L.S.	11.96	2.00	23.92
9999	Extra for delays	L.S.	66.43	2.00	132.86
	TOTAL				1404.70 W
	Add 1 % Water charges on "W"				14.05
	TOTAL				1418.75 X
	Add GST on "X" (multiplying factor 0.1405)				199.33
	TOTAL				1618.08 Y
	Add 15% CPOH on "Y"				242.71
	TOTAL				1860.79 Z
	Add Cess @ 1% on "Z"				18.61
	Cost of 30.00 metres				1879.40
	Cost of 1.00 metre				62.65
	Say				62.65

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	110.00	88.00
9977	Carriage	L.S.	0.65	2.00	1.30
	LABOUR				
0131	Painter	Day	0.36	679.00	244.44
	0.18 x 14.82 / 7.67 = 0.36				
0115	Coolie	Day	0.36	558.00	200.88
9999	Sundries	L.S.	15.99	2.00	31.98
	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	2.00	4.16
9999	Putty, sand paper etc	L.S.	7.93	2.00	15.86
	LABOUR				
0131	Painter	day	0.80	679.00	543.20
	0.41 x 14.82 / 7.67 = 0.80				
0115	Coolie	day	0.80	558.00	446.40
9999	Sundries	L.S.	10.01	2.00	20.02
9999	Wire brushes for cleaning	L.S.	17.81	2.00	35.62
9999	Extra for delays	L.S.	101.4	2.00	202.80
	TOTAL				2092.66 W
	Add 1 % Water charges on "W"				20.93
	TOTAL				2113.59 X
	Add GST on "X" (multiplying factor 0.1405)				296.96
	TOTAL				2410.55 Y
	Add 15% CPOH on "Y"				361.58
	TOTAL				2772.13 Z
	Add Cess @ 1% on "Z"				27.72
	Cost of 30.00 metres				2799.85
	Cost of 1.00 metre				93.33
	Say				93.35

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	2.00	0.78
9977	Carriage	L.S.	2.08	2.00	4.16
	LABOUR				
0131	Painter	day	0.28	679.00	190.12
0115	Coolie	day	0.28	558.00	156.24

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Putty, sand paper brushes etc.	L.S.	4.16	2.00	8.32
9999	Sundries	L.S.	6.24	2.00	12.48
9999	Wire brushes for cleaning	L.S.	4.42	2.00	8.84
9999	Extra for delay	L.S.	26.91	2.00	53.82
	TOTAL				487.26 W
	Add 1 % Water charges on "W"				4.87
	TOTAL				492.13 X
	Add GST on "X" (multiplying factor 0.1405)				69.14
	TOTAL				561.28 Y
	Add 15% CPOH on "Y"				84.19
	TOTAL				645.47 Z
	Add Cess @ 1% on "Z"				6.45
	Cost of 30.00 metres				651.92
	Cost of 1.00 metre				21.73
	Say				21.75

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	2.00	1.04
9977	Carriage	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Putty, sand paper brushes etc.	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
9999	Wire brushes for cleaning	L.S.	5.33	2.00	10.66
9999	Extra for delay	L.S.	34.06	2.00	68.12
	TOTAL				626.38 W
	Add 1 % Water charges on "W"				6.26
	TOTAL				632.64 X
	Add GST on "X" (multiplying factor 0.1405)				88.89
	TOTAL				721.53 Y
	Add 15% CPOH on "Y"				108.23
	TOTAL				829.76 Z
	Add Cess @ 1% on "Z"				8.30
	Cost of 30.00 metres				838.06
	Cost of 1.00 metre				27.94
	Say				27.95

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	2.00	1.30
9977	Carriage	L.S.	3.90	2.00	7.80
	LABOUR				
0131	Painter	day	0.53	679.00	359.87
0115	Coolie	day	0.53	558.00	295.74
9999	Putty, sand paper brushes etc.	L.S.	7.93	2.00	15.86
9999	Sundries	L.S.	11.96	2.00	23.92
9999	Wire brushes for cleaning	L.S.	7.15	2.00	14.30
9999	Extra for delay	L.S.	40.30	2.00	80.60
	TOTAL				901.39 W
	Add 1 % Water charges on "W"				9.01
	TOTAL				910.40 X
	Add GST on "X" (multiplying factor 0.1405)				127.91
	TOTAL				1038.32 Y
	Add 15% CPOH on "Y"				155.75
	TOTAL				1194.06 Z
	Add Cess @ 1% on "Z"				11.94
	Cost of 30.00 metres				1206.00
	Cost of 1.00 metre				40.20
	Say				40.20

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	2.00	1.04
	LABOUR				
0131	Painter	day	0.11	679.00	74.69
0115	Coolie	day	0.11	558.00	61.38
9999	Brushes etc	L.S.	2.73	2.00	5.46
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				253.33 W
	Add 1 % Water charges on "W"				2.53
	TOTAL				255.86 X
	Add GST on "X" (multiplying factor 0.1405)				35.95
	TOTAL				291.81 Y
	Add 15% CPOH on "Y"				43.77
	TOTAL				335.58 Z
	Add Cess @ 1% on "Z"				3.36
	Cost of 10.00 sqm				338.94
	Cost of 1.00 sqm				33.89
	Say				33.90

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				
0835	Plastic emulsion paint	litre	0.73	200.00	146.00
9999	Material for filling holes and cracks (putty etc.)	L.S.	0.52	2.00	1.04
9977	Carriage of material	L.S.	5.33	2.00	10.66
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc	L.S.	8.06	2.00	16.12
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				632.66 W
	Add 1 % Water charges on "W"				6.33
	TOTAL				638.99 X
	Add GST on "X" (multiplying factor 0.1405)				89.78
	TOTAL				728.76 Y
	Add 15% CPOH on "Y"				109.31
	TOTAL				838.08 Z
	Add Cess @ 1% on "Z"				8.38
	Cost of 10.00 sqm				846.46
	Cost of 1.00 sqm				84.65
	Say				84.65

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	170.00	119.00
9977	Carriage of paint and materials	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Putty	L.S.	2.73	2.00	5.46
9999	Brushes sand paper etc.	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				597.60 W
	Add 1 % Water charges on "W"				5.98
	TOTAL				603.58 X
	Add GST on "X" (multiplying factor 0.1405)				84.80
	TOTAL				688.38 Y
	Add 15% CPOH on "Y"				103.26
	TOTAL				791.64 Z
	Add Cess @ 1% on "Z"				7.92
	Cost of 10.00 sqm				799.55
	Cost of 1.00 sqm				79.96
	Say				79.95

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	2.00	1.04
9999	Putty etc	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				547.60 W
	Add 1 % Water charges on "W"				5.48
	TOTAL				553.08 X
	Add GST on "X" (multiplying factor 0.1405)				77.71
	TOTAL				630.78 Y
	Add 15% CPOH on "Y"				94.62
	TOTAL				725.40 Z
	Add Cess @ 1% on "Z"				7.25
	Cost of 10.00 sqm				732.65
	Cost of 1.00 sqm				73.27
	Say				73.25

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	2.00	1.04
9999	Putty etc	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				636.10 W
	Add 1 % Water charges on "W"				6.36
	TOTAL				642.46 X
	Add GST on "X" (multiplying factor 0.1405)				90.27
	TOTAL				732.73 Y
	Add 15% CPOH on "Y"				109.91
	TOTAL				842.64 Z
	Add Cess @ 1% on "Z"				8.43
	Cost of 10.00 sqm				851.06
	Cost of 1.00 sqm				85.11
	Say				85.10

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	2.00	1.04
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Putty, brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				530.14 W
	Add 1 % Water charges on "W"				5.30
	TOTAL				535.44 X
	Add GST on "X" (multiplying factor 0.1405)				75.23
	TOTAL				610.67 Y
	Add 15% CPOH on "Y"				91.60
	TOTAL				702.27 Z
	Add Cess @ 1% on "Z"				7.02
	Cost of 10.00 sqm				709.29
	Cost of 1.00 sqm				70.93
	Say				70.95

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	2.00	1.82
9999	Turpentine oil sand paper cotton/woolen cloth putty etc.	L.S.	10.79	2.00	21.58
9999	Linseed oil	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	1.76	679.00	1195.04
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1321.64 W
	Add 1 % Water charges on "W"				13.22
	TOTAL				1334.86 X
	Add GST on "X" (multiplying factor 0.1405)				187.55
	TOTAL				1522.40 Y
	Add 15% CPOH on "Y"				228.36
	TOTAL				1750.76 Z
	Add Cess @ 1% on "Z"				17.51
	Cost of 10.00 sqm				1768.27
	Cost of 1.00 sqm				176.83
	Say				176.85

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	2.00	0.78
	LABOUR				
0131	Painter	day	0.40	679.00	271.60
0115	Coolie	day	0.40	558.00	223.20
9999	Soap, brushes, cloth etc	L.S.	4.16	2.00	8.32
9999	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				570.24 W
	Add 1 % Water charges on "W"				5.70
	TOTAL				575.94 X
	Add GST on "X" (multiplying factor 0.1405)				80.92
	TOTAL				656.86 Y
	Add 15% CPOH on "Y"				98.53
	TOTAL				755.39 Z
	Add Cess @ 1% on "Z"				7.55
	Cost of 10.00 sqm				762.95
	Cost of 1.00 sqm				76.29
	Say				76.30

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	2.00	1.04
	LABOUR				
0131	Painter	day	4.00	679.00	2716.00
0115	Coolie	day	1.00	558.00	558.00
9999	Painting brushes, turpentine, stencil etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				3338.76 W
	Add 1 % Water charges on "W"				33.39
	TOTAL				3372.15 X
	Add GST on "X" (multiplying factor 0.1405)				473.79
	TOTAL				3845.93 Y
	Add 15% CPOH on "Y"				576.89
	TOTAL				4422.82 Z
	Add Cess @ 1% on "Z"				44.23
	Cost of 100 letters of 15 cm height				4467.05
	Cost per letter per cm height				2.98
	Say				3.00

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	2.00	1.04
9999	Putty etc.	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc.	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				541.60 W
	Add 1 % Water charges on "W"				5.42
	TOTAL				547.02 X
	Add GST on "X" (multiplying factor 0.1405)				76.86
	TOTAL				623.87 Y
	Add 15% CPOH on "Y"				93.58
	TOTAL				717.45 Z
	Add Cess @ 1% on "Z"				7.17
	Cost of 10.00 sqm				724.63
	Cost of 1sqm				72.46
	Say				72.45

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	2.00	16.12
	TOTAL				56.12 W
	Add 1 % Water charges on "W"				0.56
	TOTAL				56.68 X
	Add GST on "X" (multiplying factor 0.1405)				7.96
	TOTAL				64.64 Y
	Add 15% CPOH on "Y"				9.70
	TOTAL				74.34 Z
	Add Cess @ 1% on "Z"				0.74
	Cost of each				75.09
	Say				75.10

13.107.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1315	Detail of cost for 1 no. MATERIAL 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	2.00	16.12
	TOTAL				56.12 W
	Add 1 % Water charges on "W"				0.56
	TOTAL				56.68 X
	Add GST on "X" (multiplying factor 0.1405)				7.96
	TOTAL				64.64 Y
	Add 15% CPOH on "Y"				9.70
	TOTAL				74.34 Z
	Add Cess @ 1% on "Z"				0.74
	Cost of each				75.09
	Say				75.10

13.108 Distemping 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 ₹
0816	Detail of cost for 10 sqm MATERIAL 1st quality Acrylic distemper(Ready mix) having VOC content less than 50 grams/ litre distemper	kilogram	1.00	50.00	50.00
9999	Brushes, putty etc	L.S.	0.52	2.00	1.04
9988	Sundries including carriage of material	L.S.	10.76	2.00	21.52
	LABOUR				
0131	Painter	day	0.22	679.00	149.38
0114	Beldar	day	0.22	558.00	122.76
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				359.00 W
	Add 1 % Water charges on "W"				3.59
	TOTAL				362.59 X
	Add GST on "X" (multiplying factor 0.1405)				50.94
	TOTAL				413.53 Y
	Add 15% CPOH on "Y"				62.03
	TOTAL				475.56 Z
	Add Cess @ 1% on "Z"				4.76
	Cost of 10.00 sqm				480.32
	Cost of 1.00 sqm				48.03
	Say				48.05

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 litres/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	79.00	63.20
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.46	679.00	312.34
0115	Coolie	day	0.23	558.00	128.34
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				651.87 W
	Add 1 % Water charges on "W"				6.52
	TOTAL				658.39 X
	Add GST on "X" (multiplying factor 0.1405)				92.50
	TOTAL				750.89 Y
	Add 15% CPOH on "Y"				112.63
	TOTAL				863.53 Z
	Add Cess @ 1% on "Z"				8.64
	Cost of 10.00 sqm				872.16
	Cost of 1.00 sqm				87.22
	Say				87.20

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	2.00	2.20
	LABOUR				
0131	Painter	day	0.35	679.00	237.65
0115	Coolie	day	0.12	558.00	66.96
0101	Bhisti	day	0.05	617.00	30.85
9999	Brushes, sand paper etc	L.S.	3.15	2.00	6.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				443.68 W
	Add 1 % Water charges on "W"				4.44
	TOTAL				448.12 X
	Add GST on "X" (multiplying factor 0.1405)				62.96
	TOTAL				511.08 Y
	Add 15% CPOH on "Y"				76.66
	TOTAL				587.74 Z
	Add Cess @ 1% on "Z"				5.88
	Cost of 10.00 sqm				593.62
	Cost of 1.00 sqm				59.36
	Say				59.35

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	240.00	787.20
9977	Carriage of material	L.S.	1.56	2.00	3.12
	LABOUR				
0131	Painter	day	0.46	679.00	312.34
0115	Coolie	day	0.23	558.00	128.34
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1261.42 W
	Add 1 % Water charges on "W"				12.61
	TOTAL				1274.03 X
	Add GST on "X" (multiplying factor 0.1405)				179.00
	TOTAL				1453.04 Y
	Add 15% CPOH on "Y"				217.96
	TOTAL				1670.99 Z
	Add Cess @ 1% on "Z"				16.71
	Cost of 10.00 sqm				1687.70
	Cost of 1.00 sqm				168.77
	Say				168.75

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	240.00	436.80
9977	Carriage of material	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.33	679.00	224.07
0115	Coolie	day	0.17	558.00	94.86
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				787.19 W
	Add 1 % Water charges on "W"				7.87
	TOTAL				795.06 X
	Add GST on "X" (multiplying factor 0.1405)				111.71
	TOTAL				906.77 Y
	Add 15% CPOH on "Y"				136.02
	TOTAL				1042.78 Z
	Add Cess @ 1% on "Z"				10.43
	Cost of 10.00 sqm				1053.21
	Cost of 1.00 sqm				105.32
	Say				105.30

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	170.00	283.90
9977	Carriage of material	L.S.	0.91	2.00	1.82
	LABOUR				
0131	Painter	day	0.46	679.00	312.34
0115	Coolie	day	0.23	558.00	128.34
9999	Brushes, sand paper etc	L.S.	4.81	2.00	9.62
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				746.68 W
	Add 1 % Water charges on "W"				7.47
	TOTAL				754.15 X
	Add GST on "X" (multiplying factor 0.1405)				105.96
	TOTAL				860.10 Y
	Add 15% CPOH on "Y"				129.02
	TOTAL				989.12 Z
	Add Cess @ 1% on "Z"				9.89
	Cost of 10.00 sqm				999.01
	Cost of 1.00 sqm				99.90
	Say				99.90

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	170.00	153.00
9977	Carriage of material	L.S.	0.52	2.00	1.04
	LABOUR				
0131	Painter	day	0.33	679.00	224.07
0115	Coolie	day	0.17	558.00	94.86
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				503.39 W
	Add 1 % Water charges on "W"				5.03
	TOTAL				508.42 X
	Add GST on "X" (multiplying factor 0.1405)				71.43
	TOTAL				579.86 Y
	Add 15% CPOH on "Y"				86.98
	TOTAL				666.84 Z
	Add Cess @ 1% on "Z"				6.67
	Cost of 10.00 sqm				673.50
	Cost of 1.00 sqm				67.35
	Say				67.35

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	180.00	257.40
9977	Carriage of material	L.S.	1.04	2.00	2.08
	LABOUR				
0131	Painter	day	0.46	679.00	312.34
0115	Coolie	day	0.23	558.00	128.34
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				730.58 W
	Add 1 % Water charges on "W"				7.31
	TOTAL				737.89 X
	Add GST on "X" (multiplying factor 0.1405)				103.67
	TOTAL				841.56 Y
	Add 15% CPOH on "Y"				126.23
	TOTAL				967.79 Z
	Add Cess @ 1% on "Z"				9.68
	Cost of 10.00 sqm				977.47
	Cost of 1.00 sqm				97.75
	Say				97.75

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	180.00	149.40
9977	Carriage of material	L.S.	0.91	2.00	1.82
	LABOUR				
0131	Painter	day	0.33	679.00	224.07
0115	Coolie	day	0.17	558.00	94.86
9999	Brushes, sand paper etc	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				500.57 W
	Add 1 % Water charges on "W"				5.01
	TOTAL				505.58 X
	Add GST on "X" (multiplying factor 0.1405)				71.03
	TOTAL				576.61 Y
	Add 15% CPOH on "Y"				86.49
	TOTAL				663.10 Z
	Add Cess @ 1% on "Z"				6.63
	Cost of 10.00 sqm				669.73
	Cost of 1.00 sqm				66.97
	Say				66.95

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	2.00	1.04
9999	Repair to the surface	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				548.44 W
	Add 1 % Water charges on "W"				5.48
	TOTAL				553.92 X
	Add GST on "X" (multiplying factor 0.1405)				77.83
	TOTAL				631.75 Y
	Add 15% CPOH on "Y"				94.76
	TOTAL				726.51 Z
	Add Cess @ 1% on "Z"				7.27
	Cost of 10.00 sqm				733.78
	Cost of 1.00 sqm				73.38
	Say				73.40

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	2.00	1.04
9999	Repair etc	L.S.	2.73	2.00	5.46
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
9999	Brushes, sand paper etc	L.S.	2.73	2.00	5.46
9999	Sundries	L.S.	4.16	2.00	8.32
	TOTAL				551.85 W
	Add 1 % Water charges on "W"				5.52
	TOTAL				557.37 X
	Add GST on "X" (multiplying factor 0.1405)				78.31
	TOTAL				635.68 Y
	Add 15% CPOH on "Y"				95.35
	TOTAL				731.03 Z
	Add Cess @ 1% on "Z"				7.31
	Cost of 10.00 sqm				738.34
	Cost of 1.00 sqm				73.83
	Say				73.85

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	280.00	182.00
0006	Hire charges of Spraying machine including electric charges	day	0.78	250.00	195.00
9988	Carriage charge of Machine & Marerial LABOUR	L.S.	4.42	2.00	8.84
0131	Painter	day	0.35	679.00	237.65
0114	Beldar	day	0.35	558.00	195.30
9999	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				827.63 W
	Add 1 % Water charges on "W"				8.28
	TOTAL				835.91 X
	Add GST on "X" (multiplying factor 0.1405)				117.44
	TOTAL				953.35 Y
	Add 15% CPOH on "Y"				143.00
	TOTAL				1096.35 Z
	Add Cess @ 1% on "Z"				10.96
	Cost of 10.00 sqm				1107.32
	Cost of 1.00 sqm				110.73
	Say				110.75

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	2.00	5.46
9977	Carriage	L.S.	1.82	2.00	3.64
9999	Painting brushes, turpentine, stencil etc	L.S.	24.18	2.00	48.36
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0115	Coolie	day	0.36	558.00	200.88
	TOTAL				572.78 W
	Add 1 % Water charges on "W"				5.73
	TOTAL				578.51 X
	Add GST on "X" (multiplying factor 0.1405)				81.28
	TOTAL				659.79 Y
	Add 15% CPOH on "Y"				98.97
	TOTAL				758.76 Z
	Add Cess @ 1% on "Z"				7.59
	Cost of 10.00 sqm				766.34
	Cost of 1.00 sqm				76.63
	Say				76.65

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 ₹
3.4	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 fine sand) Rate as per Item Number 3.4 of SH: Mortars	cum	0.183	3528.85	645.78
	LABOUR				
0155	Mason (average)	day	1.21	709.00	857.89
0115	Coolie	day	1.29	558.00	719.82
0114	Beldar	day	0.54	558.00	301.32
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	15.21	2.00	30.42
	TOTAL				3122.87 W
	Add 1 % Water charges on "W"				31.23
	TOTAL				3154.10 X
	Add GST on "X" (multiplying factor 0.1405)				443.15
	TOTAL				3597.25 Y
	Add 15% CPOH on "Y"				539.59
	TOTAL				4136.84 Z
	Add Cess @ 1% on "Z"				41.37
	Cost of 10.00 sqm				4178.20
	Cost of 1.00 sqm				417.82
	Say				417.80

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.9	Detail of cost for 10 sqm MATERIAL Cement mortar 1 : 4 (1 cement : 4 coarse sand) Rate as per Item Number 3.9 of SH: Mortars	cum	0.183	4010.35	733.89
	LABOUR				
0155	Mason (average)	day	1.21	709.00	857.89
0115	Coolie	day	1.29	558.00	719.82
0114	Beldar	day	0.54	558.00	301.32
0101	Bhisti	day	0.92	617.00	567.64

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	15.21	2.00	30.42
	TOTAL				3210.98 W
	Add 1 % Water charges on "W"				32.11
	TOTAL				3243.09 X
	Add GST on "X" (multiplying factor 0.1405)				455.65
	TOTAL				3698.75 Y
	Add 15% CPOH on "Y"				554.81
	TOTAL				4253.56 Z
	Add Cess @ 1% on "Z"				42.54
	Cost of 10.00 sqm				4296.10
	Cost of 1.00 sqm				429.61
	Say				429.60

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 ₹
0295	Detail of cost for each Stone Aggregate (Single size) : 20 mm nominal size	cum	0.021	1350.00	28.35
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	103.77	2.93
0982	Coarse sand (zone III)	cum	0.0141	1350.00	19.04
2203	Carriage of Coarse sand	cum	0.0141	103.77	1.46
0367	Portland Cement (OPC-43 grade)	tonne	0.0066	4940.00	32.60
2209	Carriage of Cement	tonne	0.0066	92.24	0.61
0114	Beldar	day	0.027	558.00	15.07
0115	Coolie	day	0.0195	558.00	10.88
0130	Mistry	day	0.0084	738.00	6.20
0123	Mason (brick layer) 1st class	day	0.0018	738.00	1.33
0124	Mason (brick layer) 2nd class	day	0.0018	679.00	1.22
0128	Mate	day	0.0012	617.00	0.74
9999	Scaffolding	L.S.	1.43	2.00	2.86
9999	Hire and running charges of mechanical mixer	L.S.	0.78	2.00	1.56
9999	Sundries	L.S.	0.39	2.00	0.78
3.6	Cement mortar 1 : 6 (1 cement : 6 fine sand) Rate as per Item Number 3.6 of SH: Mortars	cum	0.01	2874.65	28.75

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.18	2.00	48.36
9999	Painting two coats of coaltar	L.S.	13.52	2.00	27.04
9999	Disposal of mulba	L.S.	1.82	2.00	3.64
0155	Mason (average)	day	0.50	709.00	354.50
0114	Beldar	day	0.75	558.00	418.50
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				1021.59 W
	Add 1 % Water charges on "W"				10.22
	TOTAL				1031.81 X
	Add GST on "X" (multiplying factor 0.1405)				144.97
	TOTAL				1176.78 Y
	Add 15% CPOH on "Y"				176.52
	TOTAL				1353.29 Z
	Add Cess @ 1% on "Z"				13.53
	Cost of each				1366.83
	Say				1366.85

14.2.2 Window chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0295	Detail of cost for each Stone Aggregate (Single size) : 20 mm nominal size	cum	0.014	1350.00	18.90
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	103.77	1.95
0982	Coarse sand (zone III)	cum	0.0094	1350.00	12.69
2203	Carriage of Coarse sand	cum	0.0094	103.77	0.98
0367	Portland Cement (OPC-43 grade)	tonne	0.0044	4940.00	21.74
2209	Carriage of Cement	tonne	0.0044	92.24	0.41
0114	Beldar	day	0.018	558.00	10.04
0115	Coolie	day	0.013	558.00	7.25
0130	Mistry	day	0.0056	738.00	4.13
0123	Mason (brick layer) 1st class	day	0.0012	738.00	0.89
0124	Mason (brick layer) 2nd class	day	0.0012	679.00	0.81
0128	Mate	day	0.0008	617.00	0.49
9999	Scaffolding and sundries	L.S.	0.91	2.00	1.82
9999	Hire and running charges of mechanical mixer	L.S.	0.52	2.00	1.04
9999	Sundries	L.S.	0.26	2.00	0.52
	Cement mortar 1 : 6 (1 cement : 6 fine sand)				
3.6	Rate as per Item Number 3.6 of SH: Mortars	cum	0.006	2874.65	17.25
9999	Cement concrete 1:2:4	L.S.	9.88	2.00	19.76
9999	Painting two coats of coaltar	L.S.	0.91	2.00	1.82
0155	Mason (average)	day	0.33	709.00	233.97

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				641.94 W
	Add 1 % Water charges on "W"				6.42
	TOTAL				648.36 X
	Add GST on "X" (multiplying factor 0.1405)				91.09
	TOTAL				739.45 Y
	Add 15% CPOH on "Y"				110.92
	TOTAL				850.37 Z
	Add Cess @ 1% on "Z"				8.50
	Cost of each				858.88
	Say				858.90

14.2.3 Clerestory window chowkhats

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0295	Detail of cost for each Stone Aggregate (Single size) : 20 mm nominal size	cum	0.007	1350.00	9.45
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	103.77	0.98
0982	Coarse sand (zone III)	cum	0.0047	1350.00	6.35
2203	Carriage of Coarse sand	cum	0.0047	103.77	0.49
0367	Portland Cement (OPC-43 grade)	tonne	0.0022	4940.00	10.87
2209	Carriage of Cement	tonne	0.0022	92.24	0.20
0114	Beldar	day	0.009	558.00	5.02
0115	Coolie	day	0.0065	558.00	3.63
0130	Mistry	day	0.0028	738.00	2.07
0123	Mason (brick layer) 1st class	day	0.0006	738.00	0.44
0124	Mason (brick layer) 2nd class	day	0.0006	679.00	0.41
0128	Mate	day	0.0004	617.00	0.25
9999	Scaffolding and sundries	L.S.	0.52	2.00	1.04
9999	Hire and running charges of mechanical mixer	L.S.	0.26	2.00	0.52
9999	Sundries	L.S.	0.13	2.00	0.26
3.6	Cement mortar 1 : 6 (1 cement : 6 fine sand) Rate as per Item Number 3.6 of SH: Mortars	cum	0.003	2874.65	8.62
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	8.06	2.00	16.12
9999	Painting two coats of coaltar	L.S.	0.91	2.00	1.82
0155	Mason (average)	day	0.17	709.00	120.53
0114	Beldar	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				476.76 W
	Add 1 % Water charges on "W"				4.77
	TOTAL				481.52 X
	Add GST on "X" (multiplying factor 0.1405)				67.65
	TOTAL				549.18 Y
	Add 15% CPOH on "Y"				82.38
	TOTAL				631.55 Z
	Add Cess @ 1% on "Z"				6.32
	Cost of each				637.87
	Say				637.85

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	558.00	15.07
0115	Coolie	day	0.0195	558.00	10.88
0130	Mistry	day	0.0084	738.00	6.20
0128	Mate	day	0.0012	617.00	0.74
9999	Disposal of mulba	L.S.	1.82	2.00	3.64
7019	Dash fastner/ chemical fastener	each	6.00	14.00	84.00
9999	Hire charges of drill machine hire charges, Scaffolding and Sundries	L.S.	12.22	2.00	24.44
	TOTAL				144.97 W
	Add 1 % Water charges on "W"				1.45
	TOTAL				146.42 X
	Add GST on "X" (multiplying factor 0.1405)				20.57
	TOTAL				166.99 Y
	Add 15% CPOH on "Y"				25.05
	TOTAL				192.04 Z
	Add Cess @ 1% on "Z"				1.92
	Cost of each				193.96
	Say				193.95

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 ₹
3.6	Cement mortar 1:6 (1 cement: 6 fine sand) Rate as per Item Number 3.6 of SH: Mortars	cum	0.01	2874.65	28.75
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.57	2.00	49.14
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.20	558.00	669.60
0115	Coolie	day	0.40	558.00	223.20
9999	Scaffolding and Sundries	L.S.	3.50	2.00	7.00
	TOTAL				1317.19 W
	Add 1 % Water charges on "W"				13.17
	TOTAL				1330.36 X
	Add GST on "X" (multiplying factor 0.1405)				186.92
	TOTAL				1517.27 Y
	Add 15% CPOH on "Y"				227.59
	TOTAL				1744.86 Z
	Add Cess @ 1% on "Z"				17.45
	Cost of 1.89sqm.				1762.31
	Cost of 1.00 sqm.				932.44
	Say				932.45

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 ₹
2406	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL 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	300.00	330.00
9988	Carriage including sundries	L.S.	1.82	2.00	3.64
0863	Putty for wood work	kilogram	0.68	30.00	20.40
9999	Painting or varnishing or beewaxing	L.S.	5.33	2.00	10.66
9999	Sundries Nails etc.	L.S.	6.76	2.00	13.52
0119	Glazier	day	0.23	679.00	156.17
0114	Beldar	day	0.23	558.00	128.34
9999	Sundries such as Rag, cotton etc	L.S.	1.43	2.00	2.86
	TOTAL				665.59 W
	Add 1 % Water charges on "W"				6.66
	TOTAL				672.25 X
	Add GST on "X" (multiplying factor 0.1405)				94.45
	TOTAL				766.70 Y
	Add 15% CPOH on "Y"				115.00
	TOTAL				881.70 Z
	Add Cess @ 1% on "Z"				8.82
	Cost of 1.00 sqm				890.52
	Say				890.50

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2407	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL 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	500.00	550.00
9988	Carriage including sundries	L.S.	1.82	2.00	3.64
0863	Putty for wood work	kilogram	0.68	30.00	20.40
9999	Painting or varnishing or beewaxing	L.S.	5.33	2.00	10.66
9999	Sundries Nails etc.	L.S.	6.76	2.00	13.52
0119	Glazier	day	0.23	679.00	156.17
0114	Beldar	day	0.23	558.00	128.34
9999	Sundries such as Rag, cotton etc	L.S.	1.43	2.00	2.86
	TOTAL				885.59 W
	Add 1 % Water charges on "W"				8.86
	TOTAL				894.45 X
	Add GST on "X" (multiplying factor 0.1405)				125.67
	TOTAL				1020.12 Y
	Add 15% CPOH on "Y"				153.02
	TOTAL				1173.13 Z
	Add Cess @ 1% on "Z"				11.73
	Cost of 1.00 sqm				1184.86
	Say				1184.85

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 ₹
2406	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL 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	300.00	330.00
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	2.00	8.84
9999	Sundries Nails etc.	L.S.	2.73	2.00	5.46
0112	Carpenter 2nd class	day	0.20	679.00	135.80
0119	Glazier	day	0.25	679.00	169.75
0114	Beldar	day	0.45	558.00	251.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries such as Rag, cotton etc	L.S.	1.82	2.00	3.64
	TOTAL				943.99 W
	Add 1 % Water charges on "W"				9.44
	TOTAL				953.43 X
	Add GST on "X" (multiplying factor 0.1405)				133.96
	TOTAL				1087.39 Y
	Add 15% CPOH on "Y"				163.11
	TOTAL				1250.49 Z
	Add Cess @ 1% on "Z"				12.50
	Cost of 1.00 sqm				1263.00
	Say				1263.00

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2407	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL 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	500.00	550.00
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	2.00	8.84
9999	Sundries Nails etc.	L.S.	2.73	2.00	5.46
0112	Carpenter 2nd class	day	0.20	679.00	135.80
0119	Glazier	day	0.25	679.00	169.75
0114	Beldar	day	0.45	558.00	251.10
9999	Sundries such as Rag, cotton etc	L.S.	1.82	2.00	3.64
	TOTAL				1163.99 W
	Add 1 % Water charges on "W"				11.64
	TOTAL				1175.63 X
	Add GST on "X" (multiplying factor 0.1405)				165.18
	TOTAL				1340.81 Y
	Add 15% CPOH on "Y"				201.12
	TOTAL				1541.93 Z
	Add Cess @ 1% on "Z"				15.42
	Cost of 1.00 sqm				1557.35
	Say				1557.35

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 ₹
2406	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL 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	300.00	330.00
9977	Carriage of glasspanes and other materials	L.S.	2.73	2.00	5.46
9999	Sundries Nails etc.	L.S.	9.88	2.00	19.76
9999	Methylated spirit	L.S.	5.33	2.00	10.66
0119	Glazier	day	0.30	679.00	203.70
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				739.84 W
	Add 1 % Water charges on "W"				7.40
	TOTAL				747.24 X
	Add GST on "X" (multiplying factor 0.1405)				104.99
	TOTAL				852.23 Y
	Add 15% CPOH on "Y"				127.83
	TOTAL				980.06 Z
	Add Cess @ 1% on "Z"				9.80
	Cost of 1.00 sqm				989.86
	Say				989.85

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2407	Detail of cost for 10 glasses area each 0.1sqm. MATERIAL 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	500.00	550.00
9977	Carriage of glasspanes and other materials	L.S.	2.73	2.00	5.46
9999	Sundries Nails etc.	L.S.	9.88	2.00	19.76
9999	Methylated spirit	L.S.	5.33	2.00	10.66
0119	Glazier	day	0.30	679.00	203.70
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				959.84 W
	Add 1 % Water charges on "W"				9.60
	TOTAL				969.44 X
	Add GST on "X" (multiplying factor 0.1405)				136.21
	TOTAL				1105.64 Y
	Add 15% CPOH on "Y"				165.85
	TOTAL				1271.49 Z
	Add Cess @ 1% on "Z"				12.71
	Cost of 1.00 sqm				1284.21
	Say				1284.20

14.8 Supplying and fixing new wooden fillets wherever necessary:
14.8.1 2nd class teak wood fillets

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1190	Details of cost for 10 metres length MATERIAL Second class teak wood in planks 10.00x0.01x0.01 = 1.00 cu dm Add 15% wastage = 0.15 cu dm Total = 1.15 cu dm	10 cu dm	0.115	791.00	90.97
9999	Nails LABOUR	L.S.	26.91	2.00	53.82
0112	Carpenter 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				459.50 W
	Add 1 % Water charges on "W"				4.59
	TOTAL				464.09 X
	Add GST on "X" (multiplying factor 0.1405)				65.20
	TOTAL				529.29 Y
	Add 15% CPOH on "Y"				79.39
	TOTAL				608.69 Z
	Add Cess @ 1% on "Z"				6.09
	Cost of 10.00 metre				614.78
	Cost of 1.00 metre				61.48
	Say				61.50

14.8.2 Hollock wood fillets

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2466	Details of cost for 10 metres length MATERIAL Hollock wood in scantling 10.00x0.01x0.01 = 1.00 cu dm Add 15% wastage = 0.15 cu dm Total = 1.15 cu dm	10 cu dm	0.115	350.00	40.25
9999	Nails LABOUR	L.S.	26.91	2.00	53.82
0112	Carpenter 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				408.78 W
	Add 1 % Water charges on "W"				4.09
	TOTAL				412.87 X
	Add GST on "X" (multiplying factor 0.1405)				58.01
	TOTAL				470.88 Y
	Add 15% CPOH on "Y"				70.63
	TOTAL				541.51 Z
	Add Cess @ 1% on "Z"				5.42
	Cost of 10.00 metre				546.92
	Cost of 1.00 metre				54.69
	Say				54.70

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	30.00	20.40
9999	Nails	L.S.	7.15	2.00	14.30
9999	Spirit	L.S.	2.73	2.00	5.46
	LABOUR				
0112	Carpenter 2nd class	day	0.30	679.00	203.70
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				414.12 W
	Add 1 % Water charges on "W"				4.14
	TOTAL				418.26 X
	Add GST on "X" (multiplying factor 0.1405)				58.77
	TOTAL				477.03 Y
	Add 15% CPOH on "Y"				71.55
	TOTAL				548.58 Z
	Add Cess @ 1% on "Z"				5.49
	Cost of 13.00 metres				554.07
	Cost of 1.00 metre				42.62
	Say				42.60

14.10 Refixing old glass panes with putty and nails

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 sqm				
	MATERIAL				
0863	Putty for wood work	kilogram	0.68	30.00	20.40
9999	Spirit	L.S.	2.73	2.00	5.46
9999	Nails	L.S.	7.15	2.00	14.30
	LABOUR				
0119	Glazier	day	0.30	679.00	203.70
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				414.12 W
	Add 1 % Water charges on "W"				4.14
	TOTAL				418.26 X
	Add GST on "X" (multiplying factor 0.1405)				58.77
	TOTAL				477.03 Y
	Add 15% CPOH on "Y"				71.55
	TOTAL				548.58 Z
	Add Cess @ 1% on "Z"				5.49
	Add 15 % Contractor's profit and overheads				554.07
	Cost of 1.00 sqm				554.07
	Say				554.05

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	679.00	203.70
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	1.43	2.00	2.86
9999	Nails	L.S.	3.90	2.00	7.80
	TOTAL				381.76 W
	Add 1 % Water charges on "W"				3.82
	TOTAL				385.58 X
	Add GST on "X" (multiplying factor 0.1405)				54.17
	TOTAL				439.75 Y
	Add 15% CPOH on "Y"				65.96
	TOTAL				505.71 Z
	Add Cess @ 1% on "Z"				5.06
	Cost of 1.00 sqm				510.77
	Say				510.75

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				
1003	M.S.bar 16mm dia = 40cm (including wastage) @ 1.58 kg/m = 0.632 kg	quintal	0.00632	4400.00	27.81
9999	Mild steel round bar above 12 mm dia				
	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	2.00	27.04
9999	Painting two or more coats to exposed portion of the clamp including priming coat	L.S.	7.15	2.00	14.30
	Labour for fixing				
0102	Blacksmith 1st class	day	0.03	738.00	22.14
0124	Mason (brick layer) 2nd class	day	0.12	679.00	81.48
0114	Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				317.73 W
	Add 1 % Water charges on "W"				3.18
	TOTAL				320.91 X
	Add GST on "X" (multiplying factor 0.1405)				45.09
	TOTAL				365.99 Y
	Add 15% CPOH on "Y"				54.90
	TOTAL				420.89 Z
	Add Cess @ 1% on "Z"				4.21
	Cost of each				425.10
	Say				425.10

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	709.00	382.86
0114	Beldar	day	0.54	558.00	301.32
	(ii) Preparing the surface, for mud phuska to proper slope, relaying mud plaster gobri leaping.				
0155	Mason (average)	day	0.27	709.00	191.43
	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	737.00	176.88
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	737.00	88.44
	LABOUR				
0114	Beldar	day	0.25	558.00	139.50
	(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	4183.05	255.17
	LABOUR				
0155	Mason (average)	day	1.20	709.00	850.80
0114	Beldar	day	1.50	558.00	837.00
0101	Bhisti	day	1.00	617.00	617.00
9999	Disposal of mulba	L.S.	5.33	2.00	10.66
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				3898.52 W
	Add 1 % Water charges on "W"				38.99
	TOTAL				3937.50 X
	Add GST on "X" (multiplying factor 0.1405)				553.22
	TOTAL				4490.72 Y
	Add 15% CPOH on "Y"				673.61
	TOTAL				5164.33 Z
	Add Cess @ 1% on "Z"				51.64
	Cost of 10.00 sqm				5215.97
	Cost of 1.00 sqm				521.60
	Say				521.60

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	558.00	493.83
0115	Coolie	day	0.375	558.00	209.25
9999	Sundries	L.S.	4.03	2.00	8.06
9999	Cleaning the surface including necessary repairs	L.S.	40.43	2.00	80.86
1174	Red sand stone slab 45 mm and 50 mm thick (un-dressed)	sqm	11.00	225.00	2475.00
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	1.41	92.24	130.06
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per Item Number 3.9 of SH: Mortars	cum	0.0105	4010.35	42.11
	Cement mortar 1 : 3 (1 cement : 3 fine sand)				
3.3	Rate as per Item Number 3.3 of SH: Mortars	cum	0.0075	4183.05	31.37
0155	Mason (average)	day	1.69	709.00	1198.21
0100	Bandhani	day	2.03	617.00	1252.51
0115	Coolie	day	1.69	558.00	943.02
0101	Bhisti	day	0.34	617.00	209.78
9999	Sundries	L.S.	16.12	2.00	32.24
2264	Carriage of Rubbish	cum	0.50	103.77	51.89
	TOTAL				7158.18 W
	Add 1 % Water charges on "W"				71.58
	TOTAL				7229.77 X
	Add GST on "X" (multiplying factor 0.1405)				1015.78
	TOTAL				8245.55 Y
	Add 15% CPOH on "Y"				1236.83
	TOTAL				9482.38 Z
	Add Cess @ 1% on "Z"				94.82
	Cost of 10.00 sqm				9577.21
	Cost of 1.00 sqm				957.72
	Say				957.70

- 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	cum	0.306	118.59	36.29
	LABOUR				
	Taking out the existing battens and refixing new one including supporting the roof				
0112	Carpenter 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	2.00	558.00	1116.00
9999	Disposal of mulba	L.S.	5.33	2.00	10.66
9999	Making good the holes including sundries	L.S.	80.73	2.00	161.46
0859	Oil type wood preservative	litre	1.22	130.00	158.60
0131	Painter	day	0.183	679.00	124.26
0115	Coolie	day	0.183	558.00	102.11
9977	Carriage	L.S.	0.78	2.00	1.56
9999	Brushes	L.S.	5.07	2.00	10.14
9999	Sundries	L.S.	4.81	2.00	9.62
	TOTAL				20430.20 W
	Add 1 % Water charges on "W"				204.30
	TOTAL				20634.50 X
	Add GST on "X" (multiplying factor 0.1405)				2899.15
	TOTAL				23533.65 Y
	Add 15% CPOH on "Y"				3530.05
	TOTAL				27063.70 Z
	Add Cess @ 1% on "Z"				270.64
	Cost of 300 Cudm				27334.33
	Cost of 1.00 cum				91114.43
	Say				91114.45

- 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 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	0.0228	118.59	2.70
	LABOUR				
0112	Carpenter 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
	(ii) Taking out the existing beams etc. LABOUR				
0155	Mason (average)	day	0.13	709.00	92.17
0100	Bandhani	day	0.50	617.00	308.50
0114	Beldar	day	0.33	558.00	184.14
	(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	118.59	36.29
0112	Carpenter 2nd class	day	1.00	679.00	679.00
0100	Bandhani	day	0.50	617.00	308.50
0114	Beldar	day	1.00	558.00	558.00
	Painting with oil preservative (4x1.1) +(2.0x0.25x0.30) =4.4 + 0.15= 4.55 sqm @ 1 litre/ 10m ² = 0.455 litre				
0859	Oil type wood preservative	litre	0.455	130.00	59.15
0131	Painter	day	0.07	679.00	47.53
0115	Coolie	day	0.07	558.00	39.06
9999	Sundries	L.S.	0.13	2.00	0.26
9977	Carriage	L.S.	1.82	2.00	3.64
9999	Brushes	L.S.	1.82	2.00	3.64
9999	Making good the holes	L.S.	20.67	2.00	41.34
9999	Sundries	L.S.	26.91	2.00	53.82
0302	Safeda ballies 125 mm diameter	metre	2.50	40.00	100.00
	TOTAL				21374.49 W
	Add 1 % Water charges on "W"				213.74
	TOTAL				21588.24 X
	Add GST on "X" (multiplying factor 0.1405)				3033.15
	TOTAL				24621.38 Y
	Add 15% CPOH on "Y"				3693.21
	TOTAL				28314.59 Z
	Add Cess @ 1% on "Z"				283.15
	Cost of 300 Cudm				28597.74
	Cost of 1.00 cum				95325.80
	Say				95325.80

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 salwood 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	350.00	109.38
2204	Carriage of Timber	cum	0.0228	118.59	2.70
	LABOUR				
0112	Carpenter 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
	(ii) Taking out the existing beams etc. LABOUR				
0155	Mason (average)	day	0.13	709.00	92.17
0100	Bandhani	day	0.50	617.00	308.50
0114	Beldar	day	0.33	558.00	184.14
	(iii) Renewal Materials and Labour				
2466	Hollock wood in scantling	10 cudm	30.60	350.00	10710.00
2204	Carriage of Timber	cum	0.306	118.59	36.29
0112	Carpenter 2nd class	day	1.00	679.00	679.00
0100	Bandhani	day	0.50	617.00	308.50
0114	Beldar	day	1.00	558.00	558.00
	Painting with oil preservative (4x1.1) + (2.0x0.25x0.30) = 4.4 + 0.15= 4.55 sqm @ 1 litre/ 10m ² = 0.455 litre				
0859	Oil type wood preservative	litre	0.455	130.00	59.15
0131	Painter	day	0.07	679.00	47.53
0115	Coolie	day	0.07	558.00	39.06
9999	Sundries	L.S.	0.13	2.00	0.26
9977	Carriage	L.S.	1.82	2.00	3.64
9999	Brushes	L.S.	1.82	2.00	3.64
9999	Making good the holes	L.S.	20.67	2.00	41.34
9999	Sundries	L.S.	26.91	2.00	53.82
0302	Safeda ballies 125 mm diameter	metre	2.50	40.00	100.00
	TOTAL				13646.37 W
	Add 1 % Water charges on "W"				136.46
	TOTAL				13782.83 X
	Add GST on "X" (multiplying factor 0.1405)				1936.49
	TOTAL				15719.32 Y
	Add 15% CPOH on "Y"				2357.90
	TOTAL				18077.22 Z
	Add Cess @ 1% on "Z"				180.77
	Cost of 300 Cudm				18257.99
	Cost of 1.00 cum				60859.97
	Say				60859.95

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	0.0498	118.59	5.91
	LABOUR				
0112	Carpenter 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
	(ii) Taking out the existing beams etc. LABOUR				
0155	Mason (average)	day	0.25	709.00	177.25
0100	Bandhani	day	0.63	617.00	388.71
0114	Beldar	day	0.50	558.00	279.00
	(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	118.59	45.42
0112	Carpenter 2nd class	day	1.00	679.00	679.00
0100	Bandhani	day	1.00	617.00	617.00
0114	Beldar	day	2.00	558.00	1116.00
	Painting with oil preservative (2x5x0.25)+3.0 + 2.0x0.25x0.30 = 5.5 + 0.15 = 5.65 sqm @ 1 litre/ 10m ² = 0.565 litre				
0859	Oil type wood preservative	litre	0.565	130.00	73.45
0131	Painter	day	0.08	679.00	54.32
0115	Coolie	day	0.08	558.00	44.64
9999	Sundries	L.S.	0.26	2.00	0.52
9977	Carriage	L.S.	2.34	2.00	4.68
9999	Brushes	L.S.	2.21	2.00	4.42
9999	Making good the holes	L.S.	20.67	2.00	41.34
9999	Sundries	L.S.	33.15	2.00	66.30
0302	Safeda ballies 125 mm diameter	metre	3.75	40.00	150.00
	TOTAL				27262.21 W
	Add 1 % Water charges on "W"				272.62
	TOTAL				27534.83 X
	Add GST on "X" (multiplying factor 0.1405)				3868.64
	TOTAL				31403.47 Y
	Add 15% CPOH on "Y"				4710.52
	TOTAL				36113.99 Z
	Add Cess @ 1% on "Z"				361.14
	Cost of 375 Cudm				36475.13
	Cost of 1.00 cum				97267.01
	Say				97267.00

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 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				
2466	Hollock wood in scantling	10 cudm	0.375	350.00	131.25
2204	Carriage of Timber	cum	0.0375	118.59	4.45
	LABOUR				
0112	Carpenter 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
	(ii) Taking out the existing beams etc. LABOUR				
0155	Mason (average)	day	0.25	709.00	177.25
0100	Bandhani	day	0.63	617.00	388.71
0114	Beldar	day	0.50	558.00	279.00
	(iii) Renewal Materials and Labour				
2466	Hollock wood in scantling	10 cudm	38.30	350.00	13405.00
2204	Carriage of Timber	cum	0.383	118.59	45.42
0112	Carpenter 2nd class	day	1.00	679.00	679.00
0100	Bandhani	day	1.00	617.00	617.00
0114	Beldar	day	2.00	558.00	1116.00
	Painting with oil preservative (2x5x0.25)+3.0 + 2.0x0.25x0.30= 5.5 + 0.15 = 5.65 sqm @ 1 litre/ 10m ² = 0.565 litre				
0859	Oil type wood preservative	litre	0.565	130.00	73.45
0131	Painter	day	0.08	679.00	54.32
0115	Coolie	day	0.08	558.00	44.64
9999	Sundries	L.S.	0.26	2.00	0.52
9977	Carriage	L.S.	2.34	2.00	4.68
9999	Brushes	L.S.	2.21	2.00	4.42
9999	Making good the holes	L.S.	20.67	2.00	41.34
9999	Sundries	L.S.	33.15	2.00	66.30
0302	Safeda ballies 125 mm diameter	metre	3.75	40.00	150.00
	TOTAL				17592.00 W
	Add 1 % Water charges on "W"				175.92
	TOTAL				17767.92 X
	Add GST on "X" (multiplying factor 0.1405)				2496.39
	TOTAL				20264.31 Y
	Add 15% CPOH on "Y"				3039.65
	TOTAL				23303.96 Z
	Add Cess @ 1% on "Z"				233.04
	Cost of 375 Cudm				23537.00
	Cost of 1.00 cum				62765.33
	Say				62765.35

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	558.00	295.74
0115	Coolie	day	0.08	558.00	44.64
0101	Bhisti	day	0.07	617.00	43.19
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				386.43 W
	Add 1 % Water charges on "W"				3.86
	TOTAL				390.29 X
	Add GST on "X" (multiplying factor 0.1405)				54.84
	TOTAL				445.13 Y
	Add 15% CPOH on "Y"				66.77
	TOTAL				511.90 Z
	Add Cess @ 1% on "Z"				5.12
	Cost of 10.00 sqm				517.02
	Cost of 1.00 sqm				51.70
	Say				51.70

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	4183.05	62.75
1213	Water proofing materials 2% of wt. of cement	kilogram	0.153	35.00	5.36
	LABOUR				
0115	Coolie	day	0.36	558.00	200.88
0124	Mason (brick layer) 2nd class	day	0.36	679.00	244.44
0101	Bhisti	day	0.36	617.00	222.12
9999	Sundries	L.S.	18.85	2.00	37.70
	TOTAL				773.24 W
	Add 1 % Water charges on "W"				7.73
	TOTAL				780.97 X
	Add GST on "X" (multiplying factor 0.1405)				109.73
	TOTAL				890.70 Y
	Add 15% CPOH on "Y"				133.60
	TOTAL				1024.30 Z
	Add Cess @ 1% on "Z"				10.24
	Cost of 10.00 sqm				1034.55
	Cost of 1.00 sqm				103.45
	Say				103.45

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) Rate as per Item Number 3.3 of SH: Mortars	cum	0.017	4183.05	71.11
1213	Water proofing materials 2% of wt. of cement	kilogram	0.173	35.00	6.06
	LABOUR				
0115	Coolie	day	0.36	558.00	200.88
0124	Mason (brick layer) 2nd class	day	0.36	679.00	244.44
0101	Bhisti	day	0.36	617.00	222.12
9999	Sundries	L.S.	18.85	2.00	37.70
	TOTAL				782.31 W
	Add 1 % Water charges on "W"				7.82
	TOTAL				790.13 X
	Add GST on "X" (multiplying factor 0.1405)				111.01
	TOTAL				901.14 Y
	Add 15% CPOH on "Y"				135.17
	TOTAL				1036.31 Z
	Add Cess @ 1% on "Z"				10.36
	Cost of 10.00 sqm				1046.68
	Cost of 1.00 sqm				104.67
	Say				104.65

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	679.00	61.11
0100	Bandhani	day	0.06	617.00	37.02
0114	Beldar	day	0.16	558.00	89.28
	TOTAL				187.41 W
	Add 1 % Water charges on "W"				1.87
	TOTAL				189.28 X
	Add GST on "X" (multiplying factor 0.1405)				26.59
	TOTAL				215.88 Y
	Add 15% CPOH on "Y"				32.38
	TOTAL				248.26 Z
	Add Cess @ 1% on "Z"				2.48
	Cost for 63 kg.				250.74
	Cost of 1.00 kg				3.98
	Say				4.00

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 ₹
1023	Detail of cost for 20.2 m wind tie MATERIAL 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. LABOUR	L.S.	1.17	2.00	2.34
0102	Blacksmith 1st class	day	0.34	738.00	250.92
0114	Beldar	day	0.34	558.00	189.72
9999	Sundries	L.S.	13.91	2.00	27.82
13.50.3	Applying priming coat with ready mixed zinc chromate yellow primer 20.2x2x(0.04+0.006) = 1.86 sqm Rate as per item no 13.50.3 of SH : Finishing	sqm	1.86	50.70	94.30 A
13.65.1	Painting with ready mixed black anticorrosive bitumastic paint Rate as per item No.13.65.1 SH: Finishing	sqm	1.86	106.05	197.25 A
	TOTAL				1622.56 W
	Add 1 % Water charges on "W-A"				13.31
	TOTAL				1635.87 X
	Add GST on "X-A" (multiplying factor 0.1405)				188.88
	TOTAL				1824.74 Y
	Add 15% CPOH on "Y-A"				229.98
	TOTAL				2054.72 Z
	Add Cess @ 1% on "Z-A"				17.63
	Cost of 20.2 metres				2072.35
	Cost of 1.00 metre				102.59
	Say				102.60

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	quintal tonne	0.13	4600.00	598.00
2205	channels and R.S. joists		0.013	92.24	1.20
15.12.2	Carriage of Steel Taking out collapsible gate including frame (Rate as per item no 15.12.2 of SH Dismantling and Demolishing) Refixing of collapsible gate including mending good the damaged floor, wall etc.frame	each	1.00	375.65	375.65 A
4.2.5	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) Rate as per item no 4.2.5 of SH : Concrete work	cum	0.03	8025.00	240.75 A
3.6	Cement mortar 1 : 6 (1 cement : 6 fine sand) (Rate as per item No 3.6)	cum	0.01	2874.65	28.75
9999	Cement concrete 1:2:4 filled in chase cut	L.S.	24.18	2.00	48.36
9999	Disposal of mulba	L.S.	1.82	2.00	3.64
13.50.3	Priming coat on Tees 0.16x3.3 = 0.53 sqm Rate as per item no 13.50.3 of SH : Finishing	sqm	0.53	50.70	26.87 A
0155	LABOUR Labour for fixing the gate	day	0.50	709.00	354.50
0114	Mason (average)	day	0.75	558.00	418.50
9999	Beldar	L.S.	2.60	2.00	5.20
	Sundries				
	TOTAL				2101.42 W
	Add 1 % Water charges on "W-A"				14.58
	TOTAL				2116.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				206.92
	TOTAL				2322.92 Y
	Add 15% CPOH on "Y-A"				251.95
	TOTAL				2574.86 Z
	Add Cess @ 1% on "Z-A"				19.32
	Cost of 11.55 kg				2594.18
	Cost of 1.00 kg				224.60
	Say				224.60

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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	MATERIAL Weight of 10 nos wheels $10 \times [3.14 \times \{(4/2) \times (4/2)\} \times 4] \times 7.850 / 1000 = 3.94 \text{ kg}$ Weight of 10 nos clamps 6 mm thick $= 10 \times \text{lenth of clamp} = 10 \times 0.17 \text{m} @ 1.90 \text{kg/m} = 3.23 \text{ kg}$ Weight of 10 nos 10 mm dia. Bolts, 10 cm long $10 \times 0.10 \text{m} = 1 \text{m} @ 0.60 \text{ kg/m} = 0.60 \text{ kg}$. Total = 7.70 kg say 8 kg Labour for dismantling :				
0103	Blacksmith 2nd class	day	0.01	679.00	6.79
0100	Bandhani	day	0.01	617.00	6.17
0114	Beldar	day	0.02	558.00	11.16
9999	Sundries	L.S.	0.39	2.00	0.78
	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 = $10 \times 0.17 \text{m} = 1.70 \text{m} @ 1.9 \text{ kg/m} = 3.23 \text{ kg}$ 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 $10 \times 0.06 = 0.6 \text{ kg} = 0.006 \text{ q}$	quintal	0.035	4500.00	157.50
1034	Bolts and nuts upto 300 mm in length	quintal	0.006	4800.00	28.80
1215	Welding by electric plant length = $10 \times (2 \times 4) = 80 \text{cm}$	cm	80.00	2.00	160.00
	LABOUR Labour for cutting, assembling and errection charges				
0102	Blacksmith 1st class	day	0.03	738.00	22.14
0100	Bandhani	day	0.02	617.00	12.34
0114	Beldar	day	0.11	558.00	61.38
	Priming coat : = $10 \times 2 \times (0.06 + 0.008) \times 0.25 \text{m} = 0.34 \text{ sqm}$ on Tees $0.16 \times 3.3 = 0.53 \text{ sqm}$				
13.50.3	Rate as per item no 13.50.3 of SH : Finishing	sqm	0.165	50.70	8.37 A
9999	Sundries	L.S.	1.69	2.00	3.38
	TOTAL				1098.81 W
	Add 1 % Water charges on "W-A"				10.90
	TOTAL				1109.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				154.74
	TOTAL				1264.45 Y
	Add 15% CPOH on "Y-A"				188.41
	TOTAL				1452.86 Z
	Add Cess @ 1% on "Z-A"				14.44
	Cost of 10 nos wheels				1467.31
	Cost per wheel				146.73
	Say				146.75

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]x 7.850/1000= 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	679.00	27.16
0100	Bandhani	day	0.03	617.00	18.51
0114	Beldar	day	0.06	558.00	33.48
9999	Sundries	L.S.	1.04	2.00	2.08
	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	4500.00	450.00
1034	Bolts and nuts upto 300 mm in length	quintal	0.016	4800.00	76.80
1215	Welding by electric plant length = 10x(2x6) LABOUR	cm	120.00	2.00	240.00
	Labour for cutting, assembling and errection charges				
0102	Blacksmith 1st class	day	0.10	738.00	73.80
0100	Bandhani	day	0.05	617.00	30.85
0114	Beldar	day	0.36	558.00	200.88
	Priming coat : = 10x2(0.06+0.008)x 0.25m = 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	0.34	50.70	17.24 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				1801.46 W
	Add 1 % Water charges on "W-A"				17.84
	TOTAL				1819.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				253.19
	TOTAL				2072.49 Y
	Add 15% CPOH on "Y-A"				308.29
	TOTAL				2380.78 Z
	Add Cess @ 1% on "Z-A"				23.64
	Cost of 10 nos wheels				2404.41
	Cost per wheel				240.44
	Say				240.45

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 ₹
0011	Details for 10.91 kilolitre Pumping hours 3 hrs. or 0.375 days				
	Hire charges of Pumpset of capacity 4000 litres/hour.	day	0.375	700.00	262.50
0114	Beldar	day	2.00	558.00	1116.00
	for clearing slush				
	TOTAL				1378.50 W
	Add 1 % Water charges on "W"				13.79
	TOTAL				1392.29 X
	Add GST on "X" (multiplying factor 0.1405)				195.62
	TOTAL				1587.90 Y
	Add 15% CPOH on "Y"				238.19
	TOTAL				1826.09 Z
	Add Cess @ 1% on "Z"				18.26
	Cost of 10.91 kilolitre				1844.35
	Cost of 1 kilolitre				169.05
	Say				169.05

14.24 Mud mortar made with local clay good earth.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0811	Detail of cost for 1 cum MATERIAL				
	Mud (dry)	cum	1.08	165.00	178.20
0114	LABOUR				
	Beldar	day	0.63	558.00	351.54
0101	Bhisti	day	0.315	617.00	194.36
9999	Sundries	L.S.	6.45	2.00	12.90
	TOTAL				737.00
	Cost of 1 cum				737.00
	Say				737.00

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2602	Details of cost for 1 cum. MATERIAL Common burnt clay F.P.S. (non modular) bricks class designation 7.5 Mud mortar	1000 Nos	0.494	4500.00	2223.00
3.18	Rate as per Item Number 3.18 of SH: Mortars	cum	0.25	737.00	184.25
2201	Carriage of Bricks	1000 Nos	0.494	276.72	136.70
9999	Sundries LABOUR	L.S.	2.73	2.00	5.46
0123	Mason (brick layer) 1st class	day	0.36	738.00	265.68
0124	Mason (brick layer) 2nd class	day	0.36	679.00	244.44
0115	Coolie	day	1.37	558.00	764.46
0101	Bhisti	day	0.2	617.00	123.40
	TOTAL				3947.39 W
	Add 1 % Water charges on "W"				39.47
	TOTAL				3986.86 X
	Add GST on "X" (multiplying factor 0.1405)				560.15
	TOTAL				4547.02 Y
	Add 15% CPOH on "Y"				682.05
	TOTAL				5229.07 Z
	Add Cess @ 1% on "Z"				52.29
	Cost of 1 Cum.				5281.36
	Say				5281.35

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 = 0.0022 cum+ Lock and bottom rails 2x110.5x8.0x2.5 cm = 0.0044 cum Panels 2x48x41x1.6cm = 0.006 cum+ Sash bars 2x114x3.8x2.5cm = 0.0022 cum+ 6x48x3.8x2.5cm = 0.003 cum+ Beading 16x92x1.4x1.2cm = 0.002 cum Total = 0.0358 cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add for wastage @ 10% = 0.0036 cum. Grand Total = 0.0394 cum = 39.40 cum say 39 cum				
1186	Superior class teak wood such as Dandeli, Balarshah or Malabar in planks	10 cum	3.90	1100.00	4290.00
2204	Carriage of Timber	cum	0.04	118.59	4.74
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm). Fittings-	sqm	0.99	300.00	297.00
0608	Nickel plated mild steel piano 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	36.00	43.20
	LABOUR				
0111	Carpenter 1st class	day	2.40	738.00	1771.20
0119	Glazier	day	0.18	679.00	122.22
0114	Beldar	day	0.77	558.00	429.66
9999	Sundries	L.S.	40.43	2.00	80.86
	TOTAL				7194.88 W
	Add 1 % Water charges on "W"				71.95
	TOTAL				7266.83 X
	Add GST on "X" (multiplying factor 0.1405)				1020.99
	TOTAL				8287.82 Y
	Add 15% CPOH on "Y"				1243.17
	TOTAL				9531.00 Z
	Add Cess @ 1% on "Z"				95.31
	Cost of 2.16 sqm.				9626.31
	Cost of 1 sqm.				4456.62
	Say				4456.60

14.26.1.2 1st 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 cupboard (half glazed and half panelled) 200x108cm= 2.16 sqm. MATERIAL Styles 4x200x8.0x2.5cm = 0.016 cum+ Rails Top rail 1x110.5x8.0x2.5cm = 0.0022 cum+ Lock and bottom rail 2x110.5x8.0x2.5cm = 0.0044 cum. Panels 2x48x41x1.6cm = 0.006 cum+ Sash bars 2x114x3.8x2.5cm = 0.0022 cum+ 6x48x3.8x2.5cm = 0.003 cum+				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Beading 16x92x1.4x1.2cm = 0.002cum Total = 0.0358 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	118.59	4.74
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm). Fittings	sqm	0.99	300.00	297.00
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	36.00	43.20
	LABOUR				
0111	Carpenter 1st class	day	2.40	738.00	1771.20
0119	Glazier	day	0.18	679.00	122.22
0114	Beldar	day	0.77	558.00	429.66
9999	Sundries	L.S.	40.43	2.00	80.86
	TOTAL				6219.88 W
	Add 1 % Water charges on "W"				62.20
	TOTAL				6282.08 X
	Add GST on "X" (multiplying factor 0.1405)				882.63
	TOTAL				7164.72 Y
	Add 15% CPOH on "Y"				1074.71
	TOTAL				8239.42 Z
	Add Cess @ 1% on "Z"				82.39
	Cost of 2.16 sqm.				8321.82
	Cost of 1 sqm.				3852.69
	Say				3852.70

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) 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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1186	Add for wastage @ 10% = 0.0038 cum. Grand Total = 0.0418 cum = 42 cudm				
2406	Superior class teak wood such as Dandeli, Balarshah or Malabar in planks	10 cudm	4.20	1100.00	4620.00
0608	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.27	300.00	381.00
0639	Nickel plated mild steel piano hinges 1 mm thick 25 mm wide 75x45x3.2 mm	metre	4.00	39.00	156.00
0597	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	36.00	43.20
0640	Bright finished or black enamelled mild steel butt hinges 50x37x1.50 mm	10 Nos	0.20	49.00	9.80
2204	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	30.00	2.40
0156	Carriage of Timber	cum	0.043	118.59	5.10
0119	LABOUR				
0114	Carpenter (average)	day	1.83	709.00	1297.47
9999	Glazier	day	0.23	679.00	156.17
	Beldar	day	0.77	558.00	429.66
	Sundries	L.S.	40.43	2.00	80.86
	TOTAL				7181.66 W
	Add 1 % Water charges on "W"				71.82
	TOTAL				7253.48 X
	Add GST on "X" (multiplying factor 0.1405)				1019.11
	TOTAL				8272.59 Y
	Add 15% CPOH on "Y"				1240.89
	TOTAL				9513.48 Z
	Add Cess @ 1% on "Z"				95.13
	Cost of 2.16 sqm.				9608.61
	Cost of 1 sqm.				4448.43
	Say				4448.45

14.26.2.2 1st 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% = 0.004 cum. Grand Total = 0.0418 cum = 42 cudm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1188	First class teak wood in planks	10 cudm	4.20	850.00	3570.00
2406	Float glass sheet of nominal thickness 4 mm (weight not less than 10kg/sqm).	sqm	1.27	300.00	381.00
0608	Nickel plated mild steel piono hinges 1 mm thick 25 mm wide	metre	4.00	39.00	156.00
	75x45x3.2 mm				
0639	Bright finished or black enamelled mild steel screws 25 mm	100 Nos	1.20	36.00	43.20
0597	Bright finished or black enamelled mild steel butt hinges 50x37x1.50 mm	10 Nos	0.20	49.00	9.80
0640	Bright finished or black enamelled mild steel screws 20 mm	100 Nos	0.08	30.00	2.40
2204	Carriage of Timber	cum	0.043	118.59	5.10
	LABOUR				
0156	Carpenter (average)	day	1.83	709.00	1297.47
0119	Glazier	day	0.23	679.00	156.17
0114	Beldar	day	0.77	558.00	429.66
9999	Sundries	L.S.	40.43	2.00	80.86
	TOTAL				6131.66 W
	Add 1 % Water charges on "W"				61.32
	TOTAL				6192.98 X
	Add GST on "X" (multiplying factor 0.1405)				870.11
	TOTAL				7063.09 Y
	Add 15% CPOH on "Y"				1059.46
	TOTAL				8122.55 Z
	Add Cess @ 1% on "Z"				81.23
	Cost of 2.16 sqm.				8203.78
	Cost of 1 sqm.				3798.05
	Say				3798.05

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	118.59	2.13
	Palain Jaffri work				
9.41.1	Rate as per Item Number 9.41.1 of SH:Wood and PVC work	sqm	1.51	2546.90	3845.82 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 hinges 50x37x1.50 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	30.00	2.40
	LABOUR				
	For making frame and fixing fitting				
0112	Carpenter 2nd class	day	0.30	679.00	203.70
	TOTAL				5564.45 W
	Add 1 % Water charges on "W-A"				17.19
	TOTAL				5581.64 X
	Add GST on "X-A" (multiplying factor 0.1405)				243.88
	TOTAL				5825.52 Y
	Add 15% CPOH on "Y-A"				296.96
	TOTAL				6122.48 Z
	Add Cess @ 1% on "Z-A"				22.77
	Cost of 1.51 sqm.				6145.24
	Cost of 1 sqm.				4069.70
	Say				4069.70

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	2.00	5.46
9977	Carriage	L.S.	1.56	2.00	3.12
	Wooden plugs including cutting brick work and fixing in cement mortar				
8.23	Rate as per item no 8.23 of SH : Cladding Work	each	2.00	33.90	67.80 A
9999	LABOUR	L.S.	2.73	2.00	5.46
9999	Sundries	L.S.	1.56	2.00	3.12
	TOTAL				454.96 W
	Add 1 % Water charges on "W-A"				3.87
	TOTAL				458.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				54.94
	TOTAL				513.77 Y
	Add 15% CPOH on "Y-A"				66.90
	TOTAL				580.67 Z
	Add Cess @ 1% on "Z-A"				5.13
	Cost of 2 metres				585.80
	Cost of 1 metre				292.90
	Say				292.90

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	2.00	5.46
9977	Carriage	L.S.	1.56	2.00	3.12
	Wooden plugs including cutting brick work and fixing in cement mortar				
8.23	Rate as per item no 8.23 of SH : Cladding Work	each	2.00	33.90	67.80 A
9999	LABOUR	L.S.	2.73	2.00	5.46
9999	Sundries	L.S.	1.56	2.00	3.12
	TOTAL				554.96 W
	Add 1 % Water charges on "W-A"				4.87
	TOTAL				559.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				69.13
	TOTAL				628.96 Y
	Add 15% CPOH on "Y-A"				84.17
	TOTAL				713.14 Z
	Add Cess @ 1% on "Z-A"				6.45
	Cost of 2 metres				719.59
	Cost of 1 metre				359.79
	Say				359.80

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	4400.00	1350.80
	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	4500.00	283.50
2205	Carriage of Steel	tonne	0.037	92.24	3.41
	(0.307+0.063 = 0.37 q = 0.037 t)				
9999	Sundries	L.S.	26.91	2.00	53.82
	LABOUR				
0103	Blacksmith 2nd class	day	0.35	679.00	237.65
0112	Carpenter 2nd class	day	0.20	679.00	135.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.45	558.00	251.10
	TOTAL				2316.08 W
	Add 1 % Water charges on "W"				23.16
	TOTAL				2339.24 X
	Add GST on "X" (multiplying factor 0.1405)				328.66
	TOTAL				2667.91 Y
	Add 15% CPOH on "Y"				400.19
	TOTAL				3068.09 Z
	Add Cess @ 1% on "Z"				30.68
	Cost of 33.67 kg.(5.74+27.93=33.67kg)				3098.77
	Cost of 1 kg.				92.03
	Say				92.05

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	118.59	36.29
	LABOUR				
0112	Carpenter 2nd class	day	0.70	679.00	475.30
0114	Beldar	day	1.45	558.00	809.10
0100	Bandhani	day	0.70	617.00	431.90
	Priming coat (Wood preservative)				
13.57.1	Rate as per item no 13.57.1				
	SH : Finishing	sqm	0.80	44.50	35.60 A
9999	Sundries	L.S.	26.91	2.00	53.82
	TOTAL				20202.01 W
	Add 1 % Water charges on "W-A"				201.66
	TOTAL				20403.67 X
	Add GST on "X-A" (multiplying factor 0.1405)				2861.71
	TOTAL				23265.39 Y
	Add 15% CPOH on "Y-A"				3484.47
	TOTAL				26749.85 Z
	Add Cess @ 1% on "Z-A"				267.14
	Cost of 300 cudm.				27017.00
	Cost of 1 cum.				90056.67
	Say				90056.65

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	350.00	10710.00
2204	Carriage of Timber	cum	0.306	118.59	36.29
	LABOUR				
0112	Carpenter 2nd class	day	0.70	679.00	475.30
0114	Beldar	day	1.45	558.00	809.10
0100	Bandhani	day	0.70	617.00	431.90
	Priming coat (Wood preservative)				
13.57.1	Rate as per item no 13.57.1				
	SH : Finishing	sqm	0.80	44.50	35.60 A
9999	Sundries	L.S.	26.91	2.00	53.82
	TOTAL				12552.01 W
	Add 1 % Water charges on "W-A"				125.16
	TOTAL				12677.17 X
	Add GST on "X-A" (multiplying factor 0.1405)				1776.14
	TOTAL				14453.31 Y
	Add 15% CPOH on "Y-A"				2162.66
	TOTAL				16615.97 Z
	Add Cess @ 1% on "Z-A"				165.80
	Cost of 300 cudm.				16781.77
	Cost of 1 cum.				55939.23
	Say				55939.25

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	2.00	7.28
	LABOUR				
0111	Carpenter 1st class	day	0.40	738.00	295.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				4840.08 W
	Add 1 % Water charges on "W"				48.40
	TOTAL				4888.48 X
	Add GST on "X" (multiplying factor 0.1405)				686.83
	TOTAL				5575.31 Y
	Add 15% CPOH on "Y"				836.30
	TOTAL				6411.61 Z
	Add Cess @ 1% on "Z"				64.12
	Cost of 10 hinges				6475.73
	Cost of each				647.57
	Say				647.55

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	2.00	7.28
	LABOUR				
0111	Carpenter 1st class	day	0.40	738.00	295.20
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				3440.08 W
	Add 1 % Water charges on "W"				34.40
	TOTAL				3474.48 X
	Add GST on "X" (multiplying factor 0.1405)				488.16
	TOTAL				3962.65 Y
	Add 15% CPOH on "Y"				594.40
	TOTAL				4557.04 Z
	Add Cess @ 1% on "Z"				45.57
	Cost of 10 hinges				4602.61
	Cost of each				460.26
	Say				460.25

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	2.00	7.28
	LABOUR				
0111	Carpenter 1st class	day	0.40	738.00	295.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				3050.08 W
	Add 1 % Water charges on "W"				30.50
	TOTAL				3080.58 X
	Add GST on "X" (multiplying factor 0.1405)				432.82
	TOTAL				3513.40 Y
	Add 15% CPOH on "Y"				527.01
	TOTAL				4040.41 Z
	Add Cess @ 1% on "Z"				40.40
	Cost of 10 hinges				4080.82
	Cost of each				408.08
	Say				408.10

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 ₹
0392	Details of cost for 10 nos. MATERIAL 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 LABOUR	L.S.	3.64	2.00	7.28
0111	Carpenter 1st class	day	0.40	738.00	295.20
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				5390.08 W
	Add 1 % Water charges on "W"				53.90
	TOTAL				5443.98 X
	Add GST on "X" (multiplying factor 0.1405)				764.88
	TOTAL				6208.86 Y
	Add 15% CPOH on "Y"				931.33
	TOTAL				7140.19 Z
	Add Cess @ 1% on "Z"				71.40
	Cost of 10 hinges				7211.59
	Cost of each				721.16
	Say				721.15

14.32.2 125 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0393	Details of cost for 10 nos. MATERIAL 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	2.00	7.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR				
	Carpenter 1st class	day	0.40	738.00	295.20
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				4590.08 W
	Add 1 % Water charges on "W"				45.90
	TOTAL				4635.98 X
	Add GST on "X" (multiplying factor 0.1405)				651.36
	TOTAL				5287.34 Y
	Add 15% CPOH on "Y"				793.10
	TOTAL				6080.44 Z
	Add Cess @ 1% on "Z"				60.80
	Cost of 10 hinges				6141.24
	Cost of each				614.12
	Say				614.10

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	2.00	7.28
	LABOUR				
0111	Carpenter 1st class	day	0.40	738.00	295.20
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				4450.08 W
	Add 1 % Water charges on "W"				44.50
	TOTAL				4494.58 X
	Add GST on "X" (multiplying factor 0.1405)				631.49
	TOTAL				5126.07 Y
	Add 15% CPOH on "Y"				768.91
	TOTAL				5894.98 Z
	Add Cess @ 1% on "Z"				58.95
	Cost of 10 hinges				5953.93
	Cost of each				595.39
	Say				595.40

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	2.00	7.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR Carpenter 1st class 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 10 hinges Cost of each Say	Day	0.20	738.00	147.60 1714.88 W 17.15 1732.03 X 243.35 1975.38 Y 296.31 2271.69 Z 22.72 2294.40 229.44 229.45

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	2.00	5.46
	LABOUR				
0111	Carpenter 1st class 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 10 hinges Cost of each Say	day	0.17	738.00	125.46 1490.92 W 14.91 1505.83 X 211.57 1717.40 Y 257.61 1975.01 Z 19.75 1994.76 199.48 199.50

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	2.00	5.46

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR Carpenter 1st class	day	0.17	738.00	125.46
	TOTAL				1090.92 W
	Add 1 % Water charges on "W"				10.91
	TOTAL				1101.83 X
	Add GST on "X" (multiplying factor 0.1405)				154.81
	TOTAL				1256.64 Y
	Add 15% CPOH on "Y"				188.50
	TOTAL				1445.13 Z
	Add Cess @ 1% on "Z"				14.45
	Cost of 10 hinges				1459.58
	Cost of each				145.96
	Say				145.95

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 ₹
0417	Details of cost for 10 nos. MATERIAL Brass 150 mm floor door stopper (0.357kg)	each	10.00	160.00	1600.00
0450	Brass screws 40 mm	100 Nos	0.40	170.00	68.00
9977	Carriage of material	L.S.	2.73	2.00	5.46
0111	LABOUR Carpenter 1st class	day	0.07	738.00	51.66
9999	Sundries (wooden plugs including fixing in the floor)	L.S.	6.37	2.00	12.74
	TOTAL				1737.86 W
	Add 1 % Water charges on "W"				17.38
	TOTAL				1755.24 X
	Add GST on "X" (multiplying factor 0.1405)				246.61
	TOTAL				2001.85 Y
	Add 15% CPOH on "Y"				300.28
	TOTAL				2302.13 Z
	Add Cess @ 1% on "Z"				23.02
	Cost of 10 Nos				2325.15
	Cost of each				232.51
	Say				232.50

**14.35 Providing and fixing bright finished brass hard drawn hooks and eyes :
14.35.1 300 mm**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0418	Details of cost for 10 nos. MATERIAL Brass hard drawn hooks and eyes 300 mm	10 Nos	1.00	600.00	600.00
9977	Carriage of material	L.S.	0.91	2.00	1.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR Carpenter 1st class	day	0.06	738.00	44.28
	TOTAL				646.10 W
	Add 1 % Water charges on "W"				6.46
	TOTAL				652.56 X
	Add GST on "X" (multiplying factor 0.1405)				91.68
	TOTAL				744.25 Y
	Add 15% CPOH on "Y"				111.64
	TOTAL				855.88 Z
	Add Cess @ 1% on "Z"				8.56
	Cost of 10 Nos				864.44
	Cost of each				86.44
	Say				86.45

14.35.2 250 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0419	Details of cost for 10 nos. MATERIAL Brass hard drawn hooks and eyes 250 mm	10 Nos	1.00	574.00	574.00
9977	Carriage of material	L.S.	0.91	2.00	1.82
0111	LABOUR Carpenter 1st class	day	0.06	738.00	44.28
	TOTAL				620.10 W
	Add 1 % Water charges on "W"				6.20
	TOTAL				626.30 X
	Add GST on "X" (multiplying factor 0.1405)				88.00
	TOTAL				714.30 Y
	Add 15% CPOH on "Y"				107.14
	TOTAL				821.44 Z
	Add Cess @ 1% on "Z"				8.21
	Cost of 10 hooks and eyes				829.66
	Cost of 1 hook and eye				82.97
	Say				82.95

14.35.3 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0420	Details of cost for 10 nos. MATERIAL Brass hard drawn hooks and eyes 200 mm	10 Nos	1.00	510.00	510.00
9977	Carriage of material	L.S.	0.91	2.00	1.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR Carpenter 1st class	day	0.06	738.00	44.28
	TOTAL				556.10 W
	Add 1 % Water charges on "W"				5.56
	TOTAL				561.66 X
	Add GST on "X" (multiplying factor 0.1405)				78.91
	TOTAL				640.57 Y
	Add 15% CPOH on "Y"				96.09
	TOTAL				736.66 Z
	Add Cess @ 1% on "Z"				7.37
	Cost of 10 Nos				744.03
	Cost of each				74.40
	Say				74.40

14.35.4 150 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0421	Details of cost for 10 nos. MATERIAL Brass hard drawn hooks and eyes 150 mm	10 Nos	1.00	400.00	400.00
9977	Carriage of material	L.S.	0.91	2.00	1.82
0111	LABOUR Carpenter 1st class	day	0.06	738.00	44.28
	TOTAL				446.10 W
	Add 1 % Water charges on "W"				4.46
	TOTAL				450.56 X
	Add GST on "X" (multiplying factor 0.1405)				63.30
	TOTAL				513.86 Y
	Add 15% CPOH on "Y"				77.08
	TOTAL				590.94 Z
	Add Cess @ 1% on "Z"				5.91
	Cost of 10 Nos				596.85
	Cost of each				59.69
	Say				59.70

14.35.5 100 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0422	Details of cost for 10 nos. MATERIAL Brass hard drawn hooks and eyes 100 mm	10 Nos	1.00	345.00	345.00
9977	Carriage of material	L.S.	0.91	2.00	1.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR				
	Carpenter 1st class	day	0.06	738.00	44.28
	TOTAL				391.10 W
	Add 1 % Water charges on "W"				3.91
	TOTAL				395.01 X
	Add GST on "X" (multiplying factor 0.1405)				55.50
	TOTAL				450.51 Y
	Add 15% CPOH on "Y"				67.58
	TOTAL				518.09 Z
	Add Cess @ 1% on "Z"				5.18
	Cost of 10 Nos				523.27
	Cost of each				52.33
	Say				52.35

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	2.00	1.82
	LABOUR				
0111	Carpenter 1st class	day	0.08	738.00	59.04
	TOTAL				296.86 W
	Add 1 % Water charges on "W"				2.97
	TOTAL				299.83 X
	Add GST on "X" (multiplying factor 0.1405)				42.13
	TOTAL				341.95 Y
	Add 15% CPOH on "Y"				51.29
	TOTAL				393.25 Z
	Add Cess @ 1% on "Z"				3.93
	Cost of 10 Nos				397.18
	Cost of each				39.72
	Say				39.70

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	2.00	1.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR Carpenter 1st class 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 10 Nos Cost of each Say	day	0.10	738.00	73.80 475.62 W 4.76 480.38 X 67.49 547.87 Y 82.18 630.05 Z 6.30 636.35 63.63 63.65

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	2.00	1.82
0111	LABOUR Carpenter 1st class 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 10 quadrant stays Cost of each Say	day	0.10	738.00	73.80 1215.62 W 12.16 1227.78 X 172.50 1400.28 Y 210.04 1610.32 Z 16.10 1626.42 162.64 162.65

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	2.00	7.68

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR				
	Carpenter 1st class	day	0.40	738.00	295.20
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				3422.48 W
	Add 1 % Water charges on "W"				34.22
	TOTAL				3456.70 X
	Add GST on "X" (multiplying factor 0.1405)				485.67
	TOTAL				3942.37 Y
	Add 15% CPOH on "Y"				591.36
	TOTAL				4533.73 Z
	Add Cess @ 1% on "Z"				45.34
	Cost of 10 Nos				4579.06
	Cost of each				457.91
	Say				457.90

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	2.00	7.28
	LABOUR				
0111	Carpenter 1st class	day	0.14	738.00	103.32
0114	Beldar	day	0.10	558.00	55.80
	TOTAL				1271.40 W
	Add 1 % Water charges on "W"				12.71
	TOTAL				1284.11 X
	Add GST on "X" (multiplying factor 0.1405)				180.42
	TOTAL				1464.53 Y
	Add 15% CPOH on "Y"				219.68
	TOTAL				1684.21 Z
	Add Cess @ 1% on "Z"				16.84
	Cost of 10 nos.				1701.05
	Cost of each				170.11
	Say				170.10

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0586	Chromium plated Brass screws 40 mm	100 Nos	0.80	290.00	232.00
9977	Carriage of material	L.S.	3.64	2.00	7.28
	LABOUR				
0111	Carpenter 1st class	day	0.14	738.00	103.32
0114	Beldar	day	0.10	558.00	55.80
	TOTAL				1088.40 W
	Add 1 % Water charges on "W"				10.88
	TOTAL				1099.28 X
	Add GST on "X" (multiplying factor 0.1405)				154.45
	TOTAL				1253.73 Y
	Add 15% CPOH on "Y"				188.06
	TOTAL				1441.79 Z
	Add Cess @ 1% on "Z"				14.42
	Cost of 10 nos.				1456.21
	Cost of each				145.62
	Say				145.60

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	2.00	3.64
	LABOUR				
0111	Carpenter 1st class	day	0.14	738.00	103.32
0114	Beldar	day	0.10	558.00	55.80
	TOTAL				1211.76 W
	Add 1 % Water charges on "W"				12.12
	TOTAL				1223.88 X
	Add GST on "X" (multiplying factor 0.1405)				171.95
	TOTAL				1395.83 Y
	Add 15% CPOH on "Y"				209.37
	TOTAL				1605.21 Z
	Add Cess @ 1% on "Z"				16.05
	Cost of 10 nos.				1621.26
	Cost of each				162.13
	Say				162.15

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	2.00	3.64

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR				
	Carpenter 1st class	day	0.14	738.00	103.32
0114	Beldar	day	0.10	558.00	55.80
	TOTAL				727.76 W
	Add 1 % Water charges on "W"				7.28
	TOTAL				735.04 X
	Add GST on "X" (multiplying factor 0.1405)				103.27
	TOTAL				838.31 Y
	Add 15% CPOH on "Y"				125.75
	TOTAL				964.06 Z
	Add Cess @ 1% on "Z"				9.64
	Cost of 10 nos.				973.70
	Cost of each				97.37
	Say				97.35

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	2.00	1.82
	LABOUR				
0111	Carpenter 1st class	day	0.08	738.00	59.04
	TOTAL				304.86 W
	Add 1 % Water charges on "W"				3.05
	TOTAL				307.91 X
	Add GST on "X" (multiplying factor 0.1405)				43.26
	TOTAL				351.17 Y
	Add 15% CPOH on "Y"				52.68
	TOTAL				403.85 Z
	Add Cess @ 1% on "Z"				4.04
	Cost of 10 nos.				407.88
	Cost of each				40.79
	Say				40.80

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	165.00	1650.00
9988	Carriage of materials & sundries	L.S.	6.37	2.00	12.74

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0112	LABOUR Carpenter 2nd class 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 10 nos. Cost of each Say	day	0.25	679.00	169.75 1832.49 W 18.32 1850.81 X 260.04 2110.85 Y 316.63 2427.48 Z 24.27 2451.76 245.18 245.20

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 ₹
14.72X	Details of cost for area 22.5m x 9.0m =202.5 sqm Rate as per Item No.14.72X of SH:Repairs to Buildings		1.00	7676.50	7676.50
2205	Carriage of Steel 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	each tonne	6.054	92.24	558.42
0116	LABOUR Fitter (grade 1)	day	15.50	738.00	11439.00
0114	Beldar	day	31.00	558.00	17298.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1035.00	2.00	2070.00
	TOTAL				39041.92 W
	Add 1 % Water charges on "W"				390.42
	TOTAL				39432.34 X
	Add GST on "X" (multiplying factor 0.1405)				5540.24
	TOTAL				44972.58 Y
	Add 15% CPOH on "Y"				6745.89
	TOTAL				51718.47 Z
	Add Cess @ 1% on "Z"				517.18
	Cost of 202.50 sqm.				52235.66
	Cost of 1 sqm.				257.95
	Say				257.95

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 Vertical standard 2.5m length = 7x2x9x2.5 = 315.00 m Bracing ladder 1.5m length = 7x2x9x4.0873 = 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	kilogram	3765.42	57.00	214628.94
7387	Spigot for standard jointing 7x2x9 = 126 nos x 0.40m length = 50.40m 50.40m @ 2.46kg/m = 123.98kg	kg	123.98	43.00	5331.14
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	4800.00	1814.40
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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	3.64	2.00	7.28
	TOTAL				428.44 W
	Add 1 % Water charges on "W"				4.28
	TOTAL				432.72 X
	Add GST on "X" (multiplying factor 0.1405)				60.80
	TOTAL				493.52 Y
	Add 15% CPOH on "Y"				74.03
	TOTAL				567.55 Z
	Add Cess @ 1% on "Z"				5.68
	Cost of 10 window fasteners				573.23
	Cost of each				57.32
	Say				57.30

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 ₹
0772	Details of cost for 10 sqm MATERIAL				
	White cement based polymer modified self curing compound in powder form i/c 2% wastage	kg	125.00	15.00	1875.00
9977	Carriage of white cement based polymer modified self curing compound in powder form	L.S.	21.10	2.00	42.20
	LABOUR				
0155	Mason (average)	day	1.21	709.00	857.89
0114	Beldar	day	0.54	558.00	301.32
0115	Coolie	day	1.29	558.00	719.82
9999	Scaffolding and sundries	L.S.	15.21	2.00	30.42
	TOTAL				3826.65 W
	Add 1 % Water charges on "W"				38.27
	TOTAL				3864.92 X
	Add GST on "X" (multiplying factor 0.1405)				543.02
	TOTAL				4407.94 Y
	Add 15% CPOH on "Y"				661.19
	TOTAL				5069.13 Z
	Add Cess @ 1% on "Z"				50.69
	Cost of 10 sqm				5119.82
	Cost of 1 sqm				511.98
	Say				512.00

- 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 (assuming 0.040m depth of silt)	cum	0.25	103.77	25.94
9999	Marking with paint i/c removal of existing markings LABOUR	L.S.	30.00	2.00	60.00
0117	Assistant Fitter or 2nd class Fitter for opening ball cock wheel valve and other fittings	day	1.00	679.00	679.00
0114	Beldar for cleaning disinfecting etc	day	1.00	558.00	558.00
	TOTAL				1367.94 W
	Add 1 % Water charges on "W"				13.68
	TOTAL				1381.62 X
	Add GST on "X" (multiplying factor 0.1405)				194.12
	TOTAL				1575.74 Y
	Add 15% CPOH on "Y"				236.36
	TOTAL				1812.10 Z
	Add Cess @ 1% on "Z"				18.12
	Cost of 5000 litres				1830.22
	Cost of 1 litre				0.37
	Say				0.35

- 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	558.00	558.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	T & P Bamboo, bucket, wheel barrow etc.	L.S.	11.20	2.00	22.40
	TOTAL				580.40 W
	Add 1 % Water charges on "W"				5.80
	TOTAL				586.20 X
	Add GST on "X" (multiplying factor 0.1405)				82.36
	TOTAL				668.57 Y
	Add 15% CPOH on "Y"				100.28
	TOTAL				768.85 Z
	Add Cess @ 1% on "Z"				7.69
	Cost of 10 nos				776.54
	Cost of each				77.65
	Say				77.65

14.77 Cleaning of choked 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	2.00	690.00
8500	Water for jetting / blowback	1000 litre	0.002	1500.00	3.00
	Machineries				
0087	Hire Charges of Suction Jetting machine 2200 PSI machine i/c POL and operator	day	1.00	36000.00	36000.00
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	4.00	617.00	2468.00
0160	Technician	day	1.00	775.00	775.00
	TOTAL				39936.00 W
	Add 1 % Water charges on "W"				399.36
	TOTAL				40335.36 X
	Add GST on "X" (multiplying factor 0.1405)				5667.12
	TOTAL				46002.48 Y
	Add 15% CPOH on "Y"				6900.37
	TOTAL				52902.85 Z
	Add Cess @ 1% on "Z"				529.03
	Cost of 208 metres				53431.88
	Cost of 1.00 metre				256.88
	Say				256.90

- 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:-**
- Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits.**
 - Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water.**
 - Chlorination of RCC internal surface by liquid chlorine.**
 - The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface.**
 - 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	558.00	6071.04
	(b) Scrabing the internal surface of tank				
0114	Beldar	day	5.13	558.00	2862.54
0115	Coolie	day	2.28	558.00	1272.24
0101	Bhisti	day	2.28	617.00	1406.76
9999	Sundries	L.S.	142.50	2.00	285.00
	(c) Bleaching				
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	617.00	8792.25
	(d) Air jetting				
0058	Air compressor	hour	2.00	200.00	400.00
0114	Beldar	day	0.25	558.00	139.50
	(e) Ultra Violet Radiation				
0085	Using cost of Ultra Violet Radiation tube	hour	0.50	189.00	94.50
0114	Beldar	day	0.0625	558.00	34.88
	TOTAL				27137.21 W
	Add 1 % Water charges on "W"				271.37
	TOTAL				27408.58 X
	Add GST on "X" (multiplying factor 0.1405)				3850.91
	TOTAL				31259.48 Y
	Add 15% CPOH on "Y"				4688.92
	TOTAL				35948.40 Z
	Add Cess @ 1% on "Z"				359.48
	Cost of 570 sqm				36307.89
	Cost of 1 sqm				63.70
	Say				63.70

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	679.00	67.90
0114	Beldar	day	0.10	558.00	55.80
	For Bringing the tank at Ground Level				
0114	Beldar	day	0.20	558.00	111.60
9999	Sundries	L.S.	1.10	2.00	2.20
	TOTAL				237.50 W
	Add 1 % Water charges on "W"				2.38
	TOTAL				239.88 X
	Add GST on "X" (multiplying factor 0.1405)				33.70
	TOTAL				273.58 Y
	Add 15% CPOH on "Y"				41.04
	TOTAL				314.61 Z
	Add Cess @ 1% on "Z"				3.15
	Cost for each				317.76
	Say				317.75

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	450.00	450.00
1970	Vitreous china foot rests 250x125x25 mm	pair	1.00	100.00	100.00
1890	Centrifugally sand cast (spun) S&S "P" or "S" trap	each	1.00	300.00	300.00
9999	Cement sand & grit etc.	L.S.	13.36	2.00	26.72
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	Less for				
1880	Dismantled "P" or "S" trap scrap (app. Wt 2 kg.)	kg	-2.00	22.00	-44.00
	LABOUR				
	(a) For dismantling WC seat and P or S trap				
0129	Sewerman	day	0.05	558.00	27.90

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.20	558.00	111.60
	(b) For Fixing WC seat and "P" or "S" trap				
0126	Mason 1st class	day	0.80	738.00	590.40
0114	Beldar	day	0.80	558.00	446.40
	TOTAL				2036.06 W
	Add 1 % Water charges on "W"				20.36
	TOTAL				2056.42 X
	Add GST on "X" (multiplying factor 0.1405)				288.93
	TOTAL				2345.35 Y
	Add 15% CPOH on "Y"				351.80
	TOTAL				2697.15 Z
	Add Cess @ 1% on "Z"				26.97
	Cost of each				2724.12
	Say				2724.10

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	1200.00	1200.00
1890	Centrifugally sand cast (spun) S&S "P" or "S" trap	each	1.00	300.00	300.00
9999	Cement sand & grit etc.	L.S.	13.36	2.00	26.72
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	Less for				
1880	Dismantled "P" or "S" trap scrap (app. Wt 2 kg.)	kg	-2.00	22.00	-44.00
	LABOUR				
	(a) For dismantling WC seat and P or S trap				
0129	Sewerman	day	0.05	558.00	27.90
0114	Beldar	day	0.125	558.00	69.75
	(b) For Fixing WC seat and "P" or "S" trap				
0126	Mason 1st class	day	0.80	738.00	590.40
0114	Beldar	day	0.80	558.00	446.40
	TOTAL				2644.21 W
	Add 1 % Water charges on "W"				26.44
	TOTAL				2670.65 X
	Add GST on "X" (multiplying factor 0.1405)				375.23
	TOTAL				3045.88 Y
	Add 15% CPOH on "Y"				456.88
	TOTAL				3502.76 Z
	Add Cess @ 1% on "Z"				35.03
	Cost of each				3537.79
	Say				3537.80

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 ₹
13.4.1	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 Rate as per Item No.13.4.1 of SH:FINISHING	sqm	3.00	276.15	828.45 A
7752	PVC slotted pipe 200 mm dia as per IS: 12818	metre	0.25	840.00	210.00
9999	Sundries LABOUR Proportionate labour taken as actually required at site	L.S.	8.06	2.00	16.12
0123	Mason (brick layer) 1st class (0.16/0.0306)= 0.11 Nos.	day	0.11	738.00	81.18
0124	Mason (brick layer) 2nd class (0.16/0.030)x0.207 = 0.11 Nos.	day	0.11	679.00	74.69
0114	Beldar (1.25x0.207)/0.0306 =1.10 Nos.	day	1.10	558.00	613.80
9999	Add L.S. For Delay TOTAL	L.S.	16.12	2.00	32.24 1856.48 W
	Add 1 % Water charges on "W-A" TOTAL				10.28 1866.76 X
	Add GST on "X-A" (multiplying factor 0.1405) TOTAL				145.88 2012.64 Y
	Add 15% CPOH on "Y-A" TOTAL				177.63 2190.27 Z
	Add Cess @ 1% on "Z-A"				13.62
	Cost of 10 nos				2203.89
	Cost of each				220.39
	Say				220.40

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 ₹
0114	Details of cost for 1 no. LABOUR Beldar	day	0.125	558.00	69.75

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.00	2.00	2.00
	TOTAL				71.75 W
	Add 1 % Water charges on "W"				0.72
	TOTAL				72.47 X
	Add GST on "X" (multiplying factor 0.1405)				10.18
	TOTAL				82.65 Y
	Add 15% CPOH on "Y"				12.40
	TOTAL				95.05 Z
	Add Cess @ 1% on "Z"				0.95
	Cost of each				96.00
	Say				96.00

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 ₹
0114	Details of cost for 10 sqm				
	LABOUR				
	Beldar	day	0.03	558.00	16.74
9999	Sundries	L.S.	1.00	2.00	2.00
	TOTAL				18.74 W
	Add 1 % Water charges on "W"				0.19
	TOTAL				18.93 X
	Add GST on "X" (multiplying factor 0.1405)				2.66
	TOTAL				21.59 Y
	Add 15% CPOH on "Y"				3.24
	TOTAL				24.82 Z
	Add Cess @ 1% on "Z"				0.25
	Cost of 10 sqm				25.07
	Cost of 1 sqm				2.51
	Say				2.50

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 ₹
9999	Details of cost for 10 metre				
	LABOUR				
	Dismantling of G.I. Pipe and stacking etc.	L.S.	10.00	2.00	20.00
	TOTAL				20.00 W
	Add 1 % Water charges on "W"				0.20
	TOTAL				20.20 X
	Add GST on "X" (multiplying factor 0.1405)				2.84
	TOTAL				23.04 Y
	Add 15% CPOH on "Y"				3.46
	TOTAL				26.49 Z
	Add Cess @ 1% on "Z"				0.26
	Cost of 10 metres				26.76
	Cost of 1 metre				2.68
	Say				2.70

- 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 ₹
0637	Details of cost for one shutter (2.2 sqm) Normal exiting size of shutter 1.00x2.02m =2.02sqm MATERIAL Bright finished or black enameled mild steel screws 40 mm Assuming old hinges fixed in Tee iron frames Half qty = 48/2=24 needs replacement	100 Nos	0.24	60.00	14.40
0156	LABOUR Carpenter (average)	day	0.18	709.00	127.62
0114	Beldar	day	0.18	558.00	100.44
	TOTAL				242.46 W
	Add 1 % Water charges on "W"				2.42
	TOTAL				244.88 X
	Add GST on "X" (multiplying factor 0.1405)				34.41
	TOTAL				279.29 Y
	Add 15% CPOH on "Y"				41.89
	TOTAL				321.18 Z
	Add Cess @ 1% on "Z"				3.21
	Cost for 2.2 sqm or each shutter				324.40
	Cost for 2.02 sqm or each shutter				297.85
	Say				297.85

- 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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	45.00	540.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 3x36 =108 kg = 0.108 tonne	tonne	0.108	34000.00	3672.00
2211	Carriage of Tar bitumen	tonne	0.12	103.77	12.45
9977	Carriage of polymeric felt	L.S.	7.80	2.00	15.60
0370	Coal (steam)	quintal	0.174	440.00	76.56
2200	Carriage of steam coal	tonne	0.0174	120.00	2.09
9999	Preparing roof surface, cutting grooves and making good the same LABOUR	L.S.	134.55	2.00	269.10
0131	Painter	day	2.16	679.00	1466.64
0114	Beldar	day	3.24	558.00	1807.92
0130	Mistry	day	0.18	738.00	132.84
9999	Sundries, brushes etc	L.S.	6.76	2.00	13.52
	TOTAL				13288.72 W
	Add 1 % Water charges on "W"				132.89
	TOTAL				13421.61 X
	Add GST on "X" (multiplying factor 0.1405)				1885.74
	TOTAL				15307.34 Y
	Add 15% CPOH on "Y"				2296.10
	TOTAL				17603.44 Z
	Add Cess @ 1% on "Z"				176.03
	Cost for 30 sqm				17779.48
	Cost for 1 sqm				592.65
	Say				592.65

- 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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8201	Add 10% wastage = 3 sqm Total = 33 sqm A.P.P. modified polymeric felt (two layers) 2 mm thick	sqm	33.00	100.00	3300.00
0316	Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	45.00	540.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 1.20x30x2 =72 kg = 0.072 tonne	tonne	0.072	34000.00	2448.00
2211	Carriage of Tar bitumen	tonne	0.084	103.77	8.72
9977	Carriage of polymeric felt	L.S.	7.80	2.00	15.60
0370	Coal (steam)	quintal	0.174	440.00	76.56
2200	Carriage of steam coal	tonne	0.0174	120.00	2.09
9999	Preparing roof surface, cutting grooves and making good the same LABOUR	L.S.	134.55	2.00	269.10
0131	Painter	day	1.58	679.00	1072.82
0114	Beldar	day	2.37	558.00	1322.46
0130	Mistry	day	0.13	738.00	95.94
9999	Sundries, brushes etc	L.S.	6.76	2.00	13.52
	TOTAL				9164.80 W
	Add 1 % Water charges on "W"				91.65
	TOTAL				9256.45 X
	Add GST on "X" (multiplying factor 0.1405)				1300.53
	TOTAL				10556.98 Y
	Add 15% CPOH on "Y"				1583.55
	TOTAL				12140.53 Z
	Add Cess @ 1% on "Z"				121.41
	Cost for 30 sqm				12261.94
	Cost for 1 sqm				408.73
	Say				408.75

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8201	(two layers) 2.0 mm thick = 2x30 = 60 sqm Add 10% wastage = 6 sqm Total = 66 sqm A.P.P. modified polymeric felt	sqm	66.00	100.00	6600.00
0316	(two layers) 2 mm thick Bitumen solution primer of approved quality 0.4x30 = 12	litre	12.00	45.00	540.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality 3course x 36 = 108 kg = 0.108 tonne	tonne	0.108	34000.00	3672.00
2211	Carriage of Tar bitumen	tonne	0.12	103.77	12.45
9977	Carriage of polymeric felt	L.S.	7.80	2.00	15.60
0370	Coal (steam)	quintal	0.174	440.00	76.56
2200	Carriage of steam coal	tonne	0.0174	120.00	2.09
9999	Preparing roof surface, cutting grooves and making good the same LABOUR	L.S.	134.55	2.00	269.10
0131	Painter	day	2.16	679.00	1466.64
0114	Beldar	day	3.24	558.00	1807.92
0130	Mistry	day	0.18	738.00	132.84
9999	Sundries, brushes etc	L.S.	6.76	2.00	13.52
	TOTAL				14608.72 W
	Add 1 % Water charges on "W"				146.09
	TOTAL				14754.81 X
	Add GST on "X" (multiplying factor 0.1405)				2073.05
	TOTAL				16827.86 Y
	Add 15% CPOH on "Y"				2524.18
	TOTAL				19352.04 Z
	Add Cess @ 1% on "Z"				193.52
	Cost for 30 sqm				19545.56
	Cost for 1 sqm				651.52
	Say				651.50

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 membrane manufacture of density at 25°C, 0.87 - 0.89 kg/ litre and viscosity 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 membrane reinforced with glass fibre matt	sqm	33.00	126.67	4180.11
8206	Bitumen primer for bitumen membrane	litre	12.00	80.00	960.00
2211	Carriage of Tar bitumen	tonne	0.012	103.77	1.25
9977	Carriage of bitumen membrane	L.S.	7.80	2.00	15.60
1241	Commercial LPG in cylinder	kg	7.00	82.00	574.00
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.00	99.06
	LABOUR				
0159	Skilled torch operator for laying tack	day	2.16	738.00	1594.08
0130	Mistry	day	0.18	738.00	132.84
0114	Beldar	day	3.24	558.00	1807.92
9999	Sundries, brushes, bitumen torch etc	L.S.	23.40	2.00	46.80
	TOTAL				9411.66 W
	Add 1 % Water charges on "W"				94.12
	TOTAL				9505.77 X
	Add GST on "X" (multiplying factor 0.1405)				1335.56
	TOTAL				10841.33 Y
	Add 15% CPOH on "Y"				1626.20
	TOTAL				12467.53 Z
	Add Cess @ 1% on "Z"				124.68
	Cost for 30 sqm				12592.21
	Cost for 1 sqm				419.74
	Say				419.75

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 viscosity 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 2 mm thick = 30 sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8204	Add 10% for wastage - 3 sqm Total = 33 sqm A.P.P. modified 3 mm thick membrane reinforced with glass fibre matt	sqm	33.00	190.00	6270.00
8206	Bitumen primer for bitumen membrane	litre	12.00	80.00	960.00
2211	Carriage of Tar bitumen	tonne	0.012	103.77	1.25
9977	Carriage of bitumen membrane	L.S.	7.80	2.00	15.60
1241	Commercial LPG in cylinder	kg	7.00	82.00	574.00
9999	Preparing roof surface, cutting grooves LABOUR	L.S.	49.53	2.00	99.06
0159	Skilled torch operator for laying tack	day	2.16	738.00	1594.08
0130	Mistry	day	0.18	738.00	132.84
0114	Beldar	day	3.24	558.00	1807.92
9999	Sundries, brushes, bitumen torch etc	L.S.	23.40	2.00	46.80
	TOTAL				11501.55 W
	Add 1 % Water charges on "W"				115.02
	TOTAL				11616.56 X
	Add GST on "X" (multiplying factor 0.1405)				1632.13
	TOTAL				13248.69 Y
	Add 15% CPOH on "Y"				1987.30
	TOTAL				15235.99 Z
	Add Cess @ 1% on "Z"				152.36
	Cost for 30 sqm				15388.35
	Cost for 1 sqm				512.95
	Say				512.95

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 viscosity 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 2 mm thick - 30 sqm Add 10% for wastage - 3 sqm Total = 33 sqm				
8205	A.P.P. modified 3 mm thick membrane reinforced with polyster matt	sqm	33.00	205.00	6765.00
8206	Bitumen primer for bitumen membrane	litre	12.00	80.00	960.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2211	Carriage of Tar bitumen	tonne	0.012	103.77	1.25
9977	Carriage of bitumen membrance	L.S.	7.80	2.00	15.60
	Fuel				
1241	Commercial LPG in cylinder	kg	7.00	82.00	574.00
9999	Preparing roof surface, cutting grooves	L.S.	49.53	2.00	99.06
	LABOUR				
0159	Skilled torch operator for laying tack	day	2.16	738.00	1594.08
0130	Mistry	day	0.18	738.00	132.84
0114	Beldar	day	3.24	558.00	1807.92
9999	Sundries, brushes, bitumen torch etc	L.S.	23.4	2.00	46.80
	TOTAL				11996.55 W
	Add 1 % Water charges on "W"				119.97
	TOTAL				12116.51 X
	Add GST on "X" (multiplying factor 0.1405)				1702.37
	TOTAL				13818.88 Y
	Add 15% CPOH on "Y"				2072.83
	TOTAL				15891.71 Z
	Add Cess @ 1% on "Z"				158.92
	Cost for 30 sqm				16050.63
	Cost for 1 sqm				535.02
	Say				535.00

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	2.00	15.60
	LABOUR				
0159	Skilled torch operator for laying tack or fitter 2.16 / 5 = 0.43	day	0.43	738.00	317.34
0130	Mistry	day	0.04	738.00	29.52
	0.18 / 5 = 0.04				
0114	Beldar	day	0.65	558.00	362.70
	3.24-5 / 0.65				
9999	Sundries, torch, LPG etc	L.S.	46.80	2.00	93.60
	TOTAL				2236.26 W
	Add 1 % Water charges on "W"				22.36
	TOTAL				2258.62 X
	Add GST on "X" (multiplying factor 0.1405)				317.34
	TOTAL				2575.96 Y
	Add 15% CPOH on "Y"				386.39
	TOTAL				2962.35 Z
	Add Cess @ 1% on "Z"				29.62
	Cost for 30 sqm				2991.98
	Cost for 1 sqm				99.73
	Say				99.75

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 membrane - 30 sqm Add 5% for wastage - 1.50 sqm Total= 31.50 sqm				
8207	Geotextile 120 gsm membrane	sqm	31.50	45.00	1417.50
9977	Carriage of Geotextile	L.S.	7.80	2.00	15.60
	LABOUR				
0159	Skilled torch operator for laying tack or fitter 2.16 / 5 = 0.43	day	0.43	738.00	317.34
0130	Mistry 0.18 / 5 = 0.04	day	0.04	738.00	29.52
0114	Beldar 3.24-5 / 0.65	day	0.65	558.00	362.70
9999	Sundries, torch, LPG etc	L.S.	46.80	2.00	93.60
	TOTAL				2236.26 W
	Add 1 % Water charges on "W"				22.36
	TOTAL				2258.62 X
	Add GST on "X" (multiplying factor 0.1405)				317.34
	TOTAL				2575.96 Y
	Add 15% CPOH on "Y"				386.39
	TOTAL				2962.35 Z
	Add Cess @ 1% on "Z"				29.62
	Cost for 30 sqm				2991.98
	Cost for 1 sqm				99.73
	Say				99.75

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	617.00	617.00
9999	Lathi,torch,dress & other sundries	L.S.	10.00	2.00	20.00
	TOTAL				637.00 Y
	Add 15% CPOH on "Y"				95.55
	Cost of 1 job				732.55
	Say				732.55

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 ₹
0165 9999	Details of cost for 1 job (8hour's duty)				
	Security guard (with gun)	day	1.00	679.00	679.00
	Lathi,torch,uniform,wooden stick & other miscellaneous items	L.S.	10.00	2.00	20.00
	TOTAL				699.00 Y
	Add 15% CPOH on "Y"				104.85
	Cost of 1 job				803.85
	Say				803.85

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	558.00	245.52
0115	Coolie	day	0.37	558.00	206.46
9999	Sundries	L.S.	1.04	2.00	2.08
	TOTAL				454.06 W
	Add 1 % Water charges on "W"				4.54
	TOTAL				458.60 X
	Add GST on "X" (multiplying factor 0.1405)				64.43
	TOTAL				523.03 Y
	Add 15% CPOH on "Y"				78.46
	TOTAL				601.49 Z
	Add Cess @ 1% on "Z"				6.01
	Cost of 1.00 cum				607.50
	Say				607.50

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	558.00	887.22
0115	Coolie	day	0.72	558.00	401.76
9999	Sundries	L.S.	4.81	2.00	9.62
	TOTAL				1298.60 W
	Add 1 % Water charges on "W"				12.99
	TOTAL				1311.59 X
	Add GST on "X" (multiplying factor 0.1405)				184.28
	TOTAL				1495.86 Y
	Add 15% CPOH on "Y"				224.38
	TOTAL				1720.24 Z
	Add Cess @ 1% on "Z"				17.20
	Cost of 1.00 cum				1737.45
	Say				1737.45

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	558.00	491.04
0115	Coolie	day	0.55	558.00	306.90

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.95	2.00	3.90
	TOTAL				801.84 W
	Add 1 % Water charges on "W"				8.02
	TOTAL				809.86 X
	Add GST on "X" (multiplying factor 0.1405)				113.79
	TOTAL				923.64 Y
	Add 15% CPOH on "Y"				138.55
	TOTAL				1062.19 Z
	Add Cess @ 1% on "Z"				10.62
	Cost of 1.00 cum				1072.81
	Say				1072.80

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 ₹
0114	Detail of cost for 1 cum LABOUR				
	Beldar	day	2.65	558.00	1478.70
0115	Coolie	day	0.72	558.00	401.76
9999	Sundries	L.S.	7.02	2.00	14.04
	TOTAL				1894.50 W
	Add 1 % Water charges on "W"				18.95
	TOTAL				1913.45 X
	Add GST on "X" (multiplying factor 0.1405)				268.84
	TOTAL				2182.28 Y
	Add 15% CPOH on "Y"				327.34
	TOTAL				2509.63 Z
	Add Cess @ 1% on "Z"				25.10
	Cost of 1.00 cum				2534.72
	Say				2534.70

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	558.00	1182.96
0115	Coolie	day	0.90	558.00	502.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	4.68	2.00	9.36
	TOTAL				1694.52 W
	Add 1 % Water charges on "W"				16.95
	TOTAL				1711.47 X
	Add GST on "X" (multiplying factor 0.1405)				240.46
	TOTAL				1951.93 Y
	Add 15% CPOH on "Y"				292.79
	TOTAL				2244.71 Z
	Add Cess @ 1% on "Z"				22.45
	Cost of 1.00 cum				2267.16
	Say				2267.15

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 cum R.C.C. or R.B. work Reinforced area considering 1% reinforcement = 0.01sqm				
	LABOUR				
	For cutting 0.01 sqm reinforcement				
0103	Blacksmith 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				645.28 W
	Add 1 % Water charges on "W"				6.45
	TOTAL				651.73 X
	Add GST on "X" (multiplying factor 0.1405)				91.57
	TOTAL				743.30 Y
	Add 15% CPOH on "Y"				111.50
	TOTAL				854.80 Z
	Add Cess @ 1% on "Z"				8.55
	Cost of 1.00 sqm				863.34
	Say				863.35

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	679.00	169.75
0114	Beldar	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				475.53 W
	Add 1 % Water charges on "W"				4.76
	TOTAL				480.29 X
	Add GST on "X" (multiplying factor 0.1405)				67.48
	TOTAL				547.77 Y
	Add 15% CPOH on "Y"				82.16
	TOTAL				629.93 Z
	Add Cess @ 1% on "Z"				6.30
	Cost of 94.80 kg				636.23
	Cost of 1.00 kg				6.71
	Say				6.70

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	558.00	167.40
0115	Coolie	day	0.37	558.00	206.46
9999	Sundries	L.S.	1.04	2.00	2.08
	TOTAL				375.94 W
	Add 1 % Water charges on "W"				3.76
	TOTAL				379.70 X
	Add GST on "X" (multiplying factor 0.1405)				53.35
	TOTAL				433.05 Y
	Add 15% CPOH on "Y"				64.96
	TOTAL				498.00 Z
	Add Cess @ 1% on "Z"				4.98
	Cost of 1.00 cum				502.98
	Say				503.00

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	558.00	691.92
0115	Coolie	day	0.46	558.00	256.68

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.04	2.00	2.08
	TOTAL				950.68 W
	Add 1 % Water charges on "W"				9.51
	TOTAL				960.19 X
	Add GST on "X" (multiplying factor 0.1405)				134.91
	TOTAL				1095.09 Y
	Add 15% CPOH on "Y"				164.26
	TOTAL				1259.36 Z
	Add Cess @ 1% on "Z"				12.59
	Cost of 1.00 cum				1271.95
	Say				1271.95

15.7.3 In lime mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	0.44	558.00	245.52
0115	Coolie	day	0.37	558.00	206.46
9999	Sundries	L.S.	1.04	2.00	2.08
	TOTAL				454.06 W
	Add 1 % Water charges on "W"				4.54
	TOTAL				458.60 X
	Add GST on "X" (multiplying factor 0.1405)				64.43
	TOTAL				523.03 Y
	Add 15% CPOH on "Y"				78.46
	TOTAL				601.49 Z
	Add Cess @ 1% on "Z"				6.01
	Cost of 1.00 cum				607.50
	Say				607.50

15.7.4 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.06	558.00	591.48
0115	Coolie	day	0.90	558.00	502.20
9999	Sundries	L.S.	2.47	2.00	4.94
	TOTAL				1098.62 W
	Add 1 % Water charges on "W"				10.99
	TOTAL				1109.61 X
	Add GST on "X" (multiplying factor 0.1405)				155.90
	TOTAL				1265.51 Y
	Add 15% CPOH on "Y"				189.83
	TOTAL				1455.33 Z
	Add Cess @ 1% on "Z"				14.55
	Cost of 1.00 cum				1469.89
	Say				1469.90

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	558.00	1339.20
0115	Coolie	day	1.60	558.00	892.80
0124	Mason (brick layer) 2nd class	day	0.40	679.00	271.60
9999	Sundries	L.S.	1.82	2.00	3.64
	TOTAL				2507.24 W
	Add 1 % Water charges on "W"				25.07
	TOTAL				2532.31 X
	Add GST on "X" (multiplying factor 0.1405)				355.79
	TOTAL				2888.10 Y
	Add 15% CPOH on "Y"				433.22
	TOTAL				3321.32 Z
	Add Cess @ 1% on "Z"				33.21
	Cost of 1000 Nos				3354.53
	Say				3354.55

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	558.00	1562.40
0115	Coolie	day	1.40	558.00	781.20
0124	Mason (brick layer) 2nd class	day	0.80	679.00	543.20
9999	Sundries	L.S.	8.97	2.00	17.94
	TOTAL				2904.74 W
	Add 1 % Water charges on "W"				29.05
	TOTAL				2933.79 X
	Add GST on "X" (multiplying factor 0.1405)				412.20
	TOTAL				3345.98 Y
	Add 15% CPOH on "Y"				501.90
	TOTAL				3847.88 Z
	Add Cess @ 1% on "Z"				38.48
	Cost of 1000 Nos				3886.36
	Say				3886.35

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	558.00	1953.00
0115	Coolie	day	1.50	558.00	837.00
0124	Mason (brick layer) 2nd class	day	1.24	679.00	841.96

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				3648.08 W
	Add 1 % Water charges on "W"				36.48
	TOTAL				3684.56 X
	Add GST on "X" (multiplying factor 0.1405)				517.68
	TOTAL				4202.24 Y
	Add 15% CPOH on "Y"				630.34
	TOTAL				4832.58 Z
	Add Cess @ 1% on "Z"				48.33
	Cost of 1000 Nos				4880.90
	Say				4880.90

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				
0114	LABOUR				
	Beldar	day	0.61	558.00	340.38
0115	Coolie	day	0.49	558.00	273.42
9999	Sundries	L.S.	1.95	2.00	3.90
	TOTAL				617.70 W
	Add 1 % Water charges on "W"				6.18
	TOTAL				623.88 X
	Add GST on "X" (multiplying factor 0.1405)				87.65
	TOTAL				711.53 Y
	Add 15% CPOH on "Y"				106.73
	TOTAL				818.26 Z
	Add Cess @ 1% on "Z"				8.18
	Cost of 1.00 cum				826.44
	Say				826.45

15.9.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
	LABOUR				
0114	Beldar	day	1.30	558.00	725.40
0115	Coolie	day	1.04	558.00	580.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				1311.18 W
	Add 1 % Water charges on "W"				13.11
	TOTAL				1324.29 X
	Add GST on "X" (multiplying factor 0.1405)				186.06
	TOTAL				1510.35 Y
	Add 15% CPOH on "Y"				226.55
	TOTAL				1736.91 Z
	Add Cess @ 1% on "Z"				17.37
	Cost of 1.00 cum				1754.28
	Say				1754.30

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				
0114	LABOUR				
	Beldar	day	0.78	558.00	435.24
0115	Coolie	day	0.61	558.00	340.38
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				781.08 W
	Add 1 % Water charges on "W"				7.81
	TOTAL				788.89 X
	Add GST on "X" (multiplying factor 0.1405)				110.84
	TOTAL				899.73 Y
	Add 15% CPOH on "Y"				134.96
	TOTAL				1034.69 Z
	Add Cess @ 1% on "Z"				10.35
	Cost of 1.00 cum				1045.04
	Say				1045.05

15.10.2 In cement mortar

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 1 cum				
0114	LABOUR				
	Beldar	day	1.55	558.00	864.90
0115	Coolie	day	1.19	558.00	664.02

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				1534.38 W
	Add 1 % Water charges on "W"				15.34
	TOTAL				1549.72 X
	Add GST on "X" (multiplying factor 0.1405)				217.74
	TOTAL				1767.46 Y
	Add 15% CPOH on "Y"				265.12
	TOTAL				2032.58 Z
	Add Cess @ 1% on "Z"				20.33
	Cost of 1.00 cum				2052.90
	Say				2052.90

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	679.00	33.95
0114	Beldar	day	0.20	558.00	111.60
0115	Coolie	day	0.20	558.00	111.60
9999	Sundries	L.S.	0.52	2.00	1.04
	TOTAL				258.19 W
	Add 1 % Water charges on "W"				2.58
	TOTAL				260.77 X
	Add GST on "X" (multiplying factor 0.1405)				36.64
	TOTAL				297.41 Y
	Add 15% CPOH on "Y"				44.61
	TOTAL				342.02 Z
	Add Cess @ 1% on "Z"				3.42
	Cost of 1.00 cum				345.44
	Say				345.45

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	679.00	33.95
0114	Beldar	day	0.40	558.00	223.20
0115	Coolie	day	0.20	558.00	111.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.91	2.00	1.82
	TOTAL				370.57 W
	Add 1 % Water charges on "W"				3.71
	TOTAL				374.28 X
	Add GST on "X" (multiplying factor 0.1405)				52.59
	TOTAL				426.86 Y
	Add 15% CPOH on "Y"				64.03
	TOTAL				490.89 Z
	Add Cess @ 1% on "Z"				4.91
	Cost of 1.00 cum				495.80
	Say				495.80

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	679.00	67.90
0114	Beldar	day	0.18	558.00	100.44
0103	Blacksmith 2nd class	day	0.05	679.00	33.95
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				205.15 W
	Add 1 % Water charges on "W"				2.05
	TOTAL				207.20 X
	Add GST on "X" (multiplying factor 0.1405)				29.11
	TOTAL				236.31 Y
	Add 15% CPOH on "Y"				35.45
	TOTAL				271.76 Z
	Add Cess @ 1% on "Z"				2.72
	Cost of each				274.48
	Say				274.50

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	679.00	88.27
0114	Beldar	day	0.25	558.00	139.50
0103	Blacksmith 2nd class	day	0.07	679.00	47.53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				280.76 W
	Add 1 % Water charges on "W"				2.81
	TOTAL				283.57 X
	Add GST on "X" (multiplying factor 0.1405)				39.84
	TOTAL				323.41 Y
	Add 15% CPOH on "Y"				48.51
	TOTAL				371.92 Z
	Add Cess @ 1% on "Z"				3.72
	Cost of each				375.64
	Say				375.65

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 ₹
0112	Detail of cost for each LABOUR				
	Carpenter 2nd class	day	0.05	679.00	33.95
0114	Beldar	day	0.08	558.00	44.64
9999	Sundries	L.S.	0.52	2.00	1.04
	TOTAL				79.63 W
	Add 1 % Water charges on "W"				0.80
	TOTAL				80.43 X
	Add GST on "X" (multiplying factor 0.1405)				11.30
	TOTAL				91.73 Y
	Add 15% CPOH on "Y"				13.76
	TOTAL				105.49 Z
	Add Cess @ 1% on "Z"				1.05
	Cost of each				106.54
	Say				106.55

15.13.2 Of area beyond 3 sq. metres

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0112	Detail of cost for each LABOUR				
	Carpenter 2nd class	day	0.07	679.00	47.53
0114	Beldar	day	0.10	558.00	55.80
9999	Sundries	L.S.	0.91	2.00	1.82
	TOTAL				105.15 W
	Add 1 % Water charges on "W"				1.05
	TOTAL				106.20 X
	Add GST on "X" (multiplying factor 0.1405)				14.92
	TOTAL				121.12 Y
	Add 15% CPOH on "Y"				18.17
	TOTAL				139.29 Z
	Add Cess @ 1% on "Z"				1.39
	Cost of each				140.68
	Say				140.70

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	679.00	1358.00
0114	Beldar	day	2.00	558.00	1116.00
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				2500.78 W
	Add 1 % Water charges on "W"				25.01
	TOTAL				2525.79 X
	Add GST on "X" (multiplying factor 0.1405)				354.87
	TOTAL				2880.66 Y
	Add 15% CPOH on "Y"				432.10
	TOTAL				3312.76 Z
	Add Cess @ 1% on "Z"				33.13
	Cost of 1.00 cum				3345.89
	Say				3345.90

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	679.00	54.32
0114	Beldar	day	0.08	558.00	44.64
9999	Sundries	L.S.	0.52	2.00	1.04
	TOTAL				100.00 W
	Add 1 % Water charges on "W"				1.00
	TOTAL				101.00 X
	Add GST on "X" (multiplying factor 0.1405)				14.19
	TOTAL				115.19 Y
	Add 15% CPOH on "Y"				17.28
	TOTAL				132.47 Z
	Add Cess @ 1% on "Z"				1.32
	Cost of 10.00 metre				133.79
	Cost of 1.00 metre				13.38
	Say				13.40

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	679.00	135.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				329.98 W
	Add 1 % Water charges on "W"				3.30
	TOTAL				333.28 X
	Add GST on "X" (multiplying factor 0.1405)				46.83
	TOTAL				380.11 Y
	Add 15% CPOH on "Y"				57.02
	TOTAL				437.12 Z
	Add Cess @ 1% on "Z"				4.37
	Cost of 1.00 cum per metre span				441.49
	Say				441.50

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	679.00	4.07
0114	Beldar	day	0.008	558.00	4.46
9999	Sundries	L.S.	0.39	2.00	0.78
	TOTAL				9.32 W
	Add 1 % Water charges on "W"				0.09
	TOTAL				9.41 X
	Add GST on "X" (multiplying factor 0.1405)				1.32
	TOTAL				10.73 Y
	Add 15% CPOH on "Y"				1.61
	TOTAL				12.34 Z
	Add Cess @ 1% on "Z"				0.12
	Cost of 10.00 metre per metre span				12.47
	Cost of 1.00 metre per metre span				1.25
	Say				1.25

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	679.00	169.75
0114	Beldar	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				475.53 W
	Add 1 % Water charges on "W"				4.76
	TOTAL				480.29 X
	Add GST on "X" (multiplying factor 0.1405)				67.48
	TOTAL				547.77 Y
	Add 15% CPOH on "Y"				82.16
	TOTAL				629.93 Z
	Add Cess @ 1% on "Z"				6.30
	Cost of 1.00 cum per metre height				636.23
	Say				636.25

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	679.00	6.79
0114	Beldar	day	0.02	558.00	11.16
9999	Sundries	L.S.	0.39	2.00	0.78
	TOTAL				18.73 W
	Add 1 % Water charges on "W"				0.19
	TOTAL				18.92 X
	Add GST on "X" (multiplying factor 0.1405)				2.66
	TOTAL				21.58 Y
	Add 15% CPOH on "Y"				3.24
	TOTAL				24.81 Z
	Add Cess @ 1% on "Z"				0.25
	Cost of 10.00 metre per metre height				25.06
	Cost of 1.00 metre per metre height				2.51
	Say				2.50

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	679.00	33.95
0100	Bandhani	day	0.10	617.00	61.70
0114	Beldar	day	0.15	558.00	83.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				184.81 W
	Add 1 % Water charges on "W"				1.85
	TOTAL				186.66 X
	Add GST on "X" (multiplying factor 0.1405)				26.23
	TOTAL				212.88 Y
	Add 15% CPOH on "Y"				31.93
	TOTAL				244.82 Z
	Add Cess @ 1% on "Z"				2.45
	Cost of 1.00 quintal				247.26
	Cost of 1.00 kg				2.47
	Say				2.45

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	679.00	33.95
0100	Bandhani	day	0.05	617.00	30.85
0114	Beldar	day	0.10	558.00	55.80
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				126.06 W
	Add 1 % Water charges on "W"				1.26
	TOTAL				127.32 X
	Add GST on "X" (multiplying factor 0.1405)				17.89
	TOTAL				145.21 Y
	Add 15% CPOH on "Y"				21.78
	TOTAL				166.99 Z
	Add Cess @ 1% on "Z"				1.67
	Cost of 1.00 quintal				168.66
	Cost of 1.00 kg				1.69
	Say				1.70

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	679.00	101.85
0100	Bandhani	day	0.10	617.00	61.70
0114	Beldar	day	0.25	558.00	139.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	4.16	2.00	8.32
	TOTAL				311.37 W
	Add 1 % Water charges on "W"				3.11
	TOTAL				314.48 X
	Add GST on "X" (multiplying factor 0.1405)				44.18
	TOTAL				358.67 Y
	Add 15% CPOH on "Y"				53.80
	TOTAL				412.47 Z
	Add Cess @ 1% on "Z"				4.12
	Cost of 1.00 quintal				416.59
	Cost of 1.00 kg				4.17
	Say				4.15

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				
0100	LABOUR				
	Bandhani	day	0.10	617.00	61.70
0114	Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				206.66 W
	Add 1 % Water charges on "W"				2.07
	TOTAL				208.73 X
	Add GST on "X" (multiplying factor 0.1405)				29.33
	TOTAL				238.05 Y
	Add 15% CPOH on "Y"				35.71
	TOTAL				273.76 Z
	Add Cess @ 1% on "Z"				2.74
	Cost of 1.00 quintal				276.50
	Cost of 1.00 kg				2.76
	Say				2.75

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				
0100	LABOUR				
	Bandhani	day	0.02	617.00	12.34
0114	Beldar	day	0.06	558.00	33.48

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.39	2.00	0.78
	TOTAL				46.60 W
	Add 1 % Water charges on "W"				0.47
	TOTAL				47.07 X
	Add GST on "X" (multiplying factor 0.1405)				6.61
	TOTAL				53.68 Y
	Add 15% CPOH on "Y"				8.05
	TOTAL				61.73 Z
	Add Cess @ 1% on "Z"				0.62
	Cost of 1.00 quintal per metre span				62.35
	Cost of 1.00 kg per metre span				0.62
	Say				0.60

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				
0100	LABOUR				
	Bandhani	day	0.02	617.00	12.34
0114	Beldar	day	0.06	558.00	33.48
9999	Sundries	L.S.	0.39	2.00	0.78
	TOTAL				46.60 W
	Add 1 % Water charges on "W"				0.47
	TOTAL				47.07 X
	Add GST on "X" (multiplying factor 0.1405)				6.61
	TOTAL				53.68 Y
	Add 15% CPOH on "Y"				8.05
	TOTAL				61.73 Z
	Add Cess @ 1% on "Z"				0.62
	Cost of 1.00 quintal per metre height				62.35
	Cost of 1.00 kg per metre height				0.62
	Say				0.60

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				
0130	LABOUR				
	Mistry	day	0.20	738.00	147.60
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				259.20 W
	Add 1 % Water charges on "W"				2.59
	TOTAL				261.79 X
	Add GST on "X" (multiplying factor 0.1405)				36.78
	TOTAL				298.57 Y
	Add 15% CPOH on "Y"				44.79
	TOTAL				343.36 Z
	Add Cess @ 1% on "Z"				3.43
	Cost of 1.00 quintal				346.79
	Cost of 1.00 kg				3.47
	Say				3.45

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	679.00	203.70
0114	Beldar	day	0.12	558.00	66.96
0115	Coolie	day	0.24	558.00	133.92
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				410.04 W
	Add 1 % Water charges on "W"				4.10
	TOTAL				414.14 X
	Add GST on "X" (multiplying factor 0.1405)				58.19
	TOTAL				472.33 Y
	Add 15% CPOH on "Y"				70.85
	TOTAL				543.18 Z
	Add Cess @ 1% on "Z"				5.43
	Cost of 10.00 sqm				548.61
	Cost of 1.00 sqm				54.86
	Say				54.85

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	679.00	400.61
0114	Beldar	day	0.18	558.00	100.44
0115	Coolie	day	0.24	558.00	133.92
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				640.43 W
	Add 1 % Water charges on "W"				6.40
	TOTAL				646.83 X
	Add GST on "X" (multiplying factor 0.1405)				90.88
	TOTAL				737.71 Y
	Add 15% CPOH on "Y"				110.66
	TOTAL				848.37 Z
	Add Cess @ 1% on "Z"				8.48
	Cost of 10.00 sqm				856.86
	Cost of 1.00 sqm				85.69
	Say				85.70

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	558.00	139.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	1.00	558.00	558.00
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				702.96 W
	Add 1 % Water charges on "W"				7.03
	TOTAL				709.99 X
	Add GST on "X" (multiplying factor 0.1405)				99.75
	TOTAL				809.74 Y
	Add 15% CPOH on "Y"				121.46
	TOTAL				931.20 Z
	Add Cess @ 1% on "Z"				9.31
	Cost of 1.00 cum				940.52
	Say				940.50

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	558.00	987.66
0115	Coolie	day	0.75	558.00	418.50
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1422.28 W
	Add 1 % Water charges on "W"				14.22
	TOTAL				1436.50 X
	Add GST on "X" (multiplying factor 0.1405)				201.83
	TOTAL				1638.33 Y
	Add 15% CPOH on "Y"				245.75
	TOTAL				1884.08 Z
	Add Cess @ 1% on "Z"				18.84
	Cost of 10.00 sqm				1902.92
	Cost of 1.00 sqm				190.29
	Say				190.30

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	679.00	366.66
0114	Beldar	day	0.16	558.00	89.28
0115	Coolie	day	0.24	558.00	133.92

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.47	2.00	4.94
	TOTAL				594.80 W
	Add 1 % Water charges on "W"				5.95
	TOTAL				600.75 X
	Add GST on "X" (multiplying factor 0.1405)				84.41
	TOTAL				685.15 Y
	Add 15% CPOH on "Y"				102.77
	TOTAL				787.93 Z
	Add Cess @ 1% on "Z"				7.88
	Cost of 10.00 sqm				795.81
	Cost of 1.00 sqm				79.58
	Say				79.60

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Detail of cost for 1 cum LABOUR				
	Beldar	day	0.25	558.00	139.50
0115	Coolie	day	0.62	558.00	345.96
9999	Sundries	L.S.	1.04	2.00	2.08
	TOTAL				487.54 W
	Add 1 % Water charges on "W"				4.88
	TOTAL				492.42 X
	Add GST on "X" (multiplying factor 0.1405)				69.18
	TOTAL				561.60 Y
	Add 15% CPOH on "Y"				84.24
	TOTAL				645.84 Z
	Add Cess @ 1% on "Z"				6.46
	Cost of 1.00 cum				652.30
	Say				652.30

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 ₹
0112	Detail of cost for 10 sqm LABOUR				
	Carpenter 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.00	558.00	558.00
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				911.02 W
	Add 1 % Water charges on "W"				9.11
	TOTAL				920.13 X
	Add GST on "X" (multiplying factor 0.1405)				129.28
	TOTAL				1049.41 Y
	Add 15% CPOH on "Y"				157.41
	TOTAL				1206.82 Z
	Add Cess @ 1% on "Z"				12.07
	Cost of 10.00 sqm				1218.89
	Cost of 1.00 sqm				121.89
	Say				121.90

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	679.00	135.80
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				425.46 W
	Add 1 % Water charges on "W"				4.25
	TOTAL				429.71 X
	Add GST on "X" (multiplying factor 0.1405)				60.37
	TOTAL				490.09 Y
	Add 15% CPOH on "Y"				73.51
	TOTAL				563.60 Z
	Add Cess @ 1% on "Z"				5.64
	Cost of 10.00 sqm				569.24
	Cost of 1.00 sqm				56.92
	Say				56.90

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	558.00	987.66
0115	Coolie	day	0.75	558.00	418.50
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1422.28 W
	Add 1 % Water charges on "W"				14.22
	TOTAL				1436.50 X
	Add GST on "X" (multiplying factor 0.1405)				201.83
	TOTAL				1638.33 Y
	Add 15% CPOH on "Y"				245.75
	TOTAL				1884.08 Z
	Add Cess @ 1% on "Z"				18.84
	Cost of 1.00 cum				1902.92
	Say				1902.90

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	558.00	664.02
0115	Coolie	day	1.21	558.00	675.18

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1355.32 W
	Add 1 % Water charges on "W"				13.55
	TOTAL				1368.87 X
	Add GST on "X" (multiplying factor 0.1405)				192.33
	TOTAL				1561.20 Y
	Add 15% CPOH on "Y"				234.18
	TOTAL				1795.38 Z
	Add Cess @ 1% on "Z"				17.95
	Cost of 10.00 sqm				1813.33
	Cost of 1.00 sqm				181.33
	Say				181.35

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				
0114	LABOUR				
	Beldar	day	1.73	558.00	965.34
0115	Coolie	day	0.25	558.00	139.50
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				1120.96 W
	Add 1 % Water charges on "W"				11.21
	TOTAL				1132.17 X
	Add GST on "X" (multiplying factor 0.1405)				159.07
	TOTAL				1291.24 Y
	Add 15% CPOH on "Y"				193.69
	TOTAL				1484.93 Z
	Add Cess @ 1% on "Z"				14.85
	Cost of 10.00 sqm				1499.77
	Cost of 1.00 sqm				149.98
	Say				150.00

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				
0114	LABOUR				
	Beldar	day	0.54	558.00	301.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	3.64	2.00	7.28
	TOTAL				308.60 W
	Add 1 % Water charges on "W"				3.09
	TOTAL				311.69 X
	Add GST on "X" (multiplying factor 0.1405)				43.79
	TOTAL				355.48 Y
	Add 15% CPOH on "Y"				53.32
	TOTAL				408.80 Z
	Add Cess @ 1% on "Z"				4.09
	Cost of 10.00 sqm				412.89
	Cost of 1.00 sqm				41.29
	Say				41.30

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	558.00	279.00
0115	Coolie	day	0.50	558.00	279.00
9999	Sundries	L.S.	0.52	2.00	1.04
	TOTAL				559.04 W
	Add 1 % Water charges on "W"				5.59
	TOTAL				564.63 X
	Add GST on "X" (multiplying factor 0.1405)				79.33
	TOTAL				643.96 Y
	Add 15% CPOH on "Y"				96.59
	TOTAL				740.56 Z
	Add Cess @ 1% on "Z"				7.41
	Cost of 50.00 metre				747.96
	Cost of 1.00 metre				14.96
	Say				14.95

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	558.00	59.71
0115	Coolie	day	0.067	558.00	37.39
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	2.00	0.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	2.00	26.78
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				127.25 W
	Add 1 % Water charges on "W"				1.27
	TOTAL				128.52 X
	Add GST on "X" (multiplying factor 0.1405)				18.06
	TOTAL				146.58 Y
	Add 15% CPOH on "Y"				21.99
	TOTAL				168.57 Z
	Add Cess @ 1% on "Z"				1.69
	Cost of each				170.26
	Say				170.25

15.34.2 R.C.C.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for each LABOUR				
0114	Beldar	day	0.097	558.00	54.13
0115	Coolie	day	0.06	558.00	33.48
9999	Sundries	L.S.	0.26	2.00	0.52
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	2.00	26.78
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	2.00	16.12
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				136.49 W
	Add 1 % Water charges on "W"				1.36
	TOTAL				137.85 X
	Add GST on "X" (multiplying factor 0.1405)				19.37
	TOTAL				157.22 Y
	Add 15% CPOH on "Y"				23.58
	TOTAL				180.80 Z
	Add Cess @ 1% on "Z"				1.81
	Cost of each				182.61
	Say				182.60

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 ₹
9999	Detail of cost for 1 ballie (post) Cutting	L.S.	2.73	2.00	5.46

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Transporting and stacking	L.S.	1.43	2.00	2.86
	TOTAL				8.32 W
	Add 1 % Water charges on "W"				0.08
	TOTAL				8.40 X
	Add GST on "X" (multiplying factor 0.1405)				1.18
	TOTAL				9.58 Y
	Add 15% CPOH on "Y"				1.44
	TOTAL				11.02 Z
	Add Cess @ 1% on "Z"				0.11
	Cost of each				11.13
	Say				11.15

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 ₹
0114	Detail of cost for 1 quintal				
	LABOUR				
	Beldar	day	3.50	558.00	1953.00
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				1963.66 W
	Add 1 % Water charges on "W"				19.64
	TOTAL				1983.30 X
	Add GST on "X" (multiplying factor 0.1405)				278.65
	TOTAL				2261.95 Y
	Add 15% CPOH on "Y"				339.29
	TOTAL				2601.24 Z
	Add Cess @ 1% on "Z"				26.01
	Cost of 1.00 quintal				2627.25
	Cost of 1.00 kg				26.27
	Say				26.25

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 1 sqm				
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.10	679.00	67.90
0114	Beldar	day	0.25	558.00	139.50
0115	Coolie	day	0.25	558.00	139.50
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				352.36 W
	Add 1 % Water charges on "W"				3.52
	TOTAL				355.88 X
	Add GST on "X" (multiplying factor 0.1405)				50.00
	TOTAL				405.89 Y
	Add 15% CPOH on "Y"				60.88
	TOTAL				466.77 Z
	Add Cess @ 1% on "Z"				4.67
	Cost of 10.00 sqm				471.44
	Cost of 1.00 sqm				47.14
	Say				47.15

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	679.00	67.90
0114	Beldar	day	0.40	558.00	223.20
0115	Coolie	day	0.20	558.00	111.60
9999	Sundries	L.S.	4.16	2.00	8.32
	TOTAL				411.02 W
	Add 1 % Water charges on "W"				4.11
	TOTAL				415.13 X
	Add GST on "X" (multiplying factor 0.1405)				58.33
	TOTAL				473.46 Y
	Add 15% CPOH on "Y"				71.02
	TOTAL				544.47 Z
	Add Cess @ 1% on "Z"				5.44
	Cost of 10.00 sqm				549.92
	Cost of 1.00 sqm				54.99
	Say				55.00

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	679.00	101.85
0114	Beldar	day	0.20	558.00	111.60
0115	Coolie	day	0.20	558.00	111.60
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				335.71 W
	Add 1 % Water charges on "W"				3.36
	TOTAL				339.07 X
	Add GST on "X" (multiplying factor 0.1405)				47.64
	TOTAL				386.71 Y
	Add 15% CPOH on "Y"				58.01
	TOTAL				444.71 Z
	Add Cess @ 1% on "Z"				4.45
	Cost of 10.00 sqm				449.16
	Cost of 1.00 sqm				44.92
	Say				44.90

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	679.00	135.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.25	558.00	139.50
0115	Coolie	day	0.25	558.00	139.50
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				428.32 W
	Add 1 % Water charges on "W"				4.28
	TOTAL				432.60 X
	Add GST on "X" (multiplying factor 0.1405)				60.78
	TOTAL				493.38 Y
	Add 15% CPOH on "Y"				74.01
	TOTAL				567.39 Z
	Add Cess @ 1% on "Z"				5.67
	Cost of 10.00 sqm				573.07
	Cost of 1.00 sqm				57.31
	Say				57.30

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	679.00	135.80
0114	Beldar	day	0.30	558.00	167.40
0115	Coolie	day	0.30	558.00	167.40
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				497.38 W
	Add 1 % Water charges on "W"				4.97
	TOTAL				502.35 X
	Add GST on "X" (multiplying factor 0.1405)				70.58
	TOTAL				572.93 Y
	Add 15% CPOH on "Y"				85.94
	TOTAL				658.87 Z
	Add Cess @ 1% on "Z"				6.59
	Cost of 10.00 sqm				665.46
	Cost of 1.00 sqm				66.55
	Say				66.55

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	679.00	135.80
0114	Beldar	day	2.00	558.00	1116.00
0115	Coolie	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.39	2.00	26.78
	TOTAL				1557.58 W
	Add 1 % Water charges on "W"				15.58
	TOTAL				1573.16 X
	Add GST on "X" (multiplying factor 0.1405)				221.03
	TOTAL				1794.18 Y
	Add 15% CPOH on "Y"				269.13
	TOTAL				2063.31 Z
	Add Cess @ 1% on "Z"				20.63
	Cost of 10.00 sqm				2083.94
	Cost of 1.00 sqm				208.39
	Say				208.40

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	679.00	203.70
0114	Beldar	day	3.00	558.00	1674.00
0115	Coolie	day	0.75	558.00	418.50
9999	Sundries	L.S.	18.85	2.00	37.70
	TOTAL				2333.90 W
	Add 1 % Water charges on "W"				23.34
	TOTAL				2357.24 X
	Add GST on "X" (multiplying factor 0.1405)				331.19
	TOTAL				2688.43 Y
	Add 15% CPOH on "Y"				403.26
	TOTAL				3091.70 Z
	Add Cess @ 1% on "Z"				30.92
	Cost of 10.00 sqm				3122.61
	Cost of 1.00 sqm				312.26
	Say				312.25

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	679.00	135.80
0114	Beldar	day	0.30	558.00	167.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				313.86 W
	Add 1 % Water charges on "W"				3.14
	TOTAL				317.00 X
	Add GST on "X" (multiplying factor 0.1405)				44.54
	TOTAL				361.54 Y
	Add 15% CPOH on "Y"				54.23
	TOTAL				415.77 Z
	Add Cess @ 1% on "Z"				4.16
	Cost of 10.00 sqm.				419.93
	Cost of 1.00 sqm.				41.99
	Say				42.00

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	558.00	200.88
0115	Coolie	day	0.36	558.00	200.88
9999	Sundries	L.S.	0.91	2.00	1.82
	TOTAL				403.58 W
	Add 1 % Water charges on "W"				4.04
	TOTAL				407.62 X
	Add GST on "X" (multiplying factor 0.1405)				57.27
	TOTAL				464.89 Y
	Add 15% CPOH on "Y"				69.73
	TOTAL				534.62 Z
	Add Cess @ 1% on "Z"				5.35
	Cost of 10.00 metre				539.96
	Cost of 1.00 metre				54.00
	Say				54.00

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	558.00	200.88
0115	Coolie	day	0.38	558.00	212.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1.56	2.00	3.12
	TOTAL				416.04 W
	Add 1 % Water charges on "W"				4.16
	TOTAL				420.20 X
	Add GST on "X" (multiplying factor 0.1405)				59.04
	TOTAL				479.24 Y
	Add 15% CPOH on "Y"				71.89
	TOTAL				551.12 Z
	Add Cess @ 1% on "Z"				5.51
	Cost of 10.00 metre				556.64
	Cost of 1.00 metre				55.66
	Say				55.65

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	558.00	200.88
0115	Coolie	day	0.40	558.00	223.20
9999	Sundries	L.S.	2.08	2.00	4.16
	TOTAL				428.24 W
	Add 1 % Water charges on "W"				4.28
	TOTAL				432.52 X
	Add GST on "X" (multiplying factor 0.1405)				60.77
	TOTAL				493.29 Y
	Add 15% CPOH on "Y"				73.99
	TOTAL				567.29 Z
	Add Cess @ 1% on "Z"				5.67
	Cost of 10.00 metre				572.96
	Cost of 1.00 metre				57.30
	Say				57.30

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	558.00	2678.40
0115	Coolie	day	2.40	558.00	1339.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Labour for stacking of serviceable material and disposal of unserviceable material within 50 metres lead 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 36.00 sqm Cost of 1.00 sqm Say	L.S.	89.70	2.00	179.40 4197.00 W 41.97 4238.97 X 595.58 4834.55 Y 725.18 5559.73 Z 55.60 5615.32 155.98 156.00

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	558.00	5356.80
0115	Coolie	day	4.80	558.00	2678.40
9999	Labour for stacking of serviceable material and disposal of unserviceable material within 50 metres lead 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 36.00 sqm Cost of 1.00 sqm Say	L.S.	107.64	2.00	215.28 8250.48 W 82.50 8332.98 X 1170.78 9503.77 Y 1425.57 10929.33 Z 109.29 11038.63 306.63 306.65

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	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
9999	Dismantling G.I. pipe and stacking etc	L.S.	35.88	2.00	71.76
	TOTAL				808.32 W
	Add 1 % Water charges on "W"				8.08
	TOTAL				816.40 X
	Add GST on "X" (multiplying factor 0.1405)				114.70
	TOTAL				931.11 Y
	Add 15% CPOH on "Y"				139.67
	TOTAL				1070.77 Z
	Add Cess @ 1% on "Z"				10.71
	Cost of 10.00 metre				1081.48
	Cost of 1.00 metre				108.15
	Say				108.15

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	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
9999	Dismantling G.I. pipe and stacking etc	L.S.	71.76	2.00	143.52
	TOTAL				880.08 W
	Add 1 % Water charges on "W"				8.80
	TOTAL				888.88 X
	Add GST on "X" (multiplying factor 0.1405)				124.89
	TOTAL				1013.77 Y
	Add 15% CPOH on "Y"				152.07
	TOTAL				1165.83 Z
	Add Cess @ 1% on "Z"				11.66
	Cost of 10.00 metre				1177.49
	Cost of 1.00 metre				117.75
	Say				117.75

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 $1 \times 40.26 \times 0.55 \times 0.75 \text{ m} = 16.61 \text{ cum}$ Deduct for pipes of average 100 mm dia $= 1 \times 40.26 \times (22/7) / 4 \times (0.118) \times (0.118) = 0.44 \text{ cum}$ Total = 16.17 cum LABOUR				
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	16.17	252.30	4079.69 A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	16.17	219.65	3551.74 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	679.00	427.77
0114	Beldar	day	4.50	558.00	2511.00
9977	Carriage	L.S.	53.82	2.00	107.64
	TOTAL				10926.84 W
	Add 1 % Water charges on "W-A"				32.95
	TOTAL				10959.80 X
	Add GST on "X-A" (multiplying factor 0.1405)				467.64
	TOTAL				11427.43 Y
	Add 15% CPOH on "Y-A"				569.40
	TOTAL				11996.83 Z
	Add Cess @ 1% on "Z-A"				43.65
	Cost of 40.26 metre				12040.48
	Cost of 1.00 metre				299.07
	Say				299.05

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 $1 \times 40.26 \times 0.65 \times 0.75 \text{ m} = 19.63 \text{ cum}$ Deduct for pipes of average 250 mm dia $= 1 \times 40.26 \times (22/7) / 4 \times (0.274) \times (0.274) = 2.37 \text{ cum}$ Total = 17.26 cum LABOUR				
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	17.26	252.30	4354.70 A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	17.26	219.65	3791.16 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	679.00	882.70
0114	Beldar	day	7.50	558.00	4185.00
9977	Carriage	L.S.	80.73	2.00	161.46
	TOTAL				13947.02 W
	Add 1 % Water charges on "W-A"				58.01
	TOTAL				14005.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				823.21
	TOTAL				14828.24 Y
	Add 15% CPOH on "Y-A"				1002.36
	TOTAL				15830.60 Z
	Add Cess @ 1% on "Z-A"				76.85
	Cost of 40.26 metre				15907.45
	Cost of 1.00 metre				395.12
	Say				395.10

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 $1 \times 40.26 \times 0.85 \times 0.75 \text{ m} = 25.67 \text{ cum}$ Deduct for pipes of average 450 mm dia $= 1 \times 40.26 \times (22/7) / 4 \times (0.48) \times (0.48) = 7.29 \text{ cum}$ Total = 18.38 cum LABOUR				
2.8.1	Rate as per Item No.2.8.1 of SH: EARTH WORK	cum	18.38	252.30	4637.27 A
2.25	Rate as per Item No.2.25 of SH: EARTH WORK	cum	18.38	219.65	4037.17 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	679.00	1527.75
0114	Beldar	day	11.50	558.00	6417.00
9988	Carriage and sundries	L.S.	134.55	2.00	269.10
	TOTAL				17701.79 W
	Add 1 % Water charges on "W-A"				90.27
	TOTAL				17792.06 X
	Add GST on "X-A" (multiplying factor 0.1405)				1281.03
	TOTAL				19073.09 Y
	Add 15% CPOH on "Y-A"				1559.80
	TOTAL				20632.89 Z
	Add Cess @ 1% on "Z-A"				119.58
	Cost of 40.26 metre				20752.47
	Cost of 1.00 metre				515.46
	Say				515.45

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 $1 \times 40.26 \times 1.30 \times 1.65 \text{ m} = 86.36 \text{ cum}$ Deduct for pipes of average 450 mm dia $= 1 \times 40.26 \times (22/7) / 4 \times (0.48) \times (0.48)$ $= 7.29 \text{ cum}$ Total = 79.07 cum LABOUR				
0114	Beldar	day	5.32	558.00	2968.56
0115	Coolie	day	5.46	558.00	3046.68
0101	Bhisti	day	0.31	617.00	191.27
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	679.00	1527.75
0114	Beldar	day	11.50	558.00	6417.00
9988	Carriage and sundries	L.S.	134.55	2.00	269.10
	TOTAL				15233.86 W
	Add 1 % Water charges on "W"				152.34
	TOTAL				15386.20 X
	Add GST on "X" (multiplying factor 0.1405)				2161.76
	TOTAL				17547.96 Y
	Add 15% CPOH on "Y"				2632.19
	TOTAL				20180.15 Z
	Add Cess @ 1% on "Z"				201.80
	Cost of 40.26 metre				20381.95
	Cost of 1.00 metre				506.26
	Say				506.25

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 $1 \times 40.26 \times 1.30 \times 1.65 \text{ m} = 86.36 \text{ cum}$ Deduct for pipes of average 450 mm dia $= 1 \times 40.26 \times (22/7) / 4 \times (1.00) \times (1.00)$ $= 31.63 \text{ cum}$ Total = 54.73 cum LABOUR				
0114	Beldar	day	15.82	558.00	8827.56
0115	Coolie	day	16.25	558.00	9067.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.93	617.00	573.81
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	679.00	6790.00
0114	Beldar	day	20.00	558.00	11160.00
9988	Carriage and sundries	L.S.	179.40	2.00	358.80
	TOTAL				38567.67 W
	Add 1 % Water charges on "W"				385.68
	TOTAL				38953.35 X
	Add GST on "X" (multiplying factor 0.1405)				5472.95
	TOTAL				44426.29 Y
	Add 15% CPOH on "Y"				6663.94
	TOTAL				51090.24 Z
	Add Cess @ 1% on "Z"				510.90
	Cost of 40.26 metre				51601.14
	Cost of 1.00 metre				1281.70
	Say				1281.70

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 $10.00 \times 0.55 \times 0.75 \text{ m} = 4.125 \text{ cum}$ Deduct for pipes of average 100 mm dia $= 1 \times 10 \times (22/7) / 4 \times (0.118) \times (0.118)$ $= 0.109 \text{ cum}$ Total = 4.016 cum LABOUR				
0114	Beldar	day	1.16	558.00	647.28
0115	Coolie	day	1.19	558.00	664.02
0101	Bhisti	day	0.07	617.00	43.19
0114	Beldar	day	0.36	558.00	200.88
0115	Coolie	day	0.38	558.00	212.04
9988	Carriage and sundries	L.S.	1.56	2.00	3.12
	TOTAL				1770.53 W
	Add 1 % Water charges on "W"				17.71
	TOTAL				1788.24 X
	Add GST on "X" (multiplying factor 0.1405)				251.25
	TOTAL				2039.48 Y
	Add 15% CPOH on "Y"				305.92
	TOTAL				2345.40 Z
	Add Cess @ 1% on "Z"				23.45
	Cost of 10.00 metre				2368.86
	Cost of 1.00 metre				236.89
	Say				236.90

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 $10.00 \times 0.65 \times 0.75 \text{ m} = 4.88 \text{ cum}$ Deduct for pipes of average 250 mm dia $= 1 \times 10 \times (22/7) / 4 \times (0.274) \times (0.274) = 0.590 \text{ cum}$ Total = 4.29 cum LABOUR				
0114	Beldar	day	1.24	558.00	691.92
0115	Coolie	day	1.28	558.00	714.24
0101	Bhisti	day	0.07	617.00	43.19
0114	Beldar	day	0.36	558.00	200.88
0115	Coolie	day	0.88	558.00	491.04
9988	Carriage and sundries	L.S.	3.77	2.00	7.54
	TOTAL				2148.81 W
	Add 1 % Water charges on "W"				21.49
	TOTAL				2170.30 X
	Add GST on "X" (multiplying factor 0.1405)				304.93
	TOTAL				2475.22 Y
	Add 15% CPOH on "Y"				371.28
	TOTAL				2846.51 Z
	Add Cess @ 1% on "Z"				28.47
	Cost of 10.00 metre				2874.97
	Cost of 1.00 metre				287.50
	Say				287.50

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 $1.3 \times 1.2 \times 0.15 \text{ m} = 0.234 \text{ cum}$ Less cover $0.61 \times 0.455 \times 0.15 \text{ m} = 0.042 \text{ cum}$ Net Quantity = 0.192 cum LABOUR				
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.14	558.00	78.12
9999	Removal of C.I. Cover with frame including stacking	L.S.	1.30	2.00	2.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				374.02 W
	Add 1 % Water charges on "W"				3.74
	TOTAL				377.76 X
	Add GST on "X" (multiplying factor 0.1405)				53.08
	TOTAL				430.84 Y
	Add 15% CPOH on "Y"				64.63
	TOTAL				495.46 Z
	Add Cess @ 1% on "Z"				4.95
	Cost of each				500.42
	Say				500.40

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	558.00	161.82
0115	Coolie	day	0.08	558.00	44.64
9999	Removal of C.I. Cover with frame including stacking	L.S.	0.65	2.00	1.30
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				218.42 W
	Add 1 % Water charges on "W"				2.18
	TOTAL				220.60 X
	Add GST on "X" (multiplying factor 0.1405)				30.99
	TOTAL				251.60 Y
	Add 15% CPOH on "Y"				37.74
	TOTAL				289.34 Z
	Add Cess @ 1% on "Z"				2.89
	Cost of each				292.23
	Say				292.25

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	558.00	451.98
0115	Coolie	day	0.51	558.00	284.58
9999	Sundries	L.S.	1.82	2.00	3.64
0114	Beldar	day	0.16	558.00	89.28
0115	Coolie	day	0.07	558.00	39.06
9999	Sundries	L.S.	0.52	2.00	1.04
0130	Mistry	day	0.25	738.00	184.50
0123	Mason (brick layer) 1st class	day	0.12	738.00	88.56
0124	Mason (brick layer) 2nd class	day	0.12	679.00	81.48
0100	Bandhani	day	1.00	617.00	617.00
0114	Beldar	day	1.00	558.00	558.00
9999	Sundries for scaffolding etc	L.S.	53.82	2.00	107.64
	TOTAL				2506.76 W
	Add 1 % Water charges on "W"				25.07
	TOTAL				2531.83 X
	Add GST on "X" (multiplying factor 0.1405)				355.72
	TOTAL				2887.55 Y
	Add 15% CPOH on "Y"				433.13
	TOTAL				3320.68 Z
	Add Cess @ 1% on "Z"				33.21
	Cost of each				3353.89
	Say				3353.90

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	b) 1:2:4 2.70x0.20x0.15m =0.08cum LABOUR				
0114	Beldar	day	0.14	558.00	78.12
0115	Coolie	day	0.09	558.00	50.22
9999	Sundries	L.S.	0.26	2.00	0.52
0114	Beldar	day	0.25	558.00	139.50
0115	Coolie	day	0.22	558.00	122.76
9999	Sundries	L.S.	0.52	2.00	1.04
0114	Beldar	day	0.13	558.00	72.54
0115	Coolie	day	0.06	558.00	33.48
9999	Sundries for scaffolding etc	L.S.	0.39	2.00	0.78
9999	Dismantling C.I. Grating	L.S.	7.15	2.00	14.30
	TOTAL				513.26 W
	Add 1 % Water charges on "W"				5.13
	TOTAL				518.39 X
	Add GST on "X" (multiplying factor 0.1405)				72.83
	TOTAL				591.23 Y
	Add 15% CPOH on "Y"				88.68
	TOTAL				679.91 Z
	Add Cess @ 1% on "Z"				6.80
	Cost of each				686.71
	Say				686.70

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	738.00	184.50
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	17.94	2.00	35.88
	TOTAL				499.38 W
	Add 1 % Water charges on "W"				4.99
	TOTAL				504.37 X
	Add GST on "X" (multiplying factor 0.1405)				70.86
	TOTAL				575.24 Y
	Add 15% CPOH on "Y"				86.29
	TOTAL				661.52 Z
	Add Cess @ 1% on "Z"				6.62
	Cost of each				668.14
	Say				668.15

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 (ace.) 100mm				
	LABOUR				
0116	Fitter (grade 1)	day	0.60	738.00	442.80
0117	Assistant Fitter or 2nd class Fitter	day	0.40	679.00	271.60
0114	Beldar	day	1.60	558.00	892.80
9999	Sundries for removing the R.C.C. cover etc for dismantling sluice valve	L.S.	89.70	2.00	179.40
	TOTAL				1786.60 W
	Add 1 % Water charges on "W"				17.87
	TOTAL				1804.47 X
	Add GST on "X" (multiplying factor 0.1405)				253.53
	TOTAL				2057.99 Y
	Add 15% CPOH on "Y"				308.70
	TOTAL				2366.69 Z
	Add Cess @ 1% on "Z"				23.67
	Cost of 10 Nos				2390.36
	Cost of each				239.04
	Say				239.05

15.53.2 Above 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for dismantling 10 sluice valves (ace.) 100mm				
	LABOUR				
0116	Fitter (grade 1)	day	2.40	738.00	1771.20
0117	Assistant Fitter or 2nd class Fitter	day	1.54	679.00	1045.66
0114	Beldar	day	6.40	558.00	3571.20
9999	Sundries for removing the R.C.C. cover etc for dismantling sluice valve	L.S.	89.70	2.00	179.40
	TOTAL				6567.46 W
	Add 1 % Water charges on "W"				65.67
	TOTAL				6633.13 X
	Add GST on "X" (multiplying factor 0.1405)				931.96
	TOTAL				7565.09 Y
	Add 15% CPOH on "Y"				1134.76
	TOTAL				8699.85 Z
	Add Cess @ 1% on "Z"				87.00
	Cost of 10 Nos				8786.85
	Cost of each				878.69
	Say				878.70

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	738.00	1107.00
0117	Assistant Fitter or 2nd class Fitter	day	1.00	679.00	679.00
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				4018.00 W
	Add 1 % Water charges on "W"				40.18
	TOTAL				4058.18 X
	Add GST on "X" (multiplying factor 0.1405)				570.17
	TOTAL				4628.35 Y
	Add 15% CPOH on "Y"				694.25
	TOTAL				5322.61 Z
	Add Cess @ 1% on "Z"				53.23
	Cost of 10 Nos				5375.83
	Cost of each				537.58
	Say				537.60

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	558.00	106.02
0115	Coolie	day	0.12	558.00	66.96
9999	Sundries	L.S.	0.39	2.00	0.78
0114	Beldar	day	0.35	558.00	195.30
0115	Coolie	day	0.30	558.00	167.40
9999	Sundries	L.S.	0.91	2.00	1.82
0114	Beldar	day	0.06	558.00	33.48
0115	Coolie	day	0.03	558.00	16.74

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries for scaffolding etc	L.S.	0.13	2.00	0.26
	TOTAL				588.76 W
	Add 1 % Water charges on "W"				5.89
	TOTAL				594.65 X
	Add GST on "X" (multiplying factor 0.1405)				83.55
	TOTAL				678.20 Y
	Add 15% CPOH on "Y"				101.73
	TOTAL				779.92 Z
	Add Cess @ 1% on "Z"				7.80
	Cost of each				787.72
	Say				787.70

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	558.00	172.98
0115	Coolie	day	0.19	558.00	106.02
9999	Sundries	L.S.	0.65	2.00	1.30
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.42	558.00	234.36
9999	Sundries	L.S.	1.30	2.00	2.60
0114	Beldar	day	0.13	558.00	72.54
0115	Coolie	day	0.06	558.00	33.48
9999	Sundries for scaffolding etc	L.S.	0.39	2.00	0.78
	TOTAL				903.06 W
	Add 1 % Water charges on "W"				9.03
	TOTAL				912.09 X
	Add GST on "X" (multiplying factor 0.1405)				128.15
	TOTAL				1040.24 Y
	Add 15% CPOH on "Y"				156.04
	TOTAL				1196.28 Z
	Add Cess @ 1% on "Z"				11.96
	Cost of each				1208.24
	Say				1208.25

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	558.00	245.52
0115	Coolie	day	0.28	558.00	156.24
9999	Sundries	L.S.	0.91	2.00	1.82
0114	Beldar	day	0.69	558.00	385.02
0115	Coolie	day	0.59	558.00	329.22
9999	Sundries	L.S.	1.56	2.00	3.12
0114	Beldar	day	0.19	558.00	106.02
0115	Coolie	day	0.09	558.00	50.22
9999	Sundries for scaffolding etc	L.S.	0.52	2.00	1.04
	TOTAL				1278.22 W
	Add 1 % Water charges on "W"				12.78
	TOTAL				1291.00 X
	Add GST on "X" (multiplying factor 0.1405)				181.39
	TOTAL				1472.39 Y
	Add 15% CPOH on "Y"				220.86
	TOTAL				1693.25 Z
	Add Cess @ 1% on "Z"				16.93
	Cost of each				1710.18
	Say				1710.20

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	558.00	200.88
0115	Coolie	day	0.08	558.00	44.64
0101	Bhisti	day	0.07	617.00	43.19
9999	Sundries for scaffolding etc	L.S.	1.43	2.00	2.86
	TOTAL				291.57 W
	Add 1 % Water charges on "W"				2.92
	TOTAL				294.49 X
	Add GST on "X" (multiplying factor 0.1405)				41.38
	TOTAL				335.86 Y
	Add 15% CPOH on "Y"				50.38
	TOTAL				386.24 Z
	Add Cess @ 1% on "Z"				3.86
	Cost of 10.00 sqm				390.10
	Cost of 1.00 sqm				39.01
	Say				39.00

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	679.00	135.80
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	5.38	2.00	10.76
	TOTAL				313.96 W
	Add 1 % Water charges on "W"				3.14
	TOTAL				317.10 X
	Add GST on "X" (multiplying factor 0.1405)				44.55
	TOTAL				361.65 Y
	Add 15% CPOH on "Y"				54.25
	TOTAL				415.90 Z
	Add Cess @ 1% on "Z"				4.16
	Cost of 10.00 sqm				420.06
	Cost of 1.00 sqm				42.01
	Say				42.00

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	617.00	18.51
	Labour for operating pneumatic tools				
0139	Skilled Beldar (for floor rubbing etc.)	day	0.50	617.00	308.50
0114	Beldar	day	0.50	558.00	279.00
	Labour for cutting reinforcement bars.				
0103	Blacksmith 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	0.50	558.00	279.00
	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	1350.00	67.50
0041	Joint cutting machine with 2-3 blades	day	0.125	800.00	100.00
	TOTAL				1592.01 W
	Add 1 % Water charges on "W"				15.92
	TOTAL				1607.93 X
	Add GST on "X" (multiplying factor 0.1405)				225.91
	TOTAL				1833.84 Y
	Add 15% CPOH on "Y"				275.08
	TOTAL				2108.92 Z
	Add Cess @ 1% on "Z"				21.09
	Cost of 1 cum				2130.01
	Say				2130.00

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				
0128	LABOUR				
	Mate	day	0.01	617.00	6.17
0114	Beldar	day	0.30	558.00	167.40
	MACHINERY				
0039	Tractor with trolley .	day	0.0475	1350.00	64.13
0038	Tractor with ripper attachment.	day	0.002	1200.00	2.40
	TOTAL				240.10 W
	Add 1 % Water charges on "W"				2.40
	TOTAL				242.50 X
	Add GST on "X" (multiplying factor 0.1405)				34.07
	TOTAL				276.57 Y
	Add 15% CPOH on "Y"				41.48
	TOTAL				318.05 Z
	Add Cess @ 1% on "Z"				3.18
	Cost of 1 cum				321.23
	Say				321.25

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 ₹
2264	Details of cost for 1 cum				
	Carriage of Rubbish	cum	1.00	103.77	103.77
	TOTAL				103.77 W
	Add 1 % Water charges on "W"				1.04
	TOTAL				104.81 X
	Add GST on "X" (multiplying factor 0.1405)				14.73
	TOTAL				119.53 Y
	Add 15% CPOH on "Y"				17.93
	TOTAL				137.46 Z
	Add Cess @ 1% on "Z"				1.37
	Cost of 1 cum				138.84
	Say				138.85

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	617.00	1110.60
0115	Coolie	day	18.00	558.00	10044.00
0114	Beldar	day	0.27	558.00	150.66
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	162.00
0113	Chowkidar	day	0.054	558.00	30.13
9999	Sundries	L.S.	6.76	2.00	13.52
	(B) Consolidation of subgrade Roller charges (one roller does 1860 sqm. of consolidation 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	558.00	30.13
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				11716.56 W
	Add 1 % Water charges on "W"				117.17
	TOTAL				11833.73 X
	Add GST on "X" (multiplying factor 0.1405)				1662.64
	TOTAL				13496.37 Y
	Add 15% CPOH on "Y"				2024.46
	TOTAL				15520.82 Z
	Add Cess @ 1% on "Z"				155.21
	Cost for 100 sqm.				15676.03
	Cost per sqm.				156.76
	Say				156.75

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 ₹
0101	LABOUR (Extra to item No.2.3 in Earth work) Bhisti Roller charges (one roller does 1860sqm. Of consolidation per day of 8 hours and uses 18 litres diesel)	day	0.17	617.00	104.89

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	558.00	4.46
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				136.21 W
	Add 1 % Water charges on "W"				1.36
	TOTAL				137.58 X
	Add GST on "X" (multiplying factor 0.1405)				19.33
	TOTAL				156.91 Y
	Add 15% CPOH on "Y"				23.54
	TOTAL				180.44 Z
	Add Cess @ 1% on "Z"				1.80
	Cost of 10 cum.				182.25
	Cost per cum.				18.22
	Say				18.20

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	1350.00	135.00
2902	Stone Aggregate (Single size) : 80 mm nominal size	cum	0.65	1350.00	877.50
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	112.79	112.79
	TOTAL				1375.29 W
	Add 1 % Water charges on "W"				13.75
	TOTAL				1389.04 X
	Add GST on "X" (multiplying factor 0.1405)				195.16
	TOTAL				1584.20 Y
	Add 15% CPOH on "Y"				237.63
	TOTAL				1821.83 Z
	Add Cess @ 1% on "Z"				18.22
	Cost for 1 cum				1840.05
	Say				1840.05

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	1350.00	135.00
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	112.79	112.79
	TOTAL				1147.79 W
	Add 1 % Water charges on "W"				11.48
	TOTAL				1159.27 X
	Add GST on "X" (multiplying factor 0.1405)				162.88
	TOTAL				1322.15 Y
	Add 15% CPOH on "Y"				198.32
	TOTAL				1520.47 Z
	Add Cess @ 1% on "Z"				15.20
	Cost for 1 cum				1535.67
	Say				1535.65

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	112.79	112.79
	TOTAL				1307.79 W
	Add 1 % Water charges on "W"				13.08
	TOTAL				1320.87 X
	Add GST on "X" (multiplying factor 0.1405)				185.58
	TOTAL				1506.45 Y
	Add 15% CPOH on "Y"				225.97
	TOTAL				1732.42 Z
	Add Cess @ 1% on "Z"				17.32
	Cost for 1 cum				1749.74
	Say				1749.75

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	500.00	500.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2260	Carriage of Brick aggregate	cum	1.00	112.79	112.79
	TOTAL				612.79 W
	Add 1 % Water charges on "W"				6.13
	TOTAL				618.92 X
	Add GST on "X" (multiplying factor 0.1405)				86.96
	TOTAL				705.88 Y
	Add 15% CPOH on "Y"				105.88
	TOTAL				811.76 Z
	Add Cess @ 1% on "Z"				8.12
	Cost for 1 cum				819.87
	Say				819.85

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2909	Details of cost for 1 cum. MATERIAL Over burnt (Jhama) Brick Aggregate: 90 mm to 40 mm size	cum	1.00	480.00	480.00
2260	Carriage of Brick aggregate	cum	1.00	112.79	112.79
	TOTAL				592.79 W
	Add 1 % Water charges on "W"				5.93
	TOTAL				598.72 X
	Add GST on "X" (multiplying factor 0.1405)				84.12
	TOTAL				682.84 Y
	Add 15% CPOH on "Y"				102.43
	TOTAL				785.26 Z
	Add Cess @ 1% on "Z"				7.85
	Cost for 1 cum				793.12
	Say				793.10

16.3.6 Stone screening 13.2 mm nominal size (Type A)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2910	Details of cost for 1 cum. MATERIAL Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.05	1150.00	57.50
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.80	1150.00	920.00
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	0.15	1400.00	210.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.00	103.77	103.77
	TOTAL				1291.27 W
	Add 1 % Water charges on "W"				12.91
	TOTAL				1304.18 X
	Add GST on "X" (multiplying factor 0.1405)				183.24
	TOTAL				1487.42 Y
	Add 15% CPOH on "Y"				223.11
	TOTAL				1710.53 Z
	Add Cess @ 1% on "Z"				17.11
	Cost for one cum.				1727.64
	Say				1727.65

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	1150.00	115.00
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	103.77	88.20
2267	Carriage of Stone dust	cum	0.15	103.77	15.57
	TOTAL				1478.77 W
	Add 1 % Water charges on "W"				14.79
	TOTAL				1493.56 X
	Add GST on "X" (multiplying factor 0.1405)				209.84
	TOTAL				1703.40 Y
	Add 15% CPOH on "Y"				255.51
	TOTAL				1958.91 Z
	Add Cess @ 1% on "Z"				19.59
	Cost for one cum.				1978.50
	Say				1978.50

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
2311	Carriage of Red bajri	cum	1.00	103.77	103.77
	TOTAL				1103.77 W
	Add 1 % Water charges on "W"				11.04
	TOTAL				1114.81 X
	Add GST on "X" (multiplying factor 0.1405)				156.63
	TOTAL				1271.44 Y
	Add 15% CPOH on "Y"				190.72
	TOTAL				1462.15 Z
	Add Cess @ 1% on "Z"				14.62
	Cost for one cum.				1476.78
	Say				1476.80

16.3.9 Good earth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 cum. Excavation :				
	LABOUR				
0114	Beldar	day	0.177	558.00	98.77
0115	Coolie	day	0.167	558.00	93.19

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0979	Royalty for good earth	cum	1.00	40.00	40.00
2241	Carriage of Good earth	cum	1.00	129.71	129.71
	by mechanical transport upto 5 km lead				
	TOTAL				361.66 W
	Add 1 % Water charges on "W"				3.62
	TOTAL				365.28 X
	Add GST on "X" (multiplying factor 0.1405)				51.32
	TOTAL				416.60 Y
	Add 15% CPOH on "Y"				62.49
	TOTAL				479.09 Z
	Add Cess @ 1% on "Z"				4.79
	Cost per cum.				483.88
	Say				483.90

16.3.10 Moorum

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0810	Details of cost for 1 cum.				
	MATERIAL				
2265	Moorum	cum	1.00	500.00	500.00
	Carriage of Moorum	cum	1.00	103.77	103.77
	TOTAL				603.77 W
	Add 1 % Water charges on "W"				6.04
	TOTAL				609.81 X
	Add GST on "X" (multiplying factor 0.1405)				85.68
	TOTAL				695.49 Y
	Add 15% CPOH on "Y"				104.32
	TOTAL				799.81 Z
	Add Cess @ 1% on "Z"				8.00
	Cost for one cum.				807.81
	Say				807.80

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	558.00	145.08
0115	Coolie	day	0.26	558.00	145.08
0101	Bhisti	day	0.26	617.00	160.42
	Roller charges (one roller does 30 cum consolidation per day of 8 hours and uses 18 litres of diesel oil).				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.033	3000.00	99.00
0113	Chowkidar	day	0.033	558.00	18.41
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				573.45 W
	Add 1 % Water charges on "W"				5.73
	TOTAL				579.19 X
	Add GST on "X" (multiplying factor 0.1405)				81.38
	TOTAL				660.56 Y
	Add 15% CPOH on "Y"				99.08
	TOTAL				759.65 Z
	Add Cess @ 1% on "Z"				7.60
	Cost for 1 cum				767.25
	Say				767.25

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	558.00	195.30
0115	Coolie	day	0.26	558.00	145.08
0101	Bhisti	Day	0.18	617.00	111.06
	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	558.00	2.23
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				471.13 W
	Add 1 % Water charges on "W"				4.71
	TOTAL				475.84 X
	Add GST on "X" (multiplying factor 0.1405)				66.86
	TOTAL				542.70 Y
	Add 15% CPOH on "Y"				81.40
	TOTAL				624.10 Z
	Add Cess @ 1% on "Z"				6.24
	Cost for one cum.				630.35
	Say				630.35

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	558.00	195.30
0115	Coolie	day	0.26	558.00	145.08
0101	Bhisti	day	0.18	617.00	111.06
	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	558.00	2.23
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				471.13 W
	Add 1 % Water charges on "W"				4.71
	TOTAL				475.84 X
	Add GST on "X" (multiplying factor 0.1405)				66.86
	TOTAL				542.70 Y
	Add 15% CPOH on "Y"				81.40
	TOTAL				624.10 Z
	Add Cess @ 1% on "Z"				6.24
	Cost for one cum.				630.35
	Say				630.35

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	103.77	62.26
	(B) Spreading of red bajri LABOUR				
0114	Beldar	day	0.54	558.00	301.32
0101	Bhisti	day	0.54	617.00	333.18
	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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0113	Chowkidar	day	0.054	558.00	30.13
	TOTAL				1488.89 W
	Add 1 % Water charges on "W"				14.89
	TOTAL				1503.78 X
	Add GST on "X" (multiplying factor 0.1405)				211.28
	TOTAL				1715.06 Y
	Add 15% CPOH on "Y"				257.26
	TOTAL				1972.32 Z
	Add Cess @ 1% on "Z"				19.72
	Cost for 100 sqm.				1992.05
	Cost per sqm.				19.92
	Say				19.90

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	4500.00	720.00
2201	Carriage of Bricks LABOUR	1000 Nos	0.16	276.72	44.28
0123	Mason (brick layer) 1st class	day	0.17	738.00	125.46
0124	Mason (brick layer) 2nd class	day	0.17	679.00	115.43
0115	Coolie	day	0.35	558.00	195.30
9999	Removal of rubbish	L.S.	17.94	2.00	35.88
9999	Sundries	L.S.	8.97	2.00	17.94
	TOTAL				1254.29 W
	Add 1 % Water charges on "W"				12.54
	TOTAL				1266.83 X
	Add GST on "X" (multiplying factor 0.1405)				177.99
	TOTAL				1444.82 Y
	Add 15% CPOH on "Y"				216.72
	TOTAL				1661.54 Z
	Add Cess @ 1% on "Z"				16.62
	Cost for 10 metres				1678.16
	Cost per metre				167.82
	Say				167.80

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 ₹
2602	Details of cost for 10 metre MATERIAL Common burnt clay F.P.S. (non modular) bricks class designation 7.5 including 12% wastage	1000 Nos	0.049	4500.00	220.50
2201	Carriage of Bricks LABOUR	1000 Nos	0.049	276.72	13.56
0123	Mason (brick layer) 1st class	day	0.04	738.00	29.52
0124	Mason (brick layer) 2nd class	day	0.04	679.00	27.16
0115	Coolie	day	0.09	558.00	50.22
9999	Removal of rubbish	L.S.	4.16	2.00	8.32
	TOTAL				349.28 W
	Add 1 % Water charges on "W"				3.49
	TOTAL				352.77 X
	Add GST on "X" (multiplying factor 0.1405)				49.56
	TOTAL				402.34 Y
	Add 15% CPOH on "Y"				60.35
	TOTAL				462.69 Z
	Add Cess @ 1% on "Z"				4.63
	Cost for 10 metre				467.31
	Cost per metre				46.73
	Say				46.75

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	558.00	753.30
0115	Coolie	day	1.08	558.00	602.64
	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	558.00	73.66
9999	Sundries	L.S.	5.46	2.00	10.92
	TOTAL				1836.52 W
	Add 1 % Water charges on "W"				18.37
	TOTAL				1854.88 X
	Add GST on "X" (multiplying factor 0.1405)				260.61
	TOTAL				2115.49 Y
	Add 15% CPOH on "Y"				317.32
	TOTAL				2432.82 Z
	Add Cess @ 1% on "Z"				24.33
	Cost for 100 sqm.				2457.14
	Cost per sqm.				24.57
	Say				24.55

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 ₹
2.6.1	Details of cost for 100sqm. Earth work in excavation including dressing etc. 100x0.075=7.5cum. (Rate as per item no.2.6.1 of S.H. Earth work)	cum	7.50	181.85	1363.88 A
0286	Collection and stacking of brick aggregate 53mm nominal size 100x0.075 =7.50cum.	cum	7.50	650.00	4875.00
2260	Brick Aggregate (Single size) : 50 mm nominal size Carriage of Brick aggregate Supply staking Red Bajri 100x0.012= 1.2 cum	cum	7.50	112.79	845.93
16.3.8	Rate as per Item Number 16.3.8 of SH: Road Work Collection and stacking of moorum at site 100x0.012 = 1.20cum.	cum	1.20	1476.80	1772.16 A
16.3.10	Rate as per Item Number 16.3.10 of SH: Road Work Spreading and consolidation of brick aggregate and blinding material etc. LABOUR	cum	1.20	807.80	969.36 A
0114	Beldar	day	1.95	558.00	1088.10
0115	Coolie	day	2.63	558.00	1467.54
0101	Bhisti	day	1.35	617.00	832.95
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.135	3000.00	405.00
0113	Chowkidar	day	0.135	558.00	75.33
9999	Sundries	L.S.	20.15	2.00	40.30
0003	Spreading of red bajri, watering and rolling Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.054	3000.00	162.00
0113	Chowkidar	day	0.054	558.00	30.13
	TOTAL				13927.67 W
	Add 1 % Water charges on "W-A"				98.22
	TOTAL				14025.89 X
	Add GST on "X-A" (multiplying factor 0.1405)				1393.83
	TOTAL				15419.72 Y
	Add 15% CPOH on "Y-A"				1697.15
	TOTAL				17116.87 Z
	Add Cess @ 1% on "Z-A"				130.11
	Cost for 100 sqm.				17246.99
	Cost per sqm.				172.47
	Say				172.45

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	92.24	465.81
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.08	738.00	797.04
0124	Mason (brick layer) 2nd class	day	1.08	679.00	733.32
0114	Beldar	day	2.15	558.00	1199.70
0115	Coolie	day	1.61	558.00	898.38
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				5457.77 W
	Add 1 % Water charges on "W"				54.58
	TOTAL				5512.35 X
	Add GST on "X" (multiplying factor 0.1405)				774.49
	TOTAL				6286.83 Y
	Add 15% CPOH on "Y"				943.03
	TOTAL				7229.86 Z
	Add Cess @ 1% on "Z"				72.30
	Cost for 10 sqm.				7302.16
	Cost per sqm.				730.22
	Say				730.20

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	4500.00	2902.50
2201	Carriage of Bricks	1000 Nos	0.645	276.72	178.48
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.40	738.00	295.20
0124	Mason (brick layer) 2nd class	day	0.40	679.00	271.60
0114	Beldar	day	1.08	558.00	602.64
	TOTAL				4250.42 W
	Add 1 % Water charges on "W"				42.50
	TOTAL				4292.93 X
	Add GST on "X" (multiplying factor 0.1405)				603.16
	TOTAL				4896.09 Y
	Add 15% CPOH on "Y"				734.41
	TOTAL				5630.50 Z
	Add Cess @ 1% on "Z"				56.30
	Cost for 10 sqm.				5686.80
	Cost per sqm.				568.68
	Say				568.70

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	1749.75	157.48 A
16.3.8	Supplying and stacking red bajri at site Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.023	1476.80	33.97 A
16.3.10	Supplying and stacking moorum at site Rate as per Item Number 16.3.10 of SH: Road Work	cum	0.022	807.80	17.77 A
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.092	1150.00	105.80
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.092	103.77	9.55
0309	Paving bitumen VG-10 of approved quality	tonne	0.011	25614.00	281.75
2211	Carriage of Tar bitumen LABOUR For cutting road and taking out soling and metalling including sorting and screening.	tonne	0.011	103.77	1.14
0114	Beldar	day	0.96	558.00	535.68
0115	Coolie	day	0.48	558.00	267.84
	Relaying soling stone 3.6x0.15= 0.54cum.				
0114	Beldar	day	0.24	558.00	133.92
0115	Coolie	day	0.24	558.00	133.92
	Relaying road metal with extra quantity and consolidation to 0.10m, thickness 3.6x0.10=0.36cum.				
0114	Beldar	day	0.71	558.00	396.18
0115	Coolie	day	0.48	558.00	267.84
0101	Bhisti	day	0.10	617.00	61.70
	Painting two coats, 3.6sqm. including labour for spreading grit				
0114	Beldar	day	0.48	558.00	267.84
0115	Coolie	day	0.48	558.00	267.84
9999	Barrier, chowkidar, sprayman, mate, etc.	L.S.	40.43	2.00	80.86
	TOTAL				3021.08 W
	Add 1 % Water charges on "W-A"				28.12
	TOTAL				3049.20 X
	Add GST on "X-A" (multiplying factor 0.1405)				399.02
	TOTAL				3448.21 Y
	Add 15% CPOH on "Y-A"				485.85
	TOTAL				3934.06 Z
	Add Cess @ 1% on "Z-A"				37.25
	Cost for 1.08 cum.				3971.31
	Cost per cum.				3677.14
	Say				3677.15

16.13.2 Water bound macadam

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
16.3.3	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. Rate as per Item Number 16.3.3 of SH: Road Work	cum	0.09	1749.75	157.48 A
16.3.8	Supplying and stacking red bajri at site Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.023	1476.80	33.97 A
16.3.10	Supplying and stacking moorum at site. Rate as per Item Number 16.3.10 of SH: Road Work	cum	0.022	807.80	17.77 A
	LABOUR For cutting road and taking out soling and metalling including sorting and screening.				
0114	Beldar	day	0.48	558.00	267.84
0115	Coolie	day	0.24	558.00	133.92
	For relaying soling stone 3.6x0.15=0.54cum.				
0114	Beldar	day	0.24	558.00	133.92
0115	Coolie	day	0.24	558.00	133.92
	For relaying road metal with extra quantity and consolidation to 0.10m thickness 3.6x0.10=0.36cum.				
0114	Beldar	day	0.48	558.00	267.84
0115	Coolie	day	0.48	558.00	267.84
0101	Bhisti	day	0.10	617.00	61.70
9999	Barrier and chowkidar etc.	L.S.	53.82	2.00	107.64
	TOTAL				1583.84 W
	Add 1 % Water charges on "W-A"				13.75
	TOTAL				1597.58 X
	Add GST on "X-A" (multiplying factor 0.1405)				195.07
	TOTAL				1792.65 Y
	Add 15% CPOH on "Y-A"				237.51
	TOTAL				2030.16 Z
	Add Cess @ 1% on "Z-A"				18.21
	Cost for 0.90 cum.				2048.37
	Cost per cum.				2275.97
	Say				2275.95

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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0286	MATERIAL Supplying and stacking 50mm brick aggregate at site(extra quantity) Brick Aggregate (Single size) : 50 mm nominal size	cum	0.19	650.00	123.50
2260	Carriage of Brick aggregate	cum	0.19	112.79	21.43
16.3.8	Supplying and stacking red bajri at site Rate as per Item Number 16.3.8 of SH: Road Work	cum	0.06	1476.80	88.61 A
16.3.10	Supplying and stacking moorum at site Rate as per Item Number 16.3.10 of SH: Road	cum	0.06	807.80	48.47 A
	LABOUR For cutting, sorting out, spreading and consolidation of aggregate				
0114	Beldar	day	1.60	558.00	892.80
0115	Coolie	day	0.80	558.00	446.40
	TOTAL				1621.21 W
	Add 1 % Water charges on "W-A"				14.84
	TOTAL				1636.05 X
	Add GST on "X-A" (multiplying factor 0.1405)				210.61
	TOTAL				1846.65 Y
	Add 15% CPOH on "Y-A"				256.44
	TOTAL				2103.09 Z
	Add Cess @ 1% on "Z-A"				19.66
	Cost for 10 sqm.				2122.75
	Cost per sqm.				212.27
	Say				212.25

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 = $(15+12.5)/2 \times 8.75 + \frac{1}{2} \times 3.14 \times (6.25)^2$ = 120.31 + 61.38 = 181.69sqcm. Area bottom A2 = $(10+7.5)/2 \times 6.25 + \frac{1}{2} \times 3.14 \times (3.75)^2$ sqm = 54.68 + 22.08 = 76.76 sqcm. $(A1A2)^{1/2} = 118.10$ sqcm $A1+A2+(A1A2)^{1/2} = 0.03766$ sqm Volume = $(1.05)/3 \times 0.03766 =$				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.2	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) Rate as per item no 4.1.2 of S.H. Concrete Work. Extra labour for laying cement concrete in RCC work	cum	0.336	7210.55	2422.74 A
0114	Beldar	day	0.034	558.00	18.97
0101	Bhisti	day	0.067	617.00	41.34
0123	Mason (brick layer) 1st class	day	0.013	738.00	9.59
0124	Mason (brick layer) 2nd class	day	0.013	679.00	8.83
0128	Mate	day	0.013	617.00	8.02
5.22.2	M.S. Reinforcement 6mm dia. bars 10x4x1.88m = 75.20m+ 10x9x0.50m =45.00m = 120.20m 120.20m@0.22kg/m =26.44kg. Rate as per Item No.5.22.2 of SH: Reinforced cement concrete work Centering and shuttering	kg	26.44	85.60	2263.26 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) Details of cost for 9.88 sqm. (0.072)/10x9.88 = 0.071	sqm	6.99	284.85	1991.10 A
0367	Portland Cement (OPC-43 grade)	tonne	0.05	4940.00	247.00
2209	Carriage of Cement	tonne	0.05	92.24	4.61
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) LABOUR	cum	0.07	103.77	7.26
0114	Beldar	day	0.05	558.00	27.90
0101	Bhisti	day	0.02	617.00	12.34
0155	Mason (average)	day	0.64	709.00	453.76
0115	Coolie	day	0.80	558.00	446.40
0101	Bhisti	day	0.27	617.00	166.59
9999	Hire and running charges of mixer	L.S.	1.95	2.00	3.90
9999	Extra for removing burr, cleaning with wire brushes, pock making with pointed tool etc. complete	L.S.	13.26	2.00	26.52
9999	Scaffolding and sundries	L.S.	11.57	2.00	23.14
9977	Carriage of RCC posts	L.S.	53.82	2.00	107.64

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Wooden plugs or 6mm bar nibs	L.S.	12.22	2.00	24.44
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				8405.41 W
	Add 1 % Water charges on "W-A"				17.28
	TOTAL				8422.69 X
	Add GST on "X-A" (multiplying factor 0.1405)				245.25
	TOTAL				8667.95 Y
	Add 15% CPOH on "Y-A"				298.63
	TOTAL				8966.57 Z
	Add Cess @ 1% on "Z-A"				22.89
	Cost for 0.336 cum				8989.47
	Cost for one cum				26754.36
	Say				26754.35

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	tonne	0.209	92.24	19.28
	7.75x27=209.25kg=0.209tonne				
	TOTAL				11629.28 W
	Add 1 % Water charges on "W"				116.29
	TOTAL				11745.57 X
	Add GST on "X" (multiplying factor 0.1405)				1650.25
	TOTAL				13395.82 Y
	Add 15% CPOH on "Y"				2009.37
	TOTAL				15405.20 Z
	Add Cess @ 1% on "Z"				154.05
	Cost for 209.25 kg				15559.25
	Cost per kg.				74.36
	Say				74.35

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	2.00	5.46
	Labour for fixing straining bolts and turn buckles				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0103	Blacksmith 2nd class	day	0.10	679.00	67.90
	TOTAL				178.36 W
	Add 1 % Water charges on "W"				1.78
	TOTAL				180.14 X
	Add GST on "X" (multiplying factor 0.1405)				25.31
	TOTAL				205.45 Y
	Add 15% CPOH on "Y"				30.82
	TOTAL				236.27 Z
	Add Cess @ 1% on "Z"				2.36
	Cost per set				238.63
	Say				238.65

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	92.24	2.77
9999	G.I. staples or binding wire	L.S.	49.40	2.00	98.80
	LABOUR				
	Labour for fixing costs in line, fixing and stretching wire				
0123	Mason (brick layer) 1st class	day	0.12	738.00	88.56
0124	Mason (brick layer) 2nd class	day	0.12	679.00	81.48
0114	Beldar	day	0.50	558.00	279.00
0102	Blacksmith 1st class	day	0.50	738.00	369.00
0103	Blacksmith 2nd class	day	0.50	679.00	339.50
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				2991.15 W
	Add 1 % Water charges on "W"				29.91
	TOTAL				3021.06 X
	Add GST on "X" (multiplying factor 0.1405)				424.46
	TOTAL				3445.52 Y
	Add 15% CPOH on "Y"				516.83
	TOTAL				3962.35 Z
	Add Cess @ 1% on "Z"				39.62
	Cost for 333m				4001.97
	Cost per m				12.02
	Say				12.00

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 333.24m 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	92.24	2.86
	Supplying and fixing Turn buckle & staple				
16.16	Rate as per Item Number 16.16 of				
	SH: Road Work	each set	10.00	238.65	2386.50 A
9999	G.I. staples	L.S.	49.40	2.00	98.80
	Labour for fixing posts in line and fixing and stretching wire:				
0123	Mason (brick layer) 1st class	day	0.12	738.00	88.56
0124	Mason (brick layer) 2nd class	day	0.12	679.00	81.48
0114	Beldar	day	0.50	558.00	279.00
0102	Blacksmith 1st class	day	0.50	738.00	369.00
0103	Blacksmith 2nd class	day	0.50	679.00	339.50
	TOTAL				5350.70 W
	Add 1 % Water charges on "W-A"				29.64
	TOTAL				5380.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				420.63
	TOTAL				5800.98 Y
	Add 15% CPOH on "Y-A"				512.17
	TOTAL				6313.15 Z
	Add Cess @ 1% on "Z-A"				39.27
	Cost for 333.24m				6352.41
	Cost per m				19.06
	Say				19.05

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 quintal MATERIAL				
	M.S. angle = 1.00 qtl.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 5% wastage = 0.05 qtl. Total = =1.05 qtl				
1007	Structurals such as tees, angles channels and R.S. joists	quintal	1.05	4600.00	4830.00
2205	Carriage of Steel LABOUR	tonne	0.105	92.24	9.69
0103	Blacksmith 2nd class	day	0.75	679.00	509.25
0114	Beldar	day	0.50	558.00	279.00
	For spotting, bending of angle and drilling holes etc. :				
0103	Blacksmith 2nd class	day	1.00	679.00	679.00
0114	Beldar	day	1.00	558.00	558.00
9999	Sundries such as drilling bit etc.	L.S.	19.76	2.00	39.52
	TOTAL				6904.46 W
	Add 1 % Water charges on "W"				69.04
	TOTAL				6973.50 X
	Add GST on "X" (multiplying factor 0.1405)				979.78
	TOTAL				7953.28 Y
	Add 15% CPOH on "Y"				1192.99
	TOTAL				9146.27 Z
	Add Cess @ 1% on "Z"				91.46
	Cost for 1 quintal				9237.73
	Cost of one kg				92.38
	Say				92.40

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	738.00	88.56
0124	Mason (brick layer) 2nd class	day	0.12	679.00	81.48
0114	Beldar	day	0.50	558.00	279.00
0102	Blacksmith 1st class	day	0.50	738.00	369.00
0103	Blacksmith 2nd class	day	0.50	679.00	339.50
9999	G.I. staple or binding wire	L.S.	53.82	2.00	107.64

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	53.82	2.00	107.64
	TOTAL				1372.82 W
	Add 1 % Water charges on "W"				13.73
	TOTAL				1386.55 X
	Add GST on "X" (multiplying factor 0.1405)				194.81
	TOTAL				1581.36 Y
	Add 15% CPOH on "Y"				237.20
	TOTAL				1818.56 Z
	Add Cess @ 1% on "Z"				18.19
	Cost for 36 sqm				1836.75
	Cost per sqm				51.02
	Say				51.00

16.21 Engraving letters in hard stone

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0126	Details of cost for 6 letters 8 cm height LABOUR				
	For Engraving stone-				
	Mason (for ornamental stone work)				
	1st class	day	0.38	738.00	280.44
9999	Sundries	L.S.	6.76	2.00	13.52
	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				389.41 Z
	Add Cess @ 1% on "Z"				3.89
	Cost of 6 letters of 8cm heights				393.30
	Cost per cm. height per letter				8.19
	Say				8.20

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 ₹
1151	Details of cost for one stone				
	Boundry stone top chisel dressed				
	15x15x90 cm	each	1.00	80.00	80.00
	Labour for fixing				
0114	Beldar	day	0.12	558.00	66.96
9977	Carriage to site	L.S.	4.16	2.00	8.32
	TOTAL				155.28 W
	Add 1 % Water charges on "W"				1.55
	TOTAL				156.83 X
	Add GST on "X" (multiplying factor 0.1405)				22.04
	TOTAL				178.87 Y
	Add 15% CPOH on "Y"				26.83
	TOTAL				205.70 Z
	Add Cess @ 1% on "Z"				2.06
	Cost of each.				207.75
	Say				207.75

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 ₹
4.1.2	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: $L/3 \times [A1+A2+\text{sqrt}(A1A2)] = 0.825/3 \times [0.095^2+0.075^2 + \text{sqrt}(0.095 \times 0.075^2)] \times 3.142 = 0.01882$ (A) Volume of hemi sphere: $\frac{1}{2} \times \frac{4}{3} \times \text{PI} \times r^3 = \frac{1}{2} \times (\frac{4}{3}) \times (22/7) \times 0.075^3 = 0.00100$ (B) Total volume = A+B = 0.01982 Say 0.02cum Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.02	7210.55	144.21 A
0114	(ii) Extra for laying cement concrete in RCC work LABOUR Beldar	day	0.002	558.00	1.12
0101	Bhisti	day	0.004	617.00	2.47
0123	Mason (brick layer) 1st class	day	0.0008	738.00	0.59
0124	Mason (brick layer) 2nd class	day	0.0008	679.00	0.54
0128	Mate	day	0.0008	617.00	0.49
5.22.1	(iii) M.S. reinforcement- 6mm dia. Bar 5.99 metre = 5.99x0.22 = 1.32kg. Rate as per item no. 5.22.1 of SH : RCC work	kg	1.32	82.10	108.37 A
5.9.1	(iv) Centering and shuttering- $\frac{1}{2} \times 3.142 (0.19+0.15) \times 0.825 = 0.441 + \frac{3.142}{4} (0.19)^2 = 0.028 + \frac{1}{2} \times 4 \times 3.142 (0.075)^2 = 0.035 = 0.504$ Say 0.50sqm. Rate as per item No.5.9.1 of SH : Reinforced cement concrete work	sqm	0.50	284.85	142.43 A
0367	(v) 6mm cement plaster 1:3 (1 Cement : 3 fine sand)- $\frac{1}{2} \times 3.142 (0.19+0.15) \times 0.825 = 0.44 + \frac{3.142}{4} (0.19)^2 = 0.028 + \frac{1}{2} \times 4 \times 3.142 (0.075)^2 = 0.035 = 0.504$ Say 0.50sqm. MATERIAL				
0367	Portland Cement (OPC-43 grade)	tonne	0.0018	4940.00	8.89
2209	Carriage of Cement	tonne	0.0018	92.24	0.17
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	103.77	4.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Labour for mortar				
	Beldar	day	0.0027	558.00	1.51
0101	Bhisti	day	0.0002	617.00	0.12
9999	Hire and running charges of mixer	L.S.	0.10	2.00	0.20
9999	Sundries	L.S.	0.05	2.00	0.10
	Labour for plaster				
0155	Mason (average)	day	0.026	709.00	18.43
0115	Coolie	day	0.038	558.00	21.20
0101	Bhisti	day	0.046	617.00	28.38
9999	Extra for removing burr	L.S.	0.68	2.00	1.36
9999	Scaffolding, sundries etc.	L.S.	0.60	2.00	1.20
	(vi) Labour for fixing				
0114	Beldar	day	0.12	558.00	66.96
9977	Carriage to site	L.S.	4.16	2.00	8.32
	TOTAL				595.71 W
	Add 1 % Water charges on "W-A"				2.01
	TOTAL				597.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				28.48
	TOTAL				626.20 Y
	Add 15% CPOH on "Y-A"				34.68
	TOTAL				660.88 Z
	Add Cess @ 1% on "Z-A"				2.66
	Cost of each.				663.54
	Say				663.55

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 aggregate 20mm nominal size) in Kilometre stone 0.35x0.25x0.835m = 0.073 0.37x0.27x0.10m = 0.010 1/2x22/7x(0.175) ² x0.25m = 0.012 = 0.095cum Say 0.10cum. Rate as per item no 4.1.2 of S.H. Concrete Work. (ii) Extra for laying cement concrete in RCC work				
4.1.2		cum	0.10	7210.55	721.06 A
0114	Beldar	day	0.01	558.00	5.58
0101	Bhisti	day	0.02	617.00	12.34
0123	Mason (brick layer) 1st class	day	0.004	738.00	2.95
0124	Mason (brick layer) 2nd class	day	0.004	679.00	2.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0128	Mate	day	0.004	617.00	2.47
5.22.1	(iii) M.S. reinforcement- 0.10cum @48.06kg/cum. =4.806kg. Say 4.81kg. Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work	kg	4.81	82.10	394.90 A
5.9.1	(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 Rate as per item No.5.9.1 of SH : Reinforced cement concrete work	sqm	1.09	284.85	310.49 A
0367	(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				
0367	Portland Cement (OPC-43 grade)	tonne	0.054	4940.00	266.76
2209	Carriage of Cement	tonne	0.054	92.24	4.98
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	103.77	1.14
	Labour for mortar				
0114	Beldar	day	0.008	558.00	4.46
0101	Bhisti	day	0.0007	617.00	0.43
9999	Hire and running charges of mixer	L.S.	0.03	2.00	0.06
9999	Sundries	L.S.	0.13	2.00	0.26
	Labour for plaster				
0155	Mason (average)	day	0.075	709.00	53.18
0115	Coolie	day	0.111	558.00	61.94
0101	Bhisti	day	0.136	617.00	83.91
9999	Extra for removing burr	L.S.	1.95	2.00	3.90
9999	Scaffolding, sundries etc. (vi) Labour for fixing	L.S.	1.82	2.00	3.64
0114	Beldar	day	0.20	558.00	111.60
9977	Carriage to site	L.S.	13.52	2.00	27.04
	TOTAL				2085.70 W
	Add 1 % Water charges on "W-A"				6.59
	TOTAL				2092.29 X
	Add GST on "X-A" (multiplying factor 0.1405)				93.55
	TOTAL				2185.85 Y
	Add 15% CPOH on "Y-A"				113.91
	TOTAL				2299.76 Z
	Add Cess @ 1% on "Z-A"				8.73
	Cost per stone				2308.49
	Say				2308.50

16.24.2 50x152.5x25 cm size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.2	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) $0.50 \times 0.25 \times 1.145\text{m} = 0.143\text{cum.}$ + $0.52 \times 0.27 \times 0.13\text{m} = 0.018\text{cum.}$ + $1/2 \times 22/7 \times (0.25)^2 \times 0.25\text{m} = 0.025\text{cum.}$ = 0.186 cum. Say 0.19cum. 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	7210.55	1370.00 A
0114	Beldar	day	0.019	558.00	10.60
0101	Bhisti	day	0.038	617.00	23.45
0123	Mason (brick layer) 1st class	day	0.008	738.00	5.90
0124	Mason (brick layer) 2nd class	day	0.008	679.00	5.43
0128	Mate	day	0.008	617.00	4.94
5.22.1	(iii) M.S. reinforcement- $0.19\text{cum} @ 48.06\text{kg/cum.} = 9.131\text{kg.}$ Say 9.13 kg. Rate as per item no. 5.22.1 of SH : Reinforced cement concrete work (iv) Centering and shuttering- $(0.50 + 2 \times 0.25) \times 1.145 = 1.145\text{ sqm}$ $1/2 \times (0.25)^2 \times 3.142 = 0.098$ $3.142(0.25) \times (0.25) = 0.196$ $(0.52 + 2 \times 0.27) \times 0.13 = 0.138$ $2 \times 0.52 \times 0.01 = 0.10$ $2 \times 2 \times 0.25 \times 0.01 = 0.010$ $1 \times 0.50 \times 0.25 = 0.125$ = 1.722sqm. Say 1.72 sqm	kg	9.13	82.10	749.57 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 = 1.722sqm. + $0.50 \times 1.145 = 0.572$ + $0.52 \times 0.13 = 0.068\text{sqm.}$ + $1/2 \times (0.25)^2 \times 3.142 = 0.098$ + $2 \times 0.52 \times 0.01 = 0.010$ = 2.470sqm Sq. 2.47 sqm. MATERIAL	sqm	1.72	284.85	489.94 A
0367	Portland Cement (OPC-43 grade)	tonne	0.09	4940.00	444.60
2209	Carriage of Cement	tonne	0.09	92.24	8.30
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	103.77	20.75
	Labour for mortar				
0114	Beldar	day	0.013	558.00	7.25
0101	Bhisti	day	0.001	617.00	0.62
9999	Hire and running charges of mixer	L.S.	0.52	2.00	1.04
9999	Sundries	L.S.	0.26	2.00	0.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0155	Labour for plaster	day	0.126	709.00	89.33
0115	Mason (average)	day	0.185	558.00	103.23
0101	Coolie	day	0.227	617.00	140.06
9999	Bhisti	L.S.	3.38	2.00	6.76
9999	Extra for removing burr	L.S.	2.86	2.00	5.72
	Scaffolding, sundries etc.				
	(vi) Labour for fixing				
0114	Beldar	day	0.20	558.00	111.60
9977	Carriage to site	L.S.	13.52	2.00	27.04
	TOTAL				3806.67 W
	Add 1 % Water charges on "W-A"				11.97
	TOTAL				3818.64 X
	Add GST on "X-A" (multiplying factor 0.1405)				169.88
	TOTAL				3988.52 Y
	Add 15% CPOH on "Y-A"				206.85
	TOTAL				4195.37 Z
	Add Cess @ 1% on "Z-A"				15.86
	Cost per stone				4211.23
	Say				4211.25

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.				
4.1.2	Rate as per item no 4.1.2 of S.H. Concrete Work.	cum	0.06	7210.55	432.63 A
	(ii) Extra for laying cement concrete in RCC work				
0114	Beldar	day	0.006	558.00	3.35
0101	Bhisti	day	0.012	617.00	7.40
0123	Mason (brick layer) 1st class	day	0.0024	738.00	1.77
0124	Mason (brick layer) 2nd class	day	0.0024	679.00	1.63
0128	Mate	day	0.0024	617.00	1.48
	(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	kg	2.88	82.10	236.45 A
	(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				

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 = 0.810sqm 0.35x0.835 = 0.292sqm 0.37x0.10 =0.037sqm 2x0.37x0.01 =0.007sqm = 1.146 sqm Say 1.15sqm MATERIAL	sqm	0.81	284.85	230.73 A
0367	Portland Cement (OPC-43 grade)	tonne	0.042	4940.00	207.48
2209	Carriage of Cement	tonne	0.042	92.24	3.87
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	103.77	0.93
	Labour for mortar				
0114	Beldar	day	0.006	558.00	3.35
0101	Bhisti	day	0.0006	617.00	0.37
9999	Hire and running charges of mixer	L.S.	0.26	2.00	0.52
9999	Sundries	L.S.	0.13	2.00	0.26
	Labour for plaster				
0155	Mason (average)	day	0.058	709.00	41.12
0115	Coolie	day	0.086	558.00	47.99
0101	Bhisti	day	0.105	617.00	64.79
9999	Extra for removing burr	L.S.	1.56	2.00	3.12
9999	Scaffolding, sundries etc. (vi) Labour for fixing	L.S.	1.30	2.00	2.60
0114	Beldar	day	0.10	558.00	55.80
9977	Carriage to site	L.S.	13.52	2.00	27.04
	TOTAL				1382.78 W
	Add 1 % Water charges on "W-A"				4.83
	TOTAL				1387.61 X
	Add GST on "X-A" (multiplying factor 0.1405)				68.54
	TOTAL				1456.15 Y
	Add 15% CPOH on "Y-A"				83.45
	TOTAL				1539.60 Z
	Add Cess @ 1% on "Z-A"				6.40
	Cost of each				1546.00
	Say				1546.00

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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0309	Paving bitumen VG-10 of approved quality	tonne	0.225	25614.00	5763.15
2211	Carriage of Tar bitumen	tonne	0.225	103.77	23.35
	Stone aggregate 13.2mm nominal size @ 1.65cum. per 100sqm.				
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.65	1150.00	1897.50
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	103.77	171.22
	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	120.00	5.40
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate				
	(a) For cleaning :				
0128	Mate	day	0.11	617.00	67.87
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.08	738.00	59.04
0138	Sprayer (for bitumen, tar etc.)	day	0.11	617.00	67.87
0114	Beldar	day	0.93	558.00	518.94
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.11	617.00	67.87
0114	Beldar	day	0.93	558.00	518.94
0115	Coolie	day	1.55	558.00	864.90
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
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	300.00	33.00
	(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	2.00	13.52
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				12499.62 W
	Add 1 % Water charges on "W"				125.00
	TOTAL				12624.61 X
	Add GST on "X" (multiplying factor 0.1405)				1773.76
	TOTAL				14398.37 Y
	Add 15% CPOH on "Y"				2159.76
	TOTAL				16558.13 Z
	Add Cess @ 1% on "Z"				165.58
	Cost for 100 Sqm.				16723.71
	Cost per Sqm.				167.24
	Say				167.25

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				
0309	Bitumen S-90/A-90 @ 1.8kg/sqm.= 180kg.=0.18 tonne	tonne	0.18	25614.00	4610.52
2211	Paving bitumen VG-10 of approved quality	tonne	0.18	103.77	18.68
2910	Carriage of Tar bitumen				
2202	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.50	1150.00	1725.00
	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	103.77	155.66
	Steam coal for heating bitumen @ 2 quintal per tonne				
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	120.00	4.32
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate				
	(a) For cleaning :				
0128	Mate	day	0.11	617.00	67.87
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.08	738.00	59.04
0138	Sprayer (for bitumen, tar etc.)	day	0.11	617.00	67.87
0114	Beldar	day	1.38	558.00	770.04
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.27	617.00	166.59
0114	Beldar	day	0.85	558.00	474.30
0115	Coolie	day	0.85	558.00	474.30
	(d) Consolidation Charges				
0113	Chowkidar	day	0.11	558.00	61.38
0101	Bhisti	day	0.11	617.00	67.87
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	300.00	33.00
	(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	2.00	13.52
9999	Sundries	L.S.	16.38	2.00	32.76
	Second Coat MATERIAL				
	Bitumen S-90/A-90 @ 1.10kg per sqm = 110kg.=0.11 tonne				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	1150.00	1150.00
2211	Carriage of Tar bitumen	tonne	0.11	103.77	11.41
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.00	103.77	103.77
0370	Steam coal for heating bitumen @ 2 quintal per tonne of bitumen	quintal	0.22	440.00	96.80
2200	Carriage of steam coal	tonne	0.022	120.00	2.64
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate				
	(a) For cleaning and brushing loose chips:				
0128	Mate	day	0.06	617.00	37.02
0115	Coolie	day	0.97	558.00	541.26
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.05	738.00	36.90
0138	Sprayer (for bitumen, tar etc.)	day	0.07	617.00	43.19
0114	Beldar	day	0.75	558.00	418.50
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.07	617.00	43.19
0114	Beldar	day	0.62	558.00	345.96
0115	Coolie	day	0.62	558.00	345.96
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	558.00	83.70
0101	Bhisti	day	0.06	617.00	37.02
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	300.00	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	0.03	20.00	0.60
0365	Soft brush	each	0.09	20.00	1.80
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				17343.36 W
	Add 1 % Water charges on "W"				173.43
	TOTAL				17516.79 X
	Add GST on "X" (multiplying factor 0.1405)				2461.11
	TOTAL				19977.90 Y
	Add 15% CPOH on "Y"				2996.69
	TOTAL				22974.59 Z
	Add Cess @ 1% on "Z"				229.75
	Cost for per 100 sqm.				23204.33
	Cost per 1 Sqm.				232.04
	Say				232.05

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				
0309	Bitumen 1.95kg./sqm.= 195kg. or 0.195t				
	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	1150.00	1725.00
2211	Carriage of Tar bitumen	tonne	0.195	103.77	20.24
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	103.77	155.66
	Steam coal for heating bitumen @ 2 quintal per tonne of bitumen				
0370	Coal (steam)	quintal	0.39	440.00	171.60
2200	Carriage of steam coal	tonne	0.039	120.00	4.68
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate etc.				
	(a) For cleaning :				
0128	Mate	day	0.06	617.00	37.02
0114	Beldar	day	0.49	558.00	273.42
0115	Coolie	day	0.97	558.00	541.26
	(b) For heating and spraying bitumen :				
0130	Mistry	day	0.05	738.00	36.90
0138	Sprayer (for bitumen, tar etc.)	day	0.06	617.00	37.02
0114	Beldar	day	0.69	558.00	385.02
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.66	617.00	407.22
0114	Beldar	day	0.51	558.00	284.58
0115	Coolie	day	0.51	558.00	284.58
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	558.00	83.70
0101	Bhisti	day	0.06	617.00	37.02
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	300.00	18.00
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	2.00	5.46

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				9745.16 W
	Add 1 % Water charges on "W"				97.45
	TOTAL				9842.61 X
	Add GST on "X" (multiplying factor 0.1405)				1382.89
	TOTAL				11225.50 Y
	Add 15% CPOH on "Y"				1683.82
	TOTAL				12909.32 Z
	Add Cess @ 1% on "Z"				129.09
	Cost for 100 sqm.				13038.42
	Cost per Sqm.				130.38
	Say				130.40

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	30099.00	5869.31
2211	Carriage of Tar bitumen	tonne	0.195	103.77	20.24
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.50	1150.00	1725.00
	@1.50 cum. per 100 sqm. = 1.50cum				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.50	103.77	155.66
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.11	617.00	67.87
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For Spraying bitumen emulsion :				
0130	Mistry	day	0.07	738.00	51.66
0138	Sprayer (for bitumen, tar etc.)	day	0.10	617.00	61.70
0114	Beldar	day	1.00	558.00	558.00
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.11	617.00	67.87
0114	Beldar	day	0.85	558.00	474.30
0115	Coolie	day	0.85	558.00	474.30
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.27	617.00	166.59
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0007	Hire charges of Coaltar Sprayer	day	0.10	300.00	30.00
	(e) Misc:				
	Brushes etc. for cleaning				
0364	Wire brush	each	0.11	20.00	2.20
	(with thick wire)				
0365	Soft brush	each	0.32	20.00	6.40
9999	Brooms and gunny bags	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				11806.65 W
	Add 1 % Water charges on "W"				118.07
	TOTAL				11924.71 X
	Add GST on "X" (multiplying factor 0.1405)				1675.42
	TOTAL				13600.13 Y
	Add 15% CPOH on "Y"				2040.02
	TOTAL				15640.15 Z
	Add Cess @ 1% on "Z"				156.40
	Cost for 100 sqm.				15796.56
	Cost per Sqm.				157.97
	Say				157.95

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	30099.00	3672.08
2211	Carriage of Tar bitumen	tonne	0.122	103.77	12.66
	Stone chippings 11.2mm nominal size @ 1.10cum. per 100 sqm				
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.10	1150.00	1265.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.10	103.77	114.15
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.06	617.00	37.02
0114	Beldar	day	0.49	558.00	273.42
0115	Coolie	day	0.97	558.00	541.26
	(b) For Spraying bitumen emulsion :				
0130	Mistry	day	0.05	738.00	36.90
0138	Sprayer (for bitumen, tar etc.)	day	0.06	617.00	37.02

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.63	558.00	351.54
	(c) For screening and spreading aggregate :				
0128	Mate	day	0.07	617.00	43.19
0114	Beldar	day	0.62	558.00	345.96
0115	Coolie	day	0.62	558.00	345.96
	(d) Consolidation Charges				
0113	Chowkidar	day	0.15	558.00	83.70
0101	Bhisti	day	0.15	617.00	92.55
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	300.00	18.00
	(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	2.00	5.46
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				7475.12 W
	Add 1 % Water charges on "W"				74.75
	TOTAL				7549.88 X
	Add GST on "X" (multiplying factor 0.1405)				1060.76
	TOTAL				8610.63 Y
	Add 15% CPOH on "Y"				1291.60
	TOTAL				9902.23 Z
	Add Cess @ 1% on "Z"				99.02
	Cost for 100 sqm.				10001.25
	Cost per Sqm.				100.01
	Say				100.00

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	24000.00	1800.00
2211	Carriage of Tar bitumen	tonne	0.075	103.77	7.78
0370	Coal (steam)	quintal	0.15	440.00	66.00
2200	Carriage of steam coal	tonne	0.015	120.00	1.80
	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	2.00	15.60
0007	Hire charges of Coaltar Sprayer	day	0.03	300.00	9.00
9999	Sundries	L.S.	9.10	2.00	18.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0128	(a) For cleaning :				
	Mate	day	0.06	617.00	37.02
0114	Beldar	day	1.46	558.00	814.68
	(b) For heating bitumen:				
0114	Beldar	day	0.19	558.00	106.02
	(c) For applying tack coat:				
0114	Beldar	day	0.47	558.00	262.26
	TOTAL				3141.76 W
	Add 1 % Water charges on "W"				31.42
	TOTAL				3173.18 X
	Add GST on "X" (multiplying factor 0.1405)				445.83
	TOTAL				3619.01 Y
	Add 15% CPOH on "Y"				542.85
	TOTAL				4161.86 Z
	Add Cess @ 1% on "Z"				41.62
	Cost for 100 sqm.				4203.48
	Cost per Sqm.				42.03
	Say				42.05

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	24000.00	1200.00
2211	Carriage of Tar bitumen	tonne	0.05	103.77	5.19
0370	Coal (steam)	quintal	0.10	440.00	44.00
2200	Carriage of steam coal	tonne	0.01	120.00	1.20
	MATERIAL				
0364	Wire brush	each	0.05	20.00	1.00
	(with thick wire)				
0365	Soft brush	each	0.12	20.00	2.40
9999	Gunny bags	L.S.	7.80	2.00	15.60
0007	Hire charges of Coaltar Sprayer	day	0.03	300.00	9.00
9999	Sundries	L.S.	7.80	2.00	15.60
	LABOUR				
	(a) For cleaning :				
0128	Mate	day	0.06	617.00	37.02
0114	Beldar	day	1.46	558.00	814.68
	(b) For heating bitumen:				
0114	Beldar	day	0.19	558.00	106.02
	(c) For applying tack coat:				
0114	Beldar	day	0.47	558.00	262.26
	TOTAL				2513.97 W
	Add 1 % Water charges on "W"				25.14
	TOTAL				2539.11 X
	Add GST on "X" (multiplying factor 0.1405)				356.74
	TOTAL				2895.85 Y
	Add 15% CPOH on "Y"				434.38
	TOTAL				3330.23 Z
	Add Cess @ 1% on "Z"				33.30
	Cost for 100 sqm.				3363.53
	Cost per Sqm.				33.64
	Say				33.65

16.31 Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributor 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	19000.00	26600.00
2211	Carriage of Tar bitumen	tonne	1.40	103.77	145.28
	MACHINERY				
0075	Road sweeper (Mechanical Broom) @ 1250 sqm. Per hour.	hour	2.80	350.00	980.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00
	LABOUR				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				31050.64 W
	Add 1 % Water charges on "W"				310.51
	TOTAL				31361.14 X
	Add GST on "X" (multiplying factor 0.1405)				4406.24
	TOTAL				35767.39 Y
	Add 15% CPOH on "Y"				5365.11
	TOTAL				41132.49 Z
	Add Cess @ 1% on "Z"				411.32
	Cost for 3500 sqm.				41543.82
	Cost per Sqm.				11.87
	Say				11.85

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	19000.00	16625.00
2211	Carriage of Tar bitumen	tonne	0.875	103.77	90.80
	MACHINERY				
0075	Road sweeper (Mechanical Broom) @ 1250 sqm. Per hour.	hour	2.80	350.00	980.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00
	LABOUR				
0128	Mate	day	0.08	617.00	49.36

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				21021.16 W
	Add 1 % Water charges on "W"				210.21
	TOTAL				21231.37 X
	Add GST on "X" (multiplying factor 0.1405)				2983.01
	TOTAL				24214.38 Y
	Add 15% CPOH on "Y"				3632.16
	TOTAL				27846.53 Z
	Add Cess @ 1% on "Z"				278.47
	Cost for 3500 sqm.				28125.00
	Cost per Sqm.				8.04
	Say				8.05

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.				
7742	MATERIAL				
	Bitumen emulsion medium setting (M.S.) confirming to IS : 8887-1995	tonne	1.40	27909.00	39072.60
2211	Carriage of Tar bitumen	tonne	1.40	103.77	145.28
	MACHINERY				
0075	Road sweeper (Mechanical Broom) @ 1250 sqm. Per hour.	hour	2.80	350.00	980.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00
	LABOUR				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				43523.24 W
	Add 1 % Water charges on "W"				435.23
	TOTAL				43958.47 X
	Add GST on "X" (multiplying factor 0.1405)				6176.17
	TOTAL				50134.64 Y
	Add 15% CPOH on "Y"				7520.20
	TOTAL				57654.83 Z
	Add Cess @ 1% on "Z"				576.55
	Cost for 3500 sqm.				58231.38
	Cost per Sqm.				16.64
	Say				16.65

16.31.2.2 On bituminous surface @ 0.25kg/sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 3500 sqm.				
7742	MATERIAL				
	Bitumen emulsion medium setting (M.S.) confirming to IS : 8887-1995	tonne	0.875	27909.00	24420.38

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2211	Carriage of Tar bitumen	tonne	0.875	103.77	90.80
0075	MACHINERY Road sweeper (Mechanical Broom) @ 1250 sqm. Per hour.	hour	2.80	350.00	980.00
0058	Air compressor	hour	2.80	200.00	560.00
0061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	2.00	800.00	1600.00
0128	LABOUR Mate	day	0.08	617.00	49.36
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				28816.53 W
	Add 1 % Water charges on "W"				288.17
	TOTAL				29104.70 X
	Add GST on "X" (multiplying factor 0.1405)				4089.21
	TOTAL				33193.91 Y
	Add 15% CPOH on "Y"				4979.09
	TOTAL				38173.00 Z
	Add Cess @ 1% on "Z"				381.73
	Cost for 3500 sqm.				38554.73
	Cost per Sqm.				11.02
	Say				11.00

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 :52x1.8+56x0.9=144kg. or 0.144 tonne MATERIAL				
2916	Paving Asphalt VG 10 of approved quality	tonne	0.144	24000.00	3456.00
2211	Carriage of Tar bitumen	tonne	0.144	103.77	14.94
	Solvent 70gms/kg. for 0.144 t = 10.08kg.				
2914	Solvent	kilogram	10.08	25.00	252.00
2342	Carriage of solvent/ Diesel.	quintal	0.10	10.38	1.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100 sqm	cum	1.80	1150.00	2070.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100 sqm	cum	0.90	1150.00	1035.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	103.77	280.18
	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	120.00	3.46
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen:				
0114	Beldar	day	0.57	558.00	318.06
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	738.00	140.22
0114	Beldar	day	5.00	558.00	2790.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
	(at barrier for night watch and for road roller)				
0101	Bhisti	day	0.11	617.00	67.87
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	2.00	13.52
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				12933.01 W
	Add 1 % Water charges on "W"				129.33
	TOTAL				13062.34 X
	Add GST on "X" (multiplying factor 0.1405)				1835.26
	TOTAL				14897.59 Y
	Add 15% CPOH on "Y"				2234.64
	TOTAL				17132.23 Z
	Add Cess @ 1% on "Z"				171.32
	Cost for 100 sqm.				17303.56
	Cost per Sqm.				173.04
	Say				173.05

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 :52x1.8+56x0.9=144kg. or 0.144 tonne MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	0.144	39570.00	5698.08
2211	Carriage of Tar bitumen	tonne	0.144	103.77	14.94
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @1.80cum. per 100sqm.	cum	1.80	1150.00	2070.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100sqm	cum	0.90	1150.00	1035.00
2202	Carriage of Stone aggregate below 40 mm nominal size Steam coal for heating of bitumen @2 quintals per tonne of bitumen =2x0.144=0.288q	cum	2.70	103.77	280.18
0370	Coal (steam)	quintal	0.288	440.00	126.72
2200	Carriage of steam coal Labour for cleaning the road surface, heating and spraying bitumen and aggregate :	tonne	0.0288	120.00	3.46
	(a) For cleaning :				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen:				
0114	Beldar	day	0.57	558.00	318.06
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	738.00	140.22
0114	Beldar	day	5.00	558.00	2790.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
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	2.00	13.52
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				14922.05 W
	Add 1 % Water charges on "W"				149.22
	TOTAL				15071.27 X
	Add GST on "X" (multiplying factor 0.1405)				2117.51
	TOTAL				17188.78 Y
	Add 15% CPOH on "Y"				2578.32
	TOTAL				19767.10 Z
	Add Cess @ 1% on "Z"				197.67
	Cost for 100 sqm.				19964.77
	Cost per Sqm.				199.65
	Say				199.65

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. 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. Modified Bitumen CRMB - 55 (Refinery produced) :52x1.8+56x0.9=144kg. or 0.144 tonne MATERIAL				
7739	Modified Bitumen Refinery produced CRMB - 55	tonne	0.144	29995.00	4319.28
2211	Carriage of Tar bitumen	tonne	0.144	103.77	14.94
2914	Solvent 70gms/kg. for 0.144 t = 10.08kg	kilogram	10.08	25.00	252.00
2342	Carriage of solvent/ Diesel.	quintal	0.10	10.38	1.04
2910	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	1150.00	2070.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @0.90cum. per 100sqm	cum	0.90	1150.00	1035.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.70	103.77	280.18
	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	120.00	3.46
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	(a) For cleaning :				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen:				
0114	Beldar	day	0.57	558.00	318.06
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	738.00	140.22
0114	Beldar	day	5.00	558.00	2790.00
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
0001	Hire charges of Coal tar 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	2.00	13.52
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				13796.29 W
	Add 1 % Water charges on "W"				137.96
	TOTAL				13934.25 X
	Add GST on "X" (multiplying factor 0.1405)				1957.76
	TOTAL				15892.01 Y
	Add 15% CPOH on "Y"				2383.80
	TOTAL				18275.81 Z
	Add Cess @ 1% on "Z"				182.76
	Cost for 100 sqm.				18458.57
	Cost per Sqm.				184.59
	Say				184.60

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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2916	(ii) Hot bitumen @56kg. per cum. Of aggregate @1.12cum. of 11.2mm nominal size. Bitumen :52x2.25+56x1.12= 180kg MATERIAL Paving Asphalt VG -10 of approved quality	tonne	0.18	24000.00	4320.00
2914	Solvent 0.07x180=12.60kg. Solvent	kilogram	12.6	25.00	315.00
2211	Carriage of Tar bitumen	tonne	0.18	103.77	18.68
2342	Carriage of solvent/ Diesel.	quintal	0.126	10.38	1.31
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	2.25	1150.00	2587.50
2911	@1.80cum. per 100 sqm. Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.12	1150.00	1288.00
2202	@0.90cum. per 100 sqm Carriage of Stone aggregate below 40 mm nominal size	cum	3.37	103.77	349.70
	2.25+1.12=3.37 cum 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	120.00	4.32
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen:				
0114	Beldar	day	0.71	558.00	396.18
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	738.00	140.22
0114	Beldar	day	6.25	558.00	3487.50
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
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	2.00	13.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				15528.20 W
	Add 1 % Water charges on "W"				155.28
	TOTAL				15683.48 X
	Add GST on "X" (multiplying factor 0.1405)				2203.53
	TOTAL				17887.01 Y
	Add 15% CPOH on "Y"				2683.05
	TOTAL				20570.06 Z
	Add Cess @ 1% on "Z"				205.70
	Cost for 100 sqm.				20775.77
	Cost per Sqm.				207.76
	Say				207.75

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+50x1. 12= 180kg MATERIAL				
7309	Paving Asphalt VG-30 of approved quality	tonne	0.18	39570.00	7122.60
2211	Carriage of Tar bitumen	tonne	0.18	103.77	18.68
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @2.25cum. per 100sqm	cum	2.25	1150.00	2587.50
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @1.12cum. per 100sqm	cum	1.12	1150.00	1288.00
2202	Carriage of Stone aggregate below 40 mm nominal size 2.25+1.12=3.37 cum.	cum	3.37	103.77	349.70
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	120.00	4.32
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen:				
0114	Beldar	day	0.71	558.00	396.18
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.19	738.00	140.22

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar 1.05x0.18)/0.267 = 0.71 Nos.	day	6.25	558.00	3487.50
0113	(d) Consolidation Charges Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
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
0364	(e) Misc: 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	2.00	13.52
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				18014.49 W
	Add 1 % Water charges on "W"				180.14
	TOTAL				18194.64 X
	Add GST on "X" (multiplying factor 0.1405)				2556.35
	TOTAL				20750.99 Y
	Add 15% CPOH on "Y"				3112.65
	TOTAL				23863.63 Z
	Add Cess @ 1% on "Z"				238.64
	Cost for 100 sqm.				24102.27
	Cost per Sqm.				241.02
	Say				241.00

16.33.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7739	Details of cost for 100 sqm. MATERIAL 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. 52x2.25+56x1.12=180kg Modified Bitumen Refinery produced CRMB - 55	tonne	0.18	29995.00	5399.10
2914	Solvent 0.07x180=12.60kg	kilogram	12.6	25.00	315.00
2211	Carriage of Tar bitumen	tonne	0.18	103.77	18.68
2342	Carriage of solvent/ Diesel.	quintal	0.126	10.38	1.31
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size @2.25 cum. per 100sqm	cum	2.25	1150.00	2587.50
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @1.12 cum. per 100sqm	cum	1.12	1150.00	1288.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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 $=2 \times 0.18=0.36$ q	cum	3.37	103.77	349.70
0370	Coal (steam)	quintal	0.36	440.00	158.40
2200	Carriage of steam coal	tonne	0.036	120.00	4.32
	Labour for cleaning the road surface, heating and spraying bitumen and aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.08	617.00	49.36
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen:				
0114	Beldar	day	0.71	558.00	396.18
	(c) For screening and spreading premixed aggregate :				
0130	Mistry	day	0.19	738.00	140.22
0114	Beldar	day	6.25	558.00	3487.50
	(d) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
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	2.00	13.52
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				16607.30 W
	Add 1 % Water charges on "W"				166.07
	TOTAL				16773.37 X
	Add GST on "X" (multiplying factor 0.1405)				2356.66
	TOTAL				19130.03 Y
	Add 15% CPOH on "Y"				2869.51
	TOTAL				21999.54 Z
	Add Cess @ 1% on "Z"				220.00
	Cost for 100 sqm.				22219.53
	Cost per Sqm.				222.20
	Say				222.20

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	27909.00	6419.07
2211	Carriage of Tar bitumen	tonne	0.23	103.77	23.87
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size @ 2.4cum. per 100 sqm	cum	2.40	1150.00	2760.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.40	103.77	249.05
	LABOUR				
	(a) For mixing and spreading premix aggregate :				
0130	Mistry	day	0.19	738.00	140.22
0114	Beldar	day	3.54	558.00	1975.32
	(b) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
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	2.00	18.98
	TOTAL				12275.04 W
	Add 1 % Water charges on "W"				122.75
	TOTAL				12397.79 X
	Add GST on "X" (multiplying factor 0.1405)				1741.89
	TOTAL				14139.67 Y
	Add 15% CPOH on "Y"				2120.95
	TOTAL				16260.63 Z
	Add Cess @ 1% on "Z"				162.61
	Cost for 100 sqm.				16423.23
	Cost per Sqm.				164.23
	Say				164.25

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. @				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7742	96kg per cum. of aggregate 96x3 = 288 kg = 0.288 t	tonne	0.288	27909.00	8037.79
2211	Bitumen emulsion medium setting (M.S.) conforming to IS : 8887-1995	tonne	0.288	103.77	29.89
2911	Carriage of Tar bitumen				
	Stone chippings/ screenings 10/ 11.2 mm nominal size @ 3.00 cum. per 100 sqm	cum	3.00	1150.00	3450.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	3.00	103.77	311.31
	LABOUR (a) For mixing and spreading premix aggregate :				
0130	Mistry	day	0.19	738.00	140.22
0114	Beldar	day	4.10	558.00	2287.80
	(b) Consolidation Charges				
0113	Chowkidar	day	0.27	558.00	150.66
0101	Bhisti	day	0.11	617.00	67.87
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.11	3000.00	330.00
9999	Sundries	L.S.	9.49	2.00	18.98
	TOTAL				14824.52 W
	Add 1 % Water charges on "W"				148.25
	TOTAL				14972.76 X
	Add GST on "X" (multiplying factor 0.1405)				2103.67
	TOTAL				17076.44 Y
	Add 15% CPOH on "Y"				2561.47
	TOTAL				19637.90 Z
	Add Cess @ 1% on "Z"				196.38
	Cost for 100 sqm.				19834.28
	Cost per Sqm.				198.34
	Say				198.35

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	1350.00	13189.50
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	1350.00	3145.50
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	112.79	1126.77
2202	Carriage of Stone aggregate below 40 mm nominal size i.e. 20 mm	cum	12.1	103.77	1255.62
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	4.44	103.77	460.74
2267	Carriage of Stone dust	cum	1.16	103.77	120.37
2916	Paving Asphalt VG -10 of approved quality @ 50kg/10 sqm.	tonne	1.85	24000.00	44400.00
2211	Carriage of Tar bitumen	tonne	1.85	103.77	191.97
0114	(B) Labour: Beldar for spreading stone metal	day	16.67	558.00	9301.86
0114	Beldar for hand packing	day	5.33	558.00	2974.14
0114	Beldar dry rolling	day	2.67	558.00	1489.86
0114	Beldar Bajri spreader	day	1.33	558.00	742.14
0138	Sprayer (for bitumen, tar etc.)	day	0.67	617.00	413.39
0114	Beldar for spreading key aggregate	day	1.33	558.00	742.14
0114	Beldar for spraying bitumen	day	6.67	558.00	3721.86
0114	Beldar of power roller	day	0.67	558.00	373.86
0128	Mate (C) Machinery :	day	1.77	617.00	1092.09
0001	Hire charges of Coal tar 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	2.00	702.00
	TOTAL				107890.82 W
	Add 1 % Water charges on "W"				1078.91
	TOTAL				108969.72 X
	Add GST on "X" (multiplying factor 0.1405)				15310.25
	TOTAL				124279.97 Y
	Add 15% CPOH on "Y"				18642.00
	TOTAL				142921.97 Z
	Add Cess @ 1% on "Z"				1429.22
	Cost for 370 Sqm.				144351.19
	Cost per sqm.				390.14
	Say				390.15

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. = $300/10 \times 0.90 = 27$ cum. Key agg = $300/10 \times 0.18 = 5.4$ cum. Bitumen = $300/10 \times 68 = 2.04$ t.				
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	8.10	112.79	913.60
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	1350.00	19683.00
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	24000.00	48960.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	24.33	103.77	2524.72
2211	Carriage of Tar bitumen	tonne	2.04	103.77	211.69
	LABOUR				
0114	Beldar for spreading stone metal	day	25.00	558.00	13950.00
0114	Beldar for hand packing	day	8.00	558.00	4464.00
0114	Beldar dry rolling	day	4.00	558.00	2232.00
0114	Beldar /Bajri spreader	day	2.00	558.00	1116.00
0138	Sprayer (for bitumen, tar etc.)	day	1.00	617.00	617.00
0114	Beldar for spreading key aggregate	day	2.00	558.00	1116.00
0114	Beldar for spraying bitumen	day	10.00	558.00	5580.00
0114	Beldar road roller	day	1.00	558.00	558.00
0128	Mate	day	2.65	617.00	1635.05
	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. 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 300 Sqm. Cost per sqm. Say	L.S.	429	2.00	858.00 128331.56 W 1283.32 129614.88 X 18210.89 147825.77 Y 22173.87 169999.64 Z 1700.00 171699.63 572.33 572.35

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 2211 Carriage of Tar bitumen (ii) Weight of coarse aggregate @ 40% (1000 - 150) x 40/100 = 340 kg. Stone aggregate : $340/43.38 \times 0.0283 = 0.222$ cum. 0295 Stone Aggregate (Single size) : 20 mm nominal size 0296 Stone Aggregate (Single size) : 12.5 mm nominal size (iii) Weight of fine aggregate @ 15% $850 \times 15/100 = 127.5$ kg., volume of fine aggregate: $127.5/43.103 \times 0.0283 = 0.083$ cum	tonne tonne cum cum	 0.102 0.102 0.02 0.202	 34000.00 103.77 1350.00 1350.00	 3468.00 10.58 27.00 272.70

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	cum	0.083	1100.00	91.30
0784	stone dust 382.50/2200 =0.174 cum. Marble dust/ powder	cum	0.174	1130.00	196.62
0297	(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 Stone Aggregate (Single size) : 10 mm nominal size	cum	0.009	1350.00	12.15
0313	Bitumen for precoated stone chipping @ 2% =0.009x1600x2/100= 0.288 say 0.30 kg. Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.0003	34000.00	10.20
2211	Carriage of Tar bitumen	tonne	0.0003	103.77	0.03
2202	Carriage of Stone aggregate below 40 mm nominal size (0.222 + 0.009) =0.231 cum.	cum	0.231	103.77	23.97
2267	Carriage of Stone dust	cum	0.083	103.77	8.61
2208	Carriage of Lime	cum	0.174	103.77	18.06
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	1.50	617.00	925.50
0130	Mistry	day	0.50	738.00	369.00
0138	Sprayer (for bitumen, tar etc.)	day	3.50	617.00	2159.50
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	617.00	154.25
0128	Mate	day	0.50	617.00	308.50
0016	Mastic Cooker	day	0.50	750.00	375.00
9999	sundries (Sealing of joints, placing angles, wastage materials)	L.S.	153.27	2.00	306.54
	TOTAL				8737.52 W
	Add 1 % Water charges on "W"				87.38
	TOTAL				8824.89 X
	Add GST on "X" (multiplying factor 0.1405)				1239.90
	TOTAL				10064.79 Y
	Add 15% CPOH on "Y"				1509.72
	TOTAL				11574.51 Z
	Add Cess @ 1% on "Z"				115.75
	Cost for 17.40 sqm				11690.25
	Cost per sqm				671.85
	Say				671.85

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 25 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	34000.00	3468.00
2211	Carriage of Tar bitumen	tonne	0.102	103.77	10.58
	(ii) Weight of coarse aggregate @ 40% (1000 - 150) x 40/100 = 340 kg. Stone aggregate : $340/43.38 \times 0.0283 = 0.222$ cum.				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.02	1350.00	27.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	0.202	1350.00	272.70
	(iii) Weight of fine aggregate @ 15% $850 \times 15/100 = 127.5$ kg., volume of fine aggregate: $127.5/43.103 \times 0.0283 = 0.083$ cum				
1159	Stone dust	cum	0.083	1100.00	91.30
	(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.				
0784	Marble dust/ powder	cum	0.174	1130.00	196.62
	(v) Precoated stone chipping for surface finish: Volume of chips @ 0.005 cum/10 sqm= $17.4 \times 0.005/10 = 0.0087$ cum say 0.009 cum				
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	0.009	1350.00	12.15
	Bitumen for precoated stone chipping @ 2%= $0.009 \times 1600 \times 2/100 = 0.288$ say 0.30 kg.				
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	0.0003	34000.00	10.20
2211	Carriage of Tar bitumen	tonne	0.0003	103.77	0.03
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.231	103.77	23.97
	(0.222 + 0.009) = 0.231 cum				
2267	Carriage of Stone dust	cum	0.083	103.77	8.61
2208	Carriage of Lime	cum	0.174	103.77	18.06
	for mastic cooker (Taking capacity of cooker as one tonne)				
	LABOUR				
0139	Skilled Beldar (for floor rubbing etc.)	day	1.50	617.00	925.50
0130	Mistry	day	0.50	738.00	369.00
0138	Sprayer (for bitumen, tar etc.)	day	3.50	617.00	2159.50
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	617.00	154.25
0128	Mate	day	0.50	617.00	308.50
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) 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 10.875 sqm Cost per sqm Say	L.S.	153.27	2.00	306.54 8737.52 W 87.38 8824.89 X 1239.90 10064.79 Y 1509.72 11574.51 Z 115.75 11690.25 1074.97 1074.95

- 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 Solvent 0.070 kg. x 303 kg. = 21.21kg	tonne	0.303	24000.00	7272.00
2914	Solvent	kilogram	21.21	25.00	530.25
2211	Carriage of Tar bitumen	tonne	0.303	103.77	31.44
2342	Carriage of solvent/ Diesel.	quintal	0.212	10.38	2.20
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1150.00	1138.50
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1150.00	759.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	103.77	171.22
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	120.00	7.27
0982	Coarse sand (zone III)	cum	1.65	1350.00	2227.50
2203	Carriage of Coarse sand	cum	1.65	103.77	171.22
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate : (a) For cleaning :				
0128	Mate	day	0.16	617.00	98.72

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen :				
0114	Beldar	day	1.19	558.00	664.02
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.24	738.00	177.12
0114	Beldar	day	6.12	558.00	3414.96
	(d) Consolidation charges :				
0113	Chowkidar	day	0.34	558.00	189.72
	(at barriers for night watch and for road roller)				
0101	Bhisti	day	0.13	617.00	80.21
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	2.00	14.30
9999	Sundries	L.S.	8.97	2.00	17.94
	TOTAL				19540.24 W
	Add 1 % Water charges on "W"				195.40
	TOTAL				19735.64 X
	Add GST on "X" (multiplying factor 0.1405)				2772.86
	TOTAL				22508.50 Y
	Add 15% CPOH on "Y"				3376.27
	TOTAL				25884.77 Z
	Add Cess @ 1% on "Z"				258.85
	Cost for 100 sqm.				26143.62
	Cost per sqm.				261.44
	Say				261.45

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	39570.00	11989.71
2211	Carriage of Tar bitumen	tonne	0.303	103.77	31.44
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1150.00	1138.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1150.00	759.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	103.77	171.22
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = 2x0.303=0.606q				
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	120.00	7.27
0982	Coarse sand (zone III)	cum	1.65	1350.00	2227.50
2203	Carriage of Coarse sand	cum	1.65	103.77	171.22
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	617.00	98.72
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen :				
0114	Beldar	day	1.19	558.00	664.02
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.24	738.00	177.12
0114	Beldar	day	6.12	558.00	3414.96
	(d) Consolidation charges :				
0113	Chowkidar	day	0.34	558.00	189.72
	(at barriers for night watch and for road roller)				
0101	Bhisti	day	0.13	617.00	80.21
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	2.00	14.30
9999	Sundries	L.S.	8.97	2.00	17.94
	TOTAL				23725.50 W
	Add 1 % Water charges on "W"				237.25
	TOTAL				23962.75 X
	Add GST on "X" (multiplying factor 0.1405)				3366.77
	TOTAL				27329.52 Y
	Add 15% CPOH on "Y"				4099.43
	TOTAL				31428.94 Z
	Add Cess @ 1% on "Z"				314.29
	Cost for 100 sqm.				31743.23
	Cost per sqm.				317.43
	Say				317.45

16.38.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7739	Details of cost for 100sqm. MATERIAL Modified Bitumen Refinery 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	29995.00	9088.49
2914	Solvent 0.070 kg. x 303 kg. = 21.21kg	kilogram	21.21	25.00	530.25
2211	Carriage of Tar bitumen	tonne	0.303	103.77	31.44
2342	Carriage of solvent/ Diesel.	quintal	0.212	10.38	2.20
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	0.99	1150.00	1138.50
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	0.66	1150.00	759.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	1.65	103.77	171.22
0370	Coal (steam)	quintal	0.606	440.00	266.64
2200	Carriage of steam coal	tonne	0.0606	120.00	7.27
0982	Coarse sand (zone III)	cum	1.65	1350.00	2227.50
2203	Carriage of Coarse sand	cum	1.65	103.77	171.22
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	617.00	98.72
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen :				
0114	Beldar	day	1.19	558.00	664.02
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.24	738.00	177.12
0114	Beldar	day	6.12	558.00	3414.96
	(d) Consolidation charges :				
0113	Chowkidar	day	0.34	558.00	189.72
0101	Bhisti	day	0.13	617.00	80.21
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	2.00	14.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	8.97	2.00	17.94
	TOTAL				21356.72 W
	Add 1 % Water charges on "W"				213.57
	TOTAL				21570.29 X
	Add GST on "X" (multiplying factor 0.1405)				3030.63
	TOTAL				24600.91 Y
	Add 15% CPOH on "Y"				3690.14
	TOTAL				28291.05 Z
	Add Cess @ 1% on "Z"				282.91
	Cost for 100 sqm.				28573.96
	Cost per sqm.				285.74
	Say				285.75

- 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 ₹
2916	Details of cost for 100sqm. MATERIAL Paving Asphalt VG -10 of approved quality @56kg. per cum. of aggregate and 128kg. per cum. of sand: $56 \times 2.60 = 145.6 \text{ kg.} = 0.146 \text{ t}$ $128 \times 2.60 = 332.8 \text{ kg} = 0.333 \text{ t}$ Total = 0.479 t	tonne	0.479	24000.00	11496.00
2914	Solvent $0.70 \text{ kg.} \times 479 = 33.53 \text{ kg}$	kilogram	33.53	25.00	838.25
2342	Carriage of solvent/ Diesel.	quintal	0.335	10.38	3.48
2211	Carriage of Tar bitumen	tonne	0.479	103.77	49.71
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1150.00	1794.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1150.00	1196.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	103.77	269.80
0982	Coarse sand (zone III)	cum	2.60	1350.00	3510.00
2203	Carriage of Coarse sand	cum	2.60	103.77	269.80
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = $2 \times 0.479 = 0.958 \text{ q}$				
0370	Coal (steam)	quintal	0.958	440.00	421.52
2200	Carriage of steam coal Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :	tonne	0.0958	120.00	11.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0128	(a) For cleaning : Mate	day	0.16	617.00	98.72
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
0114	(b) For heating bitumen : Beldar	day	1.88	558.00	1049.04
0130	(c) For cleaning, mixing and spreading pre-mix aggregate : Mistry	day	0.31	738.00	228.78
0114	Beldar	day	9.46	558.00	5278.68
0113	(d) Consolidation charges : Chowkidar	day	0.45	558.00	251.10
0101	Bhisti	day	0.18	617.00	111.06
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.18	3000.00	540.00
0001	Hire charges of Coal tar 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
0364	(e) Misc : 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	2.00	10.66
9999	Sundries	L.S.	16.12	2.00	32.24
	TOTAL				29374.93 W
	Add 1 % Water charges on "W"				293.75
	TOTAL				29668.68 X
	Add GST on "X" (multiplying factor 0.1405)				4168.45
	TOTAL				33837.13 Y
	Add 15% CPOH on "Y"				5075.57
	TOTAL				38912.70 Z
	Add Cess @ 1% on "Z"				389.13
	Cost for 100 sqm.				39301.83
	Cost per sqm.				393.02
	Say				393.00

16.39.2 With paving asphalt grade VG - 30 with no solvent

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7309	Details of cost for 100sqm. MATERIAL 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	39570.00	18954.03
2211	Carriage of Tar bitumen	tonne	0.479	103.77	49.71
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1150.00	1794.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1150.00	1196.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	103.77	269.80
0982	Coarse sand (zone III)	cum	2.60	1350.00	3510.00
2203	Carriage of Coarse sand	cum	2.60	103.77	269.80
	Steam coal for heating bitumen @ 2 quintals 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	120.00	11.50
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	617.00	98.72
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen :				
0114	Beldar	day	1.88	558.00	1049.04
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.31	738.00	228.78
0114	Beldar	day	9.46	558.00	5278.68
	(d) Consolidation charges :				
0113	Chowkidar	day	0.45	558.00	251.10
0101	Bhisti	day	0.18	617.00	111.06
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	2.00	10.66
9999	Sundries	L.S.	16.12	2.00	32.24
	TOTAL				35991.24 W
	Add 1 % Water charges on "W"				359.91
	TOTAL				36351.15 X
	Add GST on "X" (multiplying factor 0.1405)				5107.34
	TOTAL				41458.48 Y
	Add 15% CPOH on "Y"				6218.77
	TOTAL				47677.26 Z
	Add Cess @ 1% on "Z"				476.77
	Cost for 100 sqm.				48154.03
	Cost per sqm.				481.54
	Say				481.55

16.39.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7739	Details of cost for 100sqm. MATERIAL Modified Bitumen Refinery produced CRMB - 55 @56kg. per cum. of aggregate and 128kg. per cum. of sand: $56 \times 2.60 = 145.6\text{kg.} = 0.146\text{t} +$ $128 \times 2.60 = 332.8\text{kg} = 0.333\text{t}$ Total = 0.479 tonne	tonne	0.479	29995.00	14367.61
2914	Solvent $0.70\text{kg.} \times 479 = 33.53\text{kg.}$	kilogram	33.53	25.00	838.25
2342	Carriage of solvent/ Diesel.	quintal	0.335	10.38	3.48
2211	Carriage of Tar bitumen	tonne	0.479	103.77	49.71
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	1.56	1150.00	1794.00
2911	Stone chippings/ screenings 10/ 11.2 mm nominal size	cum	1.04	1150.00	1196.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	2.60	103.77	269.80
0982	Coarse sand (zone III)	cum	2.60	1350.00	3510.00
2203	Carriage of Coarse sand	cum	2.60	103.77	269.80
	Steam coal for heating bitumen @ 2 quintals per tonne of bitumen = $2 \times 0.479 = 0.958\text{q}$				
0370	Coal (steam)	quintal	0.958	440.00	421.52
2200	Carriage of steam coal	tonne	0.0958	120.00	11.50
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.16	617.00	98.72
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(b) For heating bitumen :				
0114	Beldar	day	1.88	558.00	1049.04
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0130	Mistry	day	0.31	738.00	228.78
0114	Beldar	day	9.46	558.00	5278.68
	(d) Consolidation charges :				
0113	Chowkidar	day	0.45	558.00	251.10
0101	Bhisti	day	0.18	617.00	111.06
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	2.00	10.66

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	16.12	2.00	32.24
	TOTAL				32246.54 W
	Add 1 % Water charges on "W"				322.47
	TOTAL				32569.00 X
	Add GST on "X" (multiplying factor 0.1405)				4575.94
	TOTAL				37144.95 Y
	Add 15% CPOH on "Y"				5571.74
	TOTAL				42716.69 Z
	Add Cess @ 1% on "Z"				427.17
	Cost for 100 sqm.				43143.86
	Cost per sqm.				431.44
	Say				431.45

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 ₹
2916	Details of cost for 100sqm. MATERIAL Paving Asphalt VG -10 of approved quality @ 128kg/cum. of sand 128x0.60 = 76.80kg. = 0.0768 m.t	tonne	0.0768	24000.00	1843.20
2211	Carriage of Tar bitumen	tonne	0.0768	103.77	7.97
0982	Coarse sand (zone III)	cum	0.60	1350.00	810.00
2203	Carriage of Coarse sand	cum	0.60	103.77	62.26
	Steam coal for heating bitumen @ 2 qunitals per tonne of bitumen =2x0.768=0.1.536 qtl				
0370	Coal (steam)	quintal	1.536	440.00	675.84
2200	Carriage of steam coal	tonne	0.1536	120.00	18.43
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For cleaning :				
0128	Mate	day	0.06	617.00	37.02
0114	Beldar	day	0.49	558.00	273.42
0115	Coolie	day	0.97	558.00	541.26
	(b) For heating bitumen :				
0114	Beldar	day	0.30	558.00	167.40
	0.38/96x76.8				
	(c) For cleaning, mixing and spreading pre-mix aggregate :				
0114	Beldar	day	1.11	558.00	619.38
	11.39/0.75x0.60				
0130	Mistry	day	0.05	738.00	36.90
	0.06/0.75x0.60				
	(d) Miscellaneous :				
0113	Chowkidar	day	0.15	558.00	83.70
0101	Bhisti	day	0.06	617.00	37.02

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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
0364	(e) Misc : 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	2.00	36.40
	TOTAL				5508.60 W
	Add 1 % Water charges on "W"				55.09
	TOTAL				5563.69 X
	Add GST on "X" (multiplying factor 0.1405)				781.70
	TOTAL				6345.39 Y
	Add 15% CPOH on "Y"				951.81
	TOTAL				7297.20 Z
	Add Cess @ 1% on "Z"				72.97
	Cost for 100 sqm.				7370.17
	Cost per sqm.				73.70
	Say				73.70

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	24000.00	2352.00
2211	Carriage of Tar bitumen	tonne	0.098	103.77	10.17
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	103.77	93.39
	Steam coal for heating bitumen @ 2 quintals 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	120.00	23.52
	Labour for cleaning road surface, heating bitumen mixing and spreading aggregate :				
	(a) For heating and spraying bitumen :				
0130	Mistry	day	0.04	738.00	29.52
0138	Sprayer (for bitumen, tar etc.)	day	0.06	617.00	37.02
0114	Beldar	day	0.69	558.00	385.02
	(b) For cleaning :				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0128	Mate	day	0.11	617.00	67.87
0114	Beldar	day	1.40	558.00	781.20
0115	Coolie	day	1.40	558.00	781.20
	(c) For screening and spraying aggregate :				
0128	Mate	day	0.05	617.00	30.85
0114	Beldar	day	0.51	558.00	284.58
	(d) Misc :				
0113	Chowkidar	day	0.15	558.00	83.70
0101	Bhisti	day	0.06	617.00	37.02
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	300.00	18.00
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	2.00	36.40
9999	Brooms and gunny bags	L.S.	2.73	2.00	5.46
	TOTAL				7410.72 W
	Add 1 % Water charges on "W"				74.11
	TOTAL				7484.83 X
	Add GST on "X" (multiplying factor 0.1405)				1051.62
	TOTAL				8536.45 Y
	Add 15% CPOH on "Y"				1280.47
	TOTAL				9816.92 Z
	Add Cess @ 1% on "Z"				98.17
	Cost for 100 sqm.				9915.08
	Cost per sqm.				99.15
	Say				99.15

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	1350.00	297.00
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	112.79	58.65
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	103.77	34.24
0982	Coarse sand (zone III)	cum	0.445	1350.00	600.75
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	Portland Cement (OPC-43 grade)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
	LABOUR				
0155	Mason (average)	day	0.10	709.00	70.90
0114	Beldar	day	1.63	558.00	909.54
0101	Bhisti	day	0.70	617.00	431.90
	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	370.00	25.90
9999	Sundries	L.S.	26.00	2.00	52.00
	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	284.85	115.93 A
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				5142.27 W
	Add 1 % Water charges on "W-A"				50.26
	TOTAL				5192.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				713.26
	TOTAL				5905.80 Y
	Add 15% CPOH on "Y-A"				868.48
	TOTAL				6774.28 Z
	Add Cess @ 1% on "Z-A"				66.58
	Cost for 1 cum.				6840.86
	Say				6840.85

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	4940.00	1679.60
2209	Carriage of Cement	tonne	0.34	92.24	31.36

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	1350.00	600.75
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	112.79	58.65
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	103.77	34.24
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
	LABOUR :- FOR MIXING AND LAYING				
0114	Beldar	day	2.00	558.00	1116.00
0101	Bhisti	day	0.27	617.00	166.59
0123	Mason (brick layer) 1st class	day	0.05	738.00	36.90
0124	Mason (brick layer) 2nd class	day	0.05	679.00	33.95
0128	Mate	day	0.04	617.00	24.68
	For compaction by vibrator				
0155	Mason (average)	day	0.07	709.00	49.63
0114	Beldar	day	0.07	558.00	39.06
	MACHINERY				
0004	Production cost of concrete by batch mix plant. (Assuming 25 cum. per day)	cum	1.00	350.00	350.00
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	325.00	8.13
0022	Surface Vibrator with 25 cum. output per day	day	0.05	400.00	20.00
	Add for steel form work				
16.43B	Rate as per Item Number 16.43B of SH: Road work	cum	1.00	814.45	814.45
9999	Cutting and making joints	L.S.	50.00	2.00	100.00
	TOTAL				6541.67 W
	Add 1 % Water charges on "W"				65.42
	TOTAL				6607.09 X
	Add GST on "X" (multiplying factor 0.1405)				928.30
	TOTAL				7535.38 Y
	Add 15% CPOH on "Y"				1130.31
	TOTAL				8665.69 Z
	Add Cess @ 1% on "Z"				86.66
	Cost per cum.				8752.35
	Say				8752.35

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	4940.00	1679.60
2209	Carriage of Cement	tonne	0.34	92.24	31.36
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	1350.00	600.75
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0.52	112.79	58.65
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.33	103.77	34.24
2203	Carriage of Coarse sand	cum	0.445	103.77	46.18
	LABOUR :- FOR MIXING AND LAYING				
0114	Beldar	day	2.00	558.00	1116.00
0101	Bhisti	day	0.27	617.00	166.59
0123	Mason (brick layer) 1st class	day	0.05	738.00	36.90
0124	Mason (brick layer) 2nd class	day	0.05	679.00	33.95
0128	Mate	day	0.04	617.00	24.68
	For compaction by vibrator				
0155	Mason (average)	day	0.07	709.00	49.63
0114	Beldar	day	0.07	558.00	39.06
	MACHINERY				
0004	Production cost of concrete by batch mix plant.	cum	1.00	350.00	350.00
	(Assuming 25 cum. per day)				
0029	Carriage of concrete by transit mixer.	km/ cum	10.00	30.00	300.00
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	1.00	210.00	210.00
0021	Pin vibrator	day	0.025	325.00	8.13
	(SHP) with 50 cum. output per day				
0022	Surface Vibrator	day	0.05	400.00	20.00
	with 25 cum. output per day				
	Add for steel form work				
16.43B	Rate as per Item Number 16.43B of SH: Road work	cum	1.00	814.45	814.45
9999	Cutting and making joints	L.S.	50.00	2.00	100.00
	TOTAL				6841.67 W
	Add 1 % Water charges on "W"				68.42
	TOTAL				6910.09 X
	Add GST on "X" (multiplying factor 0.1405)				970.87
	TOTAL				7880.95 Y
	Add 15% CPOH on "Y"				1182.14
	TOTAL				9063.10 Z
	Add Cess @ 1% on "Z"				90.63
	Cost per cum.				9153.73
	Say				9153.75

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 $6.15 \times (0.30 + 0.01) = 1.91 \text{sqm.} +$ (ii) Dummy joints 4.61m long and 10cm deep 10mm wide $4.6 \text{ l} \times (0.10 + 0.10 + 0.01) = 0.97 \text{ sqm.}$ $= 2.88 \text{ sqm.}$ $2.88 \text{sqm.} @ 0.26 \text{ lit./sqm.} = 0.75 \text{ lit.} +$ Add 5% wastage = 0.03 Total = 0.78 lit				
0316	Bitumen solution primer of approved quality	litre	0.78	45.00	35.10
9977	Carriage	L.S.	0.91	2.00	1.82
	(ii) Joint sealing compound (GradeA) for construction joint 6.15m long 10mm wide 25mm deep. $6.15 \times 2 \times 2.5 \text{cm} = 3075 \text{cucm}$ For dummy joints $461 \times 1.0 \times 10 \text{cm.} = 4610 \text{cucm.}$ $= 7685 \text{ cum}$ 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	28.00	271.04
9977	Carriage	L.S.	0.91	2.00	1.82
0370	Coal (steam)	quintal	0.015	440.00	6.60
9977	Carriage	L.S.	0.91	2.00	1.82
	LABOUR: (ii) For applying primer qty. = 2.88 sqm				
0123	Mason (brick layer) 1st class	day	3.00	738.00	2214.00
0131	Painter	day	0.10	679.00	67.90
	(iii) Labour for heating and filling sealing compound.				
0124	Mason (brick layer) 2nd class	day	0.25	679.00	169.75
	(iv) Beldar for heating = 0.06 +				
0114	Beldar	day	0.68	558.00	379.44
	TOTAL				3149.29
	Cost for 8.5 cum				3149.29
	Cost per cum.				370.50
	Say				370.50

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 ₹
1007	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. Structurals such as tees,angles channels and R.S. joists	quintal	0.0407104	4600.00	187.27
2205	Carriage of Steel 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	tonne	0.00407104	92.24	0.38
0103	Blacksmith 2nd class	day	2.86	679.00	1941.94
0114	Beldar	day	2.86	558.00	1595.88
0114	Carriage of steel for extra lead of runway Beldar	day	5.73	558.00	3197.34
	TOTAL				6922.80
	Cost for 50 slabs / 8.5 cum				6922.80
	Cost per cum.				814.45
	Say				814.45

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 ₹
7254	Details of cost for 1 litre MATERIAL Hardening compound (including cartage) TOTAL	litre	1.00	38.00	38.00
	Add 1 % Water charges on "W"				38.00 W
	TOTAL				0.38
	Add GST on "X" (multiplying factor 0.1405)				38.38 X
	TOTAL				5.39
	Add 15% CPOH on "Y"				43.77 Y
	TOTAL				6.57
	Add Cess @ 1% on "Z"				50.34 Z
	Cost per litre				0.50
	Say				50.84
					50.85

16.45 Providing and fixing in position pre-moulded joint filler in expansion joints.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 18mm thick 15cm deep and 300m in length MATERIAL				
0317	Premoulded joint filler 12 mm thick = 300x0.15 = 45 sqm.	sqm	45.00	360.00	16200.00
2211	Carriage of Tar bitumen 45x0.018 =0.81cum. Weight 256.3kg. per cum. = 256.3x0.81 = 207.6kg. say 0.21 tonne	tonne	0.21	103.77	21.79
	Labour for fixing etc. :				
0124	Mason (brick layer) 2nd class	day	1.00	679.00	679.00
0114	Beldar	day	3.00	558.00	1674.00
9999	Sundries	L.S.	26.91	2.00	53.82
	TOTAL				18628.61 W
	Add 1 % Water charges on "W"				186.29
	TOTAL				18814.90 X
	Add GST on "X" (multiplying factor 0.1405)				2643.49
	TOTAL				21458.39 Y
	Add 15% CPOH on "Y"				3218.76
	TOTAL				24677.15 Z
	Add Cess @ 1% on "Z"				246.77
	Cost for 300m length, 18mm width and 15cm depth				24923.92
	Cost for one cm. depth one cm. width per metre length.				3.08
	Say				3.10

16.46 Providing and laying in position bitumen hot sealing compound for expansion joints etc.

16.46.1 Using grade 'A' sealing compound.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20mm wide 20mm deep and 300 metres in length. Sealing compound- 300x0.02x0.02 = 0.12cum. Weight 256.3kg. per cum. = 256.3x0.12 = 30.76 kg MATERIAL				
0314	Bitumen hot sealing compound : grade A	kilogram	30.76	28.00	861.28
2211	Carriage of Tar bitumen 30.76 = 0.3076 Say 0.03 tonne	tonne	0.03	103.77	3.11
	Labour for filling :				
0124	Mason (brick layer) 2nd class	day	1.00	679.00	679.00
0114	Beldar	day	2.50	558.00	1395.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	20.67	2.00	41.34
	TOTAL				2979.73 W
	Add 1 % Water charges on "W"				29.80
	TOTAL				3009.53 X
	Add GST on "X" (multiplying factor 0.1405)				422.84
	TOTAL				3432.37 Y
	Add 15% CPOH on "Y"				514.86
	TOTAL				3947.22 Z
	Add Cess @ 1% on "Z"				39.47
	Cost for 20mm depth, 20mm width and 300m length				3986.70
	Cost for one cm. depth one cm. width per metre length.				3.32
	Say				3.30

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	135.00	376.65
9977	Carriage of paint	L.S.	5.07	2.00	10.14
	LABOUR				
0131	Painter	day	0.54	679.00	366.66
0114	Beldar	day	0.54	558.00	301.32
9999	Sundries	L.S.	36.40	2.00	72.80
	(including painting brush, wire brush, labour for controlling traffic and other T&P etc.)				
	TOTAL				1127.57 W
	Add 1 % Water charges on "W"				11.28
	TOTAL				1138.85 X
	Add GST on "X" (multiplying factor 0.1405)				160.01
	TOTAL				1298.85 Y
	Add 15% CPOH on "Y"				194.83
	TOTAL				1493.68 Z
	Add Cess @ 1% on "Z"				14.94
	Cost for 10 sqm.				1508.62
	Cost per sqm.				150.86
	Say				150.85

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	135.00	224.10
9977	Carriage of paint	L.S.	1.12	2.00	2.24
	LABOUR				
0131	Painter	day	0.36	679.00	244.44
0114	Beldar	day	0.36	558.00	200.88
9999	Sundries	L.S.	24.44	2.00	48.88
	(including painting brush, wire brush, labour for controlling traffic and other T&P etc.)				
	TOTAL				720.54 W
	Add 1 % Water charges on "W"				7.21
	TOTAL				727.75 X
	Add GST on "X" (multiplying factor 0.1405)				102.25
	TOTAL				829.99 Y
	Add 15% CPOH on "Y"				124.50
	TOTAL				954.49 Z
	Add Cess @ 1% on "Z"				9.54
	Cost for 10 sqm.				964.04
	Cost per sqm.				96.40
	Say				96.40

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	2.00	5.30
	LABOUR				
0128	Mate	day	0.10	617.00	61.70
0131	Painter	day	0.54	679.00	366.66
0114	Beldar	day	1.68	558.00	937.44
	for stretching of rope & erecting of barricading				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (including painting brush, wire brush, labour for controlling traffic and other T&P etc.) 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 10 sqm. Cost per sqm. Say	L.S.	36.40	2.00	72.80 1614.10 W 16.14 1630.24 X 229.05 1859.29 Y 278.89 2138.18 Z 21.38 2159.57 215.96 215.95

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. LABOUR	L.S.	0.65	2.00	1.30
0128	Mate	day	0.06	617.00	37.02
0131	Painter	day	0.36	679.00	244.44
0114	Beldar	day	1.12	558.00	624.96
	(stretching of rope & erecting of barricading etc.)				
9999	Sundries (including painting brush, wire brush, labour for controlling traffic and other T&P etc.) 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 10 sqm. Cost per sqm. Say	L.S.	24.44	2.00	48.88 1058.95 W 10.59 1069.54 X 150.27 1219.81 Y 182.97 1402.78 Z 14.03 1416.81 141.68 141.70

- 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 ₹
2.8.1	Details of cost for 10 Nos. (i) Earth work in excavation Channel :- $10 \times 1 \times 1.00 \times 0.20 \times 0.15 = 0.30 +$ Bell mouth :- $10 \times 1 \times 1.00 \times 0.50 \times$ $(0.18 + 0.075)/2 = 0.64$ Total = 0.94 MATERIAL (Rate as per item no. 2.8.1 of SH: Earth work)	cum	0.94	252.30	237.16 A
4.1.8	(ii) Cement concrete 1:4:8 Channel :- $10 \times 1 \times 1.00 \times 0.20 \times 0.075 =$ 0.15 cum. Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.15	5789.60	868.44 A
4.1.5	(iii) Cement concrete 1:3:6 Channel $10 \times 1 \times 1.00 \times 0.20 \times 0.75 = 0.15 +$ Bed of bell mouth : $10 \times 1 \times 1.00 \times 0.50 \times (0.18 + 0.075)/2$ $= 0.64 +$ Haunches portion $10 \times 2 \times (0.35 + 0.075)/2 \times 0.25 \times$ $0.375 = 0.40 +$ Rect part :- $10 \times 2 \times 0.35 \times 0.25 \times 0.375 = 0.65 +$ Quadrant portion :- $10 \times 1 [(0.30 \times 0.30) - 3.142/4(0.30)^2] \times$ $0.30 = 0.06 +$ Central middle part :- $10 \times 1 \times 0.30 \times 0.25 \times 0.075 = 0.05$ Total = 1.95 cum. (Rate as per item no.4.1.5 S.H. : Cement Concrete)	cum	1.95	6259.10	12205.25 A
5.3	(iv) RCC in shelves $10 \times 1 \times 1.00 \times 0.50 \times 0.05 = 0.25 \text{ cum.}$ Rate as per item no. 5.3 SH : Reinforced cement concrete work	cum	0.25	9763.80	2440.95 A
5.22.1	(v) Reinforcement for RCC @100kg/cum. $0.25 \times 100 = 25 \text{ kg.}$ Rate as per item no. 5.22.1 SH : Reinforced cement concrete work	kg	25.00	82.10	2052.50 A
	(vi) Centering and shuttering For shelves (sides) $10 \times 2 (1.00 + 0.50) \times 0.05 = 1.50 +$ Front side of bell mouth : $10 \times 2 (0.446) \times 0.375 = 3.34 +$				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.9.1	Pipe portion: $10 \times [0.30 \times 0.375 - 3.142/4(0.30)^2] = 0.04 +$ Out side of bell mouth $Total = 10 \times (1.00 - 0.50) \times 0.45 = 9.00 +$ Deduct pipe opening $Total = 10 \times 0.785 \times 0.30 \times 0.30 = (-) 0.71$ $Total = 13.17$ Rate as per item No.5.9.1 of SH : RCC (vii) cement plaster on RCC slab $10 \times 1.00 \times 0.50 = 5.00 +$ $10 \times 2(1.00 + 0.50) \times 0.05 = 1.50 +$ $Total = 6.50 \text{ sqm.}$	sqm	13.17	284.85	3751.47 A
5.23	Rate as per item no.13.16.1 (viii) Neat cement punning: Qty. same as marked (x) at (9vi) = $Total = 3.34 + 0.04 = 3.38 \text{ sqm.}$ Channel portion: $10 \times 1 \times (0.85 + 0.30)/2 \times 0.25 = 1.43$ $Total = 4.81$	sqm	6.50	227.35	1477.78 A
13.18	Rate as per item no.13.18				
	S.H. Finishing	sqm	4.81	62.75	301.83 A
0367	Portland Cement (OPC-43 grade)	tonne	0.024	4940.00	118.56
2209	Carriage of Cement	tonne	0.024	92.24	2.21
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	103.77	5.19
	LABOUR				
0114	Beldar	day	0.035	558.00	19.53
0101	Bhisti	day	0.003	617.00	1.85
9999	Hire charges of mixer	L.S.	1.27	2.00	2.54
9999	Sundries	L.S.	1.27	2.00	2.54
	Labour for plaster				
0155	Mason (average)	day	0.33	709.00	233.97
0115	Coolie	day	0.488	558.00	272.30
0101	Bhisti	day	0.60	617.00	370.20
9999	Extra for removing burr	L.S.	8.71	2.00	17.42
9999	Scaffolding	L.S.	7.62	2.00	15.24
	TOTAL				24441.93 W
	Add 1 % Water charges on "W-A"				11.07
	TOTAL				24453.00 X
	Add GST on "X-A" (multiplying factor 0.1405)				157.03
	TOTAL				24610.02 Y
	Add 15% CPOH on "Y-A"				191.20
	TOTAL				24801.22 Z
	Add Cess @ 1% on "Z-A"				14.66
	Cost for 10 nos.				24815.88
	Cost for one bell mouth				2481.59
	Say				2481.60

- 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	100.00	1500.00
9977	Carriage of cats eyes	L.S.	2.60	2.00	5.20
	LABOUR				
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	39.00	2.00	78.00
	(including material required for fixing cats eyes and providing barricading to divert traffic)				
	TOTAL				2201.70 W
	Add 1 % Water charges on "W"				22.02
	TOTAL				2223.72 X
	Add GST on "X" (multiplying factor 0.1405)				312.43
	TOTAL				2536.15 Y
	Add 15% CPOH on "Y"				380.42
	TOTAL				2916.57 Z
	Add Cess @ 1% on "Z"				29.17
	Cost for 15 Nos.				2945.74
	Cost for one cat's eye.				196.38
	Say				196.40

- 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	103.77	7.06
1980	Flyash	cum	0.277	10.00	2.77
2267	Carriage of Stone dust	cum	0.277	103.77	28.74

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
	(i) For earth work :				
0114	Beldar	day	0.116	558.00	64.73
0115	Coolie	day	0.116	558.00	64.73
0979	Royalty for good earth	cum	0.655	40.00	26.20
2241	Carriage of Good earth	cum	0.655	129.71	84.96
	(ii) For mixing :				
0114	Beldar	day	0.025	558.00	13.95
0115	Coolie	day	0.025	558.00	13.95
	(iii) For rolling layers :				
0113	Chowkidar	day	0.0008	558.00	0.45
0003	Hire charges of Diesel Road Roller - 8 to 10 tonne	day	0.0008	3000.00	2.40
9999	Sundries	L.S.	0.18	2.00	0.36
	(iv) Labour for spreading and watering :				
0114	Beldar	day	0.26	558.00	145.08
0115	Coolie	day	0.26	558.00	145.08
0101	Bhisti	day	0.18	617.00	111.06
	TOTAL				830.41 W
	Add 1 % Water charges on "W"				8.30
	TOTAL				838.72 X
	Add GST on "X" (multiplying factor 0.1405)				117.84
	TOTAL				956.56 Y
	Add 15% CPOH on "Y"				143.48
	TOTAL				1100.04 Z
	Add Cess @ 1% on "Z"				11.00
	Cost for 1 cum.				1111.04
	Say				1111.05

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.) Rate as per sub analysis Item Number 16.52Y of SH:Road Work	cum	0.875	3361.00	2940.88
	(b) Labour for surface excavation :				
0114	Beldar	day	0.72	558.00	401.76
0115	Coolie	day	0.60	558.00	334.80
	(c) For levelling course of fine sand				
6501	Sand zone V (Jamuna)	cum	0.10	1225.00	122.50
2335	Carriage of Jamuna sand	cum	0.10	103.77	10.38

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0114	Beldar	day	0.0089	558.00	4.97
0115	Coolie	day	0.0107	558.00	5.97
0101	Bhisti	day	0.0035	617.00	2.16
	(d) For finishing with 10mm thick 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	4664.55	453.39
0155	Mason (average)	day	0.787	709.00	557.98
0115	Coolie	day	0.787	558.00	439.15
0101	Bhisti	day	0.262	617.00	161.65
9999	Scaffolding and sundries	L.S.	12.22	2.00	24.44
	(e) For laying blocks and filling joints with Jamuna sand for filling joints 5mm (av.) thick				
6501	Sand zone V (Jamuna)	cum	0.005	1225.00	6.13
2335	Carriage of Jamuna sand	cum	0.005	103.77	0.52
0123	Mason (brick layer) 1st class	day	0.90	738.00	664.20
0115	Coolie	day	1.98	558.00	1104.84
0101	Bhisti	day	0.05	617.00	30.85
	TOTAL				7266.56 W
	Add 1 % Water charges on "W"				72.67
	TOTAL				7339.23 X
	Add GST on "X" (multiplying factor 0.1405)				1031.16
	TOTAL				8370.39 Y
	Add 15% CPOH on "Y"				1255.56
	TOTAL				9625.94 Z
	Add Cess @ 1% on "Z"				96.26
	Cost for 10sqm. or 0.9cum.				9722.20
	Rate per cum.				10802.45
	Say				10802.45

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	10.00	4.80
0982	Coarse sand (zone III)	cum	0.72	1350.00	972.00
2208	Carriage of Lime	cum	0.24	103.77	24.90
2266	Carriage of Surkhi	cum	0.48	103.77	49.81
2203	Carriage of Coarse sand	cum	0.72	103.77	74.71

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	558.00	502.20
0101	Bhisti	day	0.45	617.00	277.65
9999	Running and upkeep of mortar mill	L.S.	26.91	2.00	53.82
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				2442.94
	Cost of 1.00 cum				2442.94
	Say				2442.95

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				
16.52X	Lime Flyash mortar				
	Rate as per sub analysis of Item No 16.52X	cum	0.40	2442.95	977.18
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.64	1350.00	864.00
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	103.77	88.20
	LABOUR				
0114	Beldar	day	0.65	558.00	362.70
0115	Coolie	day	0.60	558.00	334.80
0101	Bhisti	day	0.27	617.00	166.59
0123	Mason (brick layer) 1st class	day	0.05	738.00	36.90
0124	Mason (brick layer) 2nd class	day	0.05	679.00	33.95
0128	Mate	day	0.04	617.00	24.68
9999	Hire and running charges of mixer	L.S.	26.91	2.00	53.82
9999	Sundries	L.S.	13.52	2.00	27.04
9999	Hire charges of steel moulds, table vibrators, rammers, bolts, nuts and washers etc.	L.S.	53.82	2.00	107.64
	TOTAL				3361.00
	Cost of 1.00 cum				3361.00
	Say				3361.00

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 ₹
8691	Details of cost for 30.00 m length MATERIAL 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	6.50	1755.00
8693	Turn buckle and strengthening bolt	each set	10.00	40.00	400.00
9999	G.I. staples clips etc.	L.S.	49.40	2.00	98.80
	LABOUR				
0114	Labour for fixing straightening cutting of tape/ coils & wire Beldar 0.50x2 = 1.00 Nos (Taken double due to height)	day	1.00	558.00	558.00
0102	Blacksmith 1st class	day	0.50	738.00	369.00
0103	Blacksmith 2nd class	day	0.50	679.00	339.50
	TOTAL				6520.30 W
	Add 1 % Water charges on "W"				65.20
	TOTAL				6585.50 X
	Add GST on "X" (multiplying factor 0.1405)				925.26
	TOTAL				7510.77 Y
	Add 15% CPOH on "Y"				1126.61
	TOTAL				8637.38 Z
	Add Cess @ 1% on "Z"				86.37
	cost for 30.00 metre				8723.75
	cost per metre				290.79
	Say				290.80

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 equipped 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 specifications 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.)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7309	MATERIAL Paving Asphalt VG-30 of approved quality (percentage by weight of total mix)	tonne	22.50	39570.00	890325.00
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 = 285 cum 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	tonne	22.50	103.77	2334.83
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	103.77	28982.96
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime (considering density of lime as 1.29 T per cum) V = 8.55 / 1.29 = 6.63 cum	cum	6.63	103.77	688.00
0062	MACHINERY/ HIRE CHARGES: 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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading	tonne km	4500.00	3.00	13500.00 1350.00

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
0128	LABOUR Mate	day	0.84	617.00	518.28
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	558.00	7812.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	617.00	3085.00
	TOTAL				1466831.06 W
	Add 1 % Water charges on "W"				14668.31
	TOTAL				1481499.37 X
	Add GST on "X" (multiplying factor 0.1405)				208150.66
	TOTAL				1689650.03 Y
	Add 15% CPOH on "Y"				253447.51
	TOTAL				1943097.54 Z
	Add Cess @ 1% on "Z"				19430.98
	Cost for 195 cum(450 M.T.)				1962528.51
	Cost per cum.				10064.25
	Say				10064.25

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 ₹
7309	Details of cost for 195 cum (or 450 M.T.) MATERIAL Paving Asphalt VG-30 of approved quality	tonne	22.50	39570.00	890325.00
2211	(percentage by weight of total mix) Carriage of Tar bitumen Aggregate	tonne	22.50	103.77	2334.83
	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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0294	10 - 5mm size = 28% of 285 = 79.8 cum 5mm and below = 40% of 285 = 114 cum 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	103.77	28982.96
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime (considering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum	cum	6.63	103.77	688.00
0076	MACHINERY/ HIRE CHARGES: 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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
0055	Add 10 per cent of cost of carriage to cover cost of loading and unloading 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
0128	LABOUR Mate	day	0.84	617.00	518.28
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	558.00	7812.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels 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 195 cum(450 M.T.) Cost per cum. Say	day	5.00	617.00	3085.00 1454831.06 W 14548.31 1469379.37 X 206447.80 1675827.17 Y 251374.08 1927201.25 Z 19272.01 1946473.26 9981.91 9981.90

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 equipped 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 specifications 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 ₹
7309	Details of cost for 205 cum (or 450 M.T.) MATERIAL Paving Asphalt VG-30 of approved quality 3.5% of 450 MT = 15.75 MT	tonne	15.75	39570.00	623227.50
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	103.77	1634.38

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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
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	103.77	30041.42
	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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading X * 10 / 100 = 13500.00 * 10 / 100				1350.00
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	617.00	518.28
0114	Beldar	day	14.00	558.00	7812.00
	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	617.00	3085.00
	TOTAL				1186473.57 W
	Add 1 % Water charges on "W"				11864.74
	TOTAL				1198338.31 X
	Add GST on "X" (multiplying factor 0.1405)				168366.53
	TOTAL				1366704.84 Y
	Add 15% CPOH on "Y"				205005.73
	TOTAL				1571710.57 Z
	Add Cess @ 1% on "Z"				15717.11
	Cost for 205 cum(450 M.T.)				1587427.67
	Cost per cum.				7743.55
	Say				7743.55

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 ₹
7309	Details of cost for 205 cum (or 450 M.T.) MATERIAL Paving Asphalt VG-30 of approved quality	tonne	15.75	39570.00	623227.50
2211	3.5% of 450 MT = 15.75 MT 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	103.77	1634.38
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
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	103.77	30041.42
0076	MACHINERY Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	6.00	12000.00	72000.00
0064	@75tonne per hour actual output Paver finisher Hydrostatic with sensor control 100 TPH	hour	6.00	1500.00	9000.00
0069	@75tonne per hour actual output Generator 250 KVA	hour	6.00	350.00	2100.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum	tonne/ km	4500.00	3.00	13500.00
0055	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1350.00
0054	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1170.00
0056	Vibratory roller 8 to 10 tonne for intermediate rolling.(6*0.65)	hour	3.90	600.00	2340.00
0128	Tandem Road Roller	hour	3.90	1200.00	4680.00
0114	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65) LABOUR				
0128	Mate	day	0.84	617.00	518.28
0114	Beldar	day	14.00	558.00	7812.00
0139	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	617.00	3085.00
	TOTAL				1174473.57 W
	Add 1 % Water charges on "W"				11744.74
	TOTAL				1186218.31 X
	Add GST on "X" (multiplying factor 0.1405)				166663.67
	TOTAL				1352881.98 Y
	Add 15% CPOH on "Y"				202932.30
	TOTAL				1555814.28 Z
	Add Cess @ 1% on "Z"				15558.14
	Cost for 205 cum(450 M.T.)				1571372.42
	Cost per cum.				7665.23
	Say				7665.25

- 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 equipped 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 ₹
7309	Details of cost for 195 cum (450 tonnes) Area covered for 25 mm thickness= 7800 sqm MATERIAL Paving Asphalt VG-30 of approved quality 5% of 450 MT = 22.50 MT	tonne	22.50	39570.00	890325.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	103.77	2334.83
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	103.77	28982.96
0777	Dry hydrated lime (factory made)	quintal	85.50	290.00	24795.00
2208	Carriage of Lime (considering density of lime as 1.29 T per cum) V =8.55/1.29 = 6.63 cum	cum	6.63	103.77	688.00
0062	MACHINERY/ HIRE CHARGES: 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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading	tonne km	4500.00	3.00	13500.00
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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0128	LABOUR				
	Mate	day	0.84	617.00	518.28
0114	Beldar	day	14.00	558.00	7812.00
	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction for checking line & levels				
	TOTAL				1461893.56 W
	Add 1 % Water charges on "W"				14618.94
	TOTAL				1476512.50 X
	Add GST on "X" (multiplying factor 0.1405)				207450.01
	TOTAL				1683962.50 Y
	Add 15% CPOH on "Y"				252594.38
	TOTAL				1936556.88 Z
	Add Cess @ 1% on "Z"				19365.57
	Cost for 7800 Sqm				1955922.45
	Cost per sqm				250.76
	Say				250.75

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	tonne	22.50	39570.00	890325.00
	5% of 450 MT = 22.50 MT				
2211	Carriage of Tar bitumen	tonne	22.50	103.77	2334.83
	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				
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	81.225	1350.00	109653.75
	Qty = 162.45 * 50 /100				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	103.77	28982.96
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	103.77	688.00
0076	MACHINERY/ HIRE CHARGES: 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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1350.00
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
0128	LABOUR Mate	day	0.84	617.00	518.28
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	558.00	7812.00
	TOTAL				1449893.56 W
	Add 1 % Water charges on "W"				14498.94
	TOTAL				1464392.50 X
	Add GST on "X" (multiplying factor 0.1405)				205747.15
	TOTAL				1670139.64 Y
	Add 15% CPOH on "Y"				250520.95
	TOTAL				1920660.59 Z
	Add Cess @ 1% on "Z"				19206.61
	Cost for 7800 Sqm				1939867.19
	Cost per sqm				248.70
	Say				248.70

- 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 equipped 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 ₹
7309	Details of cost for 191 cum (450 tonnes) MATERIAL Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	39570.00	979357.50
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	103.77	2568.31
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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	103.77	28536.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2208	Carriage of Lime (considering density of lime as 1.29 T per cum) $V = 12.758/1.29 = 9.89$ cum	cum	9.89	103.77	1026.29
0062	MACHINERY/ HIRE CHARGES: 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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) $450 \times 10 = 4500$ tonne Km Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1350.00
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
0128	LABOUR Mate	day	0.84	617.00	518.28
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	558.00	7812.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	617.00	3085.00
	TOTAL				1562423.62 W
	Add 1 % Water charges on "W"				15624.24
	TOTAL				1578047.86 X
	Add GST on "X" (multiplying factor 0.1405)				221715.72
	TOTAL				1799763.58 Y
	Add 15% CPOH on "Y"				269964.54
	TOTAL				2069728.12 Z
	Add Cess @ 1% on "Z"				20697.28
	Cost for 191 cum(450 Tonne)				2090425.40
	Cost per cum.				10944.64
	Say				10944.65

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 ₹
7309	Details of cost for 191 cum (450 tonnes) MATERIAL Paving Asphalt VG-30 of approved quality	tonne	24.75	39570.00	979357.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2211	@5.50% (percentage by weight of total mix 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 Waste Plastic @ 8% of the weigh of bitumen i.e. 24.75*8%	tonne	24.75	103.77	2568.31
7280	Waste plastic additive	tonne	1.98	40000.00	79200.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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	103.77	28536.75
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	103.77	1026.29
0062	MACHINERY/ HIRE CHARGES: 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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum	tonne km	4500	3.00	13500.00
0055	Add 10 per cent of cost of carriage to cover cost of loading and unloading Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)	hour	3.90	300.00	1350.00 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
0128	LABOUR Mate	day	0.84	617.00	518.28
0114	Beldar	day	14.00	558.00	7812.00
0139	working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	617.00	3085.00
	TOTAL				1641623.62 W
	Add 1 % Water charges on "W"				16416.24
	TOTAL				1658039.86 X
	Add GST on "X" (multiplying factor 0.1405)				232954.60
	TOTAL				1890994.46 Y
	Add 15% CPOH on "Y"				283649.17
	TOTAL				2174643.63 Z
	Add Cess @ 1% on "Z"				21746.44
	Cost for 191 cum(450 Tonne)				2196390.06
	Cost per cum.				11499.42
	Say				11499.40

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 ₹
0312	Details of cost for 191 cum (450 tonnes) MATERIAL Bitumen grade PMB - 40 @5.50% (percentage by weight of total mix	M.T.	24.75	32200.00	796950.00
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	tonne	24.75	103.77	2568.31

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 = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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	103.77	28536.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (considering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	103.77	1026.29
	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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km				
0053	Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading	tonne km	4500.00	3.00	13500.00
	Smooth Wheeled Roller 8 to 10 tonne for initial break down rolling.(6*0.65)				1350.00
0055		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	617.00	518.28
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	558.00	7812.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels 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 191 cum(450 Tonne) Cost per cum. Say	day	5.00	617.00	3085.00 1380016.12 W 13800.16 1393816.28 X 195831.19 1589647.47 Y 238447.12 1828094.59 Z 18280.95 1846375.54 9666.89 9666.90

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 ₹
7741	Details of cost for 191 cum (450 tonnes) MATERIAL Modified Bitumen Refinery produced CRMB - 60 @5.50% (percentage by weight of total mix	tonne	24.75	30536.00	755766.00
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	103.77	2568.31
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	cum	275.00	103.77	28536.75
0777	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 (consitering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum	cum	9.89	103.77	1026.29
	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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km				
0053	Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1350.00
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	617.00	518.28
0114	Beldar	day	14.00	558.00	7812.00
	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	617.00	3085.00
	TOTAL				1338832.12 W
	Add 1 % Water charges on "W"				13388.32
	TOTAL				1352220.44 X
	Add GST on "X" (multiplying factor 0.1405)				189986.97
	TOTAL				1542207.42 Y
	Add 15% CPOH on "Y"				231331.11
	TOTAL				1773538.53 Z
	Add Cess @ 1% on "Z"				17735.39
	Cost for 191 cum(450 Tonne)				1791273.91
	Cost per cum.				9378.40
	Say				9378.40

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 ₹
7309	Details of cost for 191 cum (450 tonnes) MATERIAL Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	39570.00	979357.50
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	103.77	2568.31
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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	103.77	28536.75
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	103.77	1026.29
0076	MACHINERY/ HIRE CHARGES: 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0069	Generator 250 KVA	hour	6.00	350.00	2100.00
0052	Front end loader 1 cum bucket capacity incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1350.00
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
0128	LABOUR Mate	day	0.84	617.00	518.28
0114	Beldar	day	14.00	558.00	7812.00
	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	617.00	3085.00
	TOTAL				1550423.62 W
	Add 1 % Water charges on "W"				15504.24
	TOTAL				1565927.86 X
	Add GST on "X" (multiplying factor 0.1405)				220012.86
	TOTAL				1785940.72 Y
	Add 15% CPOH on "Y"				267891.11
	TOTAL				2053831.83 Z
	Add Cess @ 1% on "Z"				20538.32
	Cost for 191 cum(450 Tonne)				2074370.15
	Cost per cum.				10860.58
	Say				10860.60

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 ₹
7309	Details of cost for 191 cum (450 tonnes) MATERIAL Paving Asphalt VG-30 of approved quality @5.50% (percentage by weight of total mix	tonne	24.75	39570.00	979357.50
2211	Carriage of Tar bitumen Waste Plastic @ 8% of the weigh of bitumen i.e. 24.75*8%	tonne	24.75	103.77	2568.31

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7280	Waste plastic additive 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	1.98	40000.00	79200.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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	103.77	28536.75
0777	Dry hydrated lime (factory made)	quintal	127.60	290.00	37004.00
2208	Carriage of Lime (considering density of lime as 1.29 T per cum) V = 12.758/1.29 = 9.89 cum MACHINERY/ HIRE CHARGES:	cum	9.89	103.77	1026.29
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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading	tonne km	4500.00	3.00	13500.00
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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0056	Tandem Road Roller Finish rolling with 6-8 tonnes smooth wheeled tandem roller.(6*0.65)	hour	3.90	1200.00	4680.00
0128	LABOUR Mate	day	0.84	617.00	518.28
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	558.00	7812.00
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels	day	5.00	617.00	3085.00
	TOTAL				1629623.62 W
	Add 1 % Water charges on "W"				16296.24
	TOTAL				1645919.86 X
	Add GST on "X" (multiplying factor 0.1405)				231251.74
	TOTAL				1877171.60 Y
	Add 15% CPOH on "Y"				281575.74
	TOTAL				2158747.34 Z
	Add Cess @ 1% on "Z"				21587.47
	Cost for 191 cum(450 Tonne)				2180334.81
	Cost per cum.				11415.37
	Say				11415.35

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 ₹
0312	Details of cost for 191 cum (450 tonnes) MATERIAL Bitumen grade PMB - 40 @5.50% (percentage by weight of total mix)	M.T.	24.75	32200.00	796950.00
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	103.77	2568.31

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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	103.77	28536.75
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	103.77	1026.29
0076	MACHINERY/ HIRE CHARGES: 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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading	tonne km	4500.00	3.00	13500.00
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
0128	LABOUR Mate	day	0.84	617.00	518.28
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	558.00	7812.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar (for floor rubbing etc.) for checking line & levels 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 191 cum(450 Tonne) Cost per cum. Say	day	5.00	617.00	3085.00 1368016.12 W 13680.16 1381696.28 X 194128.33 1575824.61 Y 236373.69 1812198.30 Z 18121.98 1830320.29 9582.83 9582.85

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 ₹
7741	Details of cost for 191 cum (450 tonnes) MATERIAL Modified Bitumen Refinery produced CRMB - 60 @5.50% (percentage by weight of total mix	tonne	24.75	30536.00	755766.00
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	103.77	2568.31
0296	Stone Aggregate (Single size) : 12.5 mm nominal size Qty = 85.5 * 50 /100	cum	42.525	1350.00	57408.75
0297	Stone Aggregate (Single size) : 10 mm nominal size Qty = 85.5 * 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	103.77	28536.75
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	103.77	1026.29
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	350.00	2100.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km	tonne km	4500.00	3.00	13500.00
	Tipper -5 Cum				1350.00
0055	Add 10 per cent of cost of carriage to cover cost of loading and unloading 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	617.00	518.28
0114	Beldar	day	14.00	558.00	7812.00
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	617.00	3085.00
TOTAL					1326832.12 W
Add 1 % Water charges on "W"					13268.32
TOTAL					1340100.44 X
Add GST on "X" (multiplying factor 0.1405)					188284.11
TOTAL					1528384.56 Y
Add 15% CPOH on "Y"					229257.68
TOTAL					1757642.24 Z
Add Cess @ 1% on "Z"					17576.42
Cost for 191 cum(450 Tonne)					1775218.66
Cost per cum.					9294.34
Say					9294.35

- 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 diameter with support length of 3750 mm**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2704	Details cost for 1 no. of 0.636 sqm MATERIAL Aluminium sheet 2 mm thick $3.14/4 \times (0.9) \times (0.9) = 0.636$ sqm add 10% wastage = 0.064 i.e. 0.700sqm @ 5.60kg/ sqm = 3.92kg				
2302	Aluminium Strip 40 mm wide and 2 mm thick	kilogram	3.92	240.00	940.80
	Carriage of G.I. sheet and accessories 3.92kg or 0.00392 MT	tonne	0.00392	92.24	0.36
8690	High intensity retro reflective sheet = 0.70 sqm. High intensity sheet for lettering / sign and border etc. Taking 40% Area = 0.28sqm, total = 0.70 + 0.28 = 0.98 sqm High intensity retro - reflective sheet Steel work Supporting frame 25x25x3mm for 900mm dia board:- $3.14D = 3.1416 \times 0.90 = 2.83$ metre @ 1.10kg/m Angle iron 35x35x.5mm for fixing the support frame with vertical Tee-iron support post $2 \times 0.05 = 0.10$ m @ 2.6 kg/m = 0.26kg Vertical post of M.S. tee of section ISNT 50x50x6mm = 3.75 metre	sqm	0.98	1300.00	1274.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
10.2	@ 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. Rate as per item no 10.2 of SH : Steel work	kg	21.67	101.75	2204.92 A
0128	LABOUR				
0128	Mate	day	0.01	617.00	6.17
0114	Beldar	day	0.25	558.00	139.50
9999	Cost of material for drilling holes, nut bolts & rivets, fabrication etc. Painting with synthetic enamel paint on steel work	L.S.	65.00	2.00	130.00
13.61.1	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 Rate as per item no 13.61.1 of SH : Finishing	sqm	1.07	121.55	130.06 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	0.636	189.75	120.68 A
9999	Sundries and hold fast etc.	L.S.	78.00	2.00	156.00
	TOTAL				5102.49 W
	Add 1 % Water charges on "W-A"				26.47
	TOTAL				5128.96 X
	Add GST on "X-A" (multiplying factor 0.1405)				375.60
	TOTAL				5504.56 Y
	Add 15% CPOH on "Y-A"				457.33
	TOTAL				5961.90 Z
	Add Cess @ 1% on "Z-A"				35.06
	Cost of 1 no.				5996.96
	Say				5996.95

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 $1/2 \times (0.9) \times (0.78) = 0.35$ sqm				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2704	add 10% wastage = 0.04 i.e. 0.39sqm @ 5.60kg/ sqm = 2.18kg	kilogram	2.18	240.00	523.20
2302	Aluminium Strip 40 mm wide and 2 mm thick		0.00218	92.24	0.20
8690	Carriage of G.I. sheet and accessories 2.18kg or 0.00218 MT 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 High intensity retro - reflective sheet	sqm	0.55	1300.00	715.00
10.2	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 Rate as per item no 10.2 of SH : Steel work	kg	21.05	101.75	2141.84 A
0128	LABOUR				
0114	Mate	day	0.01	617.00	6.17
9999	Beldar	day	0.25	558.00	139.50
	Cost of material for drilling holes, nut bolts & rivets, fabrication etc. 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	L.S.	65.00	2.00	130.00
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	121.55	125.93 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.52.1	Rate as per Item no. 13.52.1 of				
	SH: Finishing	sqm	0.35	189.75	66.41 A
9999	Sundries & hold fast etc.	L.S.	65.00	2.00	130.00
	TOTAL				3978.25 W
	Add 1 % Water charges on "W-A"				16.44
	TOTAL				3994.69 X
	Add GST on "X-A" (multiplying factor 0.1405)				233.30
	TOTAL				4227.99 Y
	Add 15% CPOH on "Y-A"				284.07
	TOTAL				4512.06 Z
	Add Cess @ 1% on "Z-A"				21.78
	Cost of 1 board.				4533.84
	Say				4533.85

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 ₹
2704	Details of cost for boards area 3.00x1.20 =3.60 sqm MATERIAL 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	92.24	1.95
8690	High intensity retro - reflective sheet	sqm	5.04	1300.00	6552.00
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.	100 Nos	0.34	180.00	61.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	For wastage @ 5% =2 nos. Total = 32 +2 = 34 nos.				
9999	Labour charges for drilling holes	L.S.	52.00	2.00	104.00
9999	Hire charges of drill machine and sundries	L.S.	390.00	2.00	780.00
	Hoisting board				
9999	Labour charges for manufacturing of board including .				
	fixing retro reflective sheet	L.S.	564.20	2.00	1128.40
	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	3.60	189.75	683.10 A
	TOTAL				14391.45 W
	Add 1 % Water charges on "W-A"				137.08
	TOTAL				14528.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				1945.28
	TOTAL				16473.82 Y
	Add 15% CPOH on "Y-A"				2368.61
	TOTAL				18842.43 Z
	Add Cess @ 1% on "Z-A"				181.59
	Cost of 3.60 sqm				19024.02
	Cost of 1 sqm.				5284.45
	Say				5284.45

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 ₹
2704	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 MATERIAL 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.	kilogram	3.98	240.00	955.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8690	Taking 40% Area=0.28 sqm, total = 0.70 + 0.28 = 0.98 sqm. 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	1300.00	1274.00
10.2	Rate as per item no 10.2 of SH : Steel work LABOUR	kg	29.76	101.75	3028.08 A
0128	Mate	day	0.01	617.00	6.17
0114	Beldar	day	0.25	558.00	139.50
9999	Cost of material for drilling holes, nut bolts & rivets, facrication etc. @ 2% on (X + Y + A). (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	2.00	140.46
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.09	121.55	132.49 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	189.75	120.49 A
9999	Sundries & hole fast etc, 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 for 1 board Say	L.S.	31.20	2.00	62.40 5858.79 W 25.78 5884.57 X 365.79 6250.36 Y 445.40 6695.76 Z 34.15 6729.90 6729.90

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):-				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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	65.00	68250.00
8688	Glass beads (B-class) to be sprayed over the paint stripe @ 250 gms. Per sqm = 100x0.25=25 kg	kg	50.00	70.00	3500.00
	MACHINERY				
0033	Paint applicator.	day	1.00	750.00	750.00
0083	Hire charges of TATA 407 or equivalent for local shifting.	day	1.00	1200.00	1200.00
1241	Commercial LPG in cylinder.	kg	142.00	82.00	11644.00
	LABOUR				
0157	Operator (Pile/ Special machine)	day	1.00	738.00	738.00
0139	Skilled Beldar (for floor rubbing etc.)	day	4.00	617.00	2468.00
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				90782.00 W
	Add 1 % Water charges on "W"				907.82
	TOTAL				91689.82 X
	Add GST on "X" (multiplying factor 0.1405)				12882.42
	TOTAL				104572.24 Y
	Add 15% CPOH on "Y"				15685.84
	TOTAL				120258.08 Z
	Add Cess @ 1% on "Z"				1202.58
	Cost for 200 sqm				121460.66
	Cost per sqm				607.30
	Say				607.30

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.				
	MATERIAL				
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	1.00	650.00	650.00
2260	Carriage of Brick aggregate	cum	1.00	112.79	112.79
6501	Sand zone V (Jamuna)	cum	0.08	1225.00	98.00
2335	Carriage of Jamuna sand	cum	0.08	103.77	8.30
	Labour for spreading, ramming and consolidation.				
0114	Beldar	day	0.35	558.00	195.30
0115	Coolie	day	0.26	558.00	145.08

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.18	617.00	111.06
4.1.6	Cement concrete-1:3:6				
	Rate as per item no 4.1.6 of SH : Concrete				
	Work	cum	0.50	6126.25	3063.13 A
	TOTAL				4383.66 W
	Add 1 % Water charges on "W-A"				13.21
	TOTAL				4396.86 X
	Add GST on "X-A" (multiplying factor 0.1405)				187.39
	TOTAL				4584.25 Y
	Add 15% CPOH on "Y-A"				228.17
	TOTAL				4812.42 Z
	Add Cess @ 1% on "Z-A"				17.49
	Cost for 10 sqm.				4829.91
	Cost for 1 sqm.				482.99
	Say				483.00

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.				
	MATERIAL				
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	1.00	650.00	650.00
2260	Carriage of Brick aggregate	cum	1.00	112.79	112.79
6501	Sand zone V (Jamuna)	cum	0.08	1225.00	98.00
2335	Carriage of Jamuna sand	cum	0.08	103.77	8.30
	Labour for spreading, ramming and consolidation.				
0114	Beldar	day	0.35	558.00	195.30
0115	Coolie	day	0.26	558.00	145.08
0101	Bhisti	day	0.18	617.00	111.06
	TOTAL				1320.53 W
	Add 1 % Water charges on "W"				13.21
	TOTAL				1333.74 X
	Add GST on "X" (multiplying factor 0.1405)				187.39
	TOTAL				1521.13 Y
	Add 15% CPOH on "Y"				228.17
	TOTAL				1749.30 Z
	Add Cess @ 1% on "Z"				17.49
	Cost for 10 sqm.				1766.79
	Cost for 1 sqm.				176.68
	Say				176.70

- 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	300.00	300.00
9999	Fixing materials.	L.S.	78.00	2.00	156.00
9999	Fixing charges.	L.S.	39.00	2.00	78.00
	TOTAL				534.00 W
	Add 1 % Water charges on "W"				5.34
	TOTAL				539.34 X
	Add GST on "X" (multiplying factor 0.1405)				75.78
	TOTAL				615.12 Y
	Add 15% CPOH on "Y"				92.27
	TOTAL				707.38 Z
	Add Cess @ 1% on "Z"				7.07
	Cost of 1 no.				714.46
	Say				714.45

- 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 Rate as per item no. 2.8.1 of SH: Earth work	cum	3.00	252.30	756.90 A
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				783.94 W
	Add 1 % Water charges on "W-A"				0.27
	TOTAL				784.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.84
	TOTAL				788.05 Y
	Add 15% CPOH on "Y-A"				4.67
	TOTAL				792.72 Z
	Add Cess @ 1% on "Z-A"				0.36
	Cost of 30 holes				793.08
	Cost of 1 hole				26.44
	Say				26.45

- 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	135.00	6480.00
9977	Carriage of slab. 20mm (bed and joints) CM. 1:5 (1 cement: 5 coarse sand)	L.S.	52.00	2.00	104.00
3.10	Rate as per Item Number 3.10 of SH: Mortars	cum	0.25	3658.10	914.53
	LABOUR				
0155	Mason (average)	day	1.10	709.00	779.90
0100	Bandhani	day	1.10	617.00	678.70
0114	Beldar	day	0.55	558.00	306.90
0101	Bhisti	day	0.27	617.00	166.59
9999	Sundries	L.S.	10.79	2.00	21.58
	TOTAL				9452.20 W
	Add 1 % Water charges on "W"				94.52
	TOTAL				9546.72 X
	Add GST on "X" (multiplying factor 0.1405)				1341.31
	TOTAL				10888.03 Y
	Add 15% CPOH on "Y"				1633.20
	TOTAL				12521.24 Z
	Add Cess @ 1% on "Z"				125.21
	Cost for 10 sqm.				12646.45
	Cost for 1 sqm				1264.64
	Say				1264.65

- 16.68 Providing and laying 60mm thick factory 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	400.00	4000.00
0982	Bedding layer - 50mm thick Coarse sand (zone III) =10x0.050=0.50 cum	cum	0.50	1350.00	675.00
2203	Carriage of Coarse sand	cum	0.50	103.77	51.89
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2203	Carriage of fine sand	cum	0.15	103.77	15.57
	Laying charges (Based on actual observation)				
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.00	558.00	558.00
0115	Coolie	day	0.50	558.00	279.00
	TOTAL				6422.95 W
	Add 1 % Water charges on "W"				64.23
	TOTAL				6487.18 X
	Add GST on "X" (multiplying factor 0.1405)				911.45
	TOTAL				7398.63 Y
	Add 15% CPOH on "Y"				1109.79
	TOTAL				8508.42 Z
	Add Cess @ 1% on "Z"				85.08
	Cost for 10.00 sqm				8593.51
	Cost for 1.00 sqm.				859.35
	Say				859.35

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 ₹
8686	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 MATERIAL	cum	7.41	5500.00	40755.00
3.8	Precast C.C. Kerb stone M - 25 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)	cum	0.073	4664.55	340.51
	Rate as per Item Number 3.8 of SH: Mortars				
	Labour for fixing of kerb stones				
0123	Mason (brick layer) 1st class	day	2.50	738.00	1845.00
0124	Mason (brick layer) 2nd class	day	2.50	679.00	1697.50
0114	Beldar	day	2.50	558.00	1395.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	1.65	558.00	920.70
	TOTAL				46953.71 W
	Add 1 % Water charges on "W"				469.54
	TOTAL				47423.25 X
	Add GST on "X" (multiplying factor 0.1405)				6662.97
	TOTAL				54086.22 Y
	Add 15% CPOH on "Y"				8112.93
	TOTAL				62199.15 Z
	Add Cess @ 1% on "Z"				621.99
	Cost of 7.50 cum				62821.14
	cost for 1 cum.				8376.15
	Say				8376.15

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 ₹
8695	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. Chain link fabric fencing mesh of size 50x50 mm made of G.I. wire of dia 4 mm	sqm	10.50	280.00	2940.00
9977	Carriage. LABOUR	L.S.	156.00	2.00	312.00
0103	Blacksmith 2nd class	day	2.14	679.00	1453.06
0114	Beldar	day	1.62	558.00	903.96
9999	Sundries including G.I. wire, nuts and bolts and washers.	L.S.	174.75	2.00	349.50
	TOTAL				5958.52 W
	Add 1 % Water charges on "W"				59.59
	TOTAL				6018.11 X
	Add GST on "X" (multiplying factor 0.1405)				845.54
	TOTAL				6863.65 Y
	Add 15% CPOH on "Y"				1029.55
	TOTAL				7893.20 Z
	Add Cess @ 1% on "Z"				78.93
	Cost for 10 sqm.				7972.13
	Cost for 1 sqm.				797.21
	Say				797.20

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	300.00	3150.00
9977	Carriage.	L.S.	156.00	2.00	312.00
	LABOUR				
0103	Blacksmith 2nd class	day	2.14	679.00	1453.06
0114	Beldar	day	1.62	558.00	903.96
9999	Sundries including G.I. wire, nuts and bolts and washers.	L.S.	174.75	2.00	349.50
	TOTAL				6168.52 W
	Add 1 % Water charges on "W"				61.69
	TOTAL				6230.21 X
	Add GST on "X" (multiplying factor 0.1405)				875.34
	TOTAL				7105.55 Y
	Add 15% CPOH on "Y"				1065.83
	TOTAL				8171.38 Z
	Add Cess @ 1% on "Z"				81.71
	Cost for 10 sqm.				8253.10
	Cost for 1 sqm.				825.31
	Say				825.30

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	360.00	3780.00
9977	Carriage.	L.S.	156.00	2.00	312.00
	LABOUR				
0103	Blacksmith 2nd class	day	2.14	679.00	1453.06
0114	Beldar	day	1.62	558.00	903.96

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including G.I. wire, nuts and bolts and washers. 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 10 sqm. Cost for 1 sqm. Say	L.S.	174.75	2.00	349.50 6798.52 W 67.99 6866.51 X 964.74 7831.25 Y 1174.69 9005.94 Z 90.06 9096.00 909.60 909.60

16.72 Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1158	Detail of cost for 2.25 cum MATERIAL 22.5 cm thick stone (Hard) Stone for pitching 15 cm x 22.5 cm Carriage by mechanical transport i/c loading unloading and stacking	cum	2.25	600.00	1350.00
2215	Carriage of Soling stone & masonry stone 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 2.25 cum Cost for one cum Say	cum	2.25	122.08	274.68 1624.68 W 16.25 1640.93 X 230.55 1871.48 Y 280.72 2152.20 Z 21.52 2173.72 966.10 966.10

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	738.00	797.04
0124	Mason (brick layer) 2nd class	day	1.08	679.00	733.32
0114	Beldar	day	2.15	558.00	1199.70
0115	Coolie	day	1.61	558.00	898.38

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				3641.96 W
	Add 1 % Water charges on "W"				36.42
	TOTAL				3678.38 X
	Add GST on "X" (multiplying factor 0.1405)				516.81
	TOTAL				4195.19 Y
	Add 15% CPOH on "Y"				629.28
	TOTAL				4824.47 Z
	Add Cess @ 1% on "Z"				48.24
	Cost for 10 sqm				4872.72
	Cost for one sqm				487.27
	Say				487.25

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 ₹
0810	Details of cost for 100 sqm MATERIAL				
	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	103.77	778.28
	LABOUR				
0114	Beldar	day	1.64	558.00	915.12
0101	Bhisti	day	0.13	617.00	80.21
	TOTAL				5523.61 W
	Add 1 % Water charges on "W"				55.24
	TOTAL				5578.84 X
	Add GST on "X" (multiplying factor 0.1405)				783.83
	TOTAL				6362.67 Y
	Add 15% CPOH on "Y"				954.40
	TOTAL				7317.07 Z
	Add Cess @ 1% on "Z"				73.17
	Cost for 100 sqm				7390.24
	Cost per sqm				73.90
	Say				73.90

16.74.2 Stone aggregate 20 mm nominal size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0295	Detail of cost for 100 sqm MATERIAL				
	Stone Aggregate (Single size) : 20 mm nominal size				
	100sqm x7.50cm= 7.50 cum	cum	7.50	1350.00	10125.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	7.50	103.77	778.28
0114	LABOUR				
	Beldar	day	2.05	558.00	1143.90
0101	Bhisti	day	0.13	617.00	80.21
	TOTAL				12127.39 W
	Add 1 % Water charges on "W"				121.27
	TOTAL				12248.66 X
	Add GST on "X" (multiplying factor 0.1405)				1720.94
	TOTAL				13969.60 Y
	Add 15% CPOH on "Y"				2095.44
	TOTAL				16065.03 Z
	Add Cess @ 1% on "Z"				160.65
	Cost for 100 sqm				16225.69
	Cost per sqm				162.26
	Say				162.25

16.74.3 Stone aggregate 40 mm nominal size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0293	Detail of cost for 100 sqm MATERIAL				
	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	112.79	845.93
	LABOUR				
0114	Beldar	day	2.05	558.00	1143.90
0101	Bhisti	day	0.13	617.00	80.21
	TOTAL				11820.04 W
	Add 1 % Water charges on "W"				118.20
	TOTAL				11938.24 X
	Add GST on "X" (multiplying factor 0.1405)				1677.32
	TOTAL				13615.56 Y
	Add 15% CPOH on "Y"				2042.33
	TOTAL				15657.89 Z
	Add Cess @ 1% on "Z"				156.58
	Cost for 100 sqm				15814.47
	Cost per sqm				158.14
	Say				158.15

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 ₹
5.37.1	Details of cost for 1.00 cum MATERIAL Ready mix concrete M 25 = 1.00 cum. i/c placing of concrete, vibrating, leveling etc.				
9999	Rate as per Item No.5.37.1 of SH:RCC	cum	1.00	8398.65	8398.65 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	2.00	114.40
	T & P charges i/c consumable power charges, loading , unloading and hire charges of equipments	L.S.	41.60	2.00	83.20
	TOTAL				8596.25 W
	Add 1 % Water charges on "W-A"				1.98
	TOTAL				8598.23 X
	Add GST on "X-A" (multiplying factor 0.1405)				28.04
	TOTAL				8626.27 Y
	Add 15% CPOH on "Y-A"				34.14
	TOTAL				8660.41 Z
	Add Cess @ 1% on "Z-A"				2.62
	Cost for 1 cum				8663.03
	Say				8663.05

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 ₹
0367	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 MATERIAL				
2209	Portland Cement (OPC-43 grade)	tonne	0.027	4940.00	133.38
	Carriage of Cement	tonne	0.027	92.24	2.49
7318	Plasticizer for M- 25 mix = 2.050kg Plasticizer for M- 20 mix = 1.915 kg Difference = 0.135 kg Plasticizer / super plasticizer	kilogram	0.135	36.00	4.86
	TOTAL				140.73 W
	Add 1 % Water charges on "W"				1.41
	TOTAL				142.14 X
	Add GST on "X" (multiplying factor 0.1405)				19.97
	TOTAL				162.11 Y
	Add 15% CPOH on "Y"				24.32
	TOTAL				186.42 Z
	Add Cess @ 1% on "Z"				1.86
	Cost for 1 cum.				188.29
	Say				188.30

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	617.00	6.17
0114	Beldar	day	0.25	558.00	139.50
	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	1700.00	48.88
	TOTAL				356.55 W
	Add 1 % Water charges on "W"				3.57
	TOTAL				360.11 X
	Add GST on "X" (multiplying factor 0.1405)				50.60
	TOTAL				410.71 Y
	Add 15% CPOH on "Y"				61.61
	TOTAL				472.31 Z
	Add Cess @ 1% on "Z"				4.72
	Cost for 100 sqm				477.03
	Cost for 1 sqm				4.77
	Say				4.75

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	112.79	8120.88
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	72.00	103.77	7471.44
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	103.77	5914.89

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	103.77	8965.73
0059	Machinery/ Hire charges: Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.00	800.00	4800.00
0070	Generator 100 KVA/125 KVA	hour	6.00	250.00	1500.00
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	4.50	150.00	675.00
0052	Front end loader 1 cum bucket capacity (incl POL) Tipper 10 tonne capacity(taking lead= 10 Km) =450x10 =4500 tonne km	hour	6.00	900.00	5400.00
0053	Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading	tonne km	4500.00	3.00	13500.00
0050	Motor Grader 3.35 metre blade	hour	6.00	2450.00	14700.00
0054	Vibratory roller 8 to 10 tonne LABOUR	hour	6.00	600.00	3600.00
0128	Mate	day	0.40	617.00	246.80
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	617.00	1234.00
0114	Beldar	day	8.00	558.00	4464.00
	TOTAL				423402.74 W
	Add 1 % Water charges on "W"				4234.03
	TOTAL				427636.77 X
	Add GST on "X" (multiplying factor 0.1405)				60082.97
	TOTAL				487719.73 Y
	Add 15% CPOH on "Y"				73157.96
	TOTAL				560877.69 Z
	Add Cess @ 1% on "Z"				5608.78
	Cost for 225 cum(450 Tonne)				566486.47
	Cost per cum.				2517.72
	Say				2517.70

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	100.80	103.77	10460.02
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	103.77	7471.44
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	103.77	11954.30
0059	Machinery/ Hire charges: Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.00	800.00	4800.00
0070	Generator 100 KVA/125 KVA	hour	6.00	250.00	1500.00
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	4.50	150.00	675.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity(taking lead= 10 Km) =450x10 =4500 tonne km Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1350.00
0050	Motor Grader 3.35 metre blade	hour	6.00	2450.00	14700.00
0054	Vibratory roller 8 to 10 tonne LABOUR	hour	6.00	600.00	3600.00
0128	Mate	day	0.40	617.00	246.80
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	617.00	1234.00
0114	Beldar	day	8.00	558.00	4464.00
	TOTAL				443515.56 W
	Add 1 % Water charges on "W"				4435.16
	TOTAL				447950.72 X
	Add GST on "X" (multiplying factor 0.1405)				62937.08
	TOTAL				510887.79 Y
	Add 15% CPOH on "Y"				76633.17
	TOTAL				587520.96 Z
	Add Cess @ 1% on "Z"				5875.21
	Cost for 225 cum(450 Tonne)				593396.17
	Cost per cum.				2637.32
	Say				2637.30

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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 2202	Crushed stone 2.36 mm to 12.5 mm size Carriage of Stone aggregate below 40 mm nominal size	cum	100.80	900.00	90720.00
1179 2202	Crushed stone 2.36 mm to 12.5 mm size Carriage of Stone aggregate below 40 mm nominal size	cum	36.00	900.00	32400.00
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 Machinery/ Hire charges:	cum	151.20	103.77	15690.02
0059	Wet Mix Plant 60 TPH @75 tonne capacity	hour	6.00	800.00	4800.00
0070	Generator 100 KVA/125 KVA	hour	6.00	250.00	1500.00
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	4.50	150.00	675.00
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity(taking lead= 10Km) =450x10 =4500 tonne km Tipper -5 Cum	tonne km	4500.00	3.00	13500.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				1350.00
0050	Motor Grader 3.35 metre blade	hour	6.00	2450.00	14700.00
0054	Vibratory roller 8 to 10 tonne LABOUR	hour	6.00	600.00	3600.00
0128	Mate	day	0.40	617.00	246.80
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	617.00	1234.00
0114	Beldar	day	8.00	558.00	4464.00
	TOTAL				416155.56 W
	Add 1 % Water charges on "W"				4161.56
	TOTAL				420317.12 X
	Add GST on "X" (multiplying factor 0.1405)				59054.55
	TOTAL				479371.67 Y
	Add 15% CPOH on "Y"				71905.75
	TOTAL				551277.42 Z
	Add Cess @ 1% on "Z"				5512.77
	Cost for 225 cum(450 Tonne)				556790.20
	Cost per cum.				2474.62
	Say				2474.60

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 achieve the 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 to 22.4mm @ 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 micron @ 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	1350.00	30071.25
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	44.55	112.79	5024.79
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	44.55	103.77	4622.95
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	1350.00	40095.00
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	103.77	12327.88
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	103.77	9245.91
0059	Machinery/ Hire charges: Wet Mix Plant 60 TPH @ 75 tonne capacity	hour	6.60	800.00	5280.00
0070	Generator 100 KVA/125 KVA	hour	6.00	250.00	1500.00
0057	Water Tanker 5 to 6 KL capacity 5 km lead with one trip per hour	hour	3.00	150.00	450.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0052	Front end loader 1 cum bucket capacity (incl POL)	hour	6.00	900.00	5400.00
0053	Tipper 10 tonne capacity(taking lead= 10 Km) =495x10 =4950 tonne km	tonne km	4950.00	3.00	14850.00
	Tipper -5 Cum				1485.00
	Add 10 per cent of cost of carriage to cover cost of loading and unloading				4800.00
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	617.00	296.16
0139	Skilled Beldar (for floor rubbing etc.)	day	2.00	617.00	1234.00
0114	Beldar	day	10.00	558.00	5580.00
	TOTAL				444201.69 W
	Add 1 % Water charges on "W"				4442.02
	TOTAL				448643.71 X
	Add GST on "X" (multiplying factor 0.1405)				63034.44
	TOTAL				511678.15 Y
	Add 15% CPOH on "Y"				76751.72
	TOTAL				588429.87 Z
	Add Cess @ 1% on "Z"				5884.30
	Cost for 225 cum(450 Tonne)				594314.17
	Cost per cum.				2641.40
	Say				2641.40

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 ₹
0294	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 Stone Aggregate (Single size) : 25 mm nominal size	cum	202.50	1350.00	273375.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	1350.00	274050.00
0367	Portland Cement (OPC-43 grade)	tonne	67.50	4940.00	333450.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	405.00	103.77	42026.85
2203	Carriage of Coarse sand	cum	203.00	103.77	21065.31
2209	Carriage of Cement	tonne	67.50	92.24	6226.20
0052	Machinery/ Hire charges: Front end loader 1 cum bucket capacity (incl POL) @75 tonne capacity	hour	6.00	900.00	5400.00
0066	Batching and Mixing Plant @ 75 cum per hour	hour	6.00	2400.00	14400.00
0069	Generator 250 KVA 5 km lead with one trip per hour	hour	6.00	350.00	2100.00
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	150.00	1200.00
0053	Tipper 10 tonne capacity (Taken 10 km average lead) 450 x 10 = 4500 tonne Km Tipper -5 Cum Add 10 per cent of cost of carriage to cover cost of loading and unloading LABOUR	tonne km	9900.00	3.00	29700.00 2970.00
0128	Mate	day	1.12	617.00	691.04
0139	Skilled Beldar (for floor rubbing etc.)	day	6.00	617.00	3702.00
0114	Beldar	day	22.00	558.00	12276.00
	TOTAL				1305607.40 W
	Add 1 % Water charges on "W"				13056.07
	TOTAL				1318663.47 X
	Add GST on "X" (multiplying factor 0.1405)				185272.22
	TOTAL				1503935.69 Y
	Add 15% CPOH on "Y"				225590.35
	TOTAL				1729526.05 Z
	Add Cess @ 1% on "Z"				17295.26
	Cost for 450 cum(990 Tonne)				1746821.31
	Cost per cum.				3881.83
	Say				3881.85

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 ₹
16.81X	Details of cost for 2.5 metre MATERIAL				
16.81X	Rate as per Sub Analysis No.16.81X	metre	2.50	43.15	107.88
16.81Y	Rate as per Sub Analysis No.16.81Y	metre	2.50	1308.80	3272.00
13.50.3	Rate as per Item No.13.50.3 of SH: FINISHING	sqm	11.00	50.70	557.70 A
13.61.1	Rate as per Item No.13.61.1 of SH: FINISHING	sqm	11.00	121.55	1337.05 A
	TOTAL				5274.63 W
	Add 1 % Water charges on "W-A"				33.80
	TOTAL				5308.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				479.62
	TOTAL				5788.04 Y
	Add 15% CPOH on "Y-A"				583.99
	TOTAL				6372.04 Z
	Add Cess @ 1% on "Z-A"				44.77
	Cost of 2.5 metre				6416.81
	Cost of 1 metre				2566.72
	Say				2566.70

16.81X Sub analysis item for material component of Item No. 16.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1013	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 Mild steel sheets for tanks 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 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	quintal	0.672	4600.00	3091.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	4600.00	3298.20
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	4600.00	275.54
1008	Flats upto 10 mm in thickness	quintal	0.1134	4500.00	510.30
2205	Carriage of Steel	tonne	0.156	92.24	14.39
	TOTAL				7189.63 P
	Add for maintenance @ 10% on P				718.96 Q
	Less for salvage value of material @ 50% on P				-3594.81
	TOTAL				4313.78 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				107.84
	Cost of 1 meter				43.14
	Say				43.15

16.81Y Sub analysis item for fabrication charges of Item No. 16.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1215	Sub analysis item no.16.81Y to be used in Item No. 16.81 Details of cost for 2.5 metre MATERIAL Welding by electric plant Cutting, assembling and erection charges LABOUR	cm	165.00	2.00	330.00
0102	Blacksmith 1st class	day	0.115	738.00	84.87
0103	Blacksmith 2nd class	day	0.115	679.00	78.09
0100	Bandhani	day	0.11	617.00	67.87
0114	Beldar	day	0.83	558.00	463.14
9999	Sundries	L.S.	12.10	2.00	24.20
	Labour for riveting / bolting / cutting etc.				
0116	Fitter (grade 1)	day	0.41	738.00	302.58
0103	Blacksmith 2nd class	day	0.54	679.00	366.66
0100	Bandhani	day	0.70	617.00	431.90
0114	Beldar	day	0.54	558.00	301.32
0139	Skilled Beldar (for floor rubbing etc.)	day	0.81	617.00	499.77

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	12.10	2.00	24.20
	TOTAL				2974.60
	Shifting including transportation, re-erection etc. @ 10%				297.46
	TOTAL Cost of 2.5 meter				3272.05
	Cost of 1 meter				1308.82
	Say				1308.80

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 ₹
0114	Details of cost for 100 meter LABOUR	day	0.75	558.00	418.50
0115	Beldar	day	3.00	558.00	1674.00
9999	Coolie	L.S.	2.00	2.00	4.00
	Sundries				2096.50 W
	TOTAL				20.97
	Add 1 % Water charges on "W"				2117.47 X
	TOTAL				297.50
	Add GST on "X" (multiplying factor 0.1405)				2414.97 Y
	TOTAL				362.25
	Add 15% CPOH on "Y"				2777.21 Z
	TOTAL				27.77
	Add Cess @ 1% on "Z"				2804.99
	Cost of 100 meter				28.05
	Cost of 1 meter				28.05
	Say				

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 ₹
0114	Details of cost for 10 sqm. LABOUR	day	0.25	558.00	139.50
0115	Beldar	day	1.00	558.00	558.00
9999	Coolie	L.S.	2.70	2.00	5.40
	Sundries				702.90 W
	TOTAL				7.03
	Add 1 % Water charges on "W"				709.93 X
	TOTAL				99.75
	Add GST on "X" (multiplying factor 0.1405)				809.67 Y
	TOTAL				121.45
	Add 15% CPOH on "Y"				931.13 Z
	TOTAL				9.31
	Add Cess @ 1% on "Z"				940.44
	Cost of 10 sqm.				94.04
	Cost of 1 sqm				94.05
	Say				

- 16.84 Laying old cement concrete 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 ₹
0982	Details of cost for 10 sqm. MATERIAL Bedding layer 50mm thick Coarse sand (zone III) Qty = 10 x 0.05 = 0.50 cum	cum	0.50	1350.00	675.00
2203	Carriage of Coarse sand	cum	0.50	103.77	51.89
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	103.77	15.57
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.00	558.00	558.00
0115	Coolie	day	0.50	558.00	279.00
	TOTAL				2422.95 W
	Add 1 % Water charges on "W"				24.23
	TOTAL				2447.18 X
	Add GST on "X" (multiplying factor 0.1405)				343.83
	TOTAL				2791.01 Y
	Add 15% CPOH on "Y"				418.65
	TOTAL				3209.66 Z
	Add Cess @ 1% on "Z"				32.10
	Cost of 10 sqm.				3241.76
	Cost of 1 sqm				324.18
	Say				324.20

- 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 ₹
3.8	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 Rate as per Item No.3.8 of SH:MORTARS	cum	0.073	4664.55	340.51

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	2.50	738.00	1845.00
0124	Mason (brick layer) 2nd class	day	2.50	679.00	1697.50
0114	Beldar	day	2.50	558.00	1395.00
0115	Coolie	day	1.65	558.00	920.70
	TOTAL				6198.71 W
	Add 1 % Water charges on "W"				61.99
	TOTAL				6260.70 X
	Add GST on "X" (multiplying factor 0.1405)				879.63
	TOTAL				7140.33 Y
	Add 15% CPOH on "Y"				1071.05
	TOTAL				8211.38 Z
	Add Cess @ 1% on "Z"				82.11
	Cost of 100 meter.				8293.49
	Cost of 1 meter.				82.93
	Say				82.95

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. Granite of any colour, 18 mm thick (slab area upto 0.50 sqm)	sqm	0.525	1600.00	840.00
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.012	4010.35	48.12
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	738.00	413.28
0114	Beldar	day	0.05	558.00	27.90
0115	Coolie	day	0.05	558.00	27.90
9999	Sundries	L.S.	17.60	2.00	35.20
	TOTAL				1392.40 W
	Add 1 % Water charges on "W"				13.92
	TOTAL				1406.33 X
	Add GST on "X" (multiplying factor 0.1405)				197.59
	TOTAL				1603.92 Y
	Add 15% CPOH on "Y"				240.59
	TOTAL				1844.50 Z
	Add Cess @ 1% on "Z"				18.45
	Cost of 0.5 sqm				1862.95
	Cost per sqm.				3725.90
	Say				3725.90

- 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 area less than 0.50 sqm.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 0.50 sqm. MATERIAL Mirror polished granite 0.50 sqm. Waste @5% total = 0.025 +0.50 = 0.525 sqm.				
7296	Granite stone slab 30mm thick	sqm	0.525	1800.00	945.00
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.012	4010.35	48.12
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.56	738.00	413.28
0114	Beldar	day	0.05	558.00	27.90
0115	Coolie	day	0.05	558.00	27.90
9999	Sundries	L.S.	17.60	2.00	35.20
	TOTAL				1497.40 W
	Add 1 % Water charges on "W"				14.97
	TOTAL				1512.38 X
	Add GST on "X" (multiplying factor 0.1405)				212.49
	TOTAL				1724.87 Y
	Add 15% CPOH on "Y"				258.73
	TOTAL				1983.60 Z
	Add Cess @ 1% on "Z"				19.84
	Cost of 0.5 sqm				2003.43
	Cost of sqm.				4006.87
	Say				4006.85

- 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 x 16mm	sqm	1.00	1000.00	1000.00
9977	Sundries	L.S.	6.24	2.00	12.48
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.024	4010.35	96.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	3.64	2.00	7.28
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	4940.00	16.30
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	738.00	147.60
0115	Coolie	day	0.20	558.00	111.60
9999	Sundries	L.S.	26.91	2.00	53.82
	TOTAL				1445.33 W
	Add 1 % Water charges on "W"				14.45
	TOTAL				1459.78 X
	Add GST on "X" (multiplying factor 0.1405)				205.10
	TOTAL				1664.88 Y
	Add 15% CPOH on "Y"				249.73
	TOTAL				1914.62 Z
	Add Cess @ 1% on "Z"				19.15
	Cost per sqm.				1933.76
	Say				1933.75

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	500.00	500.00
9977	Sundries	L.S.	6.24	2.00	12.48
3.9	Rate as per Item No.3.9 of SH: MORTARS	cum	0.024	4010.35	96.25
9999	Sundries	L.S.	3.64	2.00	7.28
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	4940.00	16.30
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	738.00	147.60
0115	Coolie	day	0.20	558.00	111.60
9999	Sundries	L.S.	26.91	2.00	53.82
	TOTAL				945.33 W
	Add 1 % Water charges on "W"				9.45
	TOTAL				954.78 X
	Add GST on "X" (multiplying factor 0.1405)				134.15
	TOTAL				1088.93 Y
	Add 15% CPOH on "Y"				163.34
	TOTAL				1252.27 Z
	Add Cess @ 1% on "Z"				12.52
	Rate per sqm.				1264.79
	Say				1264.80

- 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	1000.00	1000.00
9977	Carriage	L.S.	6.24	2.00	12.48
3.9	Rate as per Item No.3.9 of				
	SH: MORTARS	cum	0.024	4010.35	96.25
9999	Sundries	L.S.	3.64	2.00	7.28
0367	Portland Cement (OPC-43 grade)	tonne	0.0033	4940.00	16.30
	LABOUR :				
0123	Mason (brick layer) 1st class	day	0.20	738.00	147.60
0115	Coolie	day	0.20	558.00	111.60
9999	Sundries	L.S.	26.91	2.00	53.82
	TOTAL				1445.33 W
	Add 1 % Water charges on "W"				14.45
	TOTAL				1459.78 X
	Add GST on "X" (multiplying factor 0.1405)				205.10
	TOTAL				1664.88 Y
	Add 15% CPOH on "Y"				249.73
	TOTAL				1914.62 Z
	Add Cess @ 1% on "Z"				19.15
	Cosr per sqm				1933.76
	Say				1933.75

- 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	450.00	4500.00
0983	Fine sand (zone IV)	cum	0.50	900.00	450.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.65	103.77	67.45
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.00	558.00	558.00
0115	Coolie	day	0.50	558.00	279.00
9999	Sundries	L.S.	25.00	2.00	50.00
	TOTAL				6612.95 W
	Add 1 % Water charges on "W"				66.13
	TOTAL				6679.08 X
	Add GST on "X" (multiplying factor 0.1405)				938.41
	TOTAL				7617.49 Y
	Add 15% CPOH on "Y"				1142.62
	TOTAL				8760.11 Z
	Add Cess @ 1% on "Z"				87.60
	Cost of 10 Sqm				8847.72
	Cost of 1 Sqm				884.77
	Say				884.75

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	470.00	4700.00
0982	Coarse sand (zone 111) (10 x 0.050 = 0.50 cum)	cum	0.50	1350.00	675.00
2203	Carriage of Coarse sand	cum	0.50	103.77	51.89
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of Fine sand	cum	0.15	103.77	15.57
	Labour for Laying				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.00	558.00	558.00
0115	Coolie	day	0.50	558.00	279.00
	TOTAL				7122.95 W
	Add 1 % Water charges on "W"				71.23
	TOTAL				7194.18 X
	Add GST on "X" (multiplying factor 0.1405)				1010.78
	TOTAL				8204.96 Y
	Add 15% CPOH on "Y"				1230.74
	TOTAL				9435.71 Z
	Add Cess @ 1% on "Z"				94.36
	Cost of 10 Sqm				9530.06
	Cost of 1 Sqm				953.01
	Say				953.00

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+ 5%wastage				
7774	Stone size 10x10x7.50cm	each	827.00	10.00	8270.00
3.9	Rate as per Item No.3.9 of				
	SH: MORTARS	cum	0.434	4010.35	1740.49
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
	LABOUR :				
0124	Mason (brick layer) 2nd class	day	1.08	679.00	733.32
0114	Beldar	day	0.25	558.00	139.50
0115	Coolie	day	1.62	558.00	903.96
0101	Bhisti	day	0.27	617.00	166.59
13.33.1	Rate as per Item No.13.33.1 of				
	SH: FINISHING	sqm	10.00	285.40	2854.00 A
	TOTAL				14906.66 W
	Add 1 % Water charges on "W-A"				120.53
	TOTAL				15027.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				1710.33
	TOTAL				16737.52 Y
	Add 15% CPOH on "Y-A"				2082.53
	TOTAL				18820.05 Z
	Add Cess @ 1% on "Z-A"				159.66
	Cost of 10 sqm.				18979.71
	Cost of 1 sqm.				1897.97
	Say				1897.95

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	Rate as per Item No.5.33.1 of				
	SH: REINFORCED CEMENT CONCRETE	cum	0.06	7997.30	479.84 A
	Reinforcement TMT				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.22.6	Rate as per Item No.5.22.6 of SH: REINFORCED CEMENT CONCRETE	Kg	4.59	83.50	383.27 A
10.22	Welding by gas plant/ Electric plant Rate as per Item No.10.22 of SH: STEEL WORK	cm	82.00	3.35	274.70 A
1013	M.S. sheet 1.60 mm thick 2x(1.50+0.40)x0.10x0.016x7850=4.77kg Mild steel sheets for tanks	quintal	0.0477	4600.00	219.42
13.61.1	Paint 2x(1.50+0.40)x0.10=0.38sqm Rate as per Item No.13.61.1 of SH: FINISHING	sqm	0.38	121.55	46.19 A
13.18	Neat Cement Punning 1x1.50x0.40=0.60 sqm Rate as per Item No.13.18 of SH: FINISHING	sqm	0.60	62.75	37.65 A
	TOTAL				1441.06 W
	Add 1 % Water charges on "W-A"				2.19
	TOTAL				1443.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				31.14
	TOTAL				1474.39 Y
	Add 15% CPOH on "Y-A"				37.91
	TOTAL				1512.31 Z
	Add Cess @ 1% on "Z-A"				2.91
	Cost of 0.60 sqm.				1515.21
	Cost of 1 sqm.				2525.35
	Say				2525.35

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 $\pm 2\%$) 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 ₹
8576	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum MATERIAL 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	190.00	2090.00
7753	Stone boulder with least dimension 200mm	cum	2.00	850.00	1700.00
0128	LABOUR Mate	day	0.10	617.00	61.70
0125	Mason (for plain stone work) 2nd class	day	0.50	679.00	339.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.50	558.00	837.00
	TOTAL				5028.20 W
	Add 1 % Water charges on "W"				50.28
	TOTAL				5078.48 X
	Add GST on "X" (multiplying factor 0.1405)				713.53
	TOTAL				5792.01 Y
	Add 15% CPOH on "Y"				868.80
	TOTAL				6660.81 Z
	Add Cess @ 1% on "Z"				66.61
	Cost of 2 cum				6727.42
	Cost of 1 cum				3363.71
	Say				3363.70

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 $\pm 2\%$) Zinc+PVC coated, Mesh wire diameter 2.7/3.7mm, 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 ₹
8577	Details cost of one Gabion box/Crates of size 2mx1mx1m = 2 cum MATERIAL 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	220.00	2420.00
7753	Stone boulder with least dimension 200mm	cum	2.00	850.00	1700.00
	LABOUR				
0128	Mate	day	0.10	617.00	61.70
0125	Mason (for plain stone work) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.50	558.00	837.00
	TOTAL				5358.20 W
	Add 1 % Water charges on "W"				53.58
	TOTAL				5411.78 X
	Add GST on "X" (multiplying factor 0.1405)				760.36
	TOTAL				6172.14 Y
	Add 15% CPOH on "Y"				925.82
	TOTAL				7097.96 Z
	Add Cess @ 1% on "Z"				70.98
	Cost of 2 cum				7168.94
	Cost of 1 cum				3584.47
	Say				3584.45

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 $\pm 2\%$), Zinc+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				
8578	MATERIAL 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	850.00	1700.00
	LABOUR				
0128	Mate	day	0.10	617.00	61.70
0125	Mason (for plain stone work) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.50	558.00	837.00
	TOTAL				6128.20 W
	Add 1 % Water charges on "W"				61.28
	TOTAL				6189.48 X
	Add GST on "X" (multiplying factor 0.1405)				869.62
	TOTAL				7059.10 Y
	Add 15% CPOH on "Y"				1058.87
	TOTAL				8117.97 Z
	Add Cess @ 1% on "Z"				81.18
	Cost of 2 cum				8199.15
	Cost of 1 cum				4099.57
	Say				4099.55

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 ₹
1954	Details of cost for one pan MATERIAL Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1200.00	1200.00
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	320.00	320.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	1.25	738.00	922.50
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				4052.14 W
	Add 1 % Water charges on "W"				40.52
	TOTAL				4092.66 X
	Add GST on "X" (multiplying factor 0.1405)				575.02
	TOTAL				4667.68 Y
	Add 15% CPOH on "Y"				700.15
	TOTAL				5367.83 Z
	Add Cess @ 1% on "Z"				53.68
	Cost of each				5421.51
	Say				5421.50

- 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 ₹
7805	Details of cost for one pan MATERIAL 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	320.00	320.00
9999	Cement, sand and grit etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	1.25	738.00	922.50
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				7352.14 W
	Add 1 % Water charges on "W"				73.52
	TOTAL				7425.66 X
	Add GST on "X" (multiplying factor 0.1405)				1043.31
	TOTAL				8468.97 Y
	Add 15% CPOH on "Y"				1270.35
	TOTAL				9739.31 Z
	Add Cess @ 1% on "Z"				97.39
	Cost of each				9836.70
	Say				9836.70

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	each	1.00	400.00	400.00
1955	C.P.brass hinges and rubber buffers	each	1.00	1000.00	1000.00
7358	Vitreous china pedestal type water closet	each	1.00	575.00	575.00
	Flushing Cistern P.V.C. 10 lts capacity (low level) (White) (with fittings, accessories and flush pipe)	L.S.	26.91	2.00	53.82
9999	Cement, sand and grit etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials				
	LABOUR				
0116	Fitter (grade 1)	day	1.25	738.00	922.50
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				3932.14 W
	Add 1 % Water charges on "W"				39.32
	TOTAL				3971.46 X
	Add GST on "X" (multiplying factor 0.1405)				557.99
	TOTAL				4529.45 Y
	Add 15% CPOH on "Y"				679.42
	TOTAL				5208.87 Z
	Add Cess @ 1% on "Z"				52.09
	Cost of each				5260.96
	Say				5260.95

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	each	1.00	310.00	310.00
	C.P.brass hinges and rubber buffers				
1955	Vitreous china pedestal type water closet	each	1.00	1000.00	1000.00
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	2.00	53.82
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	1.25	738.00	922.50
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				3842.14 W
	Add 1 % Water charges on "W"				38.42
	TOTAL				3880.56 X
	Add GST on "X" (multiplying factor 0.1405)				545.22
	TOTAL				4425.78 Y
	Add 15% CPOH on "Y"				663.87
	TOTAL				5089.65 Z
	Add Cess @ 1% on "Z"				50.90
	Cost of each				5140.54
	Say				5140.55

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	each	1.00	400.00	400.00
	C.P.brass hinges and rubber buffers				
1955	Vitreous china pedestal type water closet	each	1.00	1000.00	1000.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1240.00	1240.00
9999	Overflow arrangement and specials for overflow pipe	L.S.	62.79	2.00	125.58
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs ,screws etc.	L.S.	13.52	2.00	27.04
9999	Red lead, white lead and gaskit	L.S.	16.12	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	26.91	2.00	53.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	1.00	738.00	738.00
0123	Mason (brick layer) 1st class	day	1.00	738.00	738.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				4996.50 W
	Add 1 % Water charges on "W"				49.97
	TOTAL				5046.47 X
	Add GST on "X" (multiplying factor 0.1405)				709.03
	TOTAL				5755.49 Y
	Add 15% CPOH on "Y"				863.32
	TOTAL				6618.82 Z
	Add Cess @ 1% on "Z"				66.19
	Cost of each				6685.01
	Say				6685.00

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	310.00	310.00
1955	Vitreous china pedestal type water closet	each	1.00	1000.00	1000.00
7006	Vitreous china 10 litres low level cistern with fittings	each	1.00	1240.00	1240.00
9999	Overflow arrangement and specials for overflow pipe	L.S.	62.79	2.00	125.58
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs, screws etc.	L.S.	13.52	2.00	27.04
9999	Red lead, white lead and gasket	L.S.	16.12	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	1.00	738.00	738.00
0123	Mason (brick layer) 1st class	day	1.00	738.00	738.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				4906.50 W
	Add 1 % Water charges on "W"				49.07
	TOTAL				4955.57 X
	Add GST on "X" (multiplying factor 0.1405)				696.26
	TOTAL				5651.82 Y
	Add 15% CPOH on "Y"				847.77
	TOTAL				6499.60 Z
	Add Cess @ 1% on "Z"				65.00
	Cost of each				6564.59
	Say				6564.60

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	460.00	460.00
7359	P.V.C. automatic flushing cistern				
	5 lts capacity	each	1.00	470.00	470.00
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 gasket	L.S.	13.52	2.00	27.04
9999	Plugs ,screws etc.	L.S.	13.52	2.00	27.04
9999	Cement, sand and grit etc.	L.S.	13.52	2.00	27.04
9999	Painting of fittings etc.	L.S.	39.00	2.00	78.00
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	0.88	738.00	649.44
0123	Mason (brick layer) 1st class	day	0.88	738.00	649.44
0114	Beldar	day	1.50	558.00	837.00
	TOTAL				3723.82 W
	Add 1 % Water charges on "W"				37.24
	TOTAL				3761.06 X
	Add GST on "X" (multiplying factor 0.1405)				528.43
	TOTAL				4289.49 Y
	Add 15% CPOH on "Y"				643.42
	TOTAL				4932.91 Z
	Add Cess @ 1% on "Z"				49.33
	Cost of each				4982.24
	Say				4982.25

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	460.00	920.00
7359	P.V.C. automatic flushing cistern				
	5 lts capacity	each	1.00	470.00	470.00
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 gasket	L.S.	20.28	2.00	40.56
9999	Plugs ,screws etc.	L.S.	20.28	2.00	40.56
9999	Cement, sand and grit etc.	L.S.	20.28	2.00	40.56
9999	Painting of fittings etc.	L.S.	39.00	2.00	78.00
9977	Carriage of materials	L.S.	26.91	2.00	53.82

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	1.50	738.00	1107.00
0123	Mason (brick layer) 1st class	day	1.50	738.00	1107.00
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				5738.50 W
	Add 1 % Water charges on "W"				57.39
	TOTAL				5795.89 X
	Add GST on "X" (multiplying factor 0.1405)				814.32
	TOTAL				6610.21 Y
	Add 15% CPOH on "Y"				991.53
	TOTAL				7601.74 Z
	Add Cess @ 1% on "Z"				76.02
	Cost of each				7677.76
	Say				7677.75

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	460.00	1380.00
7361	P.V.C. automatic flushing cistern				
	10 lts capacity	each	1.00	510.00	510.00
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 gasket	L.S.	33.67	2.00	67.34
9999	Plugs ,screws etc.	L.S.	33.67	2.00	67.34
9999	Cement, sand and grit etc.	L.S.	33.67	2.00	67.34
9999	Painting of fittings etc.	L.S.	39.00	2.00	78.00
9977	Carriage of materials	L.S.	40.30	2.00	80.60
	LABOUR				
0116	Fitter (grade 1)	day	2.00	738.00	1476.00
0123	Mason (brick layer) 1st class	day	2.00	738.00	1476.00
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				7926.62 W
	Add 1 % Water charges on "W"				79.27
	TOTAL				8005.89 X
	Add GST on "X" (multiplying factor 0.1405)				1124.83
	TOTAL				9130.71 Y
	Add 15% CPOH on "Y"				1369.61
	TOTAL				10500.32 Z
	Add Cess @ 1% on "Z"				105.00
	Cost of each				10605.32
	Say				10605.30

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	460.00	1840.00
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	1.00	510.00	510.00
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 gasket	L.S.	53.82	2.00	107.64
9999	Plugs ,screws etc.	L.S.	53.82	2.00	107.64
9999	Cement, sand and grit etc.	L.S.	53.82	2.00	107.64
9999	Painting of fittings etc.	L.S.	39.00	2.00	78.00
9977	Carriage of materials	L.S.	53.82	2.00	107.64
	LABOUR				
0116	Fitter (grade 1)	day	3.00	738.00	2214.00
0123	Mason (brick layer) 1st class	day	3.00	738.00	2214.00
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				10948.56 W
	Add 1 % Water charges on "W"				109.49
	TOTAL				11058.05 X
	Add GST on "X" (multiplying factor 0.1405)				1553.66
	TOTAL				12611.70 Y
	Add 15% CPOH on "Y"				1891.76
	TOTAL				14503.46 Z
	Add Cess @ 1% on "Z"				145.03
	Cost of each				14648.49
	Say				14648.50

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	470.00	470.00
1532	Flush pipe with union spreaders and clamps all in C.P. brass for single stall	each	1.00	270.00	270.00
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	170.00	170.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Red lead, white lead and gasket	L.S.	17.55	2.00	35.10
9999	Cement, sand and grit etc.	L.S.	26.91	2.00	53.82
9999	Painting of fittings etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	40.43	2.00	80.86
	LABOUR				
0116	Fitter (grade 1)	day	1.75	738.00	1291.50
0123	Mason (brick layer) 1st class	day	2.00	738.00	1476.00
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				6996.28 W
	Add 1 % Water charges on "W"				69.96
	TOTAL				7066.24 X
	Add GST on "X" (multiplying factor 0.1405)				992.81
	TOTAL				8059.05 Y
	Add 15% CPOH on "Y"				1208.86
	TOTAL				9267.91 Z
	Add Cess @ 1% on "Z"				92.68
	Cost of each				9360.59
	Say				9360.60

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	470.00	470.00
1533	Flush pipe with union spreaders and clamps all in C.P. brass for double stall	each	1.00	400.00	400.00
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	170.00	170.00
9999	Red lead, white lead and gasket	L.S.	17.55	2.00	35.10
9999	Cement, sand and grit etc.	L.S.	53.82	2.00	107.64
9999	Painting of fittings etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	53.82	2.00	107.64
	LABOUR				
0116	Fitter (grade 1)	day	2.50	738.00	1845.00
0123	Mason (brick layer) 1st class	day	3.00	738.00	2214.00
0114	Beldar	day	6.00	558.00	3348.00
	TOTAL				10479.38 W
	Add 1 % Water charges on "W"				104.79
	TOTAL				10584.17 X
	Add GST on "X" (multiplying factor 0.1405)				1487.08
	TOTAL				12071.25 Y
	Add 15% CPOH on "Y"				1810.69
	TOTAL				13881.94 Z
	Add Cess @ 1% on "Z"				138.82
	Cost of each				14020.76
	Say				14020.75

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	510.00	510.00
1534	Flush pipe with union spreaders and clamps all in C.P. brass for range of three stall	each	1.00	520.00	520.00
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 gasket	L.S.	17.55	2.00	35.10
9999	Cement, sand and grit etc.	L.S.	80.73	2.00	161.46
9999	Painting of fittings etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	67.21	2.00	134.42
	LABOUR				
0116	Fitter (grade 1)	day	3.00	738.00	2214.00
0123	Mason (brick layer) 1st class	day	3.50	738.00	2583.00
0114	Beldar	day	7.00	558.00	3906.00
	TOTAL				12935.98 W
	Add 1 % Water charges on "W"				129.36
	TOTAL				13065.34 X
	Add GST on "X" (multiplying factor 0.1405)				1835.68
	TOTAL				14901.02 Y
	Add 15% CPOH on "Y"				2235.15
	TOTAL				17136.17 Z
	Add Cess @ 1% on "Z"				171.36
	Cost of each				17307.53
	Say				17307.55

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	510.00	510.00
1535	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall	each	1.00	600.00	600.00
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 gasket	L.S.	17.55	2.00	35.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Cement, sand and grit etc.	L.S.	107.64	2.00	215.28
9999	Painting of fittings etc.	L.S.	39.00	2.00	78.00
9977	Carriage of materials	L.S.	80.73	2.00	161.46
	LABOUR				
0116	Fitter (grade 1)	day	3.50	738.00	2583.00
0123	Mason (brick layer) 1st class	day	4.00	738.00	2952.00
0114	Beldar	day	8.00	558.00	4464.00
	TOTAL				15283.84 W
	Add 1 % Water charges on "W"				152.84
	TOTAL				15436.68 X
	Add GST on "X" (multiplying factor 0.1405)				2168.85
	TOTAL				17605.53 Y
	Add 15% CPOH on "Y"				2640.83
	TOTAL				20246.36 Z
	Add Cess @ 1% on "Z"				202.46
	Cost of each				20448.83
	Say				20448.85

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	470.00	470.00
1540	Flush pipe and spreaders G.I.for single set of one squatting plate urinal	each	1.00	175.00	175.00
9999	Red lead, white lead and gasket	L.S.	17.55	2.00	35.10
9999	Cement, sand and grit etc.	L.S.	26.91	2.00	53.82
9999	Painting of fittings etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	1.75	738.00	1291.50
0123	Mason (brick layer) 1st class	day	0.75	738.00	553.50
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				5411.74 W
	Add 1 % Water charges on "W"				54.12
	TOTAL				5465.86 X
	Add GST on "X" (multiplying factor 0.1405)				767.95
	TOTAL				6233.81 Y
	Add 15% CPOH on "Y"				935.07
	TOTAL				7168.88 Z
	Add Cess @ 1% on "Z"				71.69
	Cost of each				7240.57
	Say				7240.55

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	470.00	470.00
1541	Flush pipe and spreaders G.I.for range of two squatting plates urinal	each	1.00	250.00	250.00
9999	Red lead, white lead and gasket	L.S.	17.55	2.00	35.10
9999	Cement, sand and grit etc.	L.S.	53.82	2.00	107.64
9999	Painting of fittings etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	33.15	2.00	66.30
	LABOUR				
0116	Fitter (grade 1)	day	2.50	738.00	1845.00
0123	Mason (brick layer) 1st class	day	1.00	738.00	738.00
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				7902.04 W
	Add 1 % Water charges on "W"				79.02
	TOTAL				7981.06 X
	Add GST on "X" (multiplying factor 0.1405)				1121.34
	TOTAL				9102.40 Y
	Add 15% CPOH on "Y"				1365.36
	TOTAL				10467.76 Z
	Add Cess @ 1% on "Z"				104.68
	Cost of each				10572.44
	Say				10572.45

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	510.00	510.00
1542	Flush pipe and spreaders G.I.for range of three squatting plates urinal	each	1.00	300.00	300.00
9999	Red lead, white lead and gasket	L.S.	17.55	2.00	35.10
9999	Cement, sand and grit etc.	L.S.	80.73	2.00	161.46
9999	Painting of fittings etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	42.12	2.00	84.24
	LABOUR				
0116	Fitter (grade 1)	day	3.00	738.00	2214.00
0123	Mason (brick layer) 1st class	day	1.50	738.00	1107.00
0114	Beldar	day	5.00	558.00	2790.00
	TOTAL				10412.80 W
	Add 1 % Water charges on "W"				104.13
	TOTAL				10516.93 X
	Add GST on "X" (multiplying factor 0.1405)				1477.63
	TOTAL				11994.56 Y
	Add 15% CPOH on "Y"				1799.18
	TOTAL				13793.74 Z
	Add Cess @ 1% on "Z"				137.94
	Cost of each				13931.68
	Say				13931.70

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	510.00	510.00
1543	Flush pipe and spreaders G.I.for range				
	of four squatting plates urinal	each	1.00	390.00	390.00
9999	Red lead, white lead and gasket	L.S.	17.55	2.00	35.10
9999	Cement, sand and grit etc.	L.S.	107.64	2.00	215.28
9999	Painting of fittings etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	69.03	2.00	138.06
	LABOUR				
0116	Fitter (grade 1)	day	3.50	738.00	2583.00
0123	Mason (brick layer) 1st class	day	1.75	738.00	1291.50
0114	Beldar	day	5.50	558.00	3069.00
	TOTAL				12495.94 W
	Add 1 % Water charges on "W"				124.96
	TOTAL				12620.90 X
	Add GST on "X" (multiplying factor 0.1405)				1773.24
	TOTAL				14394.14 Y
	Add 15% CPOH on "Y"				2159.12
	TOTAL				16553.26 Z
	Add Cess @ 1% on "Z"				165.53
	Cost of each				16718.79
	Say				16718.80

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	207.00	414.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.67	558.00	373.86
	TOTAL				2307.82 W
	Add 1 % Water charges on "W"				23.08
	TOTAL				2330.90 X
	Add GST on "X" (multiplying factor 0.1405)				327.49
	TOTAL				2658.39 Y
	Add 15% CPOH on "Y"				398.76
	TOTAL				3057.15 Z
	Add Cess @ 1% on "Z"				30.57
	Cost of each				3087.72
	Say				3087.70

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	207.00	207.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				2056.36 W
	Add 1 % Water charges on "W"				20.56
	TOTAL				2076.92 X
	Add GST on "X" (multiplying factor 0.1405)				291.81
	TOTAL				2368.73 Y
	Add 15% CPOH on "Y"				355.31
	TOTAL				2724.04 Z
	Add Cess @ 1% on "Z"				27.24
	Cost of each				2751.28
	Say				2751.30

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	545.00	545.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1885	15 mm C.P.brass tap	each	2.00	207.00	414.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.67	558.00	373.86
	TOTAL				2127.82 W
	Add 1 % Water charges on "W"				21.28
	TOTAL				2149.10 X
	Add GST on "X" (multiplying factor 0.1405)				301.95
	TOTAL				2451.05 Y
	Add 15% CPOH on "Y"				367.66
	TOTAL				2818.70 Z
	Add Cess @ 1% on "Z"				28.19
	Cost of each				2846.89
	Say				2846.90

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	545.00	545.00
1885	15 mm C.P.brass tap	each	1.00	207.00	207.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				1876.36 W
	Add 1 % Water charges on "W"				18.76
	TOTAL				1895.12 X
	Add GST on "X" (multiplying factor 0.1405)				266.26
	TOTAL				2161.39 Y
	Add 15% CPOH on "Y"				324.21
	TOTAL				2485.60 Z
	Add Cess @ 1% on "Z"				24.86
	Cost of each				2510.45
	Say				2510.45

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	207.00	207.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				2056.36 W
	Add 1 % Water charges on "W"				20.56
	TOTAL				2076.92 X
	Add GST on "X" (multiplying factor 0.1405)				291.81
	TOTAL				2368.73 Y
	Add 15% CPOH on "Y"				355.31
	TOTAL				2724.04 Z
	Add Cess @ 1% on "Z"				27.24
	Cost of each				2751.28
	Say				2751.30

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	207.00	207.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				1756.36 W
	Add 1 % Water charges on "W"				17.56
	TOTAL				1773.92 X
	Add GST on "X" (multiplying factor 0.1405)				249.24
	TOTAL				2023.16 Y
	Add 15% CPOH on "Y"				303.47
	TOTAL				2326.63 Z
	Add Cess @ 1% on "Z"				23.27
	Cost of each				2349.90
	Say				2349.90

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 ₹
7004	Details of cost for one no. MATERIAL				
	Vitreous china flat back wash basin 450x300 mm	each	1.00	310.00	310.00
1885	15 mm C.P.brass tap	each	1.00	207.00	207.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				1641.36 W
	Add 1 % Water charges on "W"				16.41
	TOTAL				1657.77 X
	Add GST on "X" (multiplying factor 0.1405)				232.92
	TOTAL				1890.69 Y
	Add 15% CPOH on "Y"				283.60
	TOTAL				2174.29 Z
	Add Cess @ 1% on "Z"				21.74
	Cost of each				2196.04
	Say				2196.05

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 ₹
3213	Details of cost for one no. MATERIAL				
	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1000.00	1000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.67	558.00	373.86
	TOTAL				3028.82 W
	Add 1 % Water charges on "W"				30.29
	TOTAL				3059.11 X
	Add GST on "X" (multiplying factor 0.1405)				429.80
	TOTAL				3488.91 Y
	Add 15% CPOH on "Y"				523.34
	TOTAL				4012.25 Z
	Add Cess @ 1% on "Z"				40.12
	Cost of each				4052.37
	Say				4052.35

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	1000.00	1000.00
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	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				2554.36 W
	Add 1 % Water charges on "W"				25.54
	TOTAL				2579.90 X
	Add GST on "X" (multiplying factor 0.1405)				362.48
	TOTAL				2942.38 Y
	Add 15% CPOH on "Y"				441.36
	TOTAL				3383.74 Z
	Add Cess @ 1% on "Z"				33.84
	Cost of each				3417.57
	Say				3417.55

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	207.00	207.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				2831.36 W
	Add 1 % Water charges on "W"				28.31
	TOTAL				2859.67 X
	Add GST on "X" (multiplying factor 0.1405)				401.78
	TOTAL				3261.46 Y
	Add 15% CPOH on "Y"				489.22
	TOTAL				3750.68 Z
	Add Cess @ 1% on "Z"				37.51
	Cost of each				3788.18
	Say				3788.20

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	207.00	207.00
1951	C.P. brass waste 32 mm	each	1.00	80.00	80.00
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	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				3331.36 W
	Add 1 % Water charges on "W"				33.31
	TOTAL				3364.67 X
	Add GST on "X" (multiplying factor 0.1405)				472.74
	TOTAL				3837.41 Y
	Add 15% CPOH on "Y"				575.61
	TOTAL				4413.02 Z
	Add Cess @ 1% on "Z"				44.13
	Cost of each				4457.15
	Say				4457.15

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	545.00	545.00
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	80.00	80.00
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	2.00	32.24
9999	Cement, Sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.63	558.00	351.54
	TOTAL				3291.50 W
	Add 1 % Water charges on "W"				32.92
	TOTAL				3324.42 X
	Add GST on "X" (multiplying factor 0.1405)				467.08
	TOTAL				3791.50 Y
	Add 15% CPOH on "Y"				568.72
	TOTAL				4360.22 Z
	Add Cess @ 1% on "Z"				43.60
	Cost of each				4403.82
	Say				4403.80

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	545.00	545.00
7406	PTMT pillar cock	each	1.00	125.00	125.00
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	2.00	32.24
9999	Cement, sand and grit etc	L.S.	13.39	2.00	26.78
9999	Painting of brackets, fittings etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.67	558.00	373.86
	TOTAL				1792.82 W
	Add 1 % Water charges on "W"				17.93
	TOTAL				1810.75 X
	Add GST on "X" (multiplying factor 0.1405)				254.41
	TOTAL				2065.16 Y
	Add 15% CPOH on "Y"				309.77
	TOTAL				2374.93 Z
	Add Cess @ 1% on "Z"				23.75
	Cost of each				2398.68
	Say				2398.70

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	Vitreous china pedestal for wash basin	each	1.00	900.00	900.00
9999	White cement mortar	L.S.	40.30	2.00	80.60
9988	Carriage of materials and fixing charges	L.S.	40.43	2.00	80.86
	TOTAL				1061.46 W
	Add 1 % Water charges on "W"				10.61
	TOTAL				1072.07 X
	Add GST on "X" (multiplying factor 0.1405)				150.63
	TOTAL				1222.70 Y
	Add 15% CPOH on "Y"				183.41
	TOTAL				1406.11 Z
	Add Cess @ 1% on "Z"				14.06
	Cost of each				1420.17
	Say				1420.15

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: 600x450x250 mm	each	1.00	1283.00	1283.00
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	95.00	95.00
9999	Red lead, white lead and gasket	L.S.	16.12	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Painting brackets etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.56	558.00	312.48
	TOTAL				2364.26 W
	Add 1 % Water charges on "W"				23.64
	TOTAL				2387.90 X
	Add GST on "X" (multiplying factor 0.1405)				335.50
	TOTAL				2723.40 Y
	Add 15% CPOH on "Y"				408.51
	TOTAL				3131.91 Z
	Add Cess @ 1% on "Z"				31.32
	Cost of each				3163.23
	Say				3163.25

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	2480.00	2480.00
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	2.00	54.08
9999	Painting of brackets etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.60	738.00	442.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.82	558.00	457.56
	TOTAL				3853.66 W
	Add 1 % Water charges on "W"				38.54
	TOTAL				3892.20 X
	Add GST on "X" (multiplying factor 0.1405)				546.85
	TOTAL				4439.05 Y
	Add 15% CPOH on "Y"				665.86
	TOTAL				5104.91 Z
	Add Cess @ 1% on "Z"				51.05
	Cost of each				5155.96
	Say				5155.95

17.10.1.2 510x1040 mm bowl depth 225 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7096	Details of cost for one no. MATERIAL Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 225 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	2.00	54.08
9999	Painting of brackets etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.60	738.00	442.80
0114	Beldar	day	0.82	558.00	457.56
	TOTAL				4373.66 W
	Add 1 % Water charges on "W"				43.74
	TOTAL				4417.40 X
	Add GST on "X" (multiplying factor 0.1405)				620.64
	TOTAL				5038.04 Y
	Add 15% CPOH on "Y"				755.71
	TOTAL				5793.75 Z
	Add Cess @ 1% on "Z"				57.94
	Cost of each				5851.68
	Say				5851.70

17.10.1.3 510x1040 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7097	Details of cost for one no. MATERIAL Stainlees steel kitchen sink - with drain board 510 x 1040mm bowl depth 200 mm.	each	1.00	2800.00	2800.00
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	2.00	54.08
9999	Painting of brackets etc.	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.60	738.00	442.80
0114	Beldar	day	0.82	558.00	457.56
	TOTAL				4173.66 W
	Add 1 % Water charges on "W"				41.74
	TOTAL				4215.40 X
	Add GST on "X" (multiplying factor 0.1405)				592.26
	TOTAL				4807.66 Y
	Add 15% CPOH on "Y"				721.15
	TOTAL				5528.81 Z
	Add Cess @ 1% on "Z"				55.29
	Cost of each				5584.10
	Say				5584.10

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	2500.00	2500.00
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	2.00	54.08
9999	Painting brackets	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.60	738.00	442.80
0114	Beldar	day	0.82	558.00	457.56
	TOTAL				3873.66 W
	Add 1 % Water charges on "W"				38.74
	TOTAL				3912.40 X
	Add GST on "X" (multiplying factor 0.1405)				549.69
	TOTAL				4462.09 Y
	Add 15% CPOH on "Y"				669.31
	TOTAL				5131.40 Z
	Add Cess @ 1% on "Z"				51.31
	Cost of each				5182.72
	Say				5182.70

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	1800.00	1800.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	2.00	27.04
9999	Painting brackets	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.56	558.00	312.48
	TOTAL				2714.28 W
	Add 1 % Water charges on "W"				27.14
	TOTAL				2741.42 X
	Add GST on "X" (multiplying factor 0.1405)				385.17
	TOTAL				3126.59 Y
	Add 15% CPOH on "Y"				468.99
	TOTAL				3595.58 Z
	Add Cess @ 1% on "Z"				35.96
	Cost of each				3631.54
	Say				3631.55

17.10.2.2 610x460 mm bowl depth 200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7102	Details of cost for one no. MATERIAL				
	Stainless steel kitchen sink - without drain board 610x460mm bowl depth 200 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	2.00	27.04
9999	Painting brackets	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.56	558.00	312.48
	TOTAL				2114.28 W
	Add 1 % Water charges on "W"				21.14
	TOTAL				2135.42 X
	Add GST on "X" (multiplying factor 0.1405)				300.03
	TOTAL				2435.45 Y
	Add 15% CPOH on "Y"				365.32
	TOTAL				2800.77 Z
	Add Cess @ 1% on "Z"				28.01
	Cost of each				2828.77
	Say				2828.75

17.10.2.3 470x420 mm bowl depth 178 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7103	Details of cost for one no. MATERIAL Stainless steel kitchen sink - without drain board 470x420mm bowl depth 178 mm	each	1.00	1050.00	1050.00
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	2.00	27.04
9999	Painting brackets	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.56	558.00	312.48
	TOTAL				1964.28 W
	Add 1 % Water charges on "W"				19.64
	TOTAL				1983.92 X
	Add GST on "X" (multiplying factor 0.1405)				278.74
	TOTAL				2262.66 Y
	Add 15% CPOH on "Y"				339.40
	TOTAL				2602.06 Z
	Add Cess @ 1% on "Z"				26.02
	Cost of each				2628.08
	Say				2628.10

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 laboratory 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	95.00	95.00
1895	C.P.brass trap 40 mm dia	each	1.00	300.00	300.00
3617	C.P.brass union 40 mm dia	each	1.00	200.00	200.00
9999	Red lead, white lead and gasket	L.S.	16.12	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Sundries	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.56	558.00	312.48
	TOTAL				3081.26 W
	Add 1 % Water charges on "W"				30.81
	TOTAL				3112.07 X
	Add GST on "X" (multiplying factor 0.1405)				437.25
	TOTAL				3549.32 Y
	Add 15% CPOH on "Y"				532.40
	TOTAL				4081.72 Z
	Add Cess @ 1% on "Z"				40.82
	Cost of each				4122.53
	Say				4122.55

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	95.00	95.00
1895	C.P.brass trap40 mm dia	each	1.00	300.00	300.00
3617	C.P.brass union 40 mm dia	each	1.00	200.00	200.00
9999	Red lead, white lead and gaskit	L.S.	16.12	2.00	32.24
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9999	Sundries	L.S.	26.91	2.00	53.82
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0114	Beldar	day	0.56	558.00	312.48
	TOTAL				4081.26 W
	Add 1 % Water charges on "W"				40.81
	TOTAL				4122.07 X
	Add GST on "X" (multiplying factor 0.1405)				579.15
	TOTAL				4701.22 Y
	Add 15% CPOH on "Y"				705.18
	TOTAL				5406.41 Z
	Add Cess @ 1% on "Z"				54.06
	Cost of each				5460.47
	Say				5460.45

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	525.00	525.00
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	2.00	26.78
9999	Painting brackets etc.	L.S.	26.00	2.00	52.00
9977	Carriage of materials	L.S.	7.80	2.00	15.60
	LABOUR				
0116	Fitter (grade 1)	day	0.06	738.00	44.28
0123	Mason (brick layer) 1st class	day	0.17	738.00	125.46
0114	Beldar	day	0.22	558.00	122.76
	TOTAL				999.88 W
	Add 1 % Water charges on "W"				10.00
	TOTAL				1009.88 X
	Add GST on "X" (multiplying factor 0.1405)				141.89
	TOTAL				1151.77 Y
	Add 15% CPOH on "Y"				172.77
	TOTAL				1324.53 Z
	Add Cess @ 1% on "Z"				13.25
	Cost of each				1337.78
	Say				1337.80

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	450.00	450.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				1151.82 W
	Add 1 % Water charges on "W"				11.52
	TOTAL				1163.34 X
	Add GST on "X" (multiplying factor 0.1405)				163.45
	TOTAL				1326.79 Y
	Add 15% CPOH on "Y"				199.02
	TOTAL				1525.81 Z
	Add Cess @ 1% on "Z"				15.26
	Cost of each				1541.06
	Say				1541.05

17.13.2 Orissa pattern W.C. pan of size 580x440 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1954	Details of cost for one no. MATERIAL Vitreous china orrisa type w.c. pan size 580 mm	each	1.00	1200.00	1200.00
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9977	Carriage of materials LABOUR	L.S.	13.52	2.00	27.04
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				1901.82 W
	Add 1 % Water charges on "W"				19.02
	TOTAL				1920.84 X
	Add GST on "X" (multiplying factor 0.1405)				269.88
	TOTAL				2190.72 Y
	Add 15% CPOH on "Y"				328.61
	TOTAL				2519.32 Z
	Add Cess @ 1% on "Z"				25.19
	Cost of each				2544.52
	Say				2544.50

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 ₹
7104	Details of cost for one no. MATERIAL Difference in cost of Coloured Orissa pattern W.C. pan 580x440 mm	each	1.00	1830.00	1830.00
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	-1.00	1200.00	-1200.00
	TOTAL				630.00 W
	Add 1 % Water charges on "W"				6.30
	TOTAL				636.30 X
	Add GST on "X" (multiplying factor 0.1405)				89.40
	TOTAL				725.70 Y
	Add 15% CPOH on "Y"				108.86
	TOTAL				834.56 Z
	Add Cess @ 1% on "Z"				8.35
	Cost of each				842.90
	Say				842.90

17.15 Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1955	Details of cost for one no. MATERIAL Vitreous china pedestal type water closet	each	1.00	1000.00	1000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Cement, sand and grit etc.	L.S.	13.39	2.00	26.78
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				1701.82 W
	Add 1 % Water charges on "W"				17.02
	TOTAL				1718.84 X
	Add GST on "X" (multiplying factor 0.1405)				241.50
	TOTAL				1960.33 Y
	Add 15% CPOH on "Y"				294.05
	TOTAL				2254.39 Z
	Add Cess @ 1% on "Z"				22.54
	Cost of each				2276.93
	Say				2276.95

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	860.00	860.00
	Deduct				
1955	Vitreous china pedestal type water closet	each	-1.00	1000.00	-1000.00
7106	Coloured Vitreous china 10 lit. low level cistern	each	1.00	1050.00	1050.00
	Deduct				
7005	Vitreous china 10 litres low level cistern without fittings	each	-1.00	715.00	-715.00
	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 each				260.90
	Say				260.90

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 European type W.C. of quality and make as approved by Engineer - in - charge.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1313	Details of cost for 1 No. 8 mm dia C.P. Brass/ S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate for European 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	2.00	22.40
	TOTAL				222.40 W
	Add 1 % Water charges on "W"				2.22
	TOTAL				224.62 X
	Add GST on "X" (multiplying factor 0.1405)				31.56
	TOTAL				256.18 Y
	Add 15% CPOH on "Y"				38.43
	TOTAL				294.61 Z
	Add Cess @ 1% on "Z"				2.95
	Cost of each				297.56
	Say				297.55

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 ₹
1363	Details of cost for one pair MATERIAL Vitreous china foot rests 250x130x30 mm	pair	1.00	100.00	100.00
9988	Cement, sand including carriage of materials	L.S.	8.06	2.00	16.12
0123	LABOUR Mason (brick layer) 1st class	day	0.06	738.00	44.28
	TOTAL				160.40 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				162.00 X
	Add GST on "X" (multiplying factor 0.1405)				22.76
	TOTAL				184.77 Y
	Add 15% CPOH on "Y"				27.71
	TOTAL				212.48 Z
	Add Cess @ 1% on "Z"				2.12
	Cost for 1 pair				214.61
	Say				214.60

17.17.2 250x125x25 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1970	Details of cost for one pair MATERIAL Vitreous china foot rests 250x125x25 mm	pair	1.00	100.00	100.00
9988	Cement, sand including carriage of materials	L.S.	8.06	2.00	16.12
0123	LABOUR Mason (brick layer) 1st class	day	0.06	738.00	44.28
	TOTAL				160.40 W
	Add 1 % Water charges on "W"				1.60
	TOTAL				162.00 X
	Add GST on "X" (multiplying factor 0.1405)				22.76
	TOTAL				184.77 Y
	Add 15% CPOH on "Y"				27.71
	TOTAL				212.48 Z
	Add Cess @ 1% on "Z"				2.12
	Cost for 1 pair				214.61
	Say				214.60

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 ₹
7358	Details of cost for one no. MATERIAL 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	2.00	10.40
	LABOUR (Considering 1 fitter and 1 beldar can fix 8 cistern in one day)				
0116	Fitter (grade 1)	day	0.125	738.00	92.25
0114	Beldar	day	0.125	558.00	69.75
	TOTAL				747.40 W
	Add 1 % Water charges on "W"				7.47
	TOTAL				754.87 X
	Add GST on "X" (multiplying factor 0.1405)				106.06
	TOTAL				860.93 Y
	Add 15% CPOH on "Y"				129.14
	TOTAL				990.07 Z
	Add Cess @ 1% on "Z"				9.90
	Cost of each				999.97
	Say				999.95

17.18.2 10 litre capacity - coloured

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7123	Details of cost for one no. MATERIAL 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 LABOUR (Considering 1 fitter and 1 beldar can fix 8 cistern in one day)	L.S.	7.02	2.00	14.04
0116	Fitter (grade 1)	day	0.125	738.00	92.25
0114	Beldar	day	0.125	558.00	69.75
	TOTAL				726.04 W
	Add 1 % Water charges on "W"				7.26
	TOTAL				733.30 X
	Add GST on "X" (multiplying factor 0.1405)				103.03
	TOTAL				836.33 Y
	Add 15% CPOH on "Y"				125.45
	TOTAL				961.78 Z
	Add Cess @ 1% on "Z"				9.62
	Cost of each				971.40
	Say				971.40

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 ₹
7126	Details of cost for one no. MATERIAL 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 LABOUR	L.S.	13.52	2.00	27.04
0116	Fitter (grade 1)	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				1375.04 W
	Add 1 % Water charges on "W"				13.75
	TOTAL				1388.79 X
	Add GST on "X" (multiplying factor 0.1405)				195.13
	TOTAL				1583.92 Y
	Add 15% CPOH on "Y"				237.59
	TOTAL				1821.50 Z
	Add Cess @ 1% on "Z"				18.22
	Cost of each				1839.72
	Say				1839.70

17.19.2 10 litre (full flush) capacity-coloured

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7127	Details of cost for one no. MATERIAL 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 LABOUR	L.S.	13.52	2.00	27.04
0116	Fitter (grade 1)	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				1825.04 W
	Add 1 % Water charges on "W"				18.25
	TOTAL				1843.29 X
	Add GST on "X" (multiplying factor 0.1405)				258.98
	TOTAL				2102.27 Y
	Add 15% CPOH on "Y"				315.34
	TOTAL				2417.61 Z
	Add Cess @ 1% on "Z"				24.18
	Cost of each				2441.79
	Say				2441.80

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 ₹
1875	Details of cost for one no. MATERIAL White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	400.00	400.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.00	26.78
	TOTAL				426.78 W
	Add 1 % Water charges on "W"				4.27
	TOTAL				431.05 X
	Add GST on "X" (multiplying factor 0.1405)				60.56
	TOTAL				491.61 Y
	Add 15% CPOH on "Y"				73.74
	TOTAL				565.35 Z
	Add Cess @ 1% on "Z"				5.65
	Cost of each				571.01
	Say				571.00

17.20.2 Black solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1876	Details of cost for one no. MATERIAL Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	1.00	310.00	310.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.39	2.00	26.78
	TOTAL				336.78 W
	Add 1 % Water charges on "W"				3.37
	TOTAL				340.15 X
	Add GST on "X" (multiplying factor 0.1405)				47.79
	TOTAL				387.94 Y
	Add 15% CPOH on "Y"				58.19
	TOTAL				446.13 Z
	Add Cess @ 1% on "Z"				4.46
	Cost of each				450.59
	Say				450.60

17.20.3 Coloured (other than black & white) solid plastic seat with lid

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7107	Details of cost for one no. MATERIAL Difference in cost of Coloured (other than black) solid P.V.C. seat in European W.C. pan	each	1.00	390.00	390.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.00	26.78
	TOTAL				416.78 W
	Add 1 % Water charges on "W"				4.17
	TOTAL				420.95 X
	Add GST on "X" (multiplying factor 0.1405)				59.14
	TOTAL				480.09 Y
	Add 15% CPOH on "Y"				72.01
	TOTAL				552.10 Z
	Add Cess @ 1% on "Z"				5.52
	Cost of each				557.63
	Say				557.65

17.22 Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1614	Details of cost for one no. MATERIAL G.I. inlet connection	each	1.00	60.00	60.00
9988	Carriage of materials and fixing charges	L.S.	13.39	2.00	26.78
	TOTAL				86.78 W
	Add 1 % Water charges on "W"				0.87
	TOTAL				87.65 X
	Add GST on "X" (multiplying factor 0.1405)				12.31
	TOTAL				99.96 Y
	Add 15% CPOH on "Y"				14.99
	TOTAL				114.96 Z
	Add Cess @ 1% on "Z"				1.15
	Cost of each				116.11
	Say				116.10

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 ₹
7121	Details of cost for 1 no. MATERIAL				
	Bottle Trap	each	1.00	620.00	620.00
9988	Carriage and sundries	L.S.	20.00	2.00	40.00
	TOTAL				660.00 W
	Add 1 % Water charges on "W"				6.60
	TOTAL				666.60 X
	Add GST on "X" (multiplying factor 0.1405)				93.66
	TOTAL				760.26 Y
	Add 15% CPOH on "Y"				114.04
	TOTAL				874.30 Z
	Add Cess @ 1% on "Z"				8.74
	Cost of each				883.04
	Say				883.05

**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 ₹
7122	Details of cost for 1 no. MATERIAL				
	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	2.00	69.42
	TOTAL				4569.42 W
	Add 1 % Water charges on "W"				45.69
	TOTAL				4615.11 X
	Add GST on "X" (multiplying factor 0.1405)				648.42
	TOTAL				5263.54 Y
	Add 15% CPOH on "Y"				789.53
	TOTAL				6053.07 Z
	Add Cess @ 1% on "Z"				60.53
	Cost of each				6113.60
	Say				6113.60

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 ₹
1913	Details of cost for one no. MATERIAL				
	Vitreous china lipped front urinal	each	1.00	460.00	460.00
9977	Carriage of materials	L.S.	9.49	2.00	18.98
0116	LABOUR				
	Fitter (grade 1)	day	0.38	738.00	280.44

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.38	558.00	212.04
	TOTAL				971.46 W
	Add 1 % Water charges on "W"				9.71
	TOTAL				981.17 X
	Add GST on "X" (multiplying factor 0.1405)				137.86
	TOTAL				1119.03 Y
	Add 15% CPOH on "Y"				167.85
	TOTAL				1286.88 Z
	Add Cess @ 1% on "Z"				12.87
	Cost of each				1299.75
	Say				1299.75

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
9999	Cement, sand and grit etc.	L.S.	10.79	2.00	21.58
9977	Carriage of materials	L.S.	13.39	2.00	26.78
	LABOUR				
0116	Fitter (grade 1)	day	0.50	738.00	369.00
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				2397.36 W
	Add 1 % Water charges on "W"				23.97
	TOTAL				2421.33 X
	Add GST on "X" (multiplying factor 0.1405)				340.20
	TOTAL				2761.53 Y
	Add 15% CPOH on "Y"				414.23
	TOTAL				3175.76 Z
	Add Cess @ 1% on "Z"				31.76
	Cost of each				3207.52
	Say				3207.50

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	2.00	107.64

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	TOTAL				851.62 W
	Add 1 % Water charges on "W"				8.52
	TOTAL				860.14 X
	Add GST on "X" (multiplying factor 0.1405)				120.85
	TOTAL				980.99 Y
	Add 15% CPOH on "Y"				147.15
	TOTAL				1128.13 Z
	Add Cess @ 1% on "Z"				11.28
	Cost of each				1139.41
	Say				1139.40

17.25.2 Flat back wash basin of size 550x400 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3229	Details of cost for one no. MATERIAL				
	Vitreous china flat back wash basin 550x400 mm	each	1.00	545.00	545.00
9999	Fixing charges	L.S.	53.82	2.00	107.64
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	TOTAL				671.62 W
	Add 1 % Water charges on "W"				6.72
	TOTAL				678.34 X
	Add GST on "X" (multiplying factor 0.1405)				95.31
	TOTAL				773.64 Y
	Add 15% CPOH on "Y"				116.05
	TOTAL				889.69 Z
	Add Cess @ 1% on "Z"				8.90
	Cost of each				898.59
	Say				898.60

17.25.3 Angle back wash basin of size 600x480 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1949	Details of cost for one no. MATERIAL				
	Vitreous china angle back wash basin 600x480 mm	each	1.00	725.00	725.00
9999	Fixing charges	L.S.	53.82	2.00	107.64
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	TOTAL				851.62 W
	Add 1 % Water charges on "W"				8.52
	TOTAL				860.14 X
	Add GST on "X" (multiplying factor 0.1405)				120.85
	TOTAL				980.99 Y
	Add 15% CPOH on "Y"				147.15
	TOTAL				1128.13 Z
	Add Cess @ 1% on "Z"				11.28
	Cost of each				1139.41
	Say				1139.40

17.25.3 Angle back wash basin of size 600x480 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1949	Details of cost for one no. MATERIAL Vitreous china angle back wash basin 600x480 mm	each	1.00	725.00	725.00
9999	Fixing charges	L.S.	53.82	2.00	107.64
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	TOTAL				851.62 W
	Add 1 % Water charges on "W"				8.52
	TOTAL				860.14 X
	Add GST on "X" (multiplying factor 0.1405)				120.85
	TOTAL				980.99 Y
	Add 15% CPOH on "Y"				147.15
	TOTAL				1128.13 Z
	Add Cess @ 1% on "Z"				11.28
	Cost of each				1139.41
	Say				1139.40

17.25.4 Angle back wash basin of size 400x400 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1950	Details of cost for one no. MATERIAL Vitreous china angle back wash basin 400x400 mm	each	1.00	425.00	425.00
9999	Fixing charges	L.S.	53.82	2.00	107.64
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	TOTAL				551.62 W
	Add 1 % Water charges on "W"				5.52
	TOTAL				557.14 X
	Add GST on "X" (multiplying factor 0.1405)				78.28
	TOTAL				635.41 Y
	Add 15% CPOH on "Y"				95.31
	TOTAL				730.73 Z
	Add Cess @ 1% on "Z"				7.31
	Cost of each				738.03
	Say				738.05

17.25.5 Flat back wash basin of size 450x300 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7004	Details of cost for one no. MATERIAL Vitreous china flat back wash basin 450x300 mm	each	1.00	310.00	310.00
9999	Fixing charges	L.S.	53.82	2.00	107.64

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	TOTAL				436.62 W
	Add 1 % Water charges on "W"				4.37
	TOTAL				440.99 X
	Add GST on "X" (multiplying factor 0.1405)				61.96
	TOTAL				502.94 Y
	Add 15% CPOH on "Y"				75.44
	TOTAL				578.39 Z
	Add Cess @ 1% on "Z"				5.78
	Cost of each				584.17
	Say				584.15

17.25.6 Surgeon type wash basin of size 660x460 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3213	Details of cost for one no. MATERIAL				
	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1.00	1000.00	1000.00
9999	Fixing charges	L.S.	53.82	2.00	107.64
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	TOTAL				1126.62 W
	Add 1 % Water charges on "W"				11.27
	TOTAL				1137.89 X
	Add GST on "X" (multiplying factor 0.1405)				159.87
	TOTAL				1297.76 Y
	Add 15% CPOH on "Y"				194.66
	TOTAL				1492.42 Z
	Add Cess @ 1% on "Z"				14.92
	Cost of each				1507.35
	Say				1507.35

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 ₹
1863	Details of cost for one no. MATERIAL				
	Fire clay kitchen sink: 600x450x250 mm	each	1.00	1283.00	1283.00
9999	Fixing charges	L.S.	40.43	2.00	80.86
9977	Carriage of materials	L.S.	10.79	2.00	21.58
	TOTAL				1385.44 W
	Add 1 % Water charges on "W"				13.85
	TOTAL				1399.29 X
	Add GST on "X" (multiplying factor 0.1405)				196.60
	TOTAL				1595.90 Y
	Add 15% CPOH on "Y"				239.38
	TOTAL				1835.28 Z
	Add Cess @ 1% on "Z"				18.35
	Cost of each				1853.63
	Say				1853.65

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 ₹
1871	Details of cost for one no. MATERIAL White vitreous china laboratory sink 450x300x150 mm	each	1.00	1500.00	1500.00
9999	Fixing charges	L.S.	40.43	2.00	80.86
9977	Carriage of materials	L.S.	10.79	2.00	21.58
	TOTAL				1602.44 W
	Add 1 % Water charges on "W"				16.02
	TOTAL				1618.46 X
	Add GST on "X" (multiplying factor 0.1405)				227.39
	TOTAL				1845.86 Y
	Add 15% CPOH on "Y"				276.88
	TOTAL				2122.74 Z
	Add Cess @ 1% on "Z"				21.23
	Cost of each				2143.96
	Say				2143.95

17.27.2 Size 600x450x200 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1872	Details of cost for one no. MATERIAL White vitreous china laboratory sink 600x450x200 mm	each	1.00	2500.00	2500.00
9999	Fixing charges	L.S.	40.43	2.00	80.86
9977	Carriage of materials	L.S.	10.79	2.00	21.58
	TOTAL				2602.44 W
	Add 1 % Water charges on "W"				26.02
	TOTAL				2628.46 X
	Add GST on "X" (multiplying factor 0.1405)				369.30
	TOTAL				2997.76 Y
	Add 15% CPOH on "Y"				449.66
	TOTAL				3447.43 Z
	Add Cess @ 1% on "Z"				34.47
	Cost of each				3481.90
	Say				3481.90

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	2.00	40.56
	TOTAL				65.56 W
	Add 1 % Water charges on "W"				0.66
	TOTAL				66.22 X
	Add GST on "X" (multiplying factor 0.1405)				9.30
	TOTAL				75.52 Y
	Add 15% CPOH on "Y"				11.33
	TOTAL				86.85 Z
	Add Cess @ 1% on "Z"				0.87
	Cost of each				87.72
	Say				87.70

17.28.1.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7118	Details of cost for one no. MATERIAL 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
9988	Carriage of materials and fixing charges	L.S.	20.28	2.00	40.56
	TOTAL				73.56 W
	Add 1 % Water charges on "W"				0.74
	TOTAL				74.30 X
	Add GST on "X" (multiplying factor 0.1405)				10.44
	TOTAL				84.73 Y
	Add 15% CPOH on "Y"				12.71
	TOTAL				97.44 Z
	Add Cess @ 1% on "Z"				0.97
	Cost of each				98.42
	Say				98.40

17.28.2 Flexible pipe

17.28.2.1 32 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7119	Details of cost for one no. MATERIAL 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	20.28	2.00	40.56
	TOTAL				75.56 W
	Add 1 % Water charges on "W"				0.76
	TOTAL				76.32 X
	Add GST on "X" (multiplying factor 0.1405)				10.72
	TOTAL				87.04 Y
	Add 15% CPOH on "Y"				13.06
	TOTAL				100.09 Z
	Add Cess @ 1% on "Z"				1.00
	Cost of each				101.09
	Say				101.10

17.28.2.2 40 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7120	Details of cost for one no. MATERIAL 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
9988	Carriage of materials and fixing charges	L.S.	20.28	2.00	40.56
	TOTAL				75.56 W
	Add 1 % Water charges on "W"				0.76
	TOTAL				76.32 X
	Add GST on "X" (multiplying factor 0.1405)				10.72
	TOTAL				87.04 Y
	Add 15% CPOH on "Y"				13.06
	TOTAL				100.09 Z
	Add Cess @ 1% on "Z"				1.00
	Cost of each				101.09
	Say				101.10

17.29 Providing and fixing 100 mm sand cast Iron grating for gully trap.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1369	Details of cost for one no. MATERIAL 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	2.00	8.32
	TOTAL				33.32 W
	Add 1 % Water charges on "W"				0.33
	TOTAL				33.65 X
	Add GST on "X" (multiplying factor 0.1405)				4.73
	TOTAL				38.38 Y
	Add 15% CPOH on "Y"				5.76
	TOTAL				44.14 Z
	Add Cess @ 1% on "Z"				0.44
	Cost of each				44.58
	Say				44.60

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	2.00	3.64
	TOTAL				33.64 W
	Add 1 % Water charges on "W"				0.34
	TOTAL				33.98 X
	Add GST on "X" (multiplying factor 0.1405)				4.77
	TOTAL				38.75 Y
	Add 15% CPOH on "Y"				5.81
	TOTAL				44.56 Z
	Add Cess @ 1% on "Z"				0.45
	Cost of each				45.01
	Say				45.00

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	400.00	400.00
7116	Hard board 6 mm thick	sqm	0.27	115.00	31.05
8.23	600x450 mm Wooden cleats				
	Rate as per item no 8.23 of SH : Cladding work	each	4.00	33.90	135.60 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9977	Carriage of materials	L.S.	4.16	2.00	8.32
9999	Sundries	L.S.	1.43	2.00	2.86
	LABOUR				
0112	Carpenter 2nd class	day	0.33	679.00	224.07
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				993.24 W
	Add 1 % Water charges on "W-A"				8.58
	TOTAL				1001.82 X
	Add GST on "X-A" (multiplying factor 0.1405)				121.70
	TOTAL				1123.52 Y
	Add 15% CPOH on "Y-A"				148.19
	TOTAL				1271.71 Z
	Add Cess @ 1% on "Z-A"				11.36
	Cost of each				1283.07
	Say				1283.05

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 ₹
7112	Details of cost for one no. MATERIAL Circular shape 450 mm dia Mirror with Plastic moulded frame Hard board $0.45 \times 0.45 = 0.2025$ sqm Add wastage @ 10% = 0.0203 sqm = 0.2228 sqm say 0.22sqm	each	1.00	430.00	430.00
7116	Hard board 6 mm thick	sqm	0.22	115.00	25.30
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	25.00	50.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	180.00	3.60
9999	Sundries	L.S.	1.43	2.00	2.86
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0112	Carpenter 2nd class	day	0.33	679.00	224.07
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				928.29 W
	Add 1 % Water charges on "W"				9.28
	TOTAL				937.57 X
	Add GST on "X" (multiplying factor 0.1405)				131.73
	TOTAL				1069.30 Y
	Add 15% CPOH on "Y"				160.40
	TOTAL				1229.70 Z
	Add Cess @ 1% on "Z"				12.30
	Cost of each				1241.99
	Say				1242.00

17.32.2 Rectangular shape 453x357 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7113	Details of cost for one no. MATERIAL Rectangular shape 453x357 mm Mirror with Plastic moulded frame Hard board $0.453 \times 0.357 = 0.1617$ 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	25.00	100.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9999	Sundries	L.S.	1.43	2.00	2.86
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0112	Carpenter 2nd class	day	0.33	679.00	224.07

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				837.29 W
	Add 1 % Water charges on "W"				8.37
	TOTAL				845.66 X
	Add GST on "X" (multiplying factor 0.1405)				118.82
	TOTAL				964.48 Y
	Add 15% CPOH on "Y"				144.67
	TOTAL				1109.15 Z
	Add Cess @ 1% on "Z"				11.09
	Cost of each				1120.24
	Say				1120.25

17.32.3 Oval shape 450x350 mm (outer dimensions)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7114	Details of cost for one no. MATERIAL Ovel shape 450x350 mm (outer dimensions) Mirror with Plastic moulded frame	each	1.00	340.00	340.00
	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	25.00	100.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.04	180.00	7.20
9999	Sundries	L.S.	1.43	2.00	2.86
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0112	Carpenter 2nd class	day	0.33	679.00	224.07
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				886.14 W
	Add 1 % Water charges on "W"				8.86
	TOTAL				895.00 X
	Add GST on "X" (multiplying factor 0.1405)				125.75
	TOTAL				1020.75 Y
	Add 15% CPOH on "Y"				153.11
	TOTAL				1173.86 Z
	Add Cess @ 1% on "Z"				11.74
	Cost of each				1185.60
	Say				1185.60

17.32.4 Rectangular shape 1500x450 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7115	Details of cost for one no. MATERIAL 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	25.00	150.00
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9999	Sundries	L.S.	1.43	2.00	2.86
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0112	Carpenter 2nd class	day	0.33	679.00	224.07
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				1335.29 W
	Add 1 % Water charges on "W"				13.35
	TOTAL				1348.64 X
	Add GST on "X" (multiplying factor 0.1405)				189.48
	TOTAL				1538.13 Y
	Add 15% CPOH on "Y"				230.72
	TOTAL				1768.85 Z
	Add Cess @ 1% on "Z"				17.69
	Cost of each				1786.53
	Say				1786.55

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 ₹
3228	Details of cost for one no. MATERIAL 600x120 mm glass shelf with anodised aluminium angle frame, C.P. brass brackets and guard rail of standard size	each	1.00	250.00	250.00
7048	Rawl plug 50 mm (designation 10 no.)	each	2.00	25.00	50.00
0586	Chromium plated Brass screws 40 mm	100 Nos	0.04	290.00	11.60
9977	Carriage of materials	L.S.	4.16	2.00	8.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0112	LABOUR Carpenter 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
	TOTAL				629.17 W
	Add 1 % Water charges on "W"				6.29
	TOTAL				635.46 X
	Add GST on "X" (multiplying factor 0.1405)				89.28
	TOTAL				724.74 Y
	Add 15% CPOH on "Y"				108.71
	TOTAL				833.46 Z
	Add Cess @ 1% on "Z"				8.33
	Cost of each				841.79
	Say				841.80

17.34 Providing and fixing toilet paper holder :
17.34.1 C.P. brass

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1889	Details of cost for one no. MATERIAL C.P.brass toilet paper holder of standard size	each	1.00	225.00	225.00
	Wooden cleats				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	33.90	67.80 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.02	180.00	3.60
9977	Carriage of materials	L.S.	4.29	2.00	8.58
	LABOUR				
0112	Carpenter 2nd class	day	0.12	679.00	81.48
0114	Beldar	day	0.12	558.00	66.96
	TOTAL				453.42 W
	Add 1 % Water charges on "W-A"				3.86
	TOTAL				457.28 X
	Add GST on "X-A" (multiplying factor 0.1405)				54.72
	TOTAL				512.00 Y
	Add 15% CPOH on "Y-A"				66.63
	TOTAL				578.63 Z
	Add Cess @ 1% on "Z-A"				5.11
	Cost of each				583.74
	Say				583.75

17.34.2 Vitreous china

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3749	Details of cost of one no. MATERIAL Vitreous china toilet paper holder of standard size	each	1.00	100.00	100.00
8.23	Wooden cleats Rate as per item no 8.23 of SH : Cladding work	each	2.00	33.90	67.80 A
0588	Chromium plated Brass screws 25 mm	100 Nos	0.06	180.00	10.80
9977	Carriage of materials	L.S.	4.29	2.00	8.58
	LABOUR				
0112	Carpenter 2nd class	day	0.12	679.00	81.48
0114	Beldar	day	0.12	558.00	66.96
	TOTAL				335.62 W
	Add 1 % Water charges on "W-A"				2.68
	TOTAL				338.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				38.00
	TOTAL				376.30 Y
	Add 15% CPOH on "Y-A"				46.28
	TOTAL				422.58 Z
	Add Cess @ 1% on "Z-A"				3.55
	Cost of each				426.13
	Say				426.15

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 ₹
1617	Details of cost for 17.37 m (1.8mx10)-(9x0.07m) = 17.37 m MATERIAL 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	2.00	161.46
9977	Carriage of materials	L.S.	53.82	2.00	107.64
	LABOUR				
0116	Fitter (grade 1)	day	0.42	738.00	309.96
0100	Bandhani	day	0.21	617.00	129.57
0114	Beldar	day	0.83	558.00	463.14
	TOTAL				13089.27 W
	Add 1 % Water charges on "W"				130.89
	TOTAL				13220.16 X
	Add GST on "X" (multiplying factor 0.1405)				1857.43
	TOTAL				15077.60 Y
	Add 15% CPOH on "Y"				2261.64
	TOTAL				17339.23 Z
	Add Cess @ 1% on "Z"				173.39
	Cost for 17.37 m pan				17512.63
	Cost per metre				1008.21
	Say				1008.20

17.35.1.2 Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3620	Details of cost for 16.87 m (1.75mx10)-(9x0.07m) = 16.87 m MATERIAL C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:100mm dia	each	10.50	1200.00	12600.00
9999	Scaffolding	L.S.	80.73	2.00	161.46
9977	Carriage of materials	L.S.	53.82	2.00	107.64
	LABOUR				
0116	Fitter (grade 1)	day	0.42	738.00	309.96
0100	Bandhani	day	0.21	617.00	129.57
0114	Beldar	day	0.83	558.00	463.14
	TOTAL				13771.77 W
	Add 1 % Water charges on "W"				137.72
	TOTAL				13909.49 X
	Add GST on "X" (multiplying factor 0.1405)				1954.28
	TOTAL				15863.77 Y
	Add 15% CPOH on "Y"				2379.57
	TOTAL				18243.34 Z
	Add Cess @ 1% on "Z"				182.43
	Cost for 16.87 m pan				18425.77
	Cost per metre				1092.22
	Say				1092.20

17.35.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7621	Detail of cost for 18.00 m (6 x 3.00 m) MATERIAL Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 100 mm dia (3000 mm length pipe)	metre	18.54	700.00	12978.00
	i/c (3% wastage)				
9999	Scaffolding	L.S.	80.73	2.00	161.46
9977	Carriage of materials	L.S.	53.82	2.00	107.64
	LABOUR				
0116	Fitter (grade 1)	day	0.42	738.00	309.96
0100	Bandhani	day	0.21	617.00	129.57
0114	Beldar	day	0.83	558.00	463.14
	TOTAL				14149.77 W
	Add 1 % Water charges on "W"				141.50
	TOTAL				14291.27 X
	Add GST on "X" (multiplying factor 0.1405)				2007.92
	TOTAL				16299.19 Y
	Add 15% CPOH on "Y"				2444.88
	TOTAL				18744.07 Z
	Add Cess @ 1% on "Z"				187.44
	Cost of 18.00 metre				18931.51
	Cost of 1 metre				1051.75
	Say				1051.75

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 ₹
1616	Details of cost for 17.42 m (1.8mx10)-(9x0.065m) = 17.415 m say 17.42 m MATERIAL 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	2.00	161.46
9977	Carriage of materials	L.S.	40.38	2.00	80.76
	LABOUR				
0116	Fitter (grade 1)	day	0.35	738.00	258.30
0100	Bandhani	day	0.17	617.00	104.89
0114	Beldar	day	0.70	558.00	390.60
	TOTAL				12021.01 W
	Add 1 % Water charges on "W"				120.21
	TOTAL				12141.22 X
	Add GST on "X" (multiplying factor 0.1405)				1705.84
	TOTAL				13847.06 Y
	Add 15% CPOH on "Y"				2077.06
	TOTAL				15924.12 Z
	Add Cess @ 1% on "Z"				159.24
	Cost for 17.42 m pan				16083.36
	Cost per metre				923.27
	Say				923.25

17.35.2.2 Centrifugally cast (spun) iron socketed pipe as per IS: 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3621	Details of cost for 16.92 m (1.75mx10)-(9x0.065m) = 16.915 m. say 16.92 m MATERIAL C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long:75mm dia including 5% allowance for wastage	each	10.50	1100.00	11550.00
9999	Scaffolding	L.S.	80.73	2.00	161.46
9977	Carriage of materials	L.S.	40.38	2.00	80.76
	LABOUR				
0116	Fitter (grade 1)	day	0.35	738.00	258.30
0100	Bandhani	day	0.17	617.00	104.89
0114	Beldar	day	0.70	558.00	390.60
	TOTAL				12546.01 W
	Add 1 % Water charges on "W"				125.46
	TOTAL				12671.47 X
	Add GST on "X" (multiplying factor 0.1405)				1780.34
	TOTAL				14451.81 Y
	Add 15% CPOH on "Y"				2167.77
	TOTAL				16619.58 Z
	Add Cess @ 1% on "Z"				166.20
	Cost for 16.92 m pan				16785.78
	Cost per metre				992.07
	Say				992.05

17.35.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7622	Detail of cost for 18.00 m (6 x 3.00 m) MATERIAL 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	2.00	161.46
9977	Carriage of materials	L.S.	40.38	2.00	80.76
	LABOUR				
0116	Fitter (grade 1)	day	0.35	738.00	258.30
0100	Bandhani	day	0.17	617.00	104.89
0114	Beldar	day	0.70	558.00	390.60
	TOTAL				11563.81 W
	Add 1 % Water charges on "W"				115.64
	TOTAL				11679.45 X
	Add GST on "X" (multiplying factor 0.1405)				1640.96
	TOTAL				13320.41 Y
	Add 15% CPOH on "Y"				1998.06
	TOTAL				15318.47 Z
	Add Cess @ 1% on "Z"				153.18
	Cost of 18.00 metre				15471.66
	Cost of 1 metre				859.54
	Say				859.55

**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 ₹
9999	Details of cost for 4 joints MATERIAL Cement mortar, spun yarn etc.	L.S.	6.89	2.00	13.78
	LABOUR				
0116	Fitter (grade 1)	day	0.28	738.00	206.64
0114	Beldar	day	0.28	558.00	156.24
	TOTAL				376.66 W
	Add 1 % Water charges on "W"				3.77
	TOTAL				380.43 X
	Add GST on "X" (multiplying factor 0.1405)				53.45
	TOTAL				433.88 Y
	Add 15% CPOH on "Y"				65.08
	TOTAL				498.96 Z
	Add Cess @ 1% on "Z"				4.99
	Cost of 4 joints				503.95
	Cost of 1 joint				125.99
	Say				126.00

17.36.2 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Details of cost for 4 joints MATERIAL Cement mortar, spun yarn etc. LABOUR	L.S.	8.06	2.00	16.12
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				443.80 W
	Add 1 % Water charges on "W"				4.44
	TOTAL				448.24 X
	Add GST on "X" (multiplying factor 0.1405)				62.98
	TOTAL				511.22 Y
	Add 15% CPOH on "Y"				76.68
	TOTAL				587.90 Z
	Add Cess @ 1% on "Z"				5.88
	Cost of 4 joints				593.78
	Cost of 1 joint				148.44
	Say				148.45

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 ₹
1331	Details of cost for 5 nos. MATERIAL 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 LABOUR	L.S.	2.47	2.00	4.94
0116	Fitter (grade 1)	day	0.125	738.00	92.25
0124	Mason (brick layer) 2nd class	day	0.75	679.00	509.25
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	7.15	2.00	14.30
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.0033	1350.00	4.46
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	103.77	0.46
0982	Coarse sand (zone III)	cum	0.0022	1350.00	2.97
2203	Carriage of Coarse sand	cum	0.0022	103.77	0.23
0367	Portland Cement (OPC-43 grade)	tonne	0.0016	4940.00	7.90
2209	Carriage of Cement	tonne	0.0016	92.24	0.15
0114	Beldar	day	0.0045	558.00	2.51
0115	Coolie	day	0.0032	558.00	1.79
0101	Bhisti	day	0.0014	617.00	0.86
0123	Mason (brick layer) 1st class	day	0.0003	738.00	0.22

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0124	Mason (brick layer) 2nd class	day	0.0003	679.00	0.20
0128	Mate	day	0.0002	617.00	0.12
9999	Hire charges of machine etc.	L.S.	0.26	2.00	0.52
9999	Sundries	L.S.	0.13	2.00	0.26
9999	Sundries	L.S.	0.13	2.00	0.26
	TOTAL				1074.14 W
	Add 1 % Water charges on "W"				10.74
	TOTAL				1084.88 X
	Add GST on "X" (multiplying factor 0.1405)				152.43
	TOTAL				1237.30 Y
	Add 15% CPOH on "Y"				185.60
	TOTAL				1422.90 Z
	Add Cess @ 1% on "Z"				14.23
	Cost of 5.00 bat clamps				1437.13
	Cost of each				287.43
	Say				287.45

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 for 75 mm S.C.I. pipe	each	5.00	27.00	135.00
9977	Carriage of bat clamps	L.S.	2.47	2.00	4.94
	LABOUR				
0116	Fitter (grade 1)	day	0.125	738.00	92.25
0124	Mason (brick layer) 2nd class	day	0.75	679.00	509.25
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	7.15	2.00	14.30
	C.C. Black 5x0.1x0.1x0.1 = 0.005 cum				
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	0.0033	1350.00	4.46
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	103.77	0.46
0982	Coarse sand (zone III)	cum	0.0022	1350.00	2.97
2203	Carriage of Coarse sand	cum	0.0022	103.77	0.23
0367	Portland Cement (OPC-43 grade)	tonne	0.0016	4940.00	7.90
2209	Carriage of Cement	tonne	0.0016	92.24	0.15
0114	Beldar	day	0.0045	558.00	2.51
0115	Coolie	day	0.0032	558.00	1.79
0101	Bhisti	day	0.0014	617.00	0.86
0123	Mason (brick layer) 1st class	day	0.0003	738.00	0.22
0124	Mason (brick layer) 2nd class	day	0.0003	679.00	0.20
0128	Mate	day	0.0002	617.00	0.12
9999	Hire charges of machine etc.	L.S.	0.26	2.00	0.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.13	2.00	0.26
9999	Sundries	L.S.	0.13	2.00	0.26
	TOTAL				1059.14 W
	Add 1 % Water charges on "W"				10.59
	TOTAL				1069.73 X
	Add GST on "X" (multiplying factor 0.1405)				150.30
	TOTAL				1220.02 Y
	Add 15% CPOH on "Y"				183.00
	TOTAL				1403.03 Z
	Add Cess @ 1% on "Z"				14.03
	Cost of 5.00 bat clamps				1417.06
	Cost of each				283.41
	Say				283.40

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	300.00	300.00
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	2.00	27.04
	TOTAL				345.04 W
	Add 1 % Water charges on "W"				3.45
	TOTAL				348.49 X
	Add GST on "X" (multiplying factor 0.1405)				48.96
	TOTAL				397.45 Y
	Add 15% CPOH on "Y"				59.62
	TOTAL				457.07 Z
	Add Cess @ 1% on "Z"				4.57
	Cost of each				461.64
	Say				461.65

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	300.00	300.00
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	2.00	27.04
	TOTAL				345.04 W
	Add 1 % Water charges on "W"				3.45
	TOTAL				348.49 X
	Add GST on "X" (multiplying factor 0.1405)				48.96
	TOTAL				397.45 Y
	Add 15% CPOH on "Y"				59.62
	TOTAL				457.07 Z
	Add Cess @ 1% on "Z"				4.57
	Cost of each				461.64
	Say				461.65

17.38.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7639	Detail of cost for one no. MATERIAL				
	Hubless centrifugally cast (spun) iron bend with access door - 100 mm dia as per 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	2.00	27.04
	TOTAL				410.04 W
	Add 1 % Water charges on "W"				4.10
	TOTAL				414.14 X
	Add GST on "X" (multiplying factor 0.1405)				58.19
	TOTAL				472.33 Y
	Add 15% CPOH on "Y"				70.85
	TOTAL				543.18 Z
	Add Cess @ 1% on "Z"				5.43
	Cost of each				548.61
	Say				548.60

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 ₹
1624	Details of cost for one no. MATERIAL				
	S.C.I. bend with access door 75mm dia	each	1.00	240.00	240.00
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	2.00	21.58
	TOTAL				277.58 W
	Add 1 % Water charges on "W"				2.78
	TOTAL				280.36 X
	Add GST on "X" (multiplying factor 0.1405)				39.39
	TOTAL				319.75 Y
	Add 15% CPOH on "Y"				47.96
	TOTAL				367.71 Z
	Add Cess @ 1% on "Z"				3.68
	Cost of each				371.38
	Say				371.40

17.38.2.2 Sand cast iron S&S as per IS- 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3625	Details of cost for one no. MATERIAL				
	S.C.I. S&S bends with access door				
	75mm dia	each	1.00	250.00	250.00
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	2.00	21.58
	TOTAL				287.58 W
	Add 1 % Water charges on "W"				2.88
	TOTAL				290.46 X
	Add GST on "X" (multiplying factor 0.1405)				40.81
	TOTAL				331.26 Y
	Add 15% CPOH on "Y"				49.69
	TOTAL				380.95 Z
	Add Cess @ 1% on "Z"				3.81
	Cost of each				384.76
	Say				384.75

17.38.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7640	Detail of cost for one no. MATERIAL				
	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	2.00	21.58
	TOTAL				327.58 W
	Add 1 % Water charges on "W"				3.28
	TOTAL				330.86 X
	Add GST on "X" (multiplying factor 0.1405)				46.49
	TOTAL				377.34 Y
	Add 15% CPOH on "Y"				56.60
	TOTAL				433.94 Z
	Add Cess @ 1% on "Z"				4.34
	Cost of each				438.28
	Say				438.30

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 ₹
1621	Details of cost for one no. MATERIAL	each	1.00	258.00	258.00
9988	S.C.I. plain bend 100 mm dia	L.S.	13.52	2.00	27.04
	Carriage of materials and fixing charges				285.04 W
	TOTAL				2.85
	Add 1 % Water charges on "W"				287.89 X
	TOTAL				40.45
	Add GST on "X" (multiplying factor 0.1405)				328.34 Y
	TOTAL				49.25
	Add 15% CPOH on "Y"				377.59 Z
	TOTAL				3.78
	Add Cess @ 1% on "Z"				381.37
	Cost of each				381.35
	Say				

17.39.1.2 Sand cast iron S&S as per IS : 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3628	Details of cost for one no. MATERIAL	each	1.00	265.00	265.00
9988	S.C.I. S&S bend 100mm dia	L.S.	13.52	2.00	27.04
	Carriage of materials and fixing charges				292.04 W
	TOTAL				2.92
	Add 1 % Water charges on "W"				294.96 X
	TOTAL				41.44
	Add GST on "X" (multiplying factor 0.1405)				336.40 Y
	TOTAL				50.46
	Add 15% CPOH on "Y"				386.86 Z
	TOTAL				3.87
	Add Cess @ 1% on "Z"				390.73
	Cost of each				390.75
	Say				

17.39.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7623	Detail of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				257.04 W
	Add 1 % Water charges on "W"				2.57
	TOTAL				259.61 X
	Add GST on "X" (multiplying factor 0.1405)				36.48
	TOTAL				296.09 Y
	Add 15% CPOH on "Y"				44.41
	TOTAL				340.50 Z
	Add Cess @ 1% on "Z"				3.40
	Cost of each				343.90
	Say				343.90

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 ₹
1620	Details of cost for one no. MATERIAL 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	2.00	21.58
	TOTAL				231.58 W
	Add 1 % Water charges on "W"				2.32
	TOTAL				233.90 X
	Add GST on "X" (multiplying factor 0.1405)				32.86
	TOTAL				266.76 Y
	Add 15% CPOH on "Y"				40.01
	TOTAL				306.77 Z
	Add Cess @ 1% on "Z"				3.07
	Cost of each				309.84
	Say				309.85

17.39.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3629	Details of cost for one no. MATERIAL S.C.I. S&S bend 75mm dia	each	1.00	195.00	195.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				216.58 W
	Add 1 % Water charges on "W"				2.17
	TOTAL				218.75 X
	Add GST on "X" (multiplying factor 0.1405)				30.73
	TOTAL				249.48 Y
	Add 15% CPOH on "Y"				37.42
	TOTAL				286.90 Z
	Add Cess @ 1% on "Z"				2.87
	Cost of each				289.77
	Say				289.75

17.39.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7624	Detail of cost for one no. MATERIAL				
	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	2.00	21.58
	TOTAL				181.58 W
	Add 1 % Water charges on "W"				1.82
	TOTAL				183.40 X
	Add GST on "X" (multiplying factor 0.1405)				25.77
	TOTAL				209.16 Y
	Add 15% CPOH on "Y"				31.37
	TOTAL				240.54 Z
	Add Cess @ 1% on "Z"				2.41
	Cost of each				242.94
	Say				242.95

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 ₹
1667	Details of cost for one no. MATERIAL				
	Sand cast iron heel rest bend 100mm dia	each	1.00	347.00	347.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				374.04 W
	Add 1 % Water charges on "W"				3.74
	TOTAL				377.78 X
	Add GST on "X" (multiplying factor 0.1405)				53.08
	TOTAL				430.86 Y
	Add 15% CPOH on "Y"				64.63
	TOTAL				495.49 Z
	Add Cess @ 1% on "Z"				4.95
	Cost of each				500.44
	Say				500.45

17.40.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3634	Details of cost for one no. MATERIAL S.C.I. S&S heel rest sanitary bend 100mm dia	each	1.00	296.00	296.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				323.04 W
	Add 1 % Water charges on "W"				3.23
	TOTAL				326.27 X
	Add GST on "X" (multiplying factor 0.1405)				45.84
	TOTAL				372.11 Y
	Add 15% CPOH on "Y"				55.82
	TOTAL				427.93 Z
	Add Cess @ 1% on "Z"				4.28
	Cost of each				432.21
	Say				432.20

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 ₹
1666	Details of cost for one no. MATERIAL Sand cast iron heel rest bend 75mm dia	each	1.00	274.00	274.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				295.58 W
	Add 1 % Water charges on "W"				2.96
	TOTAL				298.54 X
	Add GST on "X" (multiplying factor 0.1405)				41.94
	TOTAL				340.48 Y
	Add 15% CPOH on "Y"				51.07
	TOTAL				391.55 Z
	Add Cess @ 1% on "Z"				3.92
	Cost of each				395.47
	Say				395.45

17.40.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3635	Details of cost for one no. MATERIAL S.C.I. S&S heel rest sanitary bend 75mm dia	each	1.00	250.00	250.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				271.58 W
	Add 1 % Water charges on "W"				2.72
	TOTAL				274.30 X
	Add GST on "X" (multiplying factor 0.1405)				38.54
	TOTAL				312.83 Y
	Add 15% CPOH on "Y"				46.93
	TOTAL				359.76 Z
	Add Cess @ 1% on "Z"				3.60
	Cost of each				363.36
	Say				363.35

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 ₹
1637	Details of cost for one no. MATERIAL S.C.I. double equal junctions 100x100x100x100 mm dia with access door.	each	1.00	715.00	715.00
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	2.00	26.78
	TOTAL				759.78 W
	Add 1 % Water charges on "W"				7.60
	TOTAL				767.38 X
	Add GST on "X" (multiplying factor 0.1405)				107.82
	TOTAL				875.19 Y
	Add 15% CPOH on "Y"				131.28
	TOTAL				1006.47 Z
	Add Cess @ 1% on "Z"				10.06
	Cost of each				1016.54
	Say				1016.55

17.41.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3654	Details of cost for one no. MATERIAL S.C.I. S&S double equal junctions with access door 100x100x100x100 mm.	each	1.00	615.00	615.00
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	2.00	26.78
	TOTAL				659.78 W
	Add 1 % Water charges on "W"				6.60
	TOTAL				666.38 X
	Add GST on "X" (multiplying factor 0.1405)				93.63
	TOTAL				760.00 Y
	Add 15% CPOH on "Y"				114.00
	TOTAL				874.00 Z
	Add Cess @ 1% on "Z"				8.74
	Cost of each				882.74
	Say				882.75

17.41.2 75x75x75x75 mm

17.41.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1636	Details of cost for one no. MATERIAL S.C.I. double equal junctions 75x75x75x75 mm dia with access door.	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	2.00	21.58
	TOTAL				537.58 W
	Add 1 % Water charges on "W"				5.38
	TOTAL				542.96 X
	Add GST on "X" (multiplying factor 0.1405)				76.29
	TOTAL				619.24 Y
	Add 15% CPOH on "Y"				92.89
	TOTAL				712.13 Z
	Add Cess @ 1% on "Z"				7.12
	Cost of each				719.25
	Say				719.25

17.41.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3655	Details of cost for one no. MATERIAL				
	S.C.I. S&S double equal junctions with access door 75x75x75x75 mm.	each	1.00	480.00	480.00
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	2.00	21.58
	TOTAL				517.58 W
	Add 1 % Water charges on "W"				5.18
	TOTAL				522.76 X
	Add GST on "X" (multiplying factor 0.1405)				73.45
	TOTAL				596.20 Y
	Add 15% CPOH on "Y"				89.43
	TOTAL				685.63 Z
	Add Cess @ 1% on "Z"				6.86
	Cost of each				692.49
	Say				692.50

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 ₹
1634	Details of cost for one no. MATERIAL				
	S.C.I. plain double equal junctions 100x100x100x100 mm dia	each	1.00	590.00	590.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				617.04 W
	Add 1 % Water charges on "W"				6.17
	TOTAL				623.21 X
	Add GST on "X" (multiplying factor 0.1405)				87.56
	TOTAL				710.77 Y
	Add 15% CPOH on "Y"				106.62
	TOTAL				817.39 Z
	Add Cess @ 1% on "Z"				8.17
	Cost of each				825.56
	Say				825.55

17.42.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3650	Details of cost for one no. MATERIAL S.C.I. S&S double equal junctions 100x100x100x100 mm	each	1.00	620.00	620.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				647.04 W
	Add 1 % Water charges on "W"				6.47
	TOTAL				653.51 X
	Add GST on "X" (multiplying factor 0.1405)				91.82
	TOTAL				745.33 Y
	Add 15% CPOH on "Y"				111.80
	TOTAL				857.13 Z
	Add Cess @ 1% on "Z"				8.57
	Cost of each				865.70
	Say				865.70

17.42.1.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7625	Detail of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				537.04 W
	Add 1 % Water charges on "W"				5.37
	TOTAL				542.41 X
	Add GST on "X" (multiplying factor 0.1405)				76.21
	TOTAL				618.62 Y
	Add 15% CPOH on "Y"				92.79
	TOTAL				711.41 Z
	Add Cess @ 1% on "Z"				7.11
	Cost of each				718.53
	Say				718.55

17.42.2 75x75x75x75 mm

17.42.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1633	Details of cost for one no. MATERIAL S.C.I. plain double equal junctions 75x75x75x75 mm dia	each	1.00	382.00	382.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				403.58 W
	Add 1 % Water charges on "W"				4.04
	TOTAL				407.62 X
	Add GST on "X" (multiplying factor 0.1405)				57.27
	TOTAL				464.89 Y
	Add 15% CPOH on "Y"				69.73
	TOTAL				534.62 Z
	Add Cess @ 1% on "Z"				5.35
	Cost of each				539.96
	Say				539.95

17.42.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3651	Details of cost for one no. MATERIAL S.C.I. S&S double equal junctions 75x75x75x75 mm	each	1.00	462.00	462.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				483.58 W
	Add 1 % Water charges on "W"				4.84
	TOTAL				488.42 X
	Add GST on "X" (multiplying factor 0.1405)				68.62
	TOTAL				557.04 Y
	Add 15% CPOH on "Y"				83.56
	TOTAL				640.59 Z
	Add Cess @ 1% on "Z"				6.41
	Cost of each				647.00
	Say				647.00

17.42.2.3 Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7626	Detail of cost for one no. MATERIAL 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	2.00	21.58
	TOTAL				296.58 W
	Add 1 % Water charges on "W"				2.97
	TOTAL				299.55 X
	Add GST on "X" (multiplying factor 0.1405)				42.09
	TOTAL				341.63 Y
	Add 15% CPOH on "Y"				51.24
	TOTAL				392.88 Z
	Add Cess @ 1% on "Z"				3.93
	Cost of each				396.81
	Say				396.80

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 ₹
1631	Details of cost for one no. MATERIAL S.C.I. single equal junctions 100x100x100 mm dia with access door.	each	1.00	405.00	405.00
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	2.00	27.04
	TOTAL				450.04 W
	Add 1 % Water charges on "W"				4.50
	TOTAL				454.54 X
	Add GST on "X" (multiplying factor 0.1405)				63.86
	TOTAL				518.40 Y
	Add 15% CPOH on "Y"				77.76
	TOTAL				596.16 Z
	Add Cess @ 1% on "Z"				5.96
	Cost of each				602.13
	Say				602.15

17.43.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3644	Details of cost for one no. MATERIAL S.C.I. S&S single equal junctions with access door 100x100x100 mm	each	1.00	495.00	495.00
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	2.00	27.04
	TOTAL				540.04 W
	Add 1 % Water charges on "W"				5.40
	TOTAL				545.44 X
	Add GST on "X" (multiplying factor 0.1405)				76.63
	TOTAL				622.07 Y
	Add 15% CPOH on "Y"				93.31
	TOTAL				715.39 Z
	Add Cess @ 1% on "Z"				7.15
	Cost of each				722.54
	Say				722.55

17.43.2 75x75x75 mm**17.43.2.1 Sand cast iron S&S as per IS - 1729**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1630	Details of cost for one no. MATERIAL S.C.I. single equal junctions 75x75x 75 mm dia with access door.	each	1.00	320.00	320.00
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	2.00	21.58
	TOTAL				357.58 W
	Add 1 % Water charges on "W"				3.58
	TOTAL				361.16 X
	Add GST on "X" (multiplying factor 0.1405)				50.74
	TOTAL				411.90 Y
	Add 15% CPOH on "Y"				61.78
	TOTAL				473.68 Z
	Add Cess @ 1% on "Z"				4.74
	Cost of each				478.42
	Say				478.40

17.43.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3645	Details of cost for one no. MATERIAL S.C.I. S&S single equal junctions with access door 75x75x75 mm	each	1.00	373.00	373.00
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	2.00	21.58
	TOTAL				410.58 W
	Add 1 % Water charges on "W"				4.11
	TOTAL				414.69 X
	Add GST on "X" (multiplying factor 0.1405)				58.26
	TOTAL				472.95 Y
	Add 15% CPOH on "Y"				70.94
	TOTAL				543.89 Z
	Add Cess @ 1% on "Z"				5.44
	Cost of each				549.33
	Say				549.35

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 ₹
1628	Details of cost for one no. MATERIAL S.C.I. plain single equal junctions 100x100x100 mm dia	each	1.00	360.00	360.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				387.04 W
	Add 1 % Water charges on "W"				3.87
	TOTAL				390.91 X
	Add GST on "X" (multiplying factor 0.1405)				54.92
	TOTAL				445.83 Y
	Add 15% CPOH on "Y"				66.87
	TOTAL				512.71 Z
	Add Cess @ 1% on "Z"				5.13
	Cost of each				517.84
	Say				517.85

17.44.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3640	Details of cost for one no. MATERIAL S.C.I. S&S single equal junctions 100x100x100 mm	each	1.00	472.00	472.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				499.04 W
	Add 1 % Water charges on "W"				4.99
	TOTAL				504.03 X
	Add GST on "X" (multiplying factor 0.1405)				70.82
	TOTAL				574.85 Y
	Add 15% CPOH on "Y"				86.23
	TOTAL				661.07 Z
	Add Cess @ 1% on "Z"				6.61
	Cost of each				667.68
	Say				667.70

17.44.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7627	Detail of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				427.04 W
	Add 1 % Water charges on "W"				4.27
	TOTAL				431.31 X
	Add GST on "X" (multiplying factor 0.1405)				60.60
	TOTAL				491.91 Y
	Add 15% CPOH on "Y"				73.79
	TOTAL				565.70 Z
	Add Cess @ 1% on "Z"				5.66
	Cost of each				571.35
	Say				571.35

17.44.2 75x75x75 mm**17.44.2.1 Sand cast iron S&S as per IS - 1729**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1627	Details of cost for one no. MATERIAL S.C.I. plain single equal junctions 75x75x75 mm dia	each	1.00	278.00	278.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				299.58 W
	Add 1 % Water charges on "W"				3.00
	TOTAL				302.58 X
	Add GST on "X" (multiplying factor 0.1405)				42.51
	TOTAL				345.09 Y
	Add 15% CPOH on "Y"				51.76
	TOTAL				396.85 Z
	Add Cess @ 1% on "Z"				3.97
	Cost of each				400.82
	Say				400.80

17.44.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3641	Details of cost for one no. MATERIAL S.C.I. S&S single equal junctions 75x75x75 mm	each	1.00	330.00	330.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				351.58 W
	Add 1 % Water charges on "W"				3.52
	TOTAL				355.10 X
	Add GST on "X" (multiplying factor 0.1405)				49.89
	TOTAL				404.99 Y
	Add 15% CPOH on "Y"				60.75
	TOTAL				465.73 Z
	Add Cess @ 1% on "Z"				4.66
	Cost of each				470.39
	Say				470.40

17.44.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7628	Detail of cost for one no. MATERIAL 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	2.00	21.58
	TOTAL				236.58 W
	Add 1 % Water charges on "W"				2.37
	TOTAL				238.95 X
	Add GST on "X" (multiplying factor 0.1405)				33.57
	TOTAL				272.52 Y
	Add 15% CPOH on "Y"				40.88
	TOTAL				313.40 Z
	Add Cess @ 1% on "Z"				3.13
	Cost of each				316.53
	Say				316.55

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 ₹
1662	Details of cost for one no. MATERIAL Sand cast iron S&S double unequal junctions: 100x100x75x75 mm dia with access door.	each	1.00	700.00	700.00
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	2.00	27.04
	TOTAL				745.04 W
	Add 1 % Water charges on "W"				7.45
	TOTAL				752.49 X
	Add GST on "X" (multiplying factor 0.1405)				105.72
	TOTAL				858.22 Y
	Add 15% CPOH on "Y"				128.73
	TOTAL				986.95 Z
	Add Cess @ 1% on "Z"				9.87
	Cost of each				996.82
	Say				996.80

17.45.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3674	Details of cost for one no. MATERIAL S.C.I. S&S double unequal junctions with access door 100x100x75x75 mm	each	1.00	850.00	850.00
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	2.00	27.04
	TOTAL				895.04 W
	Add 1 % Water charges on "W"				8.95
	TOTAL				903.99 X
	Add GST on "X" (multiplying factor 0.1405)				127.01
	TOTAL				1031.00 Y
	Add 15% CPOH on "Y"				154.65
	TOTAL				1185.65 Z
	Add Cess @ 1% on "Z"				11.86
	Cost of each				1197.51
	Say				1197.50

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 ₹
1659	Details of cost for one no. MATERIAL Sand cast iron S&S plain double unequal junctions : 100x100x75x75 mm dia	each	1.00	615.00	615.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				642.04 W
	Add 1 % Water charges on "W"				6.42
	TOTAL				648.46 X
	Add GST on "X" (multiplying factor 0.1405)				91.11
	TOTAL				739.57 Y
	Add 15% CPOH on "Y"				110.94
	TOTAL				850.50 Z
	Add Cess @ 1% on "Z"				8.51
	Cost of each				859.01
	Say				859.00

17.46.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3670	Details of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				827.04 W
	Add 1 % Water charges on "W"				8.27
	TOTAL				835.31 X
	Add GST on "X" (multiplying factor 0.1405)				117.36
	TOTAL				952.67 Y
	Add 15% CPOH on "Y"				142.90
	TOTAL				1095.57 Z
	Add Cess @ 1% on "Z"				10.96
	Cost of each				1106.53
	Say				1106.55

17.46.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7629	Detail of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				427.04 W
	Add 1 % Water charges on "W"				4.27
	TOTAL				431.31 X
	Add GST on "X" (multiplying factor 0.1405)				60.60
	TOTAL				491.91 Y
	Add 15% CPOH on "Y"				73.79
	TOTAL				565.70 Z
	Add Cess @ 1% on "Z"				5.66
	Cost of each				571.35
	Say				571.35

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 ₹
1656	Details of cost for one no. MATERIAL Sand cast iron S&S single unequal junctions: 100x100x75 mm dia with access door.	each	1.00	550.00	550.00
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	2.00	27.04
	TOTAL				595.04 W
	Add 1 % Water charges on "W"				5.95
	TOTAL				600.99 X
	Add GST on "X" (multiplying factor 0.1405)				84.44
	TOTAL				685.43 Y
	Add 15% CPOH on "Y"				102.81
	TOTAL				788.24 Z
	Add Cess @ 1% on "Z"				7.88
	Cost of each				796.13
	Say				796.15

17.47.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3664	Details of cost for one no. MATERIAL S.C.I. S&S single unequal junctions with access door 100x100x75 mm	each	1.00	640.00	640.00
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	2.00	27.04
	TOTAL				685.04 W
	Add 1 % Water charges on "W"				6.85
	TOTAL				691.89 X
	Add GST on "X" (multiplying factor 0.1405)				97.21
	TOTAL				789.10 Y
	Add 15% CPOH on "Y"				118.37
	TOTAL				907.47 Z
	Add Cess @ 1% on "Z"				9.07
	Cost of each				916.54
	Say				916.55

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 ₹
1653	Details of cost for one no. MATERIAL Sand cast iron S&S plain single unequal junctions : 100x100x75 mm dia	each	1.00	494.00	494.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				521.04 W
	Add 1 % Water charges on "W"				5.21
	TOTAL				526.25 X
	Add GST on "X" (multiplying factor 0.1405)				73.94
	TOTAL				600.19 Y
	Add 15% CPOH on "Y"				90.03
	TOTAL				690.22 Z
	Add Cess @ 1% on "Z"				6.90
	Cost of each				697.12
	Say				697.10

17.48.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3660	Details of cost for one no. MATERIAL S.C.I. S&S single unequal junctions 100x100x75 mm	each	1.00	570.00	570.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				597.04 W
	Add 1 % Water charges on "W"				5.97
	TOTAL				603.01 X
	Add GST on "X" (multiplying factor 0.1405)				84.72
	TOTAL				687.73 Y
	Add 15% CPOH on "Y"				103.16
	TOTAL				790.89 Z
	Add Cess @ 1% on "Z"				7.91
	Cost of each				798.80
	Say				798.80

17.48.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7630	Detail of cost for one no. MATERIAL				
	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	2.00	27.04
	TOTAL				402.04 W
	Add 1 % Water charges on "W"				4.02
	TOTAL				406.06 X
	Add GST on "X" (multiplying factor 0.1405)				57.05
	TOTAL				463.11 Y
	Add 15% CPOH on "Y"				69.47
	TOTAL				532.58 Z
	Add Cess @ 1% on "Z"				5.33
	Cost of each				537.90
	Say				537.90

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 ₹
1673	Details of cost for one no. MATERIAL				
	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	2.00	27.04
	TOTAL				577.04 W
	Add 1 % Water charges on "W"				5.77
	TOTAL				582.81 X
	Add GST on "X" (multiplying factor 0.1405)				81.88
	TOTAL				664.70 Y
	Add 15% CPOH on "Y"				99.70
	TOTAL				764.40 Z
	Add Cess @ 1% on "Z"				7.64
	Cost of each				772.04
	Say				772.05

17.49.1.2 Sand cast iron S&S as per IS 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3685	Details of cost for one no. MATERIAL				
	S.C.I. S&S double equal invert branch of required degree 100x100x100x 100 mm dia	each	1.00	530.00	530.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				557.04 W
	Add 1 % Water charges on "W"				5.57
	TOTAL				562.61 X
	Add GST on "X" (multiplying factor 0.1405)				79.05
	TOTAL				641.66 Y
	Add 15% CPOH on "Y"				96.25
	TOTAL				737.91 Z
	Add Cess @ 1% on "Z"				7.38
	Cost of each				745.28
	Say				745.30

17.49.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7631	Detail of cost for one no. MATERIAL				
	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	2.00	27.04
	TOTAL				652.04 W
	Add 1 % Water charges on "W"				6.52
	TOTAL				658.56 X
	Add GST on "X" (multiplying factor 0.1405)				92.53
	TOTAL				751.09 Y
	Add 15% CPOH on "Y"				112.66
	TOTAL				863.75 Z
	Add Cess @ 1% on "Z"				8.64
	Cost of each				872.39
	Say				872.40

17.49.2 75x75x75x75 mm**17.49.2.1 Sand cast iron S&S as per IS - 1729**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1672	Details of cost for one no. MATERIAL S.C.I. double equal invert branch of required degree 75x75x75x75 mm dia	each	1.00	410.00	410.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				431.58 W
	Add 1 % Water charges on "W"				4.32
	TOTAL				435.90 X
	Add GST on "X" (multiplying factor 0.1405)				61.24
	TOTAL				497.14 Y
	Add 15% CPOH on "Y"				74.57
	TOTAL				571.71 Z
	Add Cess @ 1% on "Z"				5.72
	Cost of each				577.43
	Say				577.45

17.49.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3686	Details of cost for one no. MATERIAL S.C.I. S&S 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	2.00	21.58
	TOTAL				446.58 W
	Add 1 % Water charges on "W"				4.47
	TOTAL				451.05 X
	Add GST on "X" (multiplying factor 0.1405)				63.37
	TOTAL				514.42 Y
	Add 15% CPOH on "Y"				77.16
	TOTAL				591.58 Z
	Add Cess @ 1% on "Z"				5.92
	Cost of each				597.50
	Say				597.50

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 ₹
1670	Details of cost for one no. MATERIAL S.C.I. single equal invert branch of required degree 100x100x100 mm dia	each	1.00	410.00	410.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				437.04 W
	Add 1 % Water charges on "W"				4.37
	TOTAL				441.41 X
	Add GST on "X" (multiplying factor 0.1405)				62.02
	TOTAL				503.43 Y
	Add 15% CPOH on "Y"				75.51
	TOTAL				578.94 Z
	Add Cess @ 1% on "Z"				5.79
	Cost of each				584.73
	Say				584.75

17.50.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3681	Details of cost for one no. MATERIAL				
	S.C.I. S&S single equal invert branch of required degree 100x100x100 mm dia	each	1.00	425.00	425.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				452.04 W
	Add 1 % Water charges on "W"				4.52
	TOTAL				456.56 X
	Add GST on "X" (multiplying factor 0.1405)				64.15
	TOTAL				520.71 Y
	Add 15% CPOH on "Y"				78.11
	TOTAL				598.81 Z
	Add Cess @ 1% on "Z"				5.99
	Cost of each				604.80
	Say				604.80

17.50.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7632	Detail of cost for one no. MATERIAL				
	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 100x100x100 mm dia	each	1.00	390.00	390.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				417.04 W
	Add 1 % Water charges on "W"				4.17
	TOTAL				421.21 X
	Add GST on "X" (multiplying factor 0.1405)				59.18
	TOTAL				480.39 Y
	Add 15% CPOH on "Y"				72.06
	TOTAL				552.45 Z
	Add Cess @ 1% on "Z"				5.52
	Cost of each				557.97
	Say				557.95

17.50.2 75x75x75 mm**17.50.2.1 Sand cast iron S&S as per IS - 1729**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1669	Details of cost for one no. MATERIAL S.C.I. single equal invert branch of required degree 75x75x75 mm dia	each	1.00	320.00	320.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	18.67
	TOTAL				338.67 W
	Add 1 % Water charges on "W"				3.39
	TOTAL				342.06 X
	Add GST on "X" (multiplying factor 0.1405)				48.06
	TOTAL				390.12 Y
	Add 15% CPOH on "Y"				58.52
	TOTAL				448.63 Z
	Add Cess @ 1% on "Z"				4.49
	Cost of each				453.12
	Say				453.10

17.50.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3682	Details of cost for one no. MATERIAL S.C.I. S&S single equal invert branch of required degree 75x75x75 mm dia	each	1.00	323.00	323.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				344.58 W
	Add 1 % Water charges on "W"				3.45
	TOTAL				348.03 X
	Add GST on "X" (multiplying factor 0.1405)				48.90
	TOTAL				396.92 Y
	Add 15% CPOH on "Y"				59.54
	TOTAL				456.46 Z
	Add Cess @ 1% on "Z"				4.56
	Cost of each				461.03
	Say				461.05

17.50.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7633	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 75x75x75 mm dia	each	1.00	260.00	260.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				281.58 W
	Add 1 % Water charges on "W"				2.82
	TOTAL				284.40 X
	Add GST on "X" (multiplying factor 0.1405)				39.96
	TOTAL				324.35 Y
	Add 15% CPOH on "Y"				48.65
	TOTAL				373.01 Z
	Add Cess @ 1% on "Z"				3.73
	Cost of each				376.74
	Say				376.75

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 ₹
1677	Details of cost for one no. MATERIAL S.C.I. double unequal invert branch of required degree 100x100x75x75 mm dia	each	1.00	570.00	570.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				597.04 W
	Add 1 % Water charges on "W"				5.97
	TOTAL				603.01 X
	Add GST on "X" (multiplying factor 0.1405)				84.72
	TOTAL				687.73 Y
	Add 15% CPOH on "Y"				103.16
	TOTAL				790.89 Z
	Add Cess @ 1% on "Z"				7.91
	Cost of each				798.80
	Say				798.80

17.51.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3695	Details of cost for one no. MATERIAL S.C.I. S&S double unequal invert branch of required degree 100x100x75x75 mm dia	each	1.00	725.00	725.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				752.04 W
	Add 1 % Water charges on "W"				7.52
	TOTAL				759.56 X
	Add GST on "X" (multiplying factor 0.1405)				106.72
	TOTAL				866.28 Y
	Add 15% CPOH on "Y"				129.94
	TOTAL				996.22 Z
	Add Cess @ 1% on "Z"				9.96
	Cost of each				1006.18
	Say				1006.20

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 ₹
1674	Details of cost for one no. MATERIAL S.C.I. single unequal invert branch of required degree 100x100x75 mm dia	each	1.00	495.00	495.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				522.04 W
	Add 1 % Water charges on "W"				5.22
	TOTAL				527.26 X
	Add GST on "X" (multiplying factor 0.1405)				74.08
	TOTAL				601.34 Y
	Add 15% CPOH on "Y"				90.20
	TOTAL				691.54 Z
	Add Cess @ 1% on "Z"				6.92
	Cost of each				698.46
	Say				698.45

17.52.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3690	Details of cost for one no. MATERIAL S.C.I. S&S single unequal invert branch of required degree 100x100x 75 mm dia	each	1.00	545.00	545.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				572.04 W
	Add 1 % Water charges on "W"				5.72
	TOTAL				577.76 X
	Add GST on "X" (multiplying factor 0.1405)				81.18
	TOTAL				658.94 Y
	Add 15% CPOH on "Y"				98.84
	TOTAL				757.78 Z
	Add Cess @ 1% on "Z"				7.58
	Cost of each				765.35
	Say				765.35

17.52.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7634	Detail of cost for one no. MATERIAL 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				457.04 W
	Add 1 % Water charges on "W"				4.57
	TOTAL				461.61 X
	Add GST on "X" (multiplying factor 0.1405)				64.86
	TOTAL				526.47 Y
	Add 15% CPOH on "Y"				78.97
	TOTAL				605.44 Z
	Add Cess @ 1% on "Z"				6.05
	Cost of each				611.49
	Say				611.50

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 ₹
3746	Details of cost for one no. MATERIAL				
	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	1.00	218.00	218.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				239.58 W
	Add 1 % Water charges on "W"				2.40
	TOTAL				241.98 X
	Add GST on "X" (multiplying factor 0.1405)				34.00
	TOTAL				275.97 Y
	Add 15% CPOH on "Y"				41.40
	TOTAL				317.37 Z
	Add Cess @ 1% on "Z"				3.17
	Cost of each				320.54
	Say				320.55

17.53.1.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3747	Details of cost for one no. MATERIAL				
	S.C.I. S&S, 75 mm offset for 100 mm dia pipe	each	1.00	363.00	363.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				384.58 W
	Add 1 % Water charges on "W"				3.85
	TOTAL				388.43 X
	Add GST on "X" (multiplying factor 0.1405)				54.57
	TOTAL				443.00 Y
	Add 15% CPOH on "Y"				66.45
	TOTAL				509.45 Z
	Add Cess @ 1% on "Z"				5.09
	Cost of each				514.54
	Say				514.55

17.53.2 114 mm off sets
17.53.2.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3712	Details of cost for one no. MATERIAL S.C.I. S&S, 114 mm offset for 75 mm dia pipe	each	1.00	300.00	300.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				327.04 W
	Add 1 % Water charges on "W"				3.27
	TOTAL				330.31 X
	Add GST on "X" (multiplying factor 0.1405)				46.41
	TOTAL				376.72 Y
	Add 15% CPOH on "Y"				56.51
	TOTAL				433.23 Z
	Add Cess @ 1% on "Z"				4.33
	Cost of each				437.56
	Say				437.55

17.53.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3713	Details of cost for one no. MATERIAL S.C.I. S&S, 114 mm offset for 100 mm dia pipe	each	1.00	383.00	383.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				410.04 W
	Add 1 % Water charges on "W"				4.10
	TOTAL				414.14 X
	Add GST on "X" (multiplying factor 0.1405)				58.19
	TOTAL				472.33 Y
	Add 15% CPOH on "Y"				70.85
	TOTAL				543.18 Z
	Add Cess @ 1% on "Z"				5.43
	Cost of each				548.61
	Say				548.60

17.53.3 152 mm off sets
17.53.3.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3716	Details of cost for one no. MATERIAL S.C.I. S&S, 152 mm offset for 75 mm dia pipe	each	1.00	358.00	358.00
9988	Carriage of materials and fixing charges	L.S.	17.94	2.00	35.88
	TOTAL				393.88 W
	Add 1 % Water charges on "W"				3.94
	TOTAL				397.82 X
	Add GST on "X" (multiplying factor 0.1405)				55.89
	TOTAL				453.71 Y
	Add 15% CPOH on "Y"				68.06
	TOTAL				521.77 Z
	Add Cess @ 1% on "Z"				5.22
	Cost of each				526.99
	Say				527.00

17.53.3.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3717	Details of cost for one no. MATERIAL S.C.I. S&S, 152 mm offset for 100 mm dia pipe	each	1.00	455.00	455.00
9988	Carriage of materials and fixing charges	L.S.	17.94	2.00	35.88
	TOTAL				490.88 W
	Add 1 % Water charges on "W"				4.91
	TOTAL				495.79 X
	Add GST on "X" (multiplying factor 0.1405)				69.66
	TOTAL				565.45 Y
	Add 15% CPOH on "Y"				84.82
	TOTAL				650.26 Z
	Add Cess @ 1% on "Z"				6.50
	Cost of each				656.77
	Say				656.75

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 ₹
7635	Detail of cost for one no. MATERIAL 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	2.00	21.58
	TOTAL				381.58 W
	Add 1 % Water charges on "W"				3.82
	TOTAL				385.40 X
	Add GST on "X" (multiplying factor 0.1405)				54.15
	TOTAL				439.54 Y
	Add 15% CPOH on "Y"				65.93
	TOTAL				505.48 Z
	Add Cess @ 1% on "Z"				5.05
	Cost of each				510.53
	Say				510.55

17.53A.1.2 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7636	Detail of cost for one no. MATERIAL 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	2.00	21.58
	TOTAL				316.58 W
	Add 1 % Water charges on "W"				3.17
	TOTAL				319.75 X
	Add GST on "X" (multiplying factor 0.1405)				44.92
	TOTAL				364.67 Y
	Add 15% CPOH on "Y"				54.70
	TOTAL				419.37 Z
	Add Cess @ 1% on "Z"				4.19
	Cost of each				423.56
	Say				423.55

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 ₹
3699	Details of cost for one no. MATERIAL				
	S.C.I. S&S, 75 mm offset for	each	1.00	225.00	225.00
9988	75 mm dia pipe	L.S.	10.79	2.00	21.58
	Carriage of materials and fixing charges				246.58 W
	TOTAL				2.47
	Add 1 % Water charges on "W"				249.05 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				34.99
	TOTAL				284.04 Y
	Add 15% CPOH on "Y"				42.61
	TOTAL				326.64 Z
	Add Cess @ 1% on "Z"				3.27
	Cost of each				329.91
	Say				329.90

17.54.2 150 mm off sets

17.54.2.1 With 75 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3707	Details of cost for one no. MATERIAL				
	S.C.I. S&S, 150 mm offset for	each	1.00	285.00	285.00
9988	75 mm dia pipe	L.S.	16.12	2.00	32.24
	Carriage of materials and fixing charges				317.24 W
	TOTAL				3.17
	Add 1 % Water charges on "W"				320.41 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				45.02
	TOTAL				365.43 Y
	Add 15% CPOH on "Y"				54.81
	TOTAL				420.24 Z
	Add Cess @ 1% on "Z"				4.20
	Cost of each				424.45
	Say				424.45

17.54.2.2 With 100 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3708	Details of cost for one no. MATERIAL S.C.I. S&S, 150 mm offset for 100 mm dia pipe	each	1.00	390.00	390.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.00	32.24
	TOTAL				422.24 W
	Add 1 % Water charges on "W"				4.22
	TOTAL				426.46 X
	Add GST on "X" (multiplying factor 0.1405)				59.92
	TOTAL				486.38 Y
	Add 15% CPOH on "Y"				72.96
	TOTAL				559.34 Z
	Add Cess @ 1% on "Z"				5.59
	Cost of each				564.93
	Say				564.95

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 ₹
7637	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron 130 mm offset with 100 mm dia pipe as per IS 15905	each	1.00	440.00	440.00
9977	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				467.04 W
	Add 1 % Water charges on "W"				4.67
	TOTAL				471.71 X
	Add GST on "X" (multiplying factor 0.1405)				66.28
	TOTAL				537.99 Y
	Add 15% CPOH on "Y"				80.70
	TOTAL				618.68 Z
	Add Cess @ 1% on "Z"				6.19
	Cost of each				624.87
	Say				624.85

17.54A.1.2 With 75 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7638	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron 130 mm offset with 75 mm dia pipe as per IS 15905	each	1.00	310.00	310.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				331.58 W
	Add 1 % Water charges on "W"				3.32
	TOTAL				334.90 X
	Add GST on "X" (multiplying factor 0.1405)				47.05
	TOTAL				381.95 Y
	Add 15% CPOH on "Y"				57.29
	TOTAL				439.24 Z
	Add Cess @ 1% on "Z"				4.39
	Cost of each				443.63
	Say				443.65

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	475.00	475.00
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	2.00	27.04
	TOTAL				520.04 W
	Add 1 % Water charges on "W"				5.20
	TOTAL				525.24 X
	Add GST on "X" (multiplying factor 0.1405)				73.80
	TOTAL				599.04 Y
	Add 15% CPOH on "Y"				89.86
	TOTAL				688.89 Z
	Add Cess @ 1% on "Z"				6.89
	Cost of each				695.78
	Say				695.80

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	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	2.00	27.04
	TOTAL				445.04 W
	Add 1 % Water charges on "W"				4.45
	TOTAL				449.49 X
	Add GST on "X" (multiplying factor 0.1405)				63.15
	TOTAL				512.64 Y
	Add 15% CPOH on "Y"				76.90
	TOTAL				589.54 Z
	Add Cess @ 1% on "Z"				5.90
	Cost of each				595.44
	Say				595.45

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	283.00	283.00
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	2.00	21.58
	TOTAL				320.58 W
	Add 1 % Water charges on "W"				3.21
	TOTAL				323.79 X
	Add GST on "X" (multiplying factor 0.1405)				45.49
	TOTAL				369.28 Y
	Add 15% CPOH on "Y"				55.39
	TOTAL				424.67 Z
	Add Cess @ 1% on "Z"				4.25
	Cost of each				428.92
	Say				428.90

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	295.00	295.00
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	2.00	21.58
	TOTAL				332.58 W
	Add 1 % Water charges on "W"				3.33
	TOTAL				335.91 X
	Add GST on "X" (multiplying factor 0.1405)				47.19
	TOTAL				383.10 Y
	Add 15% CPOH on "Y"				57.47
	TOTAL				440.57 Z
	Add Cess @ 1% on "Z"				4.41
	Cost of each				444.97
	Say				444.95

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 ₹
1640	Details of cost for one no. MATERIAL Slotted cowl (terminal guard) 100 mm dia	each	1.00	239.00	239.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				266.04 W
	Add 1 % Water charges on "W"				2.66
	TOTAL				268.70 X
	Add GST on "X" (multiplying factor 0.1405)				37.75
	TOTAL				306.45 Y
	Add 15% CPOH on "Y"				45.97
	TOTAL				352.42 Z
	Add Cess @ 1% on "Z"				3.52
	Cost of each				355.94
	Say				355.95

17.56.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3733	Details of cost for one no. MATERIAL S.C.I. S&S, Slotted Cowl (Terminal Guard) 100 mm	each	1.00	264.00	264.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				291.04 W
	Add 1 % Water charges on "W"				2.91
	TOTAL				293.95 X
	Add GST on "X" (multiplying factor 0.1405)				41.30
	TOTAL				335.25 Y
	Add 15% CPOH on "Y"				50.29
	TOTAL				385.54 Z
	Add Cess @ 1% on "Z"				3.86
	Cost of each				389.39
	Say				389.40

17.56.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7641	Detail of cost for one no. MATERIAL Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) - 100 mm dia as per IS 15905	each	1.00	270.00	270.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				297.04 W
	Add 1 % Water charges on "W"				2.97
	TOTAL				300.01 X
	Add GST on "X" (multiplying factor 0.1405)				42.15
	TOTAL				342.16 Y
	Add 15% CPOH on "Y"				51.32
	TOTAL				393.49 Z
	Add Cess @ 1% on "Z"				3.93
	Cost of each				397.42
	Say				397.40

17.56.2 75 mm

17.56.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1639	Details of cost for one no. MATERIAL				
9988	Slotted cowl (terminal guard)75 mm dia	each	1.00	191.00	191.00
	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				212.58 W
	Add 1 % Water charges on "W"				2.13
	TOTAL				214.71 X
	Add GST on "X" (multiplying factor 0.1405)				30.17
	TOTAL				244.87 Y
	Add 15% CPOH on "Y"				36.73
	TOTAL				281.60 Z
	Add Cess @ 1% on "Z"				2.82
	Cost of each				284.42
	Say				284.40

17.56.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3734	Details of cost for one no. MATERIAL				
	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	2.00	21.58
	TOTAL				231.58 W
	Add 1 % Water charges on "W"				2.32
	TOTAL				233.90 X
	Add GST on "X" (multiplying factor 0.1405)				32.86
	TOTAL				266.76 Y
	Add 15% CPOH on "Y"				40.01
	TOTAL				306.77 Z
	Add Cess @ 1% on "Z"				3.07
	Cost of each				309.84
	Say				309.85

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 ₹
1686	Details of cost for one no. MATERIAL	each	1.00	246.00	246.00
9988	S.C.I. collar 100 mm dia	L.S.	13.52	2.00	27.04
	Carriage of materials and fixing charges				273.04 W
	TOTAL				2.73
	Add 1 % Water charges on "W"				275.77 X
	TOTAL				38.75
	Add GST on "X" (multiplying factor 0.1405)				314.52 Y
	TOTAL				47.18
	Add 15% CPOH on "Y"				361.69 Z
	TOTAL				3.62
	Add Cess @ 1% on "Z"				365.31
	Cost of each				365.30
	Say				

17.57.1.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3738	Details of cost for one no. MATERIAL	each	1.00	279.00	279.00
9988	S.C.I. S&S, collars 100 mm	L.S.	13.52	2.00	27.04
	Carriage of materials and fixing charges				306.04 W
	TOTAL				3.06
	Add 1 % Water charges on "W"				309.10 X
	TOTAL				43.43
	Add GST on "X" (multiplying factor 0.1405)				352.53 Y
	TOTAL				52.88
	Add 15% CPOH on "Y"				405.41 Z
	TOTAL				4.05
	Add Cess @ 1% on "Z"				409.46
	Cost of each				409.45
	Say				

17.57.2 75 mm
17.57.2.1 Sand cast iron S&S as per IS - 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1685	Details of cost for one no. MATERIAL	each	1.00	177.00	177.00
9988	S.C.I. collar 75 mm dia	L.S.	10.79	2.00	21.58
	Carriage of materials and fixing charges				198.58 W
	TOTAL				1.99
	Add 1 % Water charges on "W"				200.57 X
	TOTAL				28.18
	Add GST on "X" (multiplying factor 0.1405)				228.75 Y
	TOTAL				34.31
	Add 15% CPOH on "Y"				263.06 Z
	TOTAL				2.63
	Add Cess @ 1% on "Z"				265.69
	Cost of each				265.70
	Say				

17.57.2.2 Sand cast iron S&S as per IS - 3989

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3739	Details of cost for one no. MATERIAL	each	1.00	170.00	170.00
9988	S.C.I. S&S, collars 75 mm	L.S.	10.79	2.00	21.58
	Carriage of materials and fixing charges				191.58 W
	TOTAL				1.92
	Add 1 % Water charges on "W"				193.50 X
	TOTAL				27.19
	Add GST on "X" (multiplying factor 0.1405)				220.68 Y
	TOTAL				33.10
	Add 15% CPOH on "Y"				253.78 Z
	TOTAL				2.54
	Add Cess @ 1% on "Z"				256.32
	Cost of each				256.30
	Say				

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 ₹
7644	Detail of cost for one no. MATERIAL	each	1.00	275.00	275.00
9977	SS 304 grade shielded coupling with EPDM rubber gasket for 100 mm dia	L.S.	13.52	2.00	27.04
	Hubless centrifugally cast (spun) iron				302.04 W
	Carriage of materials and fixing charges				3.02
	TOTAL				305.06 X
	Add 1 % Water charges on "W"				42.86
	TOTAL				347.92 Y
	Add GST on "X" (multiplying factor 0.1405)				52.19
	TOTAL				400.11 Z
	Add 15% CPOH on "Y"				4.00
	TOTAL				404.11
	Add Cess @ 1% on "Z"				404.10
	Cost of each				
	Say				

17.57A.2 75 mm dia
17.57A.2.1 SS 304 grade coupling with EPDM rubber gasket

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7645	Detail of cost for one no. MATERIAL	each	1.00	250.00	250.00
	SS 304 grade shielded coupling with EPDM rubber gasket for 75 mm dia				
	Hubless centrifugally cast (spun) iron				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				271.58 W
	Add 1 % Water charges on "W"				2.72
	TOTAL				274.30 X
	Add GST on "X" (multiplying factor 0.1405)				38.54
	TOTAL				312.83 Y
	Add 15% CPOH on "Y"				46.93
	TOTAL				359.76 Z
	Add Cess @ 1% on "Z"				3.60
	Cost of each				363.36
	Say				363.35

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	176.00	172.48
1881	Spun yarn	kilogram	0.11	50.00	5.50
9999	Kerosene oil, fuel and other sundries	L.S.	13.52	2.00	27.04
9977	Carriage of materials	L.S.	1.43	2.00	2.86
	LABOUR				
0116	Fitter (grade 1)	day	0.06	738.00	44.28
0117	Assistant Fitter or 2nd class Fitter	day	0.06	679.00	40.74
0114	Beldar	day	0.12	558.00	66.96
	TOTAL				359.86 W
	Add 1 % Water charges on "W"				3.60
	TOTAL				363.46 X
	Add GST on "X" (multiplying factor 0.1405)				51.07
	TOTAL				414.52 Y
	Add 15% CPOH on "Y"				62.18
	TOTAL				476.70 Z
	Add Cess @ 1% on "Z"				4.77
	Cost of each				481.47
	Say				481.45

17.58.2 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one joint				
	MATERIAL				
1397	Pig lead	kilogram	0.88	176.00	154.88
1881	Spun yarn	kilogram	0.09	50.00	4.50
9999	Kerosene oil, fuel and other sundries	L.S.	10.79	2.00	21.58
9977	Carriage of materials	L.S.	1.43	2.00	2.86
	LABOUR				
0116	Fitter (grade 1)	day	0.05	738.00	36.90
0117	Assistant Fitter or 2nd class Fitter	day	0.05	679.00	33.95

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.09	558.00	50.22
	TOTAL				304.89 W
	Add 1 % Water charges on "W"				3.05
	TOTAL				307.94 X
	Add GST on "X" (multiplying factor 0.1405)				43.27
	TOTAL				351.20 Y
	Add 15% CPOH on "Y"				52.68
	TOTAL				403.88 Z
	Add Cess @ 1% on "Z"				4.04
	Cost of each				407.92
	Say				407.90

17.58.3 50 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for one joint				
	MATERIAL				
1397	Pig lead	kilogram	0.77	176.00	135.52
1881	Spun yarn	kilogram	0.06	50.00	3.00
9999	Kerosene oil, fuel and other sundries	L.S.	6.76	2.00	13.52
9977	Carriage of materials	L.S.	1.43	2.00	2.86
	LABOUR				
0116	Fitter (grade 1)	day	0.04	738.00	29.52
0117	Assistant Fitter or 2nd class Fitter	day	0.05	679.00	33.95
0114	Beldar	day	0.05	558.00	27.90
	TOTAL				246.27 W
	Add 1 % Water charges on "W"				2.46
	TOTAL				248.73 X
	Add GST on "X" (multiplying factor 0.1405)				34.95
	TOTAL				283.68 Y
	Add 15% CPOH on "Y"				42.55
	TOTAL				326.23 Z
	Add Cess @ 1% on "Z"				3.26
	Cost of each				329.49
	Say				329.50

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				94.54 W
	Add 1 % Water charges on "W"				0.95
	TOTAL				95.49 X
	Add GST on "X" (multiplying factor 0.1405)				13.42
	TOTAL				108.90 Y
	Add 15% CPOH on "Y"				16.34
	TOTAL				125.24 Z
	Add Cess @ 1% on "Z"				1.25
	Cost of each				126.49
	Say				126.50

17.59.2 75 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1335	Details of cost for one no. MATERIAL				
	Clamps and M.S. stays including bolts and nuts for 75 mm pipe	each	1.00	37.00	37.00
9988	Carriage of materials and fixing charges	L.S.	10.79	2.00	21.58
	TOTAL				58.58 W
	Add 1 % Water charges on "W"				0.59
	TOTAL				59.17 X
	Add GST on "X" (multiplying factor 0.1405)				8.31
	TOTAL				67.48 Y
	Add 15% CPOH on "Y"				10.12
	TOTAL				77.60 Z
	Add Cess @ 1% on "Z"				0.78
	Cost of each				78.38
	Say				78.40

17.59.3 50 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1334	Details of cost for one no. MATERIAL				
	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	2.00	18.98
	TOTAL				53.98 W
	Add 1 % Water charges on "W"				0.54
	TOTAL				54.52 X
	Add GST on "X" (multiplying factor 0.1405)				7.66
	TOTAL				62.18 Y
	Add 15% CPOH on "Y"				9.33
	TOTAL				71.51 Z
	Add Cess @ 1% on "Z"				0.72
	Cost of each				72.22
	Say				72.20

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	2.00	27.04
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				1130.50 W
	Add 1 % Water charges on "W"				11.31
	TOTAL				1141.81 X
	Add GST on "X" (multiplying factor 0.1405)				160.42
	TOTAL				1302.23 Y
	Add 15% CPOH on "Y"				195.33
	TOTAL				1497.56 Z
	Add Cess @ 1% on "Z"				14.98
	Cost of each				1512.54
	Say				1512.55

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	271.00	271.00
9999	Cement, sand and grit etc.	L.S.	13.52	2.00	27.04
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				951.50 W
	Add 1 % Water charges on "W"				9.52
	TOTAL				961.02 X
	Add GST on "X" (multiplying factor 0.1405)				135.02
	TOTAL				1096.04 Y
	Add 15% CPOH on "Y"				164.41
	TOTAL				1260.44 Z
	Add Cess @ 1% on "Z"				12.60
	Cost of each				1273.05
	Say				1273.05

17.60.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7642	Detail of cost for one no. MATERIAL 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
9977	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				567.04 W
	Add 1 % Water charges on "W"				5.67
	TOTAL				572.71 X
	Add GST on "X" (multiplying factor 0.1405)				80.47
	TOTAL				653.18 Y
	Add 15% CPOH on "Y"				97.98
	TOTAL				751.15 Z
	Add Cess @ 1% on "Z"				7.51
	Cost of each				758.66
	Say				758.65

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 ₹
7809	Details of cost for one no. MATERIAL 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	2.00	27.04
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				1180.50 W
	Add 1 % Water charges on "W"				11.81
	TOTAL				1192.31 X
	Add GST on "X" (multiplying factor 0.1405)				167.52
	TOTAL				1359.82 Y
	Add 15% CPOH on "Y"				203.97
	TOTAL				1563.80 Z
	Add Cess @ 1% on "Z"				15.64
	Cost of each				1579.44
	Say				1579.45

17.60.2.2 Sand Cast Iron S&S as per IS- 1729

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1898	Details of cost for one no. MATERIAL 100 mm S.C.I. trap with 100 mm inlet and 75 mm outlet	each	1.00	218.00	218.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Cement, sand and grit etc.	L.S.	13.52	2.00	27.04
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				898.50 W
	Add 1 % Water charges on "W"				8.99
	TOTAL				907.49 X
	Add GST on "X" (multiplying factor 0.1405)				127.50
	TOTAL				1034.99 Y
	Add 15% CPOH on "Y"				155.25
	TOTAL				1190.23 Z
	Add Cess @ 1% on "Z"				11.90
	Cost of each				1202.14
	Say				1202.15

17.60.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7643	Detail of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				412.04 W
	Add 1 % Water charges on "W"				4.12
	TOTAL				416.16 X
	Add GST on "X" (multiplying factor 0.1405)				58.47
	TOTAL				474.63 Y
	Add 15% CPOH on "Y"				71.19
	TOTAL				545.83 Z
	Add Cess @ 1% on "Z"				5.46
	Cost of each				551.28
	Say				551.30

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	8025.00	176.55 A
9999	Plastering in cement mortar 1:4	L.S.	10.40	2.00	20.80
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.14	738.00	103.32
0114	Beldar	day	0.27	558.00	150.66
	TOTAL				459.65 W
	Add 1 % Water charges on "W-A"				2.83
	TOTAL				462.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				40.17
	TOTAL				502.65 Y
	Add 15% CPOH on "Y-A"				48.92
	TOTAL				551.57 Z
	Add Cess @ 1% on "Z-A"				3.75
	Cost of one metre				555.32
	Say				555.30

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	8025.00	120.38 A
9999	Plastering in cement mortar 1:4	L.S.	7.80	2.00	15.60
9977	Carriage of materials	L.S.	3.51	2.00	7.02
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.10	738.00	73.80
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				328.40 W
	Add 1 % Water charges on "W-A"				2.08
	TOTAL				330.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				29.52
	TOTAL				359.99 Y
	Add 15% CPOH on "Y-A"				35.94
	TOTAL				395.94 Z
	Add Cess @ 1% on "Z-A"				2.76
	Cost of one metre				398.69
	Say				398.70

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	8025.00	64.20 A
9999	Plastering in cement mortar 1:4	L.S.	5.20	2.00	10.40
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.07	738.00	51.66
0114	Beldar	day	0.14	558.00	78.12
	TOTAL				209.84 W
	Add 1 % Water charges on "W-A"				1.46
	TOTAL				211.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				20.67
	TOTAL				231.96 Y
	Add 15% CPOH on "Y-A"				25.16
	TOTAL				257.13 Z
	Add Cess @ 1% on "Z-A"				1.93
	Cost of one metre				259.06
	Say				259.05

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	110.00	22.00
0834	Synthetic enamel paint in all shades except black or chocolate shade	litre	0.40	160.00	64.00
9977	Carriage of materials	L.S.	1.43	2.00	2.86
9999	Sundries	L.S.	6.76	2.00	13.52
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				574.13 W
	Add 1 % Water charges on "W"				5.74
	TOTAL				579.87 X
	Add GST on "X" (multiplying factor 0.1405)				81.47
	TOTAL				661.34 Y
	Add 15% CPOH on "Y"				99.20
	TOTAL				760.54 Z
	Add Cess @ 1% on "Z"				7.61
	Cost of each				768.15
	Say				768.15

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	160.00	32.00
9999	Polishing of wooden seat and cleaning of W.C. pan with acid	L.S.	20.67	2.00	41.34
9988	Sundries and carriage of materials	L.S.	7.15	2.00	14.30
	LABOUR				
0131	Painter	day	0.20	679.00	135.80
0114	Beldar	day	0.25	558.00	139.50
	TOTAL				385.94 W
	Add 1 % Water charges on "W"				3.86
	TOTAL				389.80 X
	Add GST on "X" (multiplying factor 0.1405)				54.77
	TOTAL				444.57 Y
	Add 15% CPOH on "Y"				66.68
	TOTAL				511.25 Z
	Add Cess @ 1% on "Z"				5.11
	Cost of each				516.36
	Say				516.35

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	160.00	32.00
9988	Sundries and carriage of materials	L.S.	3.64	2.00	7.28
	LABOUR				
0131	Painter	day	0.09	679.00	61.11
0114	Beldar	day	0.12	558.00	66.96
	TOTAL				167.35 W
	Add 1 % Water charges on "W"				1.67
	TOTAL				169.02 X
	Add GST on "X" (multiplying factor 0.1405)				23.75
	TOTAL				192.77 Y
	Add 15% CPOH on "Y"				28.92
	TOTAL				221.69 Z
	Add Cess @ 1% on "Z"				2.22
	Cost of each				223.90
	Say				223.90

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 ₹
13.50.3	Details of cost for 10 metres MATERIAL Perimeter = $3.14 \times 110 \text{ mm} = 345.71$ Area $10 \times 0.3457 = 3.46 \text{ sqm}$ Priming coat Rate as per item no 13.50.3 of SH : Finishing Painting two coats with paint of any colour such as chocolate grey or buff etc.	sqm	3.46	50.70	175.42 A
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	3.46	121.55	420.56 A
9999	Add for delay	L.S.	17.16	2.00	34.32
	TOTAL				630.31 W
	Add 1 % Water charges on "W-A"				0.34
	TOTAL				630.65 X
	Add GST on "X" (multiplying factor 0.1405)				4.87
	TOTAL				635.52 Y
	Add 15% CPOH on "Y-A"				5.93
	TOTAL				641.45 Z
	Add Cess @ 1% on "Z-A"				0.45
	Cost of 10 metres				641.90
	Cost of 1 metre				64.19
	Say				64.20

17.65.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.50.3	Details of cost for 10 metres MATERIAL Perimeter = $3.14 \times 82 \text{ mm} = 257.71$ Area $10 \times 0.2577 = 2.577 \text{ sqm}$ say 2.60 sq. m for outer surface Priming coat Rate as per item no 13.50.3 of SH : Finishing Painting two coats with paint of any colour such as chocolate grey or buff etc.	sqm	2.60	50.70	131.82 A
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	2.60	121.55	316.03 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	15.21	2.00	30.42
	TOTAL				478.27 W
	Add 1 % Water charges on "W-A"				0.30
	TOTAL				478.57 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.32
	TOTAL				482.89 Y
	Add 15% CPOH on "Y-A"				5.26
	TOTAL				488.15 Z
	Add Cess @ 1% on "Z-A"				0.40
	Cost of 10 metres				488.55
	Cost of 1 metre				48.86
	Say				48.85

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 ₹
13.99.1	Details of cost for 10 metres Painting one coat with paint of any colour such as chocolate, grey or buff etc. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	3.46	79.95	276.63 A
9999	Add for delay	L.S.	12.22	2.00	24.44
	TOTAL				301.07 W
	Add 1 % Water charges on "W-A"				0.24
	TOTAL				301.31 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.47
	TOTAL				304.78 Y
	Add 15% CPOH on "Y-A"				4.22
	TOTAL				309.00 Z
	Add Cess @ 1% on "Z-A"				0.32
	Cost of 10 metres				309.33
	Cost of 1 metre				30.93
	Say				30.95

17.66.2 75 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.99.1	Details of cost for 10 metres Painting one coat with paint of any colour such as chocolate, grey or buff etc. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	2.577	79.95	206.03 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	9.49	2.00	18.98
	TOTAL				225.01 W
	Add 1 % Water charges on "W-A"				0.19
	TOTAL				225.20 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.69
	TOTAL				227.89 Y
	Add 15% CPOH on "Y-A"				3.28
	TOTAL				231.17 Z
	Add Cess @ 1% on "Z-A"				0.25
	Cost of 10 metres				231.43
	Cost of 1 metre				23.14
	Say				23.15

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				
0830	Enamel paint	litre	0.90	165.00	148.50
9999	Sundries	L.S.	6.76	2.00	13.52
	LABOUR				
0131	Painter	day	0.25	679.00	169.75
0115	Coolie	day	0.25	558.00	139.50
	TOTAL				471.27 W
	Add 1 % Water charges on "W"				4.71
	TOTAL				475.98 X
	Add GST on "X" (multiplying factor 0.1405)				66.88
	TOTAL				542.86 Y
	Add 15% CPOH on "Y"				81.43
	TOTAL				624.29 Z
	Add Cess @ 1% on "Z"				6.24
	Cost of each				630.53
	Say				630.55

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	400.00	400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1965	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting 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	1240.00	1240.00
9999	20 mm G.I. over flow pipe and specials for over flow pipe	L.S.	276.25	2.00	552.50
1350	Mosquito proof coupling of approved design	each	1.00	30.00	30.00
9999	Plugs, screws etc.	L.S.	59.15	2.00	118.30
9999	Red lead, white lead and gaskin etc.	L.S.	71.76	2.00	143.52
9999	Cement, sand and grit	L.S.	118.43	2.00	236.86
9977	Carriage of materials	L.S.	118.43	2.00	236.86
	LABOUR				
0116	Fitter (grade 1)	day	1.00	738.00	738.00
0123	Mason (brick layer) 1st class	day	1.00	738.00	738.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				7492.04 W
	Add 1 % Water charges on "W"				74.92
	TOTAL				7566.96 X
	Add GST on "X" (multiplying factor 0.1405)				1063.16
	TOTAL				8630.12 Y
	Add 15% CPOH on "Y"				1294.52
	TOTAL				9924.64 Z
	Add Cess @ 1% on "Z"				99.25
	Cost of each				10023.88
	Say				10023.90

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	2.00	40.56
	TOTAL				74.56 W
	Add 1 % Water charges on "W"				0.75
	TOTAL				75.31 X
	Add GST on "X" (multiplying factor 0.1405)				10.58
	TOTAL				85.89 Y
	Add 15% CPOH on "Y"				12.88
	TOTAL				98.77 Z
	Add Cess @ 1% on "Z"				0.99
	Cost of each				99.76
	Say				99.75

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 ₹
7492	Details of cost for one no. MATERIAL	each	1.00	48.00	48.00
9988	PTMT Waste Coupling 38/40MM	L.S.	20.28	2.00	40.56
	Carriage of materials and fixing charges				88.56 W
	TOTAL				0.89
	Add 1 % Water charges on "W"				89.45 X
	TOTAL				12.57
	Add GST on "X" (multiplying factor 0.1405)				102.01 Y
	TOTAL				15.30
	Add 15% CPOH on "Y"				117.31 Z
	TOTAL				1.17
	Add Cess @ 1% on "Z"				118.49
	Cost of each				118.50
	Say				

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 ₹
7493	Details of cost for one no. MATERIAL	each	1.00	210.00	210.00
9988	PTMT Bottle Trap 31/32MM	L.S.	20.28	2.00	40.56
	Carriage of materials and fixing charges				250.56 W
	TOTAL				2.51
	Add 1 % Water charges on "W"				253.07 X
	TOTAL				35.56
	Add GST on "X" (multiplying factor 0.1405)				288.62 Y
	TOTAL				43.29
	Add 15% CPOH on "Y"				331.91 Z
	TOTAL				3.32
	Add Cess @ 1% on "Z"				335.23
	Cost of each				335.25
	Say				

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 ₹
7494	Details of cost for one no. MATERIAL	each	1.00	220.00	220.00
	PTMT Bottle Trap 38/40MM				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	20.28	2.00	40.56
	TOTAL				260.56 W
	Add 1 % Water charges on "W"				2.61
	TOTAL				263.17 X
	Add GST on "X" (multiplying factor 0.1405)				36.97
	TOTAL				300.14 Y
	Add 15% CPOH on "Y"				45.02
	TOTAL				345.16 Z
	Add Cess @ 1% on "Z"				3.45
	Cost of each				348.61
	Say				348.60

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 ₹
7503	Details of cost for one no. MATERIAL				
	PTMT Liquid Soap Container of 400ml capacity	each	1.00	105.00	105.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.00	13.52
	TOTAL				118.52 W
	Add 1 % Water charges on "W"				1.19
	TOTAL				119.71 X
	Add GST on "X" (multiplying factor 0.1405)				16.82
	TOTAL				136.52 Y
	Add 15% CPOH on "Y"				20.48
	TOTAL				157.00 Z
	Add Cess @ 1% on "Z"				1.57
	Cost of each				158.57
	Say				158.55

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 ₹
7504	MATERIAL				
	PTMT - Towel Ring 215x200x37mm	each	1.00	130.00	130.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.00	40.56
	TOTAL				170.56 W
	Add 1 % Water charges on "W"				1.71
	TOTAL				172.27 X
	Add GST on "X" (multiplying factor 0.1405)				24.20
	TOTAL				196.47 Y
	Add 15% CPOH on "Y"				29.47
	TOTAL				225.94 Z
	Add Cess @ 1% on "Z"				2.26
	Cost of each				228.20
	Say				228.20

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	135.00	135.00
	Wooden cleates				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	33.90	67.80 A
0588	Chromium plated Brass screws 25 mm	100 Nos	6.00	180.00	10.80
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0112	Carpenter 2nd class	day	0.17	679.00	115.43
0114	Beldar	day	0.17	558.00	94.86
	TOTAL				432.21 W
	Add 1 % Water charges on "W-A"				3.64
	TOTAL				435.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				51.71
	TOTAL				487.57 Y
	Add 15% CPOH on "Y-A"				62.96
	TOTAL				550.53 Z
	Add Cess @ 1% on "Z-A"				4.83
	Cost of each				555.36
	Say				555.35

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	165.00	165.00
	Wooden cleates				
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	33.90	67.80 A
0588	Chromium plated Brass screws 25 mm	100 Nos	6.00	180.00	10.80
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0112	Carpenter 2nd class	day	0.17	679.00	115.43
0114	Beldar	day	0.17	558.00	94.86
	TOTAL				462.21 W
	Add 1 % Water charges on "W-A"				3.94
	TOTAL				466.15 X
	Add GST on "X-A" (multiplying factor 0.1405)				55.97
	TOTAL				522.12 Y
	Add 15% CPOH on "Y-A"				68.15
	TOTAL				590.27 Z
	Add Cess @ 1% on "Z-A"				5.22
	Cost of each				595.50
	Say				595.50

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 ₹
7507	Details of cost for one no. MATERIAL PTMT Shelf 450x124x36mm Wooden cleates	each	1.00	200.00	200.00
8.23	Rate as per item no 8.23 of SH : Cladding work	each	2.00	33.90	67.80 A
0588	Chromium plated Brass screws 25 mm	100 Nos	6.00	180.00	10.80
9977	Carriage of materials LABOUR	L.S.	4.16	2.00	8.32
0112	Carpenter 2nd class	day	0.17	679.00	115.43
0114	Beldar	day	0.17	558.00	94.86
	TOTAL				497.21 W
	Add 1 % Water charges on "W-A"				4.29
	TOTAL				501.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				60.94
	TOTAL				562.44 Y
	Add 15% CPOH on "Y-A"				74.20
	TOTAL				636.64 Z
	Add Cess @ 1% on "Z-A"				5.69
	Cost of each				642.32
	Say				642.30

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 ₹
7508	Details of cost for one no. MATERIAL PTMT Urinal Spreader 15mm	each	1.00	76.00	76.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.00	13.52
	TOTAL				89.52 W
	Add 1 % Water charges on "W"				0.90
	TOTAL				90.42 X
	Add GST on "X" (multiplying factor 0.1405)				12.70
	TOTAL				103.12 Y
	Add 15% CPOH on "Y"				15.47
	TOTAL				118.59 Z
	Add Cess @ 1% on "Z"				1.19
	Cost of each				119.77
	Say				119.75

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 ₹
7858	Details of cost for 1 no. MATERIAL P.T.M.T. Urinal cock 15mm dia	each	1.00	106.50	106.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				122.62 W
	Add 1 % Water charges on "W"				1.23
	TOTAL				123.85 X
	Add GST on "X" (multiplying factor 0.1405)				17.40
	TOTAL				141.25 Y
	Add 15% CPOH on "Y"				21.19
	TOTAL				162.43 Z
	Add Cess @ 1% on "Z"				1.62
	Cost of each				164.06
	Say				164.05

- 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	quintal	0.0686	4600.00	315.56
2205	channels and R.S. joists	quintal	0.0068	92.24	0.63
	Carriage of Steel				
	LABOUR				
0116	Fitter (grade 1)	day	0.033	738.00	24.35
0103	Blacksmith 2nd class	day	0.049	679.00	33.27
0114	Beldar	day	0.065	558.00	36.27
	priming coat				
	5x0.58x0.11 = 0.32				
	5x0.42x0.063 = 0.13				
	Total=0.45sqm				
13.50.1	Rate as per item no 13.50.1 of				
	SH : Finishing	sqm	0.45	57.05	25.67 A
9999	Sundries	L.S.	1.35	2.00	2.70
	P/F expansion hold fasteners				
	6mm threaded dia 5x4 Nos = 20 nos.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8.8.1.1	Rate as per item no. 8.8.1.1 of SH :- Marble work	each	20.00	33.05	661.00 A
	TOTAL				1099.45 W
	Add 1 % Water charges on "W-A"				4.13
	TOTAL				1103.58 X
	Add GST on "X-A" (multiplying factor 0.1405)				58.58
	TOTAL				1162.16 Y
	Add 15% CPOH on "Y-A"				71.32
	TOTAL				1233.48 Z
	Add Cess @ 1% on "Z-A"				5.47
	Cost of 5 Nos.				1238.95
	Cost of each				247.79
	Say				247.80

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	quintal	0.1006	4600.00	462.76
2205	channels and R.S. joists	tonne	0.01006	92.24	0.93
	Carriage of Steel				
	LABOUR				
0116	Fitter (grade 1)	day	0.048	738.00	35.42
0103	Blacksmith 2nd class	day	0.072	679.00	48.89
0114	Beldar	day	0.096	558.00	53.57
	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	57.05	40.51 A
9999	Sundries	L.S.	1.98	2.00	3.96
	P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos.				
8.8.1.1	Rate as per item no. 8.8.1.1 of SH :- Marble work	each	20.00	33.05	661.00 A
	TOTAL				1307.03 W
	Add 1 % Water charges on "W-A"				6.06
	TOTAL				1313.09 X
	Add GST on "X-A" (multiplying factor 0.1405)				85.93
	TOTAL				1399.02 Y
	Add 15% CPOH on "Y-A"				104.63
	TOTAL				1503.64 Z
	Add Cess @ 1% on "Z-A"				8.02
	Cost of 5 Nos.				1511.66
	Cost of each				302.33
	Say				302.35

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 ₹
1007	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 Structurals such as tees,angles channels and R.S. joists	quintal	0.1326	4600.00	609.96
2205	Carriage of Steel LABOUR	tonne	0.01326	92.24	1.22
0116	Fitter (grade 1)	day	0.063	738.00	46.49
0103	Blacksmith 2nd class	day	0.095	679.00	64.51
0114	Beldar priming coat 5x1.04x0.11 = 0.57 5x3x0.42x0.063 = 0.40 Total=0.97sqm	day	0.126	558.00	70.31
13.50.1	Rate as per item no 13.50.1 of SH : Finishing	sqm	0.97	57.05	55.34 A
9999	Sundries P/F expansion hold fasteners 6mm threaded dia 5x4 Nos = 20 nos. Rate asper item no. 8.8.1.1 of SH :- Marble work	L.S.	2.60	2.00	5.20
8.8.1.1	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 5 Nos. Cost of each Say	each	20.00	33.05	661.00 A 1514.03 W 7.98 1522.01 X 113.20 1635.20 Y 137.83 1773.03 Z 10.57 1783.60 356.72 356.70

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 ₹
7072	Details of cost for one pan MATERIAL Wall mounted water closet	each	1.00	6000.00	6000.00
7073	Adjustable Vetrious China Cistern with fittings	each	1.00	1900.00	1900.00
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	1.00	400.00	400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	9.79	2.00	19.58
0116	LABOUR				
0116	Fitter (grade 1)	day	1.00	738.00	738.00
0123	Mason (brick layer) 1st class	day	1.00	738.00	738.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				10353.58 W
	Add 1 % Water charges on "W"				103.54
	TOTAL				10457.12 X
	Add GST on "X" (multiplying factor 0.1405)				1469.22
	TOTAL				11926.34 Y
	Add 15% CPOH on "Y"				1788.95
	TOTAL				13715.29 Z
	Add Cess @ 1% on "Z"				137.15
	Cost of each				13852.44
	Say				13852.45

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	9650.00	9650.00
7075	Cistern with fittings for Waterless Urinal	each	1.00	2290.00	2290.00
9977	Carriage of materials	L.S.	9.79	2.00	19.58
	LABOUR				
0116	Fitter (grade 1)	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				12607.58 W
	Add 1 % Water charges on "W"				126.08
	TOTAL				12733.66 X
	Add GST on "X" (multiplying factor 0.1405)				1789.08
	TOTAL				14522.73 Y
	Add 15% CPOH on "Y"				2178.41
	TOTAL				16701.14 Z
	Add Cess @ 1% on "Z"				167.01
	Cost of each				16868.16
	Say				16868.15

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	2.00	19.58
	LABOUR				
0116	Fitter (grade 1)	day	0.50	738.00	369.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.50	558.00	279.00
	TOTAL				5167.58 W
	Add 1 % Water charges on "W"				51.68
	TOTAL				5219.26 X
	Add GST on "X" (multiplying factor 0.1405)				733.31
	TOTAL				5952.56 Y
	Add 15% CPOH on "Y"				892.88
	TOTAL				6845.45 Z
	Add Cess @ 1% on "Z"				68.45
	Cost of each				6913.90
	Say				6913.90

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 ₹
1966	Details of cost for 1 no. MATERIAL 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	9500.00	9500.00
9977	Carriage of material	L.S.	9.79	2.00	19.58
	LABOUR				
0116	Fitter (grade 1)	day	1.00	738.00	738.00
0114	Beldar	day	1.00	558.00	558.00
0123	Mason (brick layer) 1st class	day	1.00	738.00	738.00
	TOTAL				11553.58 W
	Add 1 % Water charges on "W"				115.54
	TOTAL				11669.12 X
	Add GST on "X" (multiplying factor 0.1405)				1639.51
	TOTAL				13308.63 Y
	Add 15% CPOH on "Y"				1996.29
	TOTAL				15304.92 Z
	Add Cess @ 1% on "Z"				153.05
	Cost of each				15457.97
	Say				15457.95

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 ₹
8300	Details of cost for 10 metre MATERIAL 1216 mm PE-AL-PE Composit pressure pipe Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	62.00	620.00 P
9999	Cement, sand and grit LABOUR	L.S.	2.73	2.00	5.46
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				1871.42 W
	Add 1 % Water charges on "W"				18.71
	TOTAL				1890.13 X
	Add GST on "X" (multiplying factor 0.1405)				265.56
	TOTAL				2155.70 Y
	Add 15% CPOH on "Y"				323.35
	TOTAL				2479.05 Z
	Add Cess @ 1% on "Z"				24.79
	Cost of 10 metre				2503.84
	Cost of 1 metre				250.38
	Say				250.40

18.1.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8301	Details of cost for 10 metre MATERIAL 1620 mm PE-AL-PE Composit pressure pipe Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	78.00	780.00 P
9999	Cement, sand and grit LABOUR	L.S.	2.73	2.00	5.46
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.82	679.00	556.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2188.06 W
	Add 1 % Water charges on "W"				21.88
	TOTAL				2209.94 X
	Add GST on "X" (multiplying factor 0.1405)				310.50
	TOTAL				2520.44 Y
	Add 15% CPOH on "Y"				378.07
	TOTAL				2898.50 Z
	Add Cess @ 1% on "Z"				28.99
	Cost of 10 metre				2927.49
	Cost of 1 metre				292.75
	Say				292.75

18.1.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8302	Details of cost for 10 metre MATERIAL				
	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	110.00	1100.00 P
	Add 30% for fittings and wastage etc. on (P)				330.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	2.73	2.00	5.46
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2712.70 W
	Add 1 % Water charges on "W"				27.13
	TOTAL				2739.83 X
	Add GST on "X" (multiplying factor 0.1405)				384.95
	TOTAL				3124.77 Y
	Add 15% CPOH on "Y"				468.72
	TOTAL				3593.49 Z
	Add Cess @ 1% on "Z"				35.93
	Cost of 10 metre				3629.42
	Cost of 1 metre				362.94
	Say				362.95

18.1.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8303	Details of cost for 10 metre MATERIAL				
	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	157.00	1570.00 P
	Add 30% for fittings and wastage etc. on (P)				471.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	4.16	2.00	8.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0116	LABOUR				
	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.98	558.00	546.84
	TOTAL				3505.12 W
	Add 1 % Water charges on "W"				35.05
	TOTAL				3540.17 X
	Add GST on "X" (multiplying factor 0.1405)				497.39
	TOTAL				4037.57 Y
	Add 15% CPOH on "Y"				605.63
	TOTAL				4643.20 Z
	Add Cess @ 1% on "Z"				46.43
	Cost of 10 metre				4689.63
	Cost of 1 metre				468.96
	Say				468.95

18.1.5 3240 (40 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8304	Details of cost for 10 metre MATERIAL				
	3240 mm PE-AL-PE Composit pressure pipe	metre	10.00	235.00	2350.00 P
	Add 30% for fittings and wastage etc. on (P)				705.00
	30 x P / 100				
9999	Cement, sand and grit	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.31	679.00	889.49
0114	Beldar	day	1.31	558.00	730.98
	TOTAL				4929.67 W
	Add 1 % Water charges on "W"				49.30
	TOTAL				4978.97 X
	Add GST on "X" (multiplying factor 0.1405)				699.54
	TOTAL				5678.51 Y
	Add 15% CPOH on "Y"				851.78
	TOTAL				6530.29 Z
	Add Cess @ 1% on "Z"				65.30
	Cost of 10 metre				6595.59
	Cost of 1 metre				659.56
	Say				659.55

18.1.6 4050 (50 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8305	Details of cost for 10 metre MATERIAL				
	4050 mm PE-AL-PE Composit pressure pipe	metre	10.00	330.00	3300.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 30% for fittings and wastage etc. on (P)				990.00
9999	30 x P / 100 Cement, sand and grit LABOUR	L.S.	5.33	2.00	10.66
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.31	679.00	889.49
0114	Beldar	day	1.31	558.00	730.98
	TOTAL				6164.67 W
	Add 1 % Water charges on "W"				61.65
	TOTAL				6226.32 X
	Add GST on "X" (multiplying factor 0.1405)				874.80
	TOTAL				7101.11 Y
	Add 15% CPOH on "Y"				1065.17
	TOTAL				8166.28 Z
	Add Cess @ 1% on "Z"				81.66
	Cost of 10 metre				8247.94
	Cost of 1 metre				824.79
	Say				824.80

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 ₹
8300	Details of cost for 10 metre MATERIAL 1216 mm PE-AL-PE Composit pressure pipe	metre	10.00	62.00	620.00 P
	Add 75% for fittings, clamps and wastage etc. on (P)				465.00
	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	154.15	1541.50 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3686.46 W
	Add 1 % Water charges on "W-A"				21.45
	TOTAL				3707.91 X
	Add GST on "X-A" (multiplying factor 0.1405)				304.38
	TOTAL				4012.29 Y
	Add 15% CPOH on "Y-A"				370.62
	TOTAL				4382.91 Z
	Add Cess @ 1% on "Z-A"				28.41
	Cost of 10 metre				4411.32
	Cost of 1 metre				441.13
	Say				441.15

18.2.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8301	Details of cost for 10 metre MATERIAL 1620 mm PE-AL-PE Composit pressure pipe	metre	10.00	78.00	780.00 P
	Add 75% for fittings, clamps and wastage etc. on (P)				585.00
	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	154.15	1541.50 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3966.46 W
	Add 1 % Water charges on "W-A"				24.25
	TOTAL				3990.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				344.11
	TOTAL				4334.82 Y
	Add 15% CPOH on "Y-A"				419.00
	TOTAL				4753.82 Z
	Add Cess @ 1% on "Z-A"				32.12
	Cost of 10 metre				4785.95
	Cost of 1 metre				478.59
	Say				478.60

18.2.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8302	Details of cost for 10 metre MATERIAL 2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	110.00	1100.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.78	Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same Rate as per item no. 18.78 of SH: Water Supply LABOUR	metre	10.00	154.15	1541.50 A
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				4526.46 W
	Add 1 % Water charges on "W-A"				29.85
	TOTAL				4556.31 X
	Add GST on "X-A" (multiplying factor 0.1405)				423.58
	TOTAL				4979.89 Y
	Add 15% CPOH on "Y-A"				515.76
	TOTAL				5495.65 Z
	Add Cess @ 1% on "Z-A"				39.54
	Cost of 10 metre				5535.19
	Cost of 1 metre				553.52
	Say				553.50

18.2.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8303	Details of cost for 10 metre MATERIAL 2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	157.00	1570.00 P
	Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same				1177.50
18.78	Rate as per item no. 18.78 of SH: Water Supply LABOUR	metre	10.00	154.15	1541.50 A
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				5348.96 W
	Add 1 % Water charges on "W-A"				38.07
	TOTAL				5387.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				540.30
	TOTAL				5927.33 Y
	Add 15% CPOH on "Y-A"				657.87
	TOTAL				6585.21 Z
	Add Cess @ 1% on "Z-A"				50.44
	Cost of 10 metre				6635.64
	Cost of 1 metre				663.56
	Say				663.55

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 ₹
8300	Details of cost for 10 metre MATERIAL 1216 mm PE-AL-PE Composit pressure pipe Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	62.00	620.00 P
	LABOUR				186.00
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				1690.88 W
	Add 1 % Water charges on "W"				16.91
	TOTAL				1707.79 X
	Add GST on "X" (multiplying factor 0.1405)				239.94
	TOTAL				1947.73 Y
	Add 15% CPOH on "Y"				292.16
	TOTAL				2239.89 Z
	Add Cess @ 1% on "Z"				22.40
	Cost of 10 metre				2262.29
	Cost of 1 metre				226.23
	Say				226.25

18.3.2 1620 (20 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8301	Details of cost for 10 metre MATERIAL 1620 mm PE-AL-PE Composit pressure pipe Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	78.00	780.00 P
	LABOUR				234.00
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				1898.88 W
	Add 1 % Water charges on "W"				18.99
	TOTAL				1917.87 X
	Add GST on "X" (multiplying factor 0.1405)				269.46
	TOTAL				2187.33 Y
	Add 15% CPOH on "Y"				328.10
	TOTAL				2515.43 Z
	Add Cess @ 1% on "Z"				25.15
	Cost of 10 metre				2540.58
	Cost of 1 metre				254.06
	Say				254.05

18.3.3 2025 (25 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8302	Details of cost for 10 metre MATERIAL				
	2025 mm PE-AL-PE Composit pressure pipe	metre	10.00	110.00	1100.00 P
	Add 30% for fittings and wastage etc. on (P)				330.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				2314.88 W
	Add 1 % Water charges on "W"				23.15
	TOTAL				2338.03 X
	Add GST on "X" (multiplying factor 0.1405)				328.49
	TOTAL				2666.52 Y
	Add 15% CPOH on "Y"				399.98
	TOTAL				3066.50 Z
	Add Cess @ 1% on "Z"				30.67
	Cost of 10 metre				3097.17
	Cost of 1 metre				309.72
	Say				309.70

18.3.4 2532 (32 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8303	Details of cost for 10 metre MATERIAL				
	2532 mm PE-AL-PE Composit pressure pipe	metre	10.00	157.00	1570.00 P
	Add 30% for fittings and wastage etc. on (P)				471.00
	30 x P / 100				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0116	LABOUR				
	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				2925.88 W
	Add 1 % Water charges on "W"				29.26
	TOTAL				2955.14 X
	Add GST on "X" (multiplying factor 0.1405)				415.20
	TOTAL				3370.34 Y
	Add 15% CPOH on "Y"				505.55
	TOTAL				3875.89 Z
	Add Cess @ 1% on "Z"				38.76
	Cost of 10 metre				3914.65
	Cost of 1 metre				391.46
	Say				391.45

18.3.5 3240 (40 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8304	Details of cost for 10 metre MATERIAL				
	3240 mm PE-AL-PE Composit pressure pipe	metre	10.00	235.00	2350.00 P
	Add 30% for fittings and wastage etc. on (P)				705.00
	30 x P / 100				
	LABOUR				
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.33	558.00	184.14
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				4093.78 W
	Add 1 % Water charges on "W"				40.94
	TOTAL				4134.72 X
	Add GST on "X" (multiplying factor 0.1405)				580.93
	TOTAL				4715.65 Y
	Add 15% CPOH on "Y"				707.35
	TOTAL				5422.99 Z
	Add Cess @ 1% on "Z"				54.23
	Cost of 10 metre				5477.22
	Cost of 1 metre				547.72
	Say				547.70

18.3.6 4050 (50 mm OD) pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8305	Details of cost for 10 metre MATERIAL 4050 mm PE-AL-PE Composit pressure pipe Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	330.00	3300.00 P
	LABOUR				990.00
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.33	558.00	184.14
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				5328.78 W
	Add 1 % Water charges on "W"				53.29
	TOTAL				5382.07 X
	Add GST on "X" (multiplying factor 0.1405)				756.18
	TOTAL				6138.25 Y
	Add 15% CPOH on "Y"				920.74
	TOTAL				7058.99 Z
	Add Cess @ 1% on "Z"				70.59
	Cost of 10 metre				7129.58
	Cost of 1 metre				712.96
	Say				712.95

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 ₹
8626	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia Add 30% for fittings, clamps and wastage etc. on P, 30xP/100	metre	10.00	43.27	432.70 P
9999	Cement, Sand and grit	L.S.	2.73	2.00	129.81
	LABOUR:				5.46
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.82	679.00	556.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				1736.57 W
	Add 1 % Water charges on "W"				17.37
	TOTAL				1753.94 X
	Add GST on "X" (multiplying factor 0.1405)				246.43
	TOTAL				2000.36 Y
	Add 15% CPOH on "Y"				300.05
	TOTAL				2300.42 Z
	Add Cess @ 1% on "Z"				23.00
	Cost of 10 metre				2323.42
	Cost of 1 metre				232.34
	Say				232.35

18.4.2 PN - 16 Pipe, 25mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8627	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia	metre	10.00	66.80	668.00 P
	Add 30% for fittings, clamps and wastage etc. on P, 30xP/100				200.40
9999	Cement,Sand and grit	L.S.	2.73	2.00	5.46
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2151.10 W
	Add 1 % Water charges on "W"				21.51
	TOTAL				2172.61 X
	Add GST on "X" (multiplying factor 0.1405)				305.25
	TOTAL				2477.86 Y
	Add 15% CPOH on "Y"				371.68
	TOTAL				2849.54 Z
	Add Cess @ 1% on "Z"				28.50
	Cost of 10 metre				2878.04
	Cost of 1 metre				287.80
	Say				287.80

18.4.3 PN - 16 Pipe, 32mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8628	Details of cost for 10 metre MATERIAL: 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	2.00	8.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0116	LABOUR:				
	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2575.20 W
	Add 1 % Water charges on "W"				25.75
	TOTAL				2600.95 X
	Add GST on "X" (multiplying factor 0.1405)				365.43
	TOTAL				2966.39 Y
	Add 15% CPOH on "Y"				444.96
	TOTAL				3411.34 Z
	Add Cess @ 1% on "Z"				34.11
	Cost of 10 metre				3445.46
	Cost of 1 metre				344.55
	Say				344.55

18.4.4 PN - 16 Pipe, 40mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8629	Details of cost for 10 metre MATERIAL:				
	Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 40 mm Outer dia	metre	10.00	161.07	1610.70 P
	Add 15% for fittings, clamps and wastage etc. on P, 15xP/100				241.61
9999	Cement, Sand and grit	L.S.	5.33	2.00	10.66
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.31	679.00	889.49
0114	Beldar	day	1.31	558.00	730.98
	TOTAL				3726.98 W
	Add 1 % Water charges on "W"				37.27
	TOTAL				3764.24 X
	Add GST on "X" (multiplying factor 0.1405)				528.88
	TOTAL				4293.12 Y
	Add 15% CPOH on "Y"				643.97
	TOTAL				4937.09 Z
	Add Cess @ 1% on "Z"				49.37
	Cost of 10 metre				4986.46
	Cost of 1 metre				498.65
	Say				498.65

18.4.5 PN - 10 Pipe, 50mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8630	Details of cost for 10 metre MATERIAL:				
	Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 50 mm Outer dia	metre	10.00	252.22	2522.20 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add 15% for fittings, clamps and wastage etc. on P, 15xP/100 Cement, Sand and grit LABOUR:	L.S.	5.33	2.00	378.33 10.66
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.31	679.00	889.49
0114	Beldar	day	1.31	558.00	730.98
	TOTAL				4775.20 W
	Add 1 % Water charges on "W"				47.75
	TOTAL				4822.95 X
	Add GST on "X" (multiplying factor 0.1405)				677.62
	TOTAL				5500.58 Y
	Add 15% CPOH on "Y"				825.09
	TOTAL				6325.66 Z
	Add Cess @ 1% on "Z"				63.26
	Cost of 10 metre				6388.92
	Cost of 1 metre				638.89
	Say				638.90

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 ₹
8626	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	43.27	432.70 P
	Add 75% for fittings, clamps and wastage etc. on P, 75xP/100				324.53
18.78	Making chases upto 7.5 x 7.5 cm. in walls and making good the same Rate as per Item Number 18.78 of SH: Water supply	metre	10.00	154.15	1541.50 A
	LABOUR:				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3358.69 W
	Add 1 % Water charges on "W-A"				18.17
	TOTAL				3376.86 X
	Add GST on "X-A" (multiplying factor 0.1405)				257.87
	TOTAL				3634.72 Y
	Add 15% CPOH on "Y-A"				313.98
	TOTAL				3948.71 Z
	Add Cess @ 1% on "Z-A"				0.01
	Cost of 10 metre				3948.72
	Cost of 1 metre				394.87
	Say				394.85

18.5.2 PN - 16 Pipe, 25mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8627	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia Add 75% for fittings, clamps and wastage etc. on P, 75xP/100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same	metre	10.00	66.80	668.00 P
18.78	Rate as per Item Number 18.78 of SH: Water supply LABOUR:	metre	10.00	154.15	1541.50 A
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3770.46 W
	Add 1 % Water charges on "W-A"				22.29
	TOTAL				3792.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				316.30
	TOTAL				4109.05 Y
	Add 15% CPOH on "Y-A"				385.13
	TOTAL				4494.18 Z
	Add Cess @ 1% on "Z-A"				29.53
	Cost of 10 metre				4523.71
	Cost of 1 metre				452.37
	Say				452.35

18.5.3 PN - 16 Pipe, 32mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8628	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia Add 50% for fittings, clamps and wastage etc. on P, 50xP/100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same	metre	10.00	107.47	1074.70 P
18.78	Rate as per Item Number 18.78 of SH: Water supply LABOUR:	metre	10.00	154.15	1541.50 A
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				4213.51 W
	Add 1 % Water charges on "W-A"				26.72
	TOTAL				4240.23 X
	Add GST on "X-A" (multiplying factor 0.1405)				379.17
	TOTAL				4619.40 Y
	Add 15% CPOH on "Y-A"				461.69
	TOTAL				5081.09 Z
	Add Cess @ 1% on "Z-A"				35.40
	Cost of 10 metre				5116.48
	Cost of 1 metre				511.65
	Say				511.65

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 ₹
8626	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 20 mm Outer dia	metre	10.00	43.27	432.70 P
	Add 20% for fittings and wastage etc. on P, 20xP/100				86.54
	LABOUR:				
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				1404.12 W
	Add 1 % Water charges on "W"				14.04
	TOTAL				1418.16 X
	Add GST on "X" (multiplying factor 0.1405)				199.25
	TOTAL				1617.41 Y
	Add 15% CPOH on "Y"				242.61
	TOTAL				1860.02 Z
	Add Cess @ 1% on "Z"				18.60
	Cost of 10 metre				1878.63
	Cost of 1 metre				187.86
	Say				187.85

18.6.2 PN - 16 Pipe, 25 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8627	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 25 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	66.80	668.00 P
	LABOUR:				133.60
0116	Fitter (grade 1)	day	0.12	738.00	88.56
0114	Beldar	day	0.25	558.00	139.50
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				1766.22 W
	Add 1 % Water charges on "W"				17.66
	TOTAL				1783.88 X
	Add GST on "X" (multiplying factor 0.1405)				250.64
	TOTAL				2034.52 Y
	Add 15% CPOH on "Y"				305.18
	TOTAL				2339.70 Z
	Add Cess @ 1% on "Z"				23.40
	Cost of 10 metre				2363.09
	Cost of 1 metre				236.31
	Say				236.30

18.6.3 PN - 16 Pipe, 32 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8628	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 32 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	107.47	1074.70 P
	LABOUR:				214.94
0116	Fitter (grade 1)	day	0.12	738.00	88.56
0114	Beldar	day	0.25	558.00	139.50
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				2254.26 W
	Add 1 % Water charges on "W"				22.54
	TOTAL				2276.80 X
	Add GST on "X" (multiplying factor 0.1405)				319.89
	TOTAL				2596.69 Y
	Add 15% CPOH on "Y"				389.50
	TOTAL				2986.20 Z
	Add Cess @ 1% on "Z"				29.86
	Cost of 10 metre				3016.06
	Cost of 1 metre				301.61
	Say				301.60

18.6.4 PN - 16 Pipe, 40 mm OD (SDR-7.4)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8629	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-16 (SDR 7.4) - 40 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	161.07	1610.70 P
	LABOUR:				322.14
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.33	558.00	184.14
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				2971.62 W
	Add 1 % Water charges on "W"				29.72
	TOTAL				3001.34 X
	Add GST on "X" (multiplying factor 0.1405)				421.69
	TOTAL				3423.02 Y
	Add 15% CPOH on "Y"				513.45
	TOTAL				3936.48 Z
	Add Cess @ 1% on "Z"				39.36
	Cost of 10 metre				3975.84
	Cost of 1 metre				397.58
	Say				397.60

18.6.5 PN - 10 Pipe, 50 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8630	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 50 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	252.22	2522.20 P
	LABOUR:				504.44
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.33	558.00	184.14
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				4065.42 W
	Add 1 % Water charges on "W"				40.65
	TOTAL				4106.07 X
	Add GST on "X" (multiplying factor 0.1405)				576.90
	TOTAL				4682.98 Y
	Add 15% CPOH on "Y"				702.45
	TOTAL				5385.42 Z
	Add Cess @ 1% on "Z"				53.85
	Cost of 10 metre				5439.28
	Cost of 1 metre				543.93
	Say				543.95

18.6.6 PN - 10 Pipe, 63 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8631	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 63 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	281.73	2817.30 P
	LABOUR:				563.46
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0114	Beldar	day	0.66	558.00	368.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	coolie	day	0.66	558.00	368.28
	TOTAL				4670.10 W
	Add 1 % Water charges on "W"				46.70
	TOTAL				4716.80 X
	Add GST on "X" (multiplying factor 0.1405)				662.71
	TOTAL				5379.51 Y
	Add 15% CPOH on "Y"				806.93
	TOTAL				6186.44 Z
	Add Cess @ 1% on "Z"				61.86
	Cost of 10 metre				6248.30
	Cost of 1 metre				624.83
	Say				624.85

18.6.7 PN - 10 Pipe, 75 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8632	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 75 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	418.18	4181.80 P
	LABOUR:				836.36
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0114	Beldar	day	0.66	558.00	368.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				6307.50 W
	Add 1 % Water charges on "W"				63.08
	TOTAL				6370.58 X
	Add GST on "X" (multiplying factor 0.1405)				895.07
	TOTAL				7265.64 Y
	Add 15% CPOH on "Y"				1089.85
	TOTAL				8355.49 Z
	Add Cess @ 1% on "Z"				83.55
	Cost of 10 metre				8439.04
	Cost of 1 metre				843.90
	Say				843.90

18.6.8 PN - 10 Pipe, 90 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8633	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 90 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	597.63	5976.30 P
	LABOUR:				1195.26
0116	Fitter (grade 1)	day	0.37	738.00	273.06
0114	Beldar	day	0.97	558.00	541.26
	Trenching and refilling etc.				
0114	Beldar	day	0.80	558.00	446.40
0115	Beldar	day	0.80	558.00	446.40
	TOTAL				8878.68 W
	Add 1 % Water charges on "W"				88.79
	TOTAL				8967.47 X
	Add GST on "X" (multiplying factor 0.1405)				1259.93
	TOTAL				10227.40 Y
	Add 15% CPOH on "Y"				1534.11
	TOTAL				11761.51 Z
	Add Cess @ 1% on "Z"				117.62
	Cost of 10 metre				11879.12
	Cost of 1 metre				1187.91
	Say				1187.90

18.6.9 PN - 10 Pipe, 110 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8634	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 110 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	885.83	8858.30 P
	LABOUR:				1771.66
0116	Fitter (grade 1)	day	0.37	738.00	273.06
0114	Beldar	day	0.97	558.00	541.26
	Trenching and refilling etc.				
0114	Beldar	day	0.80	558.00	446.40
0115	Coolie	day	0.80	558.00	446.40
	TOTAL				12337.08 W
	Add 1 % Water charges on "W"				123.37
	TOTAL				12460.45 X
	Add GST on "X" (multiplying factor 0.1405)				1750.69
	TOTAL				14211.14 Y
	Add 15% CPOH on "Y"				2131.67
	TOTAL				16342.82 Z
	Add Cess @ 1% on "Z"				163.43
	Cost of 10 metre				16506.24
	Cost of 1 metre				1650.62
	Say				1650.60

18.6.10 PN - 10 Pipe, 160 mm OD (SDR-11)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8635	Details of cost for 10 metre MATERIAL: Poly propylene- Random - Co - Polymer (PPR) pipes PN-10 (SDR 11) - 160 mm Outer dia Add 20% for fittings and wastage etc. on P, 20xP/100	metre	10.00	2557.30	25573.00 P
	LABOUR:				5114.60
0116	Fitter (grade 1)	day	0.58	738.00	428.04
0114	Beldar	day	1.54	558.00	859.32
	Trenching and refilling etc.				
0114	Beldar	day	1.20	558.00	669.60
0115	Coolie	day	1.20	558.00	669.60
	TOTAL				33314.16 W
	Add 1 % Water charges on "W"				333.14
	TOTAL				33647.30 X
	Add GST on "X" (multiplying factor 0.1405)				4727.45
	TOTAL				38374.75 Y
	Add 15% CPOH on "Y"				5756.21
	TOTAL				44130.96 Z
	Add Cess @ 1% on "Z"				441.31
	Cost of 10 metre				44572.27
	Cost of 1 metre				4457.23
	Say				4457.25

18.6A Providing and fixing PPR Unions
18.6A.1 PPR Union 20mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8306	Details of cost for 1 No MATERIAL: PPR Union 20mm	each	1.00	48.00	48.00
9999	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				194.20 W
	Add 1 % Water charges on "W"				1.94
	TOTAL				196.14 X
	Add GST on "X" (multiplying factor 0.1405)				27.56
	TOTAL				223.70 Y
	Add 15% CPOH on "Y"				33.55
	TOTAL				257.25 Z
	Add Cess @ 1% on "Z"				2.57
	Cost of 1 No				259.83
	Say				259.85

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	97.00	97.00
9999	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				243.20 W
	Add 1 % Water charges on "W"				2.43
	TOTAL				245.63 X
	Add GST on "X" (multiplying factor 0.1405)				34.51
	TOTAL				280.14 Y
	Add 15% CPOH on "Y"				42.02
	TOTAL				322.16 Z
	Add Cess @ 1% on "Z"				3.22
	Cost of 1 No				325.39
	Say				325.40

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	137.20	137.20
9999	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				283.40 W
	Add 1 % Water charges on "W"				2.83
	TOTAL				286.23 X
	Add GST on "X" (multiplying factor 0.1405)				40.22
	TOTAL				326.45 Y
	Add 15% CPOH on "Y"				48.97
	TOTAL				375.42 Z
	Add Cess @ 1% on "Z"				3.75
	Cost of 1 No				379.17
	Say				379.15

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	184.80	184.80
9999	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	738.00	81.18

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				331.00 W
	Add 1 % Water charges on "W"				3.31
	TOTAL				334.31 X
	Add GST on "X" (multiplying factor 0.1405)				46.97
	TOTAL				381.28 Y
	Add 15% CPOH on "Y"				57.19
	TOTAL				438.47 Z
	Add Cess @ 1% on "Z"				4.38
	Cost of 1 No				442.86
	Say				442.85

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	352.80	352.80
9999	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				499.00 W
	Add 1 % Water charges on "W"				4.99
	TOTAL				503.99 X
	Add GST on "X" (multiplying factor 0.1405)				70.81
	TOTAL				574.80 Y
	Add 15% CPOH on "Y"				86.22
	TOTAL				661.02 Z
	Add Cess @ 1% on "Z"				6.61
	Cost of 1 No				667.63
	Say				667.65

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	483.60	483.60
9999	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				629.80 W
	Add 1 % Water charges on "W"				6.30
	TOTAL				636.10 X
	Add GST on "X" (multiplying factor 0.1405)				89.37
	TOTAL				725.47 Y
	Add 15% CPOH on "Y"				108.82
	TOTAL				834.29 Z
	Add Cess @ 1% on "Z"				8.34
	Cost of 1 No				842.63
	Say				842.65

18.6A.7 PPR Union 75mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No				
8312	MATERIAL:				
	PPR Union 75mm	each	1.00	933.00	933.00
9999	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR:				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				1079.20 W
	Add 1 % Water charges on "W"				10.79
	TOTAL				1089.99 X
	Add GST on "X" (multiplying factor 0.1405)				153.14
	TOTAL				1243.14 Y
	Add 15% CPOH on "Y"				186.47
	TOTAL				1429.61 Z
	Add Cess @ 1% on "Z"				14.30
	Cost of 1 No				1443.90
	Say				1443.90

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 outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre				
8636	MATERIAL				
	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm outer dia.	metre	10.00	48.55	485.50 P
	Add 30% for fittings and wastage etc. on (P)				145.65
	30 x P / 100				
9999	Cement, sand and grit etc.	L.S.	2.73	2.00	5.46
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.82	679.00	556.78
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				1805.21 W
	Add 1 % Water charges on "W"				18.05
	TOTAL				1823.26 X
	Add GST on "X" (multiplying factor 0.1405)				256.17
	TOTAL				2079.43 Y
	Add 15% CPOH on "Y"				311.91
	TOTAL				2391.34 Z
	Add Cess @ 1% on "Z"				23.91
	Cost of 10 metre				2415.26
	Cost of 1 metre				241.53
	Say				241.55

18.7.2 20 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8637	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	77.80 233.40	778.00 P
9999	Cement, sand and grit etc. LABOUR	L.S.	2.73	2.00	5.46
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2294.10 W
	Add 1 % Water charges on "W"				22.94
	TOTAL				2317.04 X
	Add GST on "X" (multiplying factor 0.1405)				325.54
	TOTAL				2642.59 Y
	Add 15% CPOH on "Y"				396.39
	TOTAL				3038.97 Z
	Add Cess @ 1% on "Z"				30.39
	Cost of 10 metre				3069.36
	Cost of 1 metre				306.94
	Say				306.95

18.7.3 25 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8638	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	113.60	1136.00 P 340.80
9999	Cement, sand and grit etc. LABOUR	L.S.	2.73	2.00	5.46
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2759.50 W
	Add 1 % Water charges on "W"				27.60
	TOTAL				2787.10 X
	Add GST on "X" (multiplying factor 0.1405)				391.59
	TOTAL				3178.68 Y
	Add 15% CPOH on "Y"				476.80
	TOTAL				3655.48 Z
	Add Cess @ 1% on "Z"				36.55
	Cost of 10 metre				3692.04
	Cost of 1 metre				369.20
	Say				369.20

18.7.4 32 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8639	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	163.65	1636.50 P
9999	Cement, sand and grit etc. LABOUR	L.S.	4.16	2.00	490.95 8.32
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.98	558.00	546.84
	TOTAL				3591.57 W
	Add 1 % Water charges on "W"				35.92
	TOTAL				3627.49 X
	Add GST on "X" (multiplying factor 0.1405)				509.66
	TOTAL				4137.15 Y
	Add 15% CPOH on "Y"				620.57
	TOTAL				4757.72 Z
	Add Cess @ 1% on "Z"				47.58
	Cost of 10 metre				4805.30
	Cost of 1 metre				480.53
	Say				480.55

18.7.5 40 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8640	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	228.70	2287.00 P
9999	Cement, sand and grit etc. LABOUR	L.S.	5.33	2.00	686.10 10.66
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.31	679.00	889.49
0114	Beldar	day	1.31	558.00	730.98
	TOTAL				4847.77 W
	Add 1 % Water charges on "W"				48.48
	TOTAL				4896.25 X
	Add GST on "X" (multiplying factor 0.1405)				687.92
	TOTAL				5584.17 Y
	Add 15% CPOH on "Y"				837.63
	TOTAL				6421.80 Z
	Add Cess @ 1% on "Z"				64.22
	Cost of 10 metre				6486.01
	Cost of 1 metre				648.60
	Say				648.60

18.7.6 50 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8641	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	375.25	3752.50 P 1125.75
9999	Cement, sand and grit etc. LABOUR	L.S.	5.33	2.00	10.66
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.31	679.00	889.49
0114	Beldar	day	1.31	558.00	730.98
	TOTAL				6752.92 W
	Add 1 % Water charges on "W"				67.53
	TOTAL				6820.45 X
	Add GST on "X" (multiplying factor 0.1405)				958.27
	TOTAL				7778.72 Y
	Add 15% CPOH on "Y"				1166.81
	TOTAL				8945.53 Z
	Add Cess @ 1% on "Z"				89.46
	Cost of 10 metre				9034.99
	Cost of 1 metre				903.50
	Say				903.50

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 outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8636	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm outer dia. Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100	metre	10.00	48.55	485.50 P 364.13
18.78	Making chases upto 7.5 x 7.5 cm. in walls and making good the same Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	154.15	1541.50 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3451.09 W
	Add 1 % Water charges on "W-A"				19.10
	TOTAL				3470.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				270.98
	TOTAL				3741.16 Y
	Add 15% CPOH on "Y-A"				329.95
	TOTAL				4071.11 Z
	Add Cess @ 1% on "Z-A"				25.30
	Cost of 10 metre				4096.41
	Cost of 1 metre				409.64
	Say				409.65

18.8.2 20 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8637	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm outer dia. Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100	metre	10.00	77.80	778.00 P
	Making chases upto 7.5 x 7.5 cm. in walls and making good the same				583.50
18.78	Rate as per item no. 18.78 Of SH: Water Supply	metre	10.00	154.15	1541.50 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3962.96 W
	Add 1 % Water charges on "W-A"				24.21
	TOTAL				3987.17 X
	Add GST on "X-A" (multiplying factor 0.1405)				343.62
	TOTAL				4330.79 Y
	Add 15% CPOH on "Y-A"				418.39
	TOTAL				4749.19 Z
	Add Cess @ 1% on "Z-A"				32.08
	Cost of 10 metre				4781.26
	Cost of 1 metre				478.13
	Say				478.15

18.8.3 25 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8638	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm outer dia.	metre	10.00	113.60	1136.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.78	Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same Rate as per item no. 18.78 Of SH: Water Supply LABOUR	metre	10.00	154.15	1541.50 A
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				4589.46 W
	Add 1 % Water charges on "W-A"				30.48
	TOTAL				4619.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				432.52
	TOTAL				5052.46 Y
	Add 15% CPOH on "Y-A"				526.64
	TOTAL				5579.10 Z
	Add Cess @ 1% on "Z-A"				40.38
	Cost of 10 metre				5619.48
	Cost of 1 metre				561.95
	Say				561.95

18.8.4 32 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8639	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm outer dia. Add 75% for fittings, clamps and wastage etc. on (P) 75 x P / 100 Making chases upto 7.5 x 7.5 cm. in walls and making good the same	metre	10.00	163.65	1636.50 P
18.78	Rate as per item no. 18.78 Of SH: Water Supply LABOUR	metre	10.00	154.15	1541.50 A
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				5465.34 W
	Add 1 % Water charges on "W-A"				39.24
	TOTAL				5504.57 X
	Add GST on "X-A" (multiplying factor 0.1405)				556.81
	TOTAL				6061.39 Y
	Add 15% CPOH on "Y-A"				677.98
	TOTAL				6739.37 Z
	Add Cess @ 1% on "Z-A"				51.98
	Cost of 10 metre				6791.35
	Cost of 1 metre				679.13
	Say				679.15

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 outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8636	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	48.55	485.50 P
	LABOUR				145.65
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				1516.03 W
	Add 1 % Water charges on "W"				15.16
	TOTAL				1531.19 X
	Add GST on "X" (multiplying factor 0.1405)				215.13
	TOTAL				1746.32 Y
	Add 15% CPOH on "Y"				261.95
	TOTAL				2008.27 Z
	Add Cess @ 1% on "Z"				20.08
	Cost of 10 metre				2028.35
	Cost of 1 metre				202.84
	Say				202.85

18.9.2 20 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8637	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	77.80	778.00 P
	LABOUR				233.40
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				1896.28 W
	Add 1 % Water charges on "W"				18.96
	TOTAL				1915.24 X
	Add GST on "X" (multiplying factor 0.1405)				269.09
	TOTAL				2184.33 Y
	Add 15% CPOH on "Y"				327.65
	TOTAL				2511.98 Z
	Add Cess @ 1% on "Z"				25.12
	Cost of 10 metre				2537.10
	Cost of 1 metre				253.71
	Say				253.70

18.9.3 25 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8638	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	113.60	1136.00 P
	LABOUR				340.80
0116	Fitter (grade 1)	day	0.12	738.00	88.56
0114	Beldar	day	0.25	558.00	139.50
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				2441.42 W
	Add 1 % Water charges on "W"				24.41
	TOTAL				2465.83 X
	Add GST on "X" (multiplying factor 0.1405)				346.45
	TOTAL				2812.28 Y
	Add 15% CPOH on "Y"				421.84
	TOTAL				3234.13 Z
	Add Cess @ 1% on "Z"				32.34
	Cost of 10 metre				3266.47
	Cost of 1 metre				326.65
	Say				326.65

18.9.4 32 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8639	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	163.65	1636.50 P
					490.95

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0116	LABOUR Fitter (grade 1)	day	0.12	738.00	88.56
0114	Beldar	day	0.25	558.00	139.50
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				3092.07 W
	Add 1 % Water charges on "W"				30.92
	TOTAL				3122.99 X
	Add GST on "X" (multiplying factor 0.1405)				438.78
	TOTAL				3561.77 Y
	Add 15% CPOH on "Y"				534.27
	TOTAL				4096.04 Z
	Add Cess @ 1% on "Z"				40.96
	Cost of 10 metre				4137.00
	Cost of 1 metre				413.70
	Say				413.70

18.9.5 40 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8640	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	228.70	2287.00 P
	LABOUR				686.10
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.33	558.00	184.14
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				4011.88 W
	Add 1 % Water charges on "W"				40.12
	TOTAL				4052.00 X
	Add GST on "X" (multiplying factor 0.1405)				569.31
	TOTAL				4621.30 Y
	Add 15% CPOH on "Y"				693.20
	TOTAL				5314.50 Z
	Add Cess @ 1% on "Z"				53.15
	Cost of 10 metre				5367.65
	Cost of 1 metre				536.76
	Say				536.75

18.9.6 50 mm nominal outer dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8641	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm outer dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	375.25	3752.50 P
	LABOUR				1125.75
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.33	558.00	184.14
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				5917.03 W
	Add 1 % Water charges on "W"				59.17
	TOTAL				5976.20 X
	Add GST on "X" (multiplying factor 0.1405)				839.66
	TOTAL				6815.86 Y
	Add 15% CPOH on "Y"				1022.38
	TOTAL				7838.23 Z
	Add Cess @ 1% on "Z"				78.38
	Cost of 10 metre				7916.62
	Cost of 1 metre				791.66
	Say				791.65

18.9.7 62.50 mm nominal inner dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8642	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 62.5mm inner dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	793.30	7933.00 P
	LABOUR				2379.90
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0114	Beldar	day	0.66	558.00	368.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				11602.24 W
	Add 1 % Water charges on "W"				116.02
	TOTAL				11718.26 X
	Add GST on "X" (multiplying factor 0.1405)				1646.42
	TOTAL				13364.68 Y
	Add 15% CPOH on "Y"				2004.70
	TOTAL				15369.38 Z
	Add Cess @ 1% on "Z"				153.69
	Cost of 10 metre				15523.07
	Cost of 1 metre				1552.31
	Say				1552.30

18.9.8 75 mm nominal inner dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8643	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 75 mm inner dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	1031.05	10310.50 P
	LABOUR				3093.15
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0114	Beldar	day	0.66	558.00	368.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				14692.99 W
	Add 1 % Water charges on "W"				146.93
	TOTAL				14839.92 X
	Add GST on "X" (multiplying factor 0.1405)				2085.01
	TOTAL				16924.93 Y
	Add 15% CPOH on "Y"				2538.74
	TOTAL				19463.67 Z
	Add Cess @ 1% on "Z"				194.64
	Cost of 10 metre				19658.30
	Cost of 1 metre				1965.83
	Say				1965.85

18.9.9 100 mm nominal inner dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8644	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 100 mm inner dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100	metre	10.00	1466.75	14667.50 P
	LABOUR				4400.25
0116	Fitter (grade 1)	day	0.37	738.00	273.06
0114	Beldar	day	0.97	558.00	541.26
	Trenching and refilling etc.				
0114	Beldar	day	0.80	558.00	446.40
0115	Coolie	day	0.80	558.00	446.40
	TOTAL				20774.87 W
	Add 1 % Water charges on "W"				207.75
	TOTAL				20982.62 X
	Add GST on "X" (multiplying factor 0.1405)				2948.06
	TOTAL				23930.68 Y
	Add 15% CPOH on "Y"				3589.60
	TOTAL				27520.28 Z
	Add Cess @ 1% on "Z"				275.20
	Cost of 10 metre				27795.48
	Cost of 1 metre				2779.55
	Say				2779.55

18.9.10 150 mm nominal inner dia Pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8645	Details of cost for 10 metre MATERIAL Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm inner dia. Add 30% for fittings and wastage etc. on (P) 30 x P / 100 LABOUR	metre	10.00	3145.15	31451.50 P
0116	Fitter (grade 1)	day	0.58	738.00	428.04
0114	Beldar	day	1.54	558.00	859.32
	Trenching and refilling etc.				
0114	Beldar	day	1.20	558.00	669.60
0115	Coolie	day	1.20	558.00	669.60
	TOTAL				43513.51 W
	Add 1 % Water charges on "W"				435.14
	TOTAL				43948.65 X
	Add GST on "X" (multiplying factor 0.1405)				6174.78
	TOTAL				50123.43 Y
	Add 15% CPOH on "Y"				7518.51
	TOTAL				57641.94 Z
	Add Cess @ 1% on "Z"				576.42
	Cost of 10 metre				58218.36
	Cost of 1 metre				5821.84
	Say				5821.85

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 ₹
1545	Details of cost for 10 metre MATERIAL G.I. pipes 15 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 \times 12.30 = 14.145$ kg = 0.014145 tonne	metre	11.50	91.00	1046.50
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014145	92.24	1.30
9999	White lead, hemp, oil etc.	L.S.	8.06	2.00	16.12
9999	Cement, sand and grit etc.	L.S.	2.73	2.00	5.46
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2129.34 W
	Add 1 % Water charges on "W"				21.29
	TOTAL				2150.64 X
	Add GST on "X" (multiplying factor 0.1405)				302.16
	TOTAL				2452.80 Y
	Add 15% CPOH on "Y"				367.92
	TOTAL				2820.72 Z
	Add Cess @ 1% on "Z"				28.21
	Cost of 10 metre				2848.93
	Cost of 1 metre				284.89
	Say				284.90

18.10.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1546	Details of cost for 10 metre MATERIAL G.I. pipes 20 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 * 15.90 = 18.285$ kg = 0.018285 tonne	metre	11.50	120.00	1380.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018285	92.24	1.69
9999	White lead, hemp, oil etc.	L.S.	8.06	2.00	16.12
9999	Cement, sand and grit etc.	L.S.	2.73	2.00	5.46
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.82	679.00	556.78
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2571.87 W
	Add 1 % Water charges on "W"				25.72
	TOTAL				2597.59 X
	Add GST on "X" (multiplying factor 0.1405)				364.96
	TOTAL				2962.55 Y
	Add 15% CPOH on "Y"				444.38
	TOTAL				3406.93 Z
	Add Cess @ 1% on "Z"				34.07
	Cost of 10 metre				3441.00
	Cost of 1 metre				344.10
	Say				344.10

18.10.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1547	Details of cost for 10 metre MATERIAL G.I. pipes 25 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 * 24.60 = 28.29$ kg = 0.02829 tonne	metre	11.50	171.00	1966.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.02829	92.24	2.61
9999	White lead, hemp, oil etc.	L.S.	9.49	2.00	18.98
9999	Cement, sand and grit etc.	L.S.	4.16	2.00	8.32
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3273.65 W
	Add 1 % Water charges on "W"				32.74
	TOTAL				3306.39 X
	Add GST on "X" (multiplying factor 0.1405)				464.55
	TOTAL				3770.93 Y
	Add 15% CPOH on "Y"				565.64
	TOTAL				4336.57 Z
	Add Cess @ 1% on "Z"				43.37
	Cost of 10 metre				4379.94
	Cost of 1 metre				437.99
	Say				438.00

18.10.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1548	Details of cost for 10 metre MATERIAL G.I. pipes 32 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 * 31.70 = 36.455$ kg = 0.036455 tonne	metre	11.50	215.00	2472.50
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.036455	92.24	3.36
9999	White lead, hemp, oil etc.	L.S.	9.49	2.00	18.98
9999	Cement, sand and grit etc.	L.S.	4.16	2.00	8.32
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.98	679.00	665.42
0114	Beldar	day	0.98	558.00	546.84
	TOTAL				3958.96 W
	Add 1 % Water charges on "W"				39.59
	TOTAL				3998.55 X
	Add GST on "X" (multiplying factor 0.1405)				561.80
	TOTAL				4560.35 Y
	Add 15% CPOH on "Y"				684.05
	TOTAL				5244.40 Z
	Add Cess @ 1% on "Z"				52.44
	Cost of 10 metre				5296.85
	Cost of 1 metre				529.68
	Say				529.70

18.10.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1549	Details of cost for 10 metre MATERIAL G.I. pipes 40 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 * 36.50 = 41.975$ kg = 0.041975 tonne	metre	11.50	250.00	2875.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.041975	92.24	3.87
9999	White lead, hemp, oil etc.	L.S.	13.52	2.00	27.04
9999	Cement, sand and grit etc.	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.31	679.00	889.49
0114	Beldar	day	1.31	558.00	730.98
	TOTAL				4780.58 W
	Add 1 % Water charges on "W"				47.81
	TOTAL				4828.39 X
	Add GST on "X" (multiplying factor 0.1405)				678.39
	TOTAL				5506.78 Y
	Add 15% CPOH on "Y"				826.02
	TOTAL				6332.79 Z
	Add Cess @ 1% on "Z"				63.33
	Cost of 10 metre				6396.12
	Cost of 1 metre				639.61
	Say				639.60

18.10.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1550	Details of cost for 10 metre MATERIAL G.I. pipes 50 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 * 51.70 = 59.455$ kg = 0.059455 tonne	metre	11.50	310.00	3565.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.059455	92.24	5.48
9999	White lead, hemp, oil etc.	L.S.	13.52	2.00	27.04
9999	Cement, sand and grit etc.	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	1.64	679.00	1113.56
0114	Beldar	day	1.64	558.00	915.12
	TOTAL				5880.40 W
	Add 1 % Water charges on "W"				58.80
	TOTAL				5939.21 X
	Add GST on "X" (multiplying factor 0.1405)				834.46
	TOTAL				6773.67 Y
	Add 15% CPOH on "Y"				1016.05
	TOTAL				7789.72 Z
	Add Cess @ 1% on "Z"				77.90
	Cost of 10 metre				7867.61
	Cost of 1 metre				786.76
	Say				786.75

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 ₹
1545	Details of cost for 10 metre MATERIAL G.I. pipes 15 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 * 12.30 = 14.145$ kg = 0.014145 tonne	metre	11.50	91.00	1046.50
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.014145	92.24	1.30
9999	White lead, hemp, oil etc.	L.S.	8.06	2.00	16.12
18.40.1	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats (Rate same as per item no. 18.40.1)	metre	10.00	9.30	93.00 A
18.78	Making chases upto 7.5x7.5cm in walls and making good the same Rate as per item no. 18.78 Of SH Water Supply	metre	10.00	154.15	1541.50 A
0116	LABOUR Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3758.38 W
	Add 1 % Water charges on "W-A"				21.24
	TOTAL				3779.62 X
	Add GST on "X-A" (multiplying factor 0.1405)				301.39
	TOTAL				4081.01 Y
	Add 15% CPOH on "Y-A"				366.98
	TOTAL				4447.99 Z
	Add Cess @ 1% on "Z-A"				28.13
	Cost of 10 metre				4476.13
	Cost of 1 metre				447.61
	Say				447.60

18.11.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1546	Details of cost for 10 metre MATERIAL G.I. pipes 20 mm dia Weight for carriage = pipe weight + 15% for fittings = $1.15 * 15.90 = 18.285$ kg = 0.018285 tonne	metre	11.50	120.00	1380.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.018285	92.24	1.69
9999	White lead, hemp, oil etc.	L.S.	8.06	2.00	16.12
18.40.2	Painting G.I. pipe with anti-corrosive bitumastic paint two or more coats (Rate same as per item no. 18.40.2 Of SH Water Supply)	metre	10.00	11.10	111.00 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	154.15	1541.50 A
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				4110.27 W
	Add 1 % Water charges on "W-A"				24.58
	TOTAL				4134.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				348.77
	TOTAL				4483.61 Y
	Add 15% CPOH on "Y-A"				424.67
	TOTAL				4908.28 Z
	Add Cess @ 1% on "Z-A"				32.56
	Cost of 10 metre				4940.84
	Cost of 1 metre				494.08
	Say				494.10

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 ₹
1545	Details of cost for 10 metre MATERIAL G.I. pipes 15 mm dia	metre	10.20	91.00	928.20
	Weight for carriage = pipe weight + 2% for fittings = 1.02 * 12.30 = 12.546 kg = 0.012546 tonne				
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.012546	92.24	1.16
9999	White lead, hemp, oil etc.	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				1824.90 W
	Add 1 % Water charges on "W"				18.25
	TOTAL				1843.15 X
	Add GST on "X" (multiplying factor 0.1405)				258.96
	TOTAL				2102.11 Y
	Add 15% CPOH on "Y"				315.32
	TOTAL				2417.42 Z
	Add Cess @ 1% on "Z"				24.17
	Cost of 10 metre				2441.60
	Cost of 1 metre				244.16
	Say				244.15

18.12.2 20 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1546	Details of cost for 10 metre MATERIAL G.I. pipes 20 mm dia Weight for carriage = pipe weight + 2% for fittings = 1.02 * 15.90 = 16.218 kg = 0.016218 tonne	metre	10.20	120.00	1224.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.016218	92.24	1.50
9999	White lead, hemp, oil etc. LABOUR	L.S.	5.33	2.00	10.66
0116	Fitter (grade 1)	day	0.08	738.00	59.04
0114	Beldar	day	0.16	558.00	89.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				2121.04 W
	Add 1 % Water charges on "W"				21.21
	TOTAL				2142.25 X
	Add GST on "X" (multiplying factor 0.1405)				300.99
	TOTAL				2443.23 Y
	Add 15% CPOH on "Y"				366.48
	TOTAL				2809.72 Z
	Add Cess @ 1% on "Z"				28.10
	Cost of 10 metre				2837.81
	Cost of 1 metre				283.78
	Say				283.80

18.12.3 25 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1547	Details of cost for 10 metre MATERIAL G.I. pipes 25 mm dia Weight for carriage = pipe weight + 2% for fittings = 1.02 * 24.60 = 25.092 kg = 0.025092 tonne	metre	10.20	171.00	1744.20
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.025092	92.24	2.31
9999	White lead, hemp, oil etc. LABOUR	L.S.	6.76	2.00	13.52
0116	Fitter (grade 1)	day	0.12	738.00	88.56
0114	Beldar	day	0.25	558.00	139.50
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				2724.65 W
	Add 1 % Water charges on "W"				27.25
	TOTAL				2751.90 X
	Add GST on "X" (multiplying factor 0.1405)				386.64
	TOTAL				3138.54 Y
	Add 15% CPOH on "Y"				470.78
	TOTAL				3609.32 Z
	Add Cess @ 1% on "Z"				36.09
	Cost of 10 metre				3645.42
	Cost of 1 metre				364.54
	Say				364.55

18.12.4 32 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1548	Details of cost for 10 metre MATERIAL G.I. pipes 32 mm dia Weight for carriage = pipe weight + 2% for fittings = 1.02 * 31.70 = 32.334 kg = 0.032334 tonne	metre	10.20	215.00	2193.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.032334	92.24	2.98
9999	White lead, hemp, oil etc. LABOUR	L.S.	6.76	2.00	13.52
0116	Fitter (grade 1)	day	0.12	738.00	88.56
0114	Beldar Trenching and refilling etc.	day	0.25	558.00	139.50
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				3174.12 W
	Add 1 % Water charges on "W"				31.74
	TOTAL				3205.86 X
	Add GST on "X" (multiplying factor 0.1405)				450.42
	TOTAL				3656.29 Y
	Add 15% CPOH on "Y"				548.44
	TOTAL				4204.73 Z
	Add Cess @ 1% on "Z"				42.05
	Cost of 10 metre				4246.78
	Cost of 1 metre				424.68
	Say				424.70

18.12.5 40 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1549	Details of cost for 10 metre MATERIAL G.I. pipes 40 mm dia Weight for carriage = pipe weight + 2% for fittings = 1.02 * 36.50 = 37.23 kg = 0.03723 tonne	metre	10.20	250.00	2550.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.03723	92.24	3.43
9999	White lead, hemp, oil etc. LABOUR	L.S.	9.49	2.00	18.98
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar Trenching and refilling etc.	day	0.33	558.00	184.14
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				3611.19 W
	Add 1 % Water charges on "W"				36.11
	TOTAL				3647.31 X
	Add GST on "X" (multiplying factor 0.1405)				512.45
	TOTAL				4159.75 Y
	Add 15% CPOH on "Y"				623.96
	TOTAL				4783.72 Z
	Add Cess @ 1% on "Z"				47.84
	Cost of 10 metre				4831.55
	Cost of 1 metre				483.16
	Say				483.15

18.12.6 50 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1550	Details of cost for 10 metre MATERIAL G.I. pipes 50 mm dia Weight for carriage = pipe weight + 2% for fittings = 1.02 * 51.70 = 52.73 kg = 0.05273 tonne	metre	10.20	310.00	3162.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.052734	92.24	4.86
9999	White lead, hemp, oil etc. LABOUR	L.S.	9.49	2.00	18.98
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.33	558.00	184.14
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				4224.62 W
	Add 1 % Water charges on "W"				42.25
	TOTAL				4266.87 X
	Add GST on "X" (multiplying factor 0.1405)				599.50
	TOTAL				4866.37 Y
	Add 15% CPOH on "Y"				729.95
	TOTAL				5596.32 Z
	Add Cess @ 1% on "Z"				55.96
	Cost of 10 metre				5652.28
	Cost of 1 metre				565.23
	Say				565.25

18.12.7 65 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1551	Details of cost for 10 metre MATERIAL G.I. pipes 65 mm dia Weight for carriage = pipe weight + 2% for fittings = 1.02 * 66.30 = 67.626 kg = 0.067626 tonne	metre	10.20	395.00	4029.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.067626	92.24	6.24
9999	White lead, hemp, oil etc. LABOUR	L.S.	13.52	2.00	27.04
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0114	Beldar	day	0.66	558.00	368.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				5351.62 W
	Add 1 % Water charges on "W"				53.52
	TOTAL				5405.13 X
	Add GST on "X" (multiplying factor 0.1405)				759.42
	TOTAL				6164.56 Y
	Add 15% CPOH on "Y"				924.68
	TOTAL				7089.24 Z
	Add Cess @ 1% on "Z"				70.89
	Cost of 10 metre				7160.13
	Cost of 1 metre				716.01
	Say				716.00

18.12.8 80 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1552	Details of cost for 10 metre MATERIAL G.I. pipes 80 mm dia Weight for carriage = pipe weight + 2% for fittings = 1.02 * 86.40 = 88.128 kg = 0.088128 tonne	metre	10.20	505.00	5151.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.088128	92.24	8.13
9999	White lead, hemp, oil etc.	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0114	Beldar	day	0.66	558.00	368.28
	Trenching and refilling etc.				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.66	558.00	368.28
	TOTAL				6475.51 W
	Add 1 % Water charges on "W"				64.76
	TOTAL				6540.26 X
	Add GST on "X" (multiplying factor 0.1405)				918.91
	TOTAL				7459.17 Y
	Add 15% CPOH on "Y"				1118.88
	TOTAL				8578.05 Z
	Add Cess @ 1% on "Z"				85.78
	Cost of 10 metre				8663.83
	Cost of 1 metre				866.38
	Say				866.40

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	50.00	50.00
1555	G.I. back (jam) nuts 25 mm dia	each	1.00	15.00	15.00
9988	Carriage of materials and sundries	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				503.34 W
	Add 1 % Water charges on "W"				5.03
	TOTAL				508.37 X
	Add GST on "X" (multiplying factor 0.1405)				71.43
	TOTAL				579.80 Y
	Add 15% CPOH on "Y"				86.97
	TOTAL				666.77 Z
	Add Cess @ 1% on "Z"				6.67
	Cost of one connection				673.44
	Say				673.45

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	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.45	738.00	332.10
0114	Beldar	day	0.45	558.00	251.10
	TOTAL				1070.86 W
	Add 1 % Water charges on "W"				10.71
	TOTAL				1081.57 X
	Add GST on "X" (multiplying factor 0.1405)				151.96
	TOTAL				1233.53 Y
	Add 15% CPOH on "Y"				185.03
	TOTAL				1418.56 Z
	Add Cess @ 1% on "Z"				14.19
	Cost of one connection				1432.74
	Say				1432.75

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	15.00	15.00
9988	Carriage of materials and sundries	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				453.34 W
	Add 1 % Water charges on "W"				4.53
	TOTAL				457.87 X
	Add GST on "X" (multiplying factor 0.1405)				64.33
	TOTAL				522.20 Y
	Add 15% CPOH on "Y"				78.33
	TOTAL				600.54 Z
	Add Cess @ 1% on "Z"				6.01
	Cost of one metre with stop cock				606.54
	Say				606.55

18.15 Providing and fixing brass bib cock of approved quality :
18.15.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1339	Details of cost for one no. MATERIAL	each	1.00	210.00	210.00
9988	Brass bib-cock 15 mm dia	L.S.	8.06	2.00	16.12
	Carriage of materials and fixing charges				226.12 W
	TOTAL				2.26
	Add 1 % Water charges on "W"				228.38 X
	TOTAL				32.09
	Add GST on "X" (multiplying factor 0.1405)				260.47 Y
	TOTAL				39.07
	Add 15% CPOH on "Y"				299.54 Z
	TOTAL				3.00
	Add Cess @ 1% on "Z"				302.53
	Cost of one no.				302.55
	Say				

18.15.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1340	Details of cost for one no. MATERIAL	each	1.00	225.00	225.00
9988	Brass bib-cock 20 mm dia	L.S.	9.49	2.00	18.98
	Carriage of materials and fixing charges				243.98 W
	TOTAL				2.44
	Add 1 % Water charges on "W"				246.42 X
	TOTAL				34.62
	Add GST on "X" (multiplying factor 0.1405)				281.04 Y
	TOTAL				42.16
	Add 15% CPOH on "Y"				323.20 Z
	TOTAL				3.23
	Add Cess @ 1% on "Z"				326.43
	Cost of one no.				326.45
	Say				

18.16 Providing and fixing brass stop cock of approved quality :
18.16.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1342	Details of cost for one no. MATERIAL	each	1.00	210.00	210.00
9988	Brass stop-cock 15 mm dia	L.S.	8.06	2.00	16.12
	Carriage of materials and fixing charges				226.12 W
	TOTAL				2.26
	Add 1 % Water charges on "W"				228.38 X
	TOTAL				32.09
	Add GST on "X" (multiplying factor 0.1405)				260.47 Y
	TOTAL				39.07
	Add 15% CPOH on "Y"				299.54 Z
	TOTAL				3.00
	Add Cess @ 1% on "Z"				302.53
	Cost of one no.				302.55
	Say				

18.16.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1343	Details of cost for one no. MATERIAL	each	1.00	225.00	225.00
9988	Brass stop-cock 20 mm dia	L.S.	9.49	2.00	18.98
	Carriage of materials and fixing charges				243.98 W
	TOTAL				2.44
	Add 1 % Water charges on "W"				246.42 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				34.62
	TOTAL				281.04 Y
	Add 15% CPOH on "Y"				42.16
	TOTAL				323.20 Z
	Add Cess @ 1% on "Z"				3.23
	Cost of one no.				326.43
	Say				326.45

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 ₹
1927	Details of cost for one no. MATERIAL	each	1.00	350.00	350.00
9988	Brass full way valve with C.I. wheel (screwed end) 25 mm dia	L.S.	10.79	2.00	21.58
	Carriage of materials and fixing charges				371.58 W
	TOTAL				3.72
	Add 1 % Water charges on "W"				375.30 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				52.73
	TOTAL				428.02 Y
	Add 15% CPOH on "Y"				64.20
	TOTAL				492.23 Z
	Add Cess @ 1% on "Z"				4.92
	Cost of one no.				497.15
	Say				497.15

18.17.1A 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1926	Details of cost for 1 No. MATERIAL	each	1.00	325.00	325.00
	20 mm dia Gunmetal gate valve with wheel				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of metrial and fixing charge	L.S.	9.49	2.00	18.98
	TOTAL				343.98 W
	Add 1 % Water charges on "W"				3.44
	TOTAL				347.42 X
	Add GST on "X" (multiplying factor 0.1405)				48.81
	TOTAL				396.23 Y
	Add 15% CPOH on "Y"				59.43
	TOTAL				455.67 Z
	Add Cess @ 1% on "Z"				4.56
	Cost of 1 No.				460.22
	Say				460.20

18.17.2 32 mm nominal bore.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1928	Details of cost for one no. MATERIAL				
	Brass full way valve with C.I. wheel (screwed end) 32 mm dia	each	1.00	410.00	410.00
9988	Carriage of materials and fixing charges	L.S.	12.22	2.00	24.44
	TOTAL				434.44 W
	Add 1 % Water charges on "W"				4.34
	TOTAL				438.78 X
	Add GST on "X" (multiplying factor 0.1405)				61.65
	TOTAL				500.43 Y
	Add 15% CPOH on "Y"				75.07
	TOTAL				575.50 Z
	Add Cess @ 1% on "Z"				5.75
	Cost of one no.				581.25
	Say				581.25

18.17.3 40 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1929	Details of cost for one no. MATERIAL				
	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	each	1.00	480.00	480.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				507.04 W
	Add 1 % Water charges on "W"				5.07
	TOTAL				512.11 X
	Add GST on "X" (multiplying factor 0.1405)				71.95
	TOTAL				584.06 Y
	Add 15% CPOH on "Y"				87.61
	TOTAL				671.67 Z
	Add Cess @ 1% on "Z"				6.72
	Cost of one no.				678.39
	Say				678.40

18.17.4 50 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1930	Details of cost for one no. MATERIAL Brass full way valve with C.I. wheel (screwed end) 50 mm dia	each	1.00	620.00	620.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.00	29.64
	TOTAL				649.64 W
	Add 1 % Water charges on "W"				6.50
	TOTAL				656.14 X
	Add GST on "X" (multiplying factor 0.1405)				92.19
	TOTAL				748.32 Y
	Add 15% CPOH on "Y"				112.25
	TOTAL				860.57 Z
	Add Cess @ 1% on "Z"				8.61
	Cost of one no.				869.18
	Say				869.20

18.17.5 65 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1931	Details of cost for one no. MATERIAL 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	2.00	32.24
	TOTAL				1112.24 W
	Add 1 % Water charges on "W"				11.12
	TOTAL				1123.36 X
	Add GST on "X" (multiplying factor 0.1405)				157.83
	TOTAL				1281.19 Y
	Add 15% CPOH on "Y"				192.18
	TOTAL				1473.37 Z
	Add Cess @ 1% on "Z"				14.73
	Cost of one no.				1488.11
	Say				1488.10

18.17.6 80 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1932	Details of cost for one no. MATERIAL Brass full way valve with C.I. wheel (screwed end) 80 mm dia	each	1.00	1620.00	1620.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	18.85	2.00	37.70
	TOTAL				1657.70 W
	Add 1 % Water charges on "W"				16.58
	TOTAL				1674.28 X
	Add GST on "X" (multiplying factor 0.1405)				235.24
	TOTAL				1909.51 Y
	Add 15% CPOH on "Y"				286.43
	TOTAL				2195.94 Z
	Add Cess @ 1% on "Z"				21.96
	Cost of one no.				2217.90
	Say				2217.90

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 ₹
1922	Details of cost for one no. MATERIAL				
	H.P. or L.P. ball valve with polythene floats: 15 mm dia	each	1.00	210.00	210.00
9988	Carriage of materials and fixing charges	L.S.	21.58	2.00	43.16
	TOTAL				253.16 W
	Add 1 % Water charges on "W"				2.53
	TOTAL				255.69 X
	Add GST on "X" (multiplying factor 0.1405)				35.92
	TOTAL				291.62 Y
	Add 15% CPOH on "Y"				43.74
	TOTAL				335.36 Z
	Add Cess @ 1% on "Z"				3.35
	Cost of one no.				338.71
	Say				338.70

18.18.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1923	Details of cost for one no. MATERIAL				
	H.P. or L.P. ball valve with polythene floats: 20 mm dia	each	1.00	235.00	235.00
9988	Carriage of materials and fixing charges	L.S.	26.91	2.00	53.82
	TOTAL				288.82 W
	Add 1 % Water charges on "W"				2.89
	TOTAL				291.71 X
	Add GST on "X" (multiplying factor 0.1405)				40.99
	TOTAL				332.69 Y
	Add 15% CPOH on "Y"				49.90
	TOTAL				382.60 Z
	Add Cess @ 1% on "Z"				3.83
	Cost of one no.				386.42
	Say				386.40

18.18.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1924	Details of cost for one no. MATERIAL 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	2.00	64.48
	TOTAL				294.48 W
	Add 1 % Water charges on "W"				2.94
	TOTAL				297.42 X
	Add GST on "X" (multiplying factor 0.1405)				41.79
	TOTAL				339.21 Y
	Add 15% CPOH on "Y"				50.88
	TOTAL				390.09 Z
	Add Cess @ 1% on "Z"				3.90
	Cost of one no.				394.00
	Say				394.00

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 ₹
1933	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	each	1.00	330.00	330.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				357.04 W
	Add 1 % Water charges on "W"				3.57
	TOTAL				360.61 X
	Add GST on "X" (multiplying factor 0.1405)				50.67
	TOTAL				411.28 Y
	Add 15% CPOH on "Y"				61.69
	TOTAL				472.97 Z
	Add Cess @ 1% on "Z"				4.73
	Cost of one no.				477.70
	Say				477.70

18.19.1.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3080	Details of cost for one no. MATERIAL Gunmetal non-return valve-vertical (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	2.00	27.04
	TOTAL				377.04 W
	Add 1 % Water charges on "W"				3.77
	TOTAL				380.81 X
	Add GST on "X" (multiplying factor 0.1405)				53.50
	TOTAL				434.31 Y
	Add 15% CPOH on "Y"				65.15
	TOTAL				499.46 Z
	Add Cess @ 1% on "Z"				4.99
	Cost of one no.				504.46
	Say				504.45

18.19.2 32 mm nominal bore

18.19.2.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1934	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 32 mm dia	each	1.00	450.00	450.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.00	29.64
	TOTAL				479.64 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				484.44 X
	Add GST on "X" (multiplying factor 0.1405)				68.06
	TOTAL				552.50 Y
	Add 15% CPOH on "Y"				82.87
	TOTAL				635.37 Z
	Add Cess @ 1% on "Z"				6.35
	Cost of one no.				641.73
	Say				641.75

18.19.2.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3084	Details of cost for one no. MATERIAL Gunmetal non-return valve-vertical (screwed end) 32 mm dia	each	1.00	500.00	500.00
9988	Carriage of materials and fixing charges	L.S.	14.82	2.00	29.64
	TOTAL				529.64 W
	Add 1 % Water charges on "W"				5.30
	TOTAL				534.94 X
	Add GST on "X" (multiplying factor 0.1405)				75.16
	TOTAL				610.09 Y
	Add 15% CPOH on "Y"				91.51
	TOTAL				701.61 Z
	Add Cess @ 1% on "Z"				7.02
	Cost of one no.				708.63
	Say				708.65

18.19.3 40 mm nominal bore**18.19.3.1 Horizontal**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1935	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 40 mm dia	each	1.00	560.00	560.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.00	32.24
	TOTAL				592.24 W
	Add 1 % Water charges on "W"				5.92
	TOTAL				598.16 X
	Add GST on "X" (multiplying factor 0.1405)				84.04
	TOTAL				682.20 Y
	Add 15% CPOH on "Y"				102.33
	TOTAL				784.53 Z
	Add Cess @ 1% on "Z"				7.85
	Cost of one no.				792.38
	Say				792.40

18.19.3.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3088	Details of cost for one no. MATERIAL Gunmetal non-return valve-vertical (screwed end) 40 mm dia	each	1.00	700.00	700.00
9988	Carriage of materials and fixing charges	L.S.	16.12	2.00	32.24
	TOTAL				732.24 W
	Add 1 % Water charges on "W"				7.32
	TOTAL				739.56 X
	Add GST on "X" (multiplying factor 0.1405)				103.91
	TOTAL				843.47 Y
	Add 15% CPOH on "Y"				126.52
	TOTAL				969.99 Z
	Add Cess @ 1% on "Z"				9.70
	Cost of one no.				979.69
	Say				979.70

18.19.4 50 mm nominal bore**18.19.4.1 Horizontal**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1936	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 50 mm dia	each	1.00	820.00	820.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	17.55	2.00	35.10
	TOTAL				855.10 W
	Add 1 % Water charges on "W"				8.55
	TOTAL				863.65 X
	Add GST on "X" (multiplying factor 0.1405)				121.34
	TOTAL				984.99 Y
	Add 15% CPOH on "Y"				147.75
	TOTAL				1132.74 Z
	Add Cess @ 1% on "Z"				11.33
	Cost of one no.				1144.07
	Say				1144.05

18.19.4.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3092	Details of cost for one no. MATERIAL Gunmetal non-return valve-vertical (screwed end) 50 mm dia	each	1.00	900.00	900.00
9988	Carriage of materials and fixing charges	L.S.	17.55	2.00	35.10
	TOTAL				935.10 W
	Add 1 % Water charges on "W"				9.35
	TOTAL				944.45 X
	Add GST on "X" (multiplying factor 0.1405)				132.70
	TOTAL				1077.15 Y
	Add 15% CPOH on "Y"				161.57
	TOTAL				1238.72 Z
	Add Cess @ 1% on "Z"				12.39
	Cost of one no.				1251.11
	Say				1251.10

18.19.5 65 mm nominal bore

18.19.5.1 Horizontal

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1937	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 65 mm dia	each	1.00	1490.00	1490.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.00	37.70
	TOTAL				1527.70 W
	Add 1 % Water charges on "W"				15.28
	TOTAL				1542.98 X
	Add GST on "X" (multiplying factor 0.1405)				216.79
	TOTAL				1759.77 Y
	Add 15% CPOH on "Y"				263.96
	TOTAL				2023.73 Z
	Add Cess @ 1% on "Z"				20.24
	Cost of one no.				2043.97
	Say				2043.95

18.19.5.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3096	Details of cost for one no. MATERIAL Gunmetal non-return valve-vertical (screwed end) 65 mm dia	each	1.00	1500.00	1500.00
9988	Carriage of materials and fixing charges	L.S.	18.85	2.00	37.70
	TOTAL				1537.70 W
	Add 1 % Water charges on "W"				15.38
	TOTAL				1553.08 X
	Add GST on "X" (multiplying factor 0.1405)				218.21
	TOTAL				1771.28 Y
	Add 15% CPOH on "Y"				265.69
	TOTAL				2036.98 Z
	Add Cess @ 1% on "Z"				20.37
	Cost of one no.				2057.35
	Say				2057.35

18.19.6 80 mm nominal bore**18.19.6.1 Horizontal**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1938	Details of cost for one no. MATERIAL Gunmetal non-return valve-horizontal (screwed end) 80 mm dia	each	1.00	2120.00	2120.00
9988	Carriage of materials and fixing charges	L.S.	20.28	2.00	40.56
	TOTAL				2160.56 W
	Add 1 % Water charges on "W"				21.61
	TOTAL				2182.17 X
	Add GST on "X" (multiplying factor 0.1405)				306.59
	TOTAL				2488.76 Y
	Add 15% CPOH on "Y"				373.31
	TOTAL				2862.07 Z
	Add Cess @ 1% on "Z"				28.62
	Cost of one no.				2890.69
	Say				2890.70

18.19.6.2 Vertical

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3300	Details of cost for one no. MATERIAL Gunmetal non-return valve-vertical (screwed end) 80 mm dia	each	1.00	2500.00	2500.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	20.28	2.00	40.56
	TOTAL				2540.56 W
	Add 1 % Water charges on "W"				25.41
	TOTAL				2565.97 X
	Add GST on "X" (multiplying factor 0.1405)				360.52
	TOTAL				2926.48 Y
	Add 15% CPOH on "Y"				438.97
	TOTAL				3365.46 Z
	Add Cess @ 1% on "Z"				33.65
	Cost of one no.				3399.11
	Say				3399.10

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 ₹
1360	Details of cost for one no.				
	MATERIAL				
9988	C.I.mouth, brass ferrule 15 mm dia	each	1.00	140.00	140.00
	Carriage of materials and fixing charges	L.S.	40.30	2.00	80.60
	TOTAL				220.60 W
	Add 1 % Water charges on "W"				2.21
	TOTAL				222.81 X
	Add GST on "X" (multiplying factor 0.1405)				31.30
	TOTAL				254.11 Y
	Add 15% CPOH on "Y"				38.12
	TOTAL				292.23 Z
	Add Cess @ 1% on "Z"				2.92
	Cost of one no.				295.15
	Say				295.15

18.20.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1361	Details of cost for one no.				
	MATERIAL				
9988	C.I.mouth, brass ferrule 20 mm dia	each	1.00	160.00	160.00
	Carriage of materials and fixing charges	L.S.	47.19	2.00	94.38
	TOTAL				254.38 W
	Add 1 % Water charges on "W"				2.54
	TOTAL				256.92 X
	Add GST on "X" (multiplying factor 0.1405)				36.10
	TOTAL				293.02 Y
	Add 15% CPOH on "Y"				43.95
	TOTAL				336.97 Z
	Add Cess @ 1% on "Z"				3.37
	Cost of one no.				340.34
	Say				340.35

18.20.3 25 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1362	Details of cost for one no. MATERIAL				
9988	C.I.mouth, brass ferrule 25 mm dia	each	1.00	220.00	220.00
	Carriage of materials and fixing charges	L.S.	53.82	2.00	107.64
	TOTAL				327.64 W
	Add 1 % Water charges on "W"				3.28
	TOTAL				330.92 X
	Add GST on "X" (multiplying factor 0.1405)				46.49
	TOTAL				377.41 Y
	Add 15% CPOH on "Y"				56.61
	TOTAL				434.02 Z
	Add Cess @ 1% on "Z"				4.34
	Cost of one no.				438.36
	Say				438.35

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 ₹
1687	Details of cost for one no. MATERIAL				
9988	Unplasticised P.V.C.connection pipe with brass union 30 cm long 15 mm bore	each	1.00	30.00	30.00
	Carriage of materials and fixing charges	L.S.	12.22	2.00	24.44
	TOTAL				54.44 W
	Add 1 % Water charges on "W"				0.54
	TOTAL				54.98 X
	Add GST on "X" (multiplying factor 0.1405)				7.73
	TOTAL				62.71 Y
	Add 15% CPOH on "Y"				9.41
	TOTAL				72.12 Z
	Add Cess @ 1% on "Z"				0.72
	Cost of one no.				72.84
	Say				72.85

18.21.1.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1688	Details of cost for one no. MATERIAL				
	Unplasticised P.V.C.connection pipe with brass union 30 cm long 20 mm bore	each	1.00	35.00	35.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	12.22	2.00	24.44
	TOTAL				59.44 W
	Add 1 % Water charges on "W"				0.59
	TOTAL				60.03 X
	Add GST on "X" (multiplying factor 0.1405)				8.43
	TOTAL				68.47 Y
	Add 15% CPOH on "Y"				10.27
	TOTAL				78.74 Z
	Add Cess @ 1% on "Z"				0.79
	Cost of one no.				79.53
	Say				79.55

18.21.2 45 cm length

18.21.2.1 15 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1689	Details of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				62.04 W
	Add 1 % Water charges on "W"				0.62
	TOTAL				62.66 X
	Add GST on "X" (multiplying factor 0.1405)				8.80
	TOTAL				71.46 Y
	Add 15% CPOH on "Y"				10.72
	TOTAL				82.18 Z
	Add Cess @ 1% on "Z"				0.82
	Cost of one no.				83.01
	Say				83.00

18.21.2.2 20 mm nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1690	Details of cost for one no. MATERIAL 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	2.00	27.04
	TOTAL				75.04 W
	Add 1 % Water charges on "W"				0.75
	TOTAL				75.79 X
	Add GST on "X" (multiplying factor 0.1405)				10.65
	TOTAL				86.44 Y
	Add 15% CPOH on "Y"				12.97
	TOTAL				99.40 Z
	Add Cess @ 1% on "Z"				0.99
	Cost of one no.				100.40
	Say				100.40

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	100.00	100.00
9988	Carriage of materials and fixing charges	L.S.	6.76	2.00	13.52
	TOTAL				113.52 W
	Add 1 % Water charges on "W"				1.14
	TOTAL				114.66 X
	Add GST on "X" (multiplying factor 0.1405)				16.11
	TOTAL				130.76 Y
	Add 15% CPOH on "Y"				19.61
	TOTAL				150.38 Z
	Add Cess @ 1% on "Z"				1.50
	Cost of one no.				151.88
	Say				151.90

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
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				141.12 W
	Add 1 % Water charges on "W"				1.41
	TOTAL				142.53 X
	Add GST on "X" (multiplying factor 0.1405)				20.03
	TOTAL				162.56 Y
	Add 15% CPOH on "Y"				24.38
	TOTAL				186.94 Z
	Add Cess @ 1% on "Z"				1.87
	Cost of one no.				188.81
	Say				188.80

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	738.00	125.46
0117	Assistant Fitter or 2nd class Fitter	day	0.17	679.00	115.43
0114	Beldar	day	1.33	558.00	742.14
9999	Sundries	L.S.	16.12	2.00	32.24
	TOTAL				1015.27 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				1344.92 Z
	Add Cess @ 1% on "Z"				13.45
	Cost of 5.14 quintal				1358.37
	Cost of one quintal				264.27
	Say				264.25

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	738.00	686.34
0117	Assistant Fitter or 2nd class Fitter	day	0.62	679.00	420.98
0114	Beldar	day	2.48	558.00	1383.84

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	40.17	2.00	80.34
	TOTAL				2571.50 W
	Add 1 % Water charges on "W"				25.72
	TOTAL				2597.22 X
	Add GST on "X" (multiplying factor 0.1405)				364.91
	TOTAL				2962.12 Y
	Add 15% CPOH on "Y"				444.32
	TOTAL				3406.44 Z
	Add Cess @ 1% on "Z"				34.06
	Cost of 7 quintal				3440.51
	Cost of one quintal				491.50
	Say				491.50

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 ₹
1464	Details of cost for 1 quintal MATERIAL				
	S & S.C.I. standard specials upto 300 mm dia (heavy class)	quintal	1.00	3600.00	3600.00
2309	Carriage of Cast iron fittings	tonne	0.10	92.24	9.22
18.24	LABOUR				
	Rate as per item No. 18.24 Of SH: Water Supply	quintal	1.00	491.50	491.50 A
	TOTAL				4100.72 W
	Add 1 % Water charges on "W-A"				36.09
	TOTAL				4136.82 X
	Add GST on "X-A" (multiplying factor 0.1405)				512.17
	TOTAL				4648.98 Y
	Add 15% CPOH on "Y-A"				623.62
	TOTAL				5272.61 Z
	Add Cess @ 1% on "Z-A"				47.81
	Cost of one quintal				5320.42
	Say				5320.40

18.25.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1466	Details of cost for 1 quintal MATERIAL				
	S & S.C.I. standard specials over 300 mm dia (heavy class)	quintal	1.00	3700.00	3700.00
2309	Carriage of Cast iron fittings	tonne	0.10	92.24	9.22
	LABOUR				
	For laying				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.24	Rate as per item No. 18.24 Of SH: Water Supply 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 quintal Say	quintal	1.00	491.50	491.50 A 4200.72 W 37.09 4237.82 X 526.36 4764.17 Y 640.90 5405.07 Z 49.14 5454.21 5454.20

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 ₹
1468	Details of cost for 1 quintal MATERIAL Flanged C.I. standard specials upto 300 mm dia(heavy class)	quintal	1.00	5500.00	5500.00
2309	Carriage of Cast iron fittings LABOUR For laying	tonne	0.10	92.24	9.22
18.24	Rate as per item No. 18.24 of SH: Water Supply 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 quintal Say	quintal	1.00	491.50	491.50 A 6000.72 W 55.09 6055.82 X 781.79 6837.60 Y 951.92 7789.52 Z 72.98 7862.50 7862.50

18.26.2 Over 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1470	Details of cost for 1 quintal MATERIAL Flanged C.I. standard specials over 300 mm dia(heavy class)	quintal	1.00	5500.00	5500.00
2309	Carriage of Cast iron fittings LABOUR For laying	tonne	0.10	92.24	9.22

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.24	Rate as per item No. 18.24 of SH: Water Supply 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 quintal Say	quintal	1.00	491.50	491.50 A 6000.72 W 55.09 6055.82 X 781.79 6837.60 Y 951.92 7789.52 Z 72.98 7862.50 7862.50

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	226.82	22.68
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply 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 10 metre Cost of one metre Say	quintal	1.98	264.25	523.22 A 9115.90 W 85.93 9201.82 X 1219.34 10421.17 Y 1484.69 11905.86 Z 113.83 12019.69 1201.97 1201.95

18.27.2 125 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7698	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 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	302.97	30.30
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	2.58	264.25	681.77 A
	TOTAL				11382.06 W
	Add 1 % Water charges on "W-A"				107.00
	TOTAL				11489.06 X
	Add GST on "X-A" (multiplying factor 0.1405)				1518.43
	TOTAL				13007.49 Y
	Add 15% CPOH on "Y-A"				1848.86
	TOTAL				14856.35 Z
	Add Cess @ 1% on "Z-A"				141.75
	Cost of 10 metre				14998.10
	Cost of one metre				1499.81
	Say				1499.80

18.27.3 150 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7699	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 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	378.03	37.80
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	3.22	264.25	850.89 A
	TOTAL				13748.69 W
	Add 1 % Water charges on "W-A"				128.98
	TOTAL				13877.67 X
	Add GST on "X-A" (multiplying factor 0.1405)				1830.26
	TOTAL				15707.93 Y
	Add 15% CPOH on "Y-A"				2228.56
	TOTAL				17936.49 Z
	Add Cess @ 1% on "Z-A"				170.86
	Cost of 10 metre				18107.34
	Cost of one metre				1810.73
	Say				1810.75

18.27.4 200 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7700	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 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	614.93	61.49
18.23	LABOUR for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	4.71	264.25	1244.62 A
	TOTAL				23206.11 W
	Add 1 % Water charges on "W-A"				219.61
	TOTAL				23425.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				3116.45
	TOTAL				26542.17 Y
	Add 15% CPOH on "Y-A"				3794.63
	TOTAL				30336.80 Z
	Add Cess @ 1% on "Z-A"				290.92
	Cost of 10 metre				30627.73
	Cost of one metre				3062.77
	Say				3062.75

18.27.5 250 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7701	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 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	873.84	87.38
18.23	LABOUR for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	6.35	264.25	1677.99 A
	TOTAL				30335.37 W
	Add 1 % Water charges on "W-A"				286.57
	TOTAL				30621.95 X
	Add GST on "X-A" (multiplying factor 0.1405)				4066.63
	TOTAL				34688.57 Y
	Add 15% CPOH on "Y-A"				4951.59
	TOTAL				39640.16 Z
	Add Cess @ 1% on "Z-A"				379.62
	Cost of 10 metre				40019.78
	Cost of one metre				4001.98
	Say				4002.00

18.27.6 300 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7702	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 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	1080.08	108.01
18.23	LABOUR for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	8.18	264.25	2161.57 A
	TOTAL				40839.57 W
	Add 1 % Water charges on "W-A"				386.78
	TOTAL				41226.35 X
	Add GST on "X-A" (multiplying factor 0.1405)				5488.60
	TOTAL				46714.96 Y
	Add 15% CPOH on "Y-A"				6683.01
	TOTAL				53397.96 Z
	Add Cess @ 1% on "Z-A"				512.36
	Cost of 10 metre				53910.33
	Cost of one metre				5391.03
	Say				5391.05

18.27.7 350 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7703	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 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	1512.11	151.21
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	10.31	264.25	2724.42 A
	TOTAL				49065.63 W
	Add 1 % Water charges on "W-A"				463.41
	TOTAL				49529.04 X
	Add GST on "X-A" (multiplying factor 0.1405)				6576.05
	TOTAL				56105.09 Y
	Add 15% CPOH on "Y-A"				8007.10
	TOTAL				64112.19 Z
	Add Cess @ 1% on "Z-A"				613.88
	Cost of 10 metre				64726.07
	Cost of one metre				6472.61
	Say				6472.60

18.27.8 400 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7704	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 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	2061.97	206.20
18.23	LABOUR for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	12.55	264.25	3316.34 A
	TOTAL				64472.53 W
	Add 1 % Water charges on "W-A"				611.56
	TOTAL				65084.10 X
	Add GST on "X-A" (multiplying factor 0.1405)				8678.37
	TOTAL				73762.47 Y
	Add 15% CPOH on "Y-A"				10566.92
	TOTAL				84329.39 Z
	Add Cess @ 1% on "Z-A"				810.13
	Cost of 10 metre				85139.52
	Cost of one metre				8513.95
	Say				8513.95

18.27.9 450 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7705	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 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	2520.19	252.02
18.23	LABOUR for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	15.13	264.25	3998.10 A
	TOTAL				78060.12 W
	Add 1 % Water charges on "W-A"				740.62
	TOTAL				78800.74 X
	Add GST on "X-A" (multiplying factor 0.1405)				10509.77
	TOTAL				89310.51 Y
	Add 15% CPOH on "Y-A"				12796.86
	TOTAL				102107.37 Z
	Add Cess @ 1% on "Z-A"				981.09
	Cost for 10 metre				103088.47
	Cost of one metre				10308.85
	Say				10308.85

18.27.10 500 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7706	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 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	2520.19	252.02
18.23	LABOUR for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	17.71	264.25	4679.87 A
	TOTAL				90641.89 W
	Add 1 % Water charges on "W-A"				859.62
	TOTAL				91501.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				12198.44
	TOTAL				103699.95 Y
	Add 15% CPOH on "Y-A"				14853.01
	TOTAL				118552.96 Z
	Add Cess @ 1% on "Z-A"				1138.73
	Cost of 10 metre				119691.69
	Cost of one metre				11969.17
	Say				11969.15

18.27.11 600 mm dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7707	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 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	3780.28	378.03
18.23	LABOUR for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	23.60	264.25	6236.30 A
	TOTAL				126564.33 W
	Add 1 % Water charges on "W-A"				1203.28
	TOTAL				127767.61 X
	Add GST on "X-A" (multiplying factor 0.1405)				17075.15
	TOTAL				144842.76 Y
	Add 15% CPOH on "Y-A"				20790.97
	TOTAL				165633.73 Z
	Add Cess @ 1% on "Z-A"				1593.97
	Cost of 10 metre				167227.70
	Cost of 1 metre				16722.77
	Say				16722.75

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	50.00	85.00
	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	2.00	13.52
9977	Carriage of materials	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	1.00	738.00	738.00
0117	Assistant Fitter or 2nd class Fitter	day	1.00	679.00	679.00
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				2801.18 W
	Add 1 % Water charges on "W"				28.01
	TOTAL				2829.19 X
	Add GST on "X" (multiplying factor 0.1405)				397.50
	TOTAL				3226.69 Y
	Add 15% CPOH on "Y"				484.00
	TOTAL				3710.70 Z
	Add Cess @ 1% on "Z"				37.11
	Cost of 10 joints				3747.80
	Cost of one joint				374.78
	Say				374.80

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	50.00	100.00
	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	2.00	18.98
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	LABOUR				
0116	Fitter (grade 1)	day	1.50	738.00	1107.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	679.00	1018.50
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				4160.46 W
	Add 1 % Water charges on "W"				41.60
	TOTAL				4202.06 X
	Add GST on "X" (multiplying factor 0.1405)				590.39
	TOTAL				4792.45 Y
	Add 15% CPOH on "Y"				718.87
	TOTAL				5511.32 Z
	Add Cess @ 1% on "Z"				55.11
	Cost of 10 joints				5566.44
	Cost of one joint				556.64
	Say				556.65

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	50.00	115.00
	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	2.00	21.58
9977	Carriage of materials	L.S.	10.79	2.00	21.58
	LABOUR				
0116	Fitter (grade 1)	day	1.50	738.00	1107.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	679.00	1018.50
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				4205.66 W
	Add 1 % Water charges on "W"				42.06
	TOTAL				4247.72 X
	Add GST on "X" (multiplying factor 0.1405)				596.80
	TOTAL				4844.52 Y
	Add 15% CPOH on "Y"				726.68
	TOTAL				5571.20 Z
	Add Cess @ 1% on "Z"				55.71
	Cost of 10 joints				5626.91
	Cost of one joint				562.69
	Say				562.70

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	50.00	150.00
	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	2.00	27.04
9977	Carriage of materials	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	2.00	738.00	1476.00
0117	Assistant Fitter or 2nd class Fitter	day	2.00	679.00	1358.00
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				5588.08 W
	Add 1 % Water charges on "W"				55.88
	TOTAL				5643.96 X
	Add GST on "X" (multiplying factor 0.1405)				792.98
	TOTAL				6436.94 Y
	Add 15% CPOH on "Y"				965.54
	TOTAL				7402.48 Z
	Add Cess @ 1% on "Z"				74.02
	Cost of 10 joints				7476.50
	Cost of one joint				747.65
	Say				747.65

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	50.00	200.00
	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	2.00	35.10
9977	Carriage of materials	L.S.	17.55	2.00	35.10
	LABOUR				
0116	Fitter (grade 1)	day	2.50	738.00	1845.00
0117	Assistant Fitter or 2nd class Fitter	day	2.50	679.00	1697.50
0114	Beldar	day	5.00	558.00	2790.00
	TOTAL				6984.70 W
	Add 1 % Water charges on "W"				69.85
	TOTAL				7054.55 X
	Add GST on "X" (multiplying factor 0.1405)				991.16
	TOTAL				8045.71 Y
	Add 15% CPOH on "Y"				1206.86
	TOTAL				9252.57 Z
	Add Cess @ 1% on "Z"				92.53
	Cost of 10 joints				9345.09
	Cost of one joint				934.51
	Say				934.50

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	50.00	270.00
	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	2.00	40.56
9977	Carriage of materials	L.S.	20.28	2.00	40.56
	LABOUR				
0116	Fitter (grade 1)	day	3.00	738.00	2214.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	679.00	2037.00
0114	Beldar	day	6.00	558.00	3348.00
	TOTAL				8401.12 W
	Add 1 % Water charges on "W"				84.01
	TOTAL				8485.13 X
	Add GST on "X" (multiplying factor 0.1405)				1192.16
	TOTAL				9677.29 Y
	Add 15% CPOH on "Y"				1451.59
	TOTAL				11128.89 Z
	Add Cess @ 1% on "Z"				111.29
	Cost of 10 joints				11240.17
	Cost of one joint				1124.02
	Say				1124.00

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	50.00	310.00
	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	2.00	48.36
9977	Carriage of materials	L.S.	24.18	2.00	48.36
	LABOUR				
0116	Fitter (grade 1)	day	3.00	738.00	2214.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	679.00	2037.00
0114	Beldar	day	6.00	558.00	3348.00
	TOTAL				8555.72 W
	Add 1 % Water charges on "W"				85.56
	TOTAL				8641.28 X
	Add GST on "X" (multiplying factor 0.1405)				1214.10
	TOTAL				9855.38 Y
	Add 15% CPOH on "Y"				1478.31
	TOTAL				11333.68 Z
	Add Cess @ 1% on "Z"				113.34
	Cost of 10 joints				11447.02
	Cost of one joint				1144.70
	Say				1144.70

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	50.00	370.00
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	2.00	53.82
9977	Carriage of materials	L.S.	26.91	2.00	53.82
	LABOUR				
0116	Fitter (grade 1)	day	4.00	738.00	2952.00
0117	Assistant Fitter or 2nd class Fitter	day	4.00	679.00	2716.00
0114	Beldar	day	8.00	558.00	4464.00
	TOTAL				11254.64 W
	Add 1 % Water charges on "W"				112.55
	TOTAL				11367.19 X
	Add GST on "X" (multiplying factor 0.1405)				1597.09
	TOTAL				12964.28 Y
	Add 15% CPOH on "Y"				1944.64
	TOTAL				14908.92 Z
	Add Cess @ 1% on "Z"				149.09
	Cost of 10 joints				15058.01
	Cost of one joint				1505.80
	Say				1505.80

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	50.00	395.00
	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	2.00	62.14
9977	Carriage of materials	L.S.	31.07	2.00	62.14
	LABOUR				
0116	Fitter (grade 1)	day	4.50	738.00	3321.00
0117	Assistant Fitter or 2nd class Fitter	day	4.50	679.00	3055.50
0114	Beldar	day	9.00	558.00	5022.00
	TOTAL				12636.28 W
	Add 1 % Water charges on "W"				126.36
	TOTAL				12762.64 X
	Add GST on "X" (multiplying factor 0.1405)				1793.15
	TOTAL				14555.79 Y
	Add 15% CPOH on "Y"				2183.37
	TOTAL				16739.16 Z
	Add Cess @ 1% on "Z"				167.39
	Cost of 10 joints				16906.55
	Cost of one joint				1690.66
	Say				1690.65

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	50.00	425.00
	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	2.00	67.34
9977	Carriage of materials	L.S.	33.67	2.00	67.34
	LABOUR				
0116	Fitter (grade 1)	day	4.75	738.00	3505.50
0117	Assistant Fitter or 2nd class Fitter	day	4.75	679.00	3225.25
0114	Beldar	day	9.50	558.00	5301.00
	TOTAL				13359.93 W
	Add 1 % Water charges on "W"				133.60
	TOTAL				13493.53 X
	Add GST on "X" (multiplying factor 0.1405)				1895.84
	TOTAL				15389.37 Y
	Add 15% CPOH on "Y"				2308.41
	TOTAL				17697.78 Z
	Add Cess @ 1% on "Z"				176.98
	Cost of 10 joints				17874.75
	Cost of one joint				1787.48
	Say				1787.50

18.28.11 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1881	Details of cost for 10 joints MATERIAL Spun yarn 1.02x10=10.20 kg	kilogram	10.20	50.00	510.00
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	2.00	80.60
9977	Carriage of materials	L.S.	40.30	2.00	80.60
	LABOUR				
0116	Fitter (grade 1)	day	6.50	738.00	4797.00
0117	Assistant Fitter or 2nd class Fitter	day	6.50	679.00	4413.50
0114	Beldar	day	13.00	558.00	7254.00
	TOTAL				18117.70 W
	Add 1 % Water charges on "W"				181.18
	TOTAL				18298.88 X
	Add GST on "X" (multiplying factor 0.1405)				2570.99
	TOTAL				20869.87 Y
	Add 15% CPOH on "Y"				3130.48
	TOTAL				24000.35 Z
	Add Cess @ 1% on "Z"				240.00
	Cost of 10 joints				24240.35
	Cost of one joint				2424.04
	Say				2424.05

18.29 Supplying pig lead at site of work.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1397	Details of cost for 1 quintal MATERIAL	kilogram	100.00	176.00	17600.00
2341	Pig lead	tonne	0.10	92.24	9.22
	Carriage of Pig lead				17609.22 W
	TOTAL				176.09
	Add 1 % Water charges on "W"				17785.32 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				2498.84
	TOTAL				20284.15 Y
	Add 15% CPOH on "Y"				3042.62
	TOTAL				23326.78 Z
	Add Cess @ 1% on "Z"				233.27
	Cost of one quintal				23560.04
	Say				23560.05

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 ₹
1373	Details of cost for 10 joints MATERIAL Rubber insertions for 80 mm dia pipe joints	each	10.00	16.00	160.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1956	Bolts and nuts 16 mm dia 60 mm long	each	40.00	11.00	440.00
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	LABOUR				
0116	Fitter (grade 1)	day	0.15	738.00	110.70
0117	Assistant Fitter or 2nd class Fitter	day	0.15	679.00	101.85
0114	Beldar	day	0.80	558.00	446.40
	TOTAL				1264.41 W
	Add 1 % Water charges on "W"				12.64
	TOTAL				1277.05 X
	Add GST on "X" (multiplying factor 0.1405)				179.43
	TOTAL				1456.48 Y
	Add 15% CPOH on "Y"				218.47
	TOTAL				1674.95 Z
	Add Cess @ 1% on "Z"				16.75
	Cost for 10 joints				1691.70
	Cost for one joint				169.17
	Say				169.15

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	11.00	880.00
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0117	Assistant Fitter or 2nd class Fitter	day	0.25	679.00	169.75
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				1980.57 W
	Add 1 % Water charges on "W"				19.81
	TOTAL				2000.38 X
	Add GST on "X" (multiplying factor 0.1405)				281.05
	TOTAL				2281.43 Y
	Add 15% CPOH on "Y"				342.21
	TOTAL				2623.64 Z
	Add Cess @ 1% on "Z"				26.24
	Cost for 10 joints				2649.88
	Cost for one joint				264.99
	Say				265.00

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1957	Bolts and nuts 16 mm dia 65 mm long	each	80.00	12.00	960.00
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0116	Fitter (grade 1)	day	0.25	738.00	184.50
0117	Assistant Fitter or 2nd class Fitter	day	0.25	679.00	169.75
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				2080.57 W
	Add 1 % Water charges on "W"				20.81
	TOTAL				2101.38 X
	Add GST on "X" (multiplying factor 0.1405)				295.24
	TOTAL				2396.62 Y
	Add 15% CPOH on "Y"				359.49
	TOTAL				2756.11 Z
	Add Cess @ 1% on "Z"				27.56
	Cost for 10 joints				2783.67
	Cost for one joint				278.37
	Say				278.35

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	2.00	8.32
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0117	Assistant Fitter or 2nd class Fitter	day	0.30	679.00	203.70
0114	Beldar	day	1.10	558.00	613.80
	TOTAL				2447.22 W
	Add 1 % Water charges on "W"				24.47
	TOTAL				2471.69 X
	Add GST on "X" (multiplying factor 0.1405)				347.27
	TOTAL				2818.96 Y
	Add 15% CPOH on "Y"				422.84
	TOTAL				3241.81 Z
	Add Cess @ 1% on "Z"				32.42
	Cost for 10 joints				3274.23
	Cost for one joint				327.42
	Say				327.40

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1959	Bolts and nuts 20 mm dia 70 mm long	each	80.00	17.00	1360.00
9977	Carriage of materials	L.S.	4.16	2.00	8.32
	LABOUR				
0116	Fitter (grade 1)	day	0.30	738.00	221.40
0117	Assistant Fitter or 2nd class Fitter	day	0.30	679.00	203.70
0114	Beldar	day	1.10	558.00	613.80
	TOTAL				2657.22 W
	Add 1 % Water charges on "W"				26.57
	TOTAL				2683.79 X
	Add GST on "X" (multiplying factor 0.1405)				377.07
	TOTAL				3060.87 Y
	Add 15% CPOH on "Y"				459.13
	TOTAL				3519.99 Z
	Add Cess @ 1% on "Z"				35.20
	Cost for 10 joints				3555.19
	Cost for one joint				355.52
	Say				355.50

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	16.00	1920.00
9977	Carriage of materials	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.40	738.00	295.20
0117	Assistant Fitter or 2nd class Fitter	day	0.40	679.00	271.60
0114	Beldar	day	1.30	558.00	725.40
	TOTAL				3622.86 W
	Add 1 % Water charges on "W"				36.23
	TOTAL				3659.09 X
	Add GST on "X" (multiplying factor 0.1405)				514.10
	TOTAL				4173.19 Y
	Add 15% CPOH on "Y"				625.98
	TOTAL				4799.17 Z
	Add Cess @ 1% on "Z"				47.99
	Cost for 10 joints				4847.16
	Cost for one joint				484.72
	Say				484.70

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	16.00	1920.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.40	738.00	295.20
0117	Assistant Fitter or 2nd class Fitter	day	0.40	679.00	271.60
0114	Beldar	day	1.30	558.00	725.40
	TOTAL				3672.86 W
	Add 1 % Water charges on "W"				36.73
	TOTAL				3709.59 X
	Add GST on "X" (multiplying factor 0.1405)				521.20
	TOTAL				4230.79 Y
	Add 15% CPOH on "Y"				634.62
	TOTAL				4865.40 Z
	Add Cess @ 1% on "Z"				48.65
	Cost for 10 joints				4914.06
	Cost for one joint				491.41
	Say				491.40

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	18.00	2880.00
9977	Carriage of materials	L.S.	5.33	2.00	10.66
	LABOUR				
0116	Fitter (grade 1)	day	0.50	738.00	369.00
0117	Assistant Fitter or 2nd class Fitter	day	0.50	679.00	339.50
0114	Beldar	day	1.50	558.00	837.00
	TOTAL				4936.16 W
	Add 1 % Water charges on "W"				49.36
	TOTAL				4985.52 X
	Add GST on "X" (multiplying factor 0.1405)				700.47
	TOTAL				5685.99 Y
	Add 15% CPOH on "Y"				852.90
	TOTAL				6538.89 Z
	Add Cess @ 1% on "Z"				65.39
	Cost for 10 joints				6604.27
	Cost for one joint				660.43
	Say				660.45

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	28.00	4480.00
9977	Carriage of materials	L.S.	8.06	2.00	16.12

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0116	Fitter (grade 1)	day	0.50	738.00	369.00
0117	Assistant Fitter or 2nd class Fitter	day	0.50	679.00	339.50
0114	Beldar	day	1.50	558.00	837.00
	TOTAL				6771.62 W
	Add 1 % Water charges on "W"				67.72
	TOTAL				6839.34 X
	Add GST on "X" (multiplying factor 0.1405)				960.93
	TOTAL				7800.26 Y
	Add 15% CPOH on "Y"				1170.04
	TOTAL				8970.30 Z
	Add Cess @ 1% on "Z"				89.70
	Cost for 10 joints				9060.01
	Cost for one joint				906.00
	Say				906.00

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	28.00	5600.00
9977	Carriage of materials	L.S.	8.06	2.00	16.12
	LABOUR				
0116	Fitter (grade 1)	day	0.60	738.00	442.80
0117	Assistant Fitter or 2nd class Fitter	day	0.60	679.00	407.40
0114	Beldar	day	1.70	558.00	948.60
	TOTAL				8334.92 W
	Add 1 % Water charges on "W"				83.35
	TOTAL				8418.27 X
	Add GST on "X" (multiplying factor 0.1405)				1182.77
	TOTAL				9601.04 Y
	Add 15% CPOH on "Y"				1440.16
	TOTAL				11041.19 Z
	Add Cess @ 1% on "Z"				110.41
	Cost for 10 joints				11151.60
	Cost for one joint				1115.16
	Say				1115.15

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	32.00	6400.00
9977	Carriage of materials	L.S.	8.06	2.00	16.12

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0116	LABOUR				
	Fitter (grade 1)	day	0.65	738.00	479.70
0117	Assistant Fitter or 2nd class Fitter	day	0.65	679.00	441.35
0114	Beldar	day	1.80	558.00	1004.40
	TOTAL				9441.57 W
	Add 1 % Water charges on "W"				94.42
	TOTAL				9535.99 X
	Add GST on "X" (multiplying factor 0.1405)				1339.81
	TOTAL				10875.79 Y
	Add 15% CPOH on "Y"				1631.37
	TOTAL				12507.16 Z
	Add Cess @ 1% on "Z"				125.07
	Cost of 10 joints				12632.23
	Cost for one joint				1263.22
	Say				1263.20

18.30.12 600 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 joints				
1384	MATERIAL				
	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	38.00	7600.00
9977	Carriage of materials	L.S.	9.49	2.00	18.98
	LABOUR				
0116	Fitter (grade 1)	day	0.75	738.00	553.50
0117	Assistant Fitter or 2nd class Fitter	day	0.75	679.00	509.25
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				11047.73 W
	Add 1 % Water charges on "W"				110.48
	TOTAL				11158.21 X
	Add GST on "X" (multiplying factor 0.1405)				1567.73
	TOTAL				12725.94 Y
	Add 15% CPOH on "Y"				1908.89
	TOTAL				14634.83 Z
	Add Cess @ 1% on "Z"				146.35
	Cost for 10 joints				14781.17
	Cost for one joint				1478.12
	Say				1478.10

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				
1940	MATERIAL				
	C.I.slauce valve (with caps) class I : 100 mm dia	each	10.00	2410.00	24100.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2309	Carriage of sluice valves wt.= 44.3x10=443kg= 0.443t. say 0.44t	tonne	0.44	92.24	40.59
18.24	Carriage of Cast iron fittings LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	4.43	491.50	2177.35 A
18.30.2	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	265.00	5300.00 A
	TOTAL				31617.93 W
	Add 1 % Water charges on "W-A"				241.41
	TOTAL				31859.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				3425.67
	TOTAL				35285.01 Y
	Add 15% CPOH on "Y-A"				4171.15
	TOTAL				39456.16 Z
	Add Cess @ 1% on "Z-A"				319.79
	Cost of 10 valves				39775.94
	Cost of 1 valve				3977.59
	Say				3977.60

18.31.1.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3311	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class II : 100 mm dia	each	10.00	2700.00	27000.00
2309	Carriage of sluice valves 56.3x10=563kg= 0.563t=0.56t	tonne	0.56	92.24	51.65
18.24	Carriage of Cast iron fittings LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	5.63	491.50	2767.15 A
18.30.2	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.2 Of SH: Water Supply)	each	20.00	265.00	5300.00 A
	TOTAL				35118.80 W
	Add 1 % Water charges on "W-A"				270.52
	TOTAL				35389.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				3838.77
	TOTAL				39228.08 Y
	Add 15% CPOH on "Y-A"				4674.14
	TOTAL				43902.22 Z
	Add Cess @ 1% on "Z-A"				358.35
	Cost of 10 valves				44260.57
	Cost of 1 valve				4426.06
	Say				4426.05

18.31.2 125 mm diameter**18.31.2.1 Class I**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1941	Details of cost for 10 sluice valves MATERIAL C.I.slauce valve (with caps) class I : 125 mm dia Carriage of sluice valves wt. = 56.3x10=563kg = 0.563t. say 0.56t	each	10.00	2600.00	26000.00
2309	Carriage of Cast iron fittings	tonne	0.56	92.24	51.65
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	5.63	491.50	2767.15 A
18.30.3	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.3 Of SH: Water Supply)	each	20.00	278.35	5567.00 A
	TOTAL				34385.80 W
	Add 1 % Water charges on "W-A"				260.52
	TOTAL				34646.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				3696.86
	TOTAL				38343.18 Y
	Add 15% CPOH on "Y-A"				4501.35
	TOTAL				42844.53 Z
	Add Cess @ 1% on "Z-A"				345.10
	Cost of 10 valves				43189.63
	Cost of 1 valve				4318.96
	Say				4318.95

18.31.2.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3314	Details of cost for 10 sluice valves MATERIAL C.I.slauce valve (with caps) class II : 125 mm dia Carriage of sluice valves wt. = 68.3x10=683kg = 0.68t say 0.68t	each	10.00	3200.00	32000.00
2309	Carriage of Cast iron fittings	tonne	0.68	92.24	62.72
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	6.83	491.50	3356.95 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.3	(Rate as per item No.18.30.3 Of SH: Water Supply) 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 10 valves Cost of 1 valve Say	each	20.00	278.35	5567.00 A 40986.67 W 320.63 41307.30 X 4549.86 45857.16 Y 5539.98 51397.14 Z 424.73 51821.87 5182.19 5182.20

18.31.3 150 mm diameter

18.31.3.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1942	Details of cost for 10 sluice valves MATERIAL C.I.slauce valve (with caps) class I : 150 mm dia Carriage of sluice valves wt. = 72.5x10=725kg = 0.725t. say 0.72t	each	10.00	3600.00	36000.00
2309	Carriage of Cast iron fittings LABOUR for laying sluice valve	tonne	0.72	92.24	66.41
18.24	(Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	quintal	7.25	491.50	3563.38 A
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply) 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 10 valves Cost of 1 valve Say	each	20.00	327.40	6548.00 A 46177.79 W 360.66 46538.45 X 5118.00 51656.46 Y 6231.76 57888.22 Z 477.77 58365.99 5836.60 5836.60

18.31.3.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3317	Details of cost for 10 sluice valves MATERIAL C.I.sluiice valve (with caps) class II : 150 mm dia Carriage of sluice valves wt. = 86.5x10=865kg = 0.865t. say 0.865t	each	10.00	4000.00	40000.00
2309	Carriage of Cast iron fittings	tonne	0.865	92.24	79.79
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	quintal	8.65	491.50	4251.48 A
18.30.4	(Rate as per item No.18.30.4 Of SH: Water Supply) TOTAL	each	20.00	327.40	6548.00 A
	Add 1 % Water charges on "W-A"				50879.26 W
	TOTAL				400.80
	Add GST on "X-A" (multiplying factor 0.1405) TOTAL				51280.06 X
	Add 15% CPOH on "Y-A"				5687.52
	TOTAL				56967.58 Y
	Add Cess @ 1% on "Z-A"				6925.22
	TOTAL				63892.80 Z
	Add Cess @ 1% on "Z-A"				530.93
	Cost of 10 valves				64423.73
	Cost of 1 valve				6442.37
	Say				6442.35

18.31.4 200 mm diameter

18.31.4.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1943	Details of cost for 10 sluice valves MATERIAL C.I.sluiice valve (with caps) class I : 200 mm dia Carriage of sluice valves wt. = 121.5x10=1215kg = 1.215t. say 1.22t	each	10.00	7500.00	75000.00
2309	Carriage of Cast iron fittings	tonne	1.22	92.24	112.53
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	quintal	12.15	491.50	5971.73 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.5	(Rate as per item No.18.30.5 Of SH: Water Supply) 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 10 valves Cost of 1 valve Say	each	20.00	355.50	7110.00 A 88194.26 W 751.13 88945.38 X 10658.84 99604.23 Y 12978.38 112582.60 Z 995.01 113577.61 11357.76 11357.75

18.31.4.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3320	Details of cost for 10 sluice valves MATERIAL C.I.sluiice valve (with caps) class II : 200 mm dia Carriage of sluice valves wt. = 150.5x10=1505 kg = 1.5 t. say 1.5 t	each	10.00	8900.00	89000.00
2309	Carriage of Cast iron fittings	tonne	1.50	92.24	138.36
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	quintal	15.05	491.50	7397.08 A
18.30.5	(Rate as per item No.18.30.5 Of SH: Water Supply) 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 10 valves Cost of 1 valve Say	each	20.00	355.50	7110.00 A 103645.44 W 891.38 104536.82 X 12649.18 117186.00 Y 15401.84 132587.84 Z 1180.81 133768.64 13376.86 13376.85

18.31.5 250 mm diameter
18.31.5.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1944	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class I : 250 mm dia Carriage of sluice valves wt. = 179.9x10=1799kg = 1.799t. say 1.80t	each	10.00	10980.00	109800.00
2309	Carriage of Cast iron fittings	tonne	1.80	92.24	166.03
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	17.99	491.50	8842.09 A
18.30.6	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.6 Of SH: Water Supply)	each	20.00	484.70	9694.00 A
	TOTAL				128502.12 W
	Add 1 % Water charges on "W-A"				1099.66
	TOTAL				129601.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				15604.73
	TOTAL				145206.51 Y
	Add 15% CPOH on "Y-A"				19000.56
	TOTAL				164207.07 Z
	Add Cess @ 1% on "Z-A"				1456.71
	Cost of 10 valves				165663.78
	Cost of 1 valve				16566.38
	Say				16566.40

18.31.5.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3321	Details of cost for 10 sluice valves MATERIAL C.I.sluice valve (with caps) class II : 250 mm dia Carriage of sluice valves wt. = 229.9x10=2299kg = 2299t. say 2.30t	each	10.00	14500.00	145000.00
2309	Carriage of Cast iron fittings	tonne	2.30	92.24	212.15
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	22.99	491.50	11299.59 A
	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.6	(Rate as per item No.18.30.6 Of SH: Water Supply) 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 10 valves Cost of 1 valve Say	each	20.00	484.70	9694.00 A 166205.74 W 1452.12 167657.86 X 20606.33 188264.19 Y 25090.59 213354.78 Z 1923.61 215278.39 21527.84 21527.85

18.31.6 300 mm diameter

18.31.6.1 Class I

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1945	Details of cost for 10 sluice valves MATERIAL C.I.sluiice valve (with caps) class I : 300 mm dia Carriage of sluice valves wt. = 242.4x10=2424kg = 2.424t. say 2.42t	each	10.00	15500.00	155000.00
2309	Carriage of Cast iron fittings LABOUR for laying sluice valve	tonne	2.42	92.24	223.22
18.24	(Rate as per item No. 18.24 Of SH: Water Supply) Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc.	quintal	24.24	491.50	11913.96 A
18.30.7	(Rate as per item No.18.30.7 Of SH: Water Supply) 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 10 valves Cost of 1 valve Say	each	20.00	491.40	9828.00 A 176965.18 W 1552.23 178517.41 X 22026.95 200544.36 Y 26820.36 227364.72 Z 2056.23 229420.95 22942.10 22942.10

18.31.6.2 Class II

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3326	Details of cost for 10 sluice valves MATERIAL C.I.slauce valve (with caps) class II : 300 mm dia Carriage of sluice valves wt. = 303.4x10=3034kg = 3.304t.	each	10.00	18200.00	182000.00
2309	Carriage of Cast iron fittings	tonne	3.03	92.24	279.49
18.24	LABOUR for laying sluice valve (Rate as per item No. 18.24 Of SH: Water Supply)	quintal	30.34	491.50	14912.11 A
18.30.7	Providing flanged joints to sluice valves with bolts, nuts and rubber insertion etc. (Rate as per item No.18.30.7 Of SH: Water Supply)	each	20.00	491.40	9828.00 A
	TOTAL				207019.60 W
	Add 1 % Water charges on "W-A"				1822.79
	TOTAL				208842.39 X
	Add GST on "X-A" (multiplying factor 0.1405)				25866.37
	TOTAL				234708.76 Y
	Add 15% CPOH on "Y-A"				31495.30
	TOTAL				266204.06 Z
	Add Cess @ 1% on "Z-A"				2414.64
	Cost of 10 valves				268618.70
	Cost of 1 valve				26861.87
	Say				26861.85

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				
2.8.1	(i) Earth work in excavation including refilling and disposal of surplus earth 0.68x0.68x0.65m=0.301cum. (Rate as per item no. 2.8.1 of SH: Earth work)	cum	0.30	252.30	75.69 A
2.25	Rate as per item No.2.25	cum	0.30	219.65	65.90 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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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 : 4 coarse sand) in foundations and plinth 1.66mx0.115x0.50m=0.095cum. Say 0.10 cum.	cum	0.04	5225.15	209.01 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. 1.20x0.50=0.60sqm 0.30x0.30=0.09sqm. Total =0.69sqm. Say 0.70sqm.	cum	0.10	6376.25	637.63 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.70	350.15	245.11 A
1304	Surface box for stop cock (vi)	each	1.00	125.00	125.00
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 = 0.53mx0.53mx0.075m = 0.02107cum. Less surface box 0.112x0.112x0.076 = (-)0.00094 cum. = 0.0201 cum. Say 0.02cum.	L.S.	1.43	2.00	2.86
5.3	Rate as per item No.5.3 SH : R.C.C (viii) Less labour for not lifting the materilas upto floor five level	cum	0.02	9763.80	195.28 A
0115	Coolie (ix)	day	-0.038	558.00	-21.20
9999	Sundries	L.S.	4.16	2.00	8.32
	TOTAL				1543.57 W
	Add 1 % Water charges on "W-A"				1.15
	TOTAL				1544.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				16.32
	TOTAL				1561.04 Y
	Add 15% CPOH on "Y-A"				19.87
	TOTAL				1580.90 Z
	Add Cess @ 1% on "Z-A"				1.52
	Cost of one manhole				1582.43
	Say				1582.45

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	252.30	368.36 A
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) 1.21x1.21x0.1m=0.146cum. Say 0.15 cum. 4.1.11 Rate as per item no 4.1.11 of SH : Concrete Work	cum	1.46	219.65	320.69 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. 6.1.1 Rate as per item no 6.1.1 of SH : Brick Work	cum	0.15	5225.15	783.77 A
	(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. 13.9.1 Rate as per item no 13.9.1 of SH : Finishing	cum	0.57	6376.25	3634.46 A
	(v) C.I. surface box with hinged cover 100x100x75mm (inside) 1305 Surface box for sluice valve	sqm	2.16	350.15	756.32 A
	(vi) Carriage of C.I. surface box 9977 (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. 5.3 Rate as per item No.5.3 Of SH: RCC	each	1.00	210.00	210.00
	(viii) Less labour for not lifting the materilas upto floor five level	L.S.	8.06	2.00	16.12
		cum	0.17	9763.80	1659.85 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	-0.32	558.00	-178.56
5.22.1	(ix) Mild steel reinforcement for RCC work etc. 0.165cum.x80kg/cum. = 13.2kg Rate as per item no. 5.22.1 of SH : RCC work	kg	13.20	82.10	1083.72 A
5.9.3	(x) Form work 0.60mx0.60m= 0.36sqm.+ 3.32mx0.15m=0.50sqm. = 0.86 sqm. Rate as per item No.5.9.3 Of SH: RCC	sqm	0.86	693.05	596.02 A
9999	(xi) Sundries	L.S.	8.06	2.00	16.12
	TOTAL				9266.88 W
	Add 1 % Water charges on "W-A"				0.64
	TOTAL				9267.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				9.04
	TOTAL				9276.55 Y
	Add 15% CPOH on "Y-A"				11.00
	TOTAL				9287.55 Z
	Add Cess @ 1% on "Z-A"				0.84
	Cost of one manhole				9288.39
	Say				9288.40

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				
2.8.1	(i) Earth work in excavation including refilling and disposal of surplus earth 1.51X1.51X1.25 m = 2.85cum. Rate as per item no. 2.8.1 of SH: Earth work	cum	2.85	252.30	719.055 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	2.85	219.65	626.00 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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work (iii) Second class brick work in cement foundations and plinth foundations and plinth 4.52mx0.23mx1.00m=1.04cum.	cum	0.23	5225.15	1201.78 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. 3.60mx1.00m=3.60sqm 0.90mx0.90m =0.81sqm. Total=4.41sqm.	cum	1.04	6376.25	6631.30 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing (v) C.I. surface box with chained lid.	sqm	4.41	350.15	1544.16 A
1305	Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) 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 = 1.36mx1.36mx0.15m = 0.2774 cum. Less surface box 0.7854x0.156mx 0.156mx 0.18m = (-)0.0034 cum. = 0.2740 cum. Say 0.27 cum.	L.S.	8.06	2.00	16.12
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	9763.80	2636.23 A
0115	Coolie (ix) Mild steel reinforcement for RCC work etc. 0.274cum.x80kg/cum. = 21.92 kg.	day	-0.51	558.00	-284.58
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work (x) Form work 0.90mx0.90m=0.81sqm.+ 4.52mx0.15m = 0.68 sqm. Total= 1.49 sqm.	kg	21.92	82.10	1799.63 A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	1.49	693.05	1032.64 A
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				16148.47 W
	Add 1 % Water charges on "W-A"				-0.42
	TOTAL				16148.04 X
	Add GST on "X-A" (multiplying factor 0.1405)				-6.01
	TOTAL				16142.03 Y
	Add 15% CPOH on "Y-A"				-7.32
	TOTAL				16134.72 Z
	Add Cess @ 1% on "Z-A"				-0.56
	Cost of one manhole				16134.16
	Say				16134.15

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				
2.8.1	(i) Earth work in excavation including refilling and disposal of surplus earth 1.81X1.81X1.25M Rate as per item no. 2.8.1 of SH: Earth work	cum	4.10	252.30	1034.43 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	4.10	219.65	900.57 A
4.1.11	(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. Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.33	5225.15	1724.30 A
6.1.1	(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. Rate as per item no 6.1.1 of SH : Brick Work	cum	1.32	6376.25	8416.65 A
13.9.1	(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. Rate as per item no 13.9.1 of SH : Finishing	sqm	6.42	350.15	2247.96 A
1305	(v) C.I. surface box with chained lid Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) 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 = 1.66mx1.66mx0.15m = 0.4133 cum. Less surface box 0.7854x0.156mx0.156mx0.18m = (-)0.0034 cum. Total= 0.4099 cum. Say 0.41 cum.	L.S.	8.06	2.00	16.12

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 materials upto floor five level	cum	0.41	9763.80	4003.16 A
0115	Coolie (ix) Mild steel reinforcement for RCC slab steel @ 80kg/cum. 0.41cum.x80kg/cum. = 32.80kg.	day	-0.77	558.00	-429.66
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	82.10	2692.88 A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	2.30	693.05	1594.02 A
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				22426.54 W
	Add 1 % Water charges on "W-A"				-1.87
	TOTAL				22424.67 X
	Add GST on "X-A" (multiplying factor 0.1405)				-26.60
	TOTAL				22398.07 Y
	Add 15% CPOH on "Y-A"				-32.38
	TOTAL				22365.69 Z
	Add Cess @ 1% on "Z-A"				-2.48
	Cost of one manhole				22363.20
	Say				22363.20

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	252.30	368.36 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	1.46	219.65	320.69 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.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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 : 4 coarse sand) in foundations and plinth 3.32mx0.23mx0.75m=0.573cum. Say 0.57 cum.	cum	0.15	5225.15	783.77 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. 2.40mx0.75m=1.80sqm. 0.90mx0.90m =0.36sqm. Total=2.16sqm.	cum	0.57	6376.25	3634.46 A
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	350.15	756.32 A
1305	Surface box for sluice valve	each	1.00	210.00	210.00
9977	(vi) 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 0.61x0.41mx0.15m= (-)0.0375 cum. = 0.131 cum. Say 0.13 cum.	L.S.	53.82	2.00	107.64
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	9763.80	1269.29 A
0115	Coolie (ix) Mild steel reinforcement for RCC work etc. 0.131cumx80kg/cum. = 10.48kg.	day	-0.24	558.00	-133.92
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	82.10	860.41 A
5.9.3	Rate as per item No.5.9.3 Of SH: RCC (xi)	sqm	0.86	693.05	596.02 A
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				8789.17 W
	Add 1 % Water charges on "W-A"				2.00
	TOTAL				8791.17 X
	Add GST on "X-A" (multiplying factor 0.1405)				28.36
	TOTAL				8819.53 Y
	Add 15% CPOH on "Y-A"				34.53
	TOTAL				8854.06 Z
	Add Cess @ 1% on "Z-A"				2.65
	Cost of one manhole				8856.70
	Say				8856.70

- 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				
2.8.1	(i) Earth work in excavation including refilling and disposal of surplus earth 1.21X1.06X0.85m = 1.09cum. Rate as per item no. 2.8.1 of SH: Earth work	cum	1.09	252.30	275.01 A
2.25	Rate as per item No.2.25 of SH: Earth work	cum	1.09	219.65	239.42 A
4.1.11	(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. Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.13	5225.15	679.27 A
6.1.1	(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. Rate as per item no 6.1.1 of SH : Brick Work	cum	0.35	6376.25	2231.69 A
13.9.1	(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 Rate as per item no 13.9.1 of SH : Finishing	sqm	1.32	350.15	462.20 A
1307	(v) C.I. surface box 400x200x200mm (inside) with locking arrangement Surface box for water meter	each	1.00	250.00	250.00
9977	(vi) 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 = 1.06mx0.91mx0.25m = 0.241 cum. Less surface box 0.42x0.22mx0.2m = (-)0.018 cum. = 0.223 cum. Say 0.22 cum.	L.S.	13.52	2.00	27.04
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	0.22	9763.80	2148.04 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	-0.41	558.00	-228.78
5.22.1	(ix) Mild steel reinforcement for RCC work steel @ 80kg/cum. 0.223cum.x80kg/cum. = 17.84 kg. Rate as per item no. 5.22.1 of SH : RCC work	kg	17.84	82.10	1464.66 A
5.9.3	(x) Form work 0.60mx0.45m=0.27sqm.+ 3.02mx0.25m=0.76sqm. Total = 1.03sqm. Rate as per item No.5.9.3 Of SH: RCC	sqm	1.03	693.05	713.84 A
9999	(xi) Sundries	L.S.	8.06	2.00	16.12
	TOTAL				8278.50 W
	Add 1 % Water charges on "W-A"				0.64
	TOTAL				8279.15 X
	Add GST on "X-A" (multiplying factor 0.1405)				9.14
	TOTAL				8288.28 Y
	Add 15% CPOH on "Y-A"				11.12
	TOTAL				8299.41 Z
	Add Cess @ 1% on "Z-A"				0.85
	Cost of one manhole				8300.26
	Say				8300.25

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 ₹
13.50.3	Details of cost for 10 metre Perimeter = 0.0673 metre Area=10x0.0673m = 0.673sqm. Priming coat- Rate as per item no 13.50.3 of SH : Finishing	sqm	0.673	50.70	34.12 A
13.61.1	Painting two coats excluding priming coat with white paint on new work. Rate as per item no 13.61.1 of SH : Finishing	sqm	0.673	121.55	81.80 A
9999	Add for delay	L.S.	13.52	2.00	27.04
	TOTAL				142.96 W
	Add 1 % Water charges on "W-A"				0.27
	TOTAL				143.23 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.84
	TOTAL				147.07 Y
	Add 15% CPOH on "Y-A"				4.67
	TOTAL				151.74 Z
	Add Cess @ 1% on "Z-A"				0.36
	Cost of 10 metre				152.10
	Cost of one metre				15.21
	Say				15.20

18.38.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.50.3	Details of cost for 10 metre Perimeter = 0.0845 metre Area = 10x0.0845 sqm. = 0.845 sqm. Priming coat- Rate as per item no 13.50.3 of SH : Finishing Painting two coats excluding priming coat with white paint on new work.	sqm	0.845	50.70	42.84 A
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	0.845	121.55	102.71 A
9999	Add for delay	L.S.	13.52	2.00	27.04
	TOTAL				172.59 W
	Add 1 % Water charges on "W-A"				0.27
	TOTAL				172.86 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.84
	TOTAL				176.70 Y
	Add 15% CPOH on "Y-A"				4.67
	TOTAL				181.37 Z
	Add Cess @ 1% on "Z-A"				0.36
	Cost of 10 metre				181.73
	Cost of one metre				18.17
	Say				18.15

18.38.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.50.3	Details of cost for 10 metre Perimeter = 0.1061 metre Area = 10x0.1061 sqm. = 1.061 sqm. Priming coat- Rate as per item no 13.50.3 of SH : Finishing Painting two coats excluding priming coat with white paint on new work.	sqm	1.061	50.70	53.79 A
13.61.1	Rate as per item no 13.61.1 of SH : Finishing	sqm	1.061	121.55	128.96 A
9999	Add for delay	L.S.	20.28	2.00	40.56
	TOTAL				223.32 W
	Add 1 % Water charges on "W-A"				0.41
	TOTAL				223.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				5.76
	TOTAL				229.48 Y
	Add 15% CPOH on "Y-A"				7.01
	TOTAL				236.49 Z
	Add Cess @ 1% on "Z-A"				0.54
	Cost of 10 metre				237.02
	Cost of one metre				23.70
	Say				23.70

18.38.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.50.3	Details of cost for 10 metre Perimeter = 0.1334 metre Area = 10x0.1334 sqm. = 1.334 sqm. Priming coat- Rate as per item no 13.50.3 of SH : Finishing	sqm	1.334	50.70	67.63 A
13.61.1	Painting two coats excluding priming coat with white paint on new work. Rate as per item no 13.61.1 of SH : Finishing	sqm	1.334	121.55	162.15 A
9999	Add for delay	L.S.	20.28	2.00	40.56
	TOTAL				270.34 W
	Add 1 % Water charges on "W-A"				0.41
	TOTAL				270.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				5.76
	TOTAL				276.50 Y
	Add 15% CPOH on "Y-A"				7.01
	TOTAL				283.51 Z
	Add Cess @ 1% on "Z-A"				0.54
	Cost of 10 metre				284.05
	Cost of one metre				28.40
	Say				28.40

18.38.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.50.3	Details of cost for 10 metre Perimeter = 0.1520 metre Area = 10x0.1520 sqm. = 1.520 sqm. Priming coat- Rate as per item no 13.50.3 of SH : Finishing	sqm	1.52	50.70	77.06 A
13.61.1	Painting two coats excluding priming coat with white paint on new work. Rate as per item no 13.61.1 of SH : Finishing	sqm	1.52	121.55	184.76 A
9999	Add for delay	L.S.	26.91	2.00	53.82
	TOTAL				315.64 W
	Add 1 % Water charges on "W-A"				0.54
	TOTAL				316.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				7.64
	TOTAL				323.82 Y
	Add 15% CPOH on "Y-A"				9.30
	TOTAL				333.11 Z
	Add Cess @ 1% on "Z-A"				0.71
	Cost of 10 metre				333.83
	Cost of one metre				33.38
	Say				33.40

18.38.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.50.3	Details of cost for 10 metre Perimeter = 0.1894 metre Area = 10x0.1894 sqm. = 1.894 sqm. Priming coat- Rate as per item no 13.50.3 of SH : Finishing	sqm	1.894	50.70	96.03 A
13.61.1	Painting two coats excluding priming coat with white paint on new work. Rate as per item no 13.61.1 of SH : Finishing	sqm	1.894	121.55	230.22 A
9999	Add for delay	L.S.	26.91	2.00	53.82
	TOTAL				380.06 W
	Add 1 % Water charges on "W-A"				0.54
	TOTAL				380.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				7.64
	TOTAL				388.24 Y
	Add 15% CPOH on "Y-A"				9.30
	TOTAL				397.54 Z
	Add Cess @ 1% on "Z-A"				0.71
	Cost of 10 metre				398.25
	Cost of one metre				39.82
	Say				39.80

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 ₹
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work. (Rate as per item no 13.99.1 of S.H. Finishing)	sqm	0.673	79.95	53.81 A
9999	Add for delay	L.S.	8.06	2.00	16.12
	TOTAL				69.93 W
	Add 1 % Water charges on "W-A"				0.16
	TOTAL				70.09 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.29
	TOTAL				72.38 Y
	Add 15% CPOH on "Y-A"				2.79
	TOTAL				75.16 Z
	Add Cess @ 1% on "Z-A"				0.21
	Cost of 10 metre				75.37
	Cost of one metre				7.54
	Say				7.55

18.39.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work.				
	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	0.845	79.95	67.56 A
9999	Add for delay	L.S.	8.06	2.00	16.12
	TOTAL				83.68 W
	Add 1 % Water charges on "W-A"				0.16
	TOTAL				83.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.29
	TOTAL				86.13 Y
	Add 15% CPOH on "Y-A"				2.79
	TOTAL				88.91 Z
	Add Cess @ 1% on "Z-A"				0.21
	Cost of 10 metre				89.13
	Cost of one metre				8.91
	Say				8.90

18.39.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work.				
	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.061	79.95	84.83 A
9999	Add for delay	L.S.	10.79	2.00	21.58
	TOTAL				106.41 W
	Add 1 % Water charges on "W-A"				0.22
	TOTAL				106.62 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.06
	TOTAL				109.69 Y
	Add 15% CPOH on "Y-A"				3.73
	TOTAL				113.41 Z
	Add Cess @ 1% on "Z-A"				0.29
	Cost of 10 metre				113.70
	Cost of one metre				11.37
	Say				11.35

18.39.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work.				
	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.334	79.95	106.65 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	10.92	2.00	21.84
	TOTAL				128.49 W
	Add 1 % Water charges on "W-A"				0.22
	TOTAL				128.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.10
	TOTAL				131.81 Y
	Add 15% CPOH on "Y-A"				3.77
	TOTAL				135.58 Z
	Add Cess @ 1% on "Z-A"				0.29
	Cost of 10 metre				135.87
	Cost of one metre				13.59
	Say				13.60

18.39.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work.				
	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.52	79.95	121.52 A
9999	Add for delay	L.S.	13.52	2.00	27.04
	TOTAL				148.56 W
	Add 1 % Water charges on "W-A"				0.27
	TOTAL				148.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.84
	TOTAL				152.67 Y
	Add 15% CPOH on "Y-A"				4.67
	TOTAL				157.34 Z
	Add Cess @ 1% on "Z-A"				0.36
	Cost of 10 metre				157.70
	Cost of one metre				15.77
	Say				15.75

18.39.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.99.1	Details of cost for 10 metre Painting one coat with white paint on old work.				
	(Rate as per item no 13.99.1 of S.H. Finishing)	sqm	1.894	79.95	151.43 A
9999	Add for delay	L.S.	13.52	2.00	27.04
	TOTAL				178.47 W
	Add 1 % Water charges on "W-A"				0.27
	TOTAL				178.74 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.84
	TOTAL				182.57 Y
	Add 15% CPOH on "Y-A"				4.67
	TOTAL				187.24 Z
	Add Cess @ 1% on "Z-A"				0.36
	Cost of 10 metre				187.60
	Cost of one metre				18.76
	Say				18.75

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 ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	0.673	106.05	71.37 A
9999	Add for delay	L.S.	8.06	2.00	16.12
	TOTAL				87.49 W
	Add 1 % Water charges on "W-A"				0.16
	TOTAL				87.65 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.29
	TOTAL				89.94 Y
	Add 15% CPOH on "Y-A"				2.79
	TOTAL				92.73 Z
	Add Cess @ 1% on "Z-A"				0.21
	Cost of 10 metre				92.94
	Cost of one metre				9.29
	Say				9.30

18.40.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	0.845	106.05	89.61 A
9999	Add for delay	L.S.	8.06	2.00	16.12
	TOTAL				105.73 W
	Add 1 % Water charges on "W-A"				0.16
	TOTAL				105.89 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.29
	TOTAL				108.18 Y
	Add 15% CPOH on "Y-A"				2.79
	TOTAL				110.97 Z
	Add Cess @ 1% on "Z-A"				0.21
	Cost of 10 metre				111.18
	Cost of one metre				11.12
	Say				11.10

18.40.3 25 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.061	106.05	112.52 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	10.79	2.00	21.58
	TOTAL				134.10 W
	Add 1 % Water charges on "W-A"				0.22
	TOTAL				134.31 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.06
	TOTAL				137.38 Y
	Add 15% CPOH on "Y-A"				3.73
	TOTAL				141.11 Z
	Add Cess @ 1% on "Z-A"				0.29
	Cost of 10 metre				141.39
	Cost of one metre				14.14
	Say				14.15

18.40.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.334	106.05	141.47 A
9999	Add for delay	L.S.	10.79	2.00	21.58
	TOTAL				163.05 W
	Add 1 % Water charges on "W-A"				0.22
	TOTAL				163.27 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.06
	TOTAL				166.33 Y
	Add 15% CPOH on "Y-A"				3.73
	TOTAL				170.06 Z
	Add Cess @ 1% on "Z-A"				0.29
	Cost of 10 metre				170.34
	Cost of one metre				17.03
	Say				17.05

18.40.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.52	106.05	161.20 A
9999	Add for delay	L.S.	12.22	2.00	24.44
	TOTAL				185.64 W
	Add 1 % Water charges on "W-A"				0.24
	TOTAL				185.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.47
	TOTAL				189.35 Y
	Add 15% CPOH on "Y-A"				4.22
	TOTAL				193.57 Z
	Add Cess @ 1% on "Z-A"				0.32
	Cost of 10 metre				193.90
	Cost of one metre				19.39
	Say				19.40

18.40.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	1.894	106.05	200.86 A
9999	Add for delay	L.S.	12.22	2.00	24.44
	TOTAL				225.30 W
	Add 1 % Water charges on "W-A"				0.24
	TOTAL				225.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.47
	TOTAL				229.01 Y
	Add 15% CPOH on "Y-A"				4.22
	TOTAL				233.23 Z
	Add Cess @ 1% on "Z-A"				0.32
	Cost of 10 metre				233.56
	Cost of one metre				23.36
	Say				23.35

18.40.7 65 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	2.387	106.05	253.14 A
9999	Add for delay	L.S.	13.52	2.00	27.04
	TOTAL				280.18 W
	Add 1 % Water charges on "W-A"				0.27
	TOTAL				280.45 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.84
	TOTAL				284.29 Y
	Add 15% CPOH on "Y-A"				4.67
	TOTAL				288.96 Z
	Add Cess @ 1% on "Z-A"				0.36
	Cost of 10 metre				289.32
	Cost of one metre				28.93
	Say				28.95

18.40.8 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.65.1	Details of cost for 10 metre Painting with anti-corrosive paint two coats. (Rate as per item No.13.65.1 sub-heads finishing)	sqm	2.796	106.05	296.52 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Add for delay	L.S.	14.82	2.00	29.64
	TOTAL				326.16 W
	Add 1 % Water charges on "W-A"				0.30
	TOTAL				326.45 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.21
	TOTAL				330.66 Y
	Add 15% CPOH on "Y-A"				5.12
	TOTAL				335.78 Z
	Add Cess @ 1% on "Z-A"				0.39
	Cost of 10 metre				336.17
	Cost of one metre				33.62
	Say				33.60

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 ₹
18.41.1A	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 = $10 \times 0.30 \times 0.247 = 0.744$ cum. Less for pipe = $3.142/4(21.8)^2 \times 10 = (-)0.004$ cum. = 0.74 cum. Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	0.74	1927.15	1426.09 A 1426.09 1426.09 142.61 142.60

18.41.1A Sub analysis item for sand filling component

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Sub analysis item for sand filling component				
6501	MATERIAL				
	Sand zone V (Jamuna)	cum	1.00	1225.00	1225.00
2335	Carriage of Jamuna sand	cum	1.00	103.77	103.77
	Labour:				
0114	Beldar	day	0.09	558.00	50.22

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.11	558.00	61.38
	TOTAL				1440.37 W
	Add 1 % Water charges on "W"				14.40
	TOTAL				1454.77 X
	Add GST on "X" (multiplying factor 0.1405)				204.40
	TOTAL				1659.17 Y
	Add 15% CPOH on "Y"				248.88
	TOTAL				1908.04 Z
	Add Cess @ 1% on "Z"				19.08
	Cost of one cum.				1927.13
	Say				1927.15

18.41.2 20 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	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 = $10 \times 0.30 \times 0.252 = 0.756$ cum.+ Less for pipe $= 3.142/4(27.3)^2 \times 10 = (-)0.006$ cum. = 0.750 cum Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	0.75	1927.15	1445.36 A 1445.36 1445.36 144.54 144.55

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 = $10 \times 0.30 \times 0.259 = 0.777$ cum.+ Less for pipe $3.142/4(34.2)^2 \times 10 = (-)0.009$ cum. = 0.768 Say 0.77 cum.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	0.77	1927.15	1483.91 A 1483.91 1483.91 148.39 148.40

18.41.4 32 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	Details of cost of sand filling alround 32mm 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 = 42.9mm = 267.9 Say 268mm Quantity of sand = $10 \times 0.30 \times 0.268 = 0.804$ cum.+ Less for pipe $3.142/4(42.9)^2 \times 10 = (-)0.014$ cum. = 0.790 Say 0.79 cum. Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	0.79	1927.15	1522.45 A 1522.45 1522.45 152.24 152.25

18.41.5 40 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	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 = $10 \times 0.30 \times 0.274 = 0.82$ cum.+ Less for pipe $3.142/4(48.8)^2 \times 10 = (-)0.014$ cum. = 0.801 Say 0.80 cum. Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	0.8	1927.15	1541.72 A 1541.72 1541.72 154.17 154.15

18.41.6 50 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	<p>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 = $10 \times 0.30 \times 0.286 = 0.858$ cum.+ Less for pipe $3.142/4(60.8)^2 \times 10 = (-)0.029$ cum. = 0.829 Say 0.83 cum. Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say</p>	cum	0.83	1927.15	1599.53 A 1599.53 1599.53 159.95 159.95

18.41.7 65 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	<p>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 = $10 \times 0.45 \times 0.302 = 1.359$ cum.+ Less for pipe $3.142/4(76.6)^2 \times 10 = (-)0.046$ cum. = 1.313 Say 1.31 cum. Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say</p>	cum	1.31	1927.15	2524.57 A 2524.57 2524.57 252.46 252.45

18.41.8 80 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	<p>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+</p>				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	Max. external dia of pipe = 89.9mm = 314.9 Say 315mm Quantity of sand = $10 \times 0.45 \times 0.315 = 1.418$ cum.+ Less for pipe $3.142/4(89.9)^2 \times 10 = (-)0.0640$ cum. = 1.354 Say 1.35 cum. Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	1.35	1927.15	2601.65 A 2601.65 2601.65 260.17 260.15

18.41.9 100 mm diameter pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	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 = $10 \times 0.45 \times 0.34 = 1.53$ cum.+ Less for pipe $3.142/4(0.115)^2 \times 10 = (-)0.10$ cum. = 1.43 cum. Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	1.43	1927.15	2755.82 A 2755.82 2755.82 275.58 275.60

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 = $10 \times 0.60 \times 0.392 = 2.35$ cum.+ Less for pipe $3.142/4(0.167)^2 \times 10 = (-)0.22$ cum. = 2.13 cum.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.41.1A	Rate as per Item Number 18.41.1A of SH:Water supply TOTAL Cost of 10 metre Cost of one metre Say	cum	2.13	1927.15	4104.83 A 4104.83 4104.83 410.48 410.50

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	738.00	369.00
0114	Beldar	day	3.00	558.00	1674.00
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	335.00	40.20
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				2485.24 W
	Add 1 % Water charges on "W"				24.85
	TOTAL				2510.09 X
	Add GST on "X" (multiplying factor 0.1405)				352.67
	TOTAL				2862.76 Y
	Add 15% CPOH on "Y"				429.41
	TOTAL				3292.17 Z
	Add Cess @ 1% on "Z"				32.92
	Cost of 6 metre				3325.10
	Cost of one metre				554.18
	Say				554.20

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	738.00	457.56
0114	Beldar	day	3.50	558.00	1953.00
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	335.00	40.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				2942.80 W
	Add 1 % Water charges on "W"				29.43
	TOTAL				2972.23 X
	Add GST on "X" (multiplying factor 0.1405)				417.60
	TOTAL				3389.83 Y
	Add 15% CPOH on "Y"				508.47
	TOTAL				3898.30 Z
	Add Cess @ 1% on "Z"				38.98
	Cost of 6 metre				3937.28
	Cost of one metre				656.21
	Say				656.20

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				
0116	For boring and removing the pipe-Fitter (grade 1)	day	0.75	738.00	553.50
0114	Beldar	day	4.00	558.00	2232.00
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	335.00	40.20
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				3415.24 W
	Add 1 % Water charges on "W"				34.15
	TOTAL				3449.39 X
	Add GST on "X" (multiplying factor 0.1405)				484.64
	TOTAL				3934.03 Y
	Add 15% CPOH on "Y"				590.10
	TOTAL				4524.14 Z
	Add Cess @ 1% on "Z"				45.24
	Cost of 6 metre				4569.38
	Cost of one metre				761.56
	Say				761.55

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	600.00	600.00
9977	Carriage to site	L.S.	13.52	2.00	27.04
	LABOUR				
0116	Fitter (grade 1)	day	0.17	738.00	125.46
0114	Beldar	day	0.17	558.00	94.86

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including hamp white lead etc.	L.S.	7.15	2.00	14.30
	TOTAL				861.66 W
	Add 1 % Water charges on "W"				8.62
	TOTAL				870.28 X
	Add GST on "X" (multiplying factor 0.1405)				122.27
	TOTAL				992.55 Y
	Add 15% CPOH on "Y"				148.88
	TOTAL				1141.43 Z
	Add Cess @ 1% on "Z"				11.41
	Cost of 1.5 metre				1152.85
	Cost of one metre				768.56
	Say				768.55

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 ₹
1549	Details of cost for a depth of 10 metre MATERIAL G.I. pipes 40 mm dia Carriage of 40mm pipe(36.5kg) Added 2% wastage and fitting	metre	10.20	250.00	2550.00
2271	Carriage of G.I. pipes below 100 mm dia	tonne	0.03723	92.24	3.43
9999	White lead, hamp and oil etc.	L.S.	6.76	2.00	13.52
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.75	558.00	418.50
9999	Sundries	L.S.	7.25	2.00	14.50
	TOTAL				3243.49 W
	Add 1 % Water charges on "W"				32.43
	TOTAL				3275.93 X
	Add GST on "X" (multiplying factor 0.1405)				460.27
	TOTAL				3736.20 Y
	Add 15% CPOH on "Y"				560.43
	TOTAL				4296.63 Z
	Add Cess @ 1% on "Z"				42.97
	Cost for 10 metre				4339.59
	Cost of one metre				433.96
	Say				433.95

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 ₹
1693	Details of cost for one pump MATERIAL S.C.I. hand pump	each	1.00	670.00	670.00
9977	Carriage	L.S.	13.52	2.00	27.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0116	LABOUR				
0114	Fitter (grade 1)	day	0.10	738.00	73.80
9999	Beldar	day	0.10	558.00	55.80
	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				835.48 W
	Add 1 % Water charges on "W"				8.35
	TOTAL				843.83 X
	Add GST on "X" (multiplying factor 0.1405)				118.56
	TOTAL				962.39 Y
	Add 15% CPOH on "Y"				144.36
	TOTAL				1106.75 Z
	Add Cess @ 1% on "Z"				11.07
	Cost for one hand pump				1117.82
	Say				1117.80

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	30.00	30.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				176.20 W
	Add 1 % Water charges on "W"				1.76
	TOTAL				177.96 X
	Add GST on "X" (multiplying factor 0.1405)				25.00
	TOTAL				202.97 Y
	Add 15% CPOH on "Y"				30.44
	TOTAL				233.41 Z
	Add Cess @ 1% on "Z"				2.33
	Cost for one no.				235.74
	Say				235.75

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	49.00	49.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.11	738.00	81.18

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				195.20 W
	Add 1 % Water charges on "W"				1.95
	TOTAL				197.15 X
	Add GST on "X" (multiplying factor 0.1405)				27.70
	TOTAL				224.85 Y
	Add 15% CPOH on "Y"				33.73
	TOTAL				258.58 Z
	Add Cess @ 1% on "Z"				2.59
	Cost for one no.				261.17
	Say				261.15

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	108.00	108.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				254.20 W
	Add 1 % Water charges on "W"				2.54
	TOTAL				256.74 X
	Add GST on "X" (multiplying factor 0.1405)				36.07
	TOTAL				292.81 Y
	Add 15% CPOH on "Y"				43.92
	TOTAL				336.74 Z
	Add Cess @ 1% on "Z"				3.37
	Cost for one no.				340.10
	Say				340.10

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	141.00	141.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				287.20 W
	Add 1 % Water charges on "W"				2.87
	TOTAL				290.07 X
	Add GST on "X" (multiplying factor 0.1405)				40.76
	TOTAL				330.83 Y
	Add 15% CPOH on "Y"				49.62
	TOTAL				380.45 Z
	Add Cess @ 1% on "Z"				3.80
	Cost for one no.				384.26
	Say				384.25

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	192.00	192.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
	TOTAL				338.20 W
	Add 1 % Water charges on "W"				3.38
	TOTAL				341.58 X
	Add GST on "X" (multiplying factor 0.1405)				47.99
	TOTAL				389.57 Y
	Add 15% CPOH on "Y"				58.44
	TOTAL				448.01 Z
	Add Cess @ 1% on "Z"				4.48
	Cost for one no.				452.49
	Say				452.50

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	249.00	249.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.15	738.00	110.70
0114	Beldar	day	0.15	558.00	83.70
	TOTAL				447.04 W
	Add 1 % Water charges on "W"				4.47
	TOTAL				451.51 X
	Add GST on "X" (multiplying factor 0.1405)				63.44
	TOTAL				514.95 Y
	Add 15% CPOH on "Y"				77.24
	TOTAL				592.19 Z
	Add Cess @ 1% on "Z"				5.92
	Cost for one no.				598.11
	Say				598.10

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	504.00	504.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.15	738.00	110.70
0114	Beldar	day	0.15	558.00	83.70
	TOTAL				702.04 W
	Add 1 % Water charges on "W"				7.02
	TOTAL				709.06 X
	Add GST on "X" (multiplying factor 0.1405)				99.62
	TOTAL				808.68 Y
	Add 15% CPOH on "Y"				121.30
	TOTAL				929.99 Z
	Add Cess @ 1% on "Z"				9.30
	Cost for one no.				939.29
	Say				939.30

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	563.00	563.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.15	738.00	110.70
0114	Beldar	day	0.15	558.00	83.70
	TOTAL				761.04 W
	Add 1 % Water charges on "W"				7.61
	TOTAL				768.65 X
	Add GST on "X" (multiplying factor 0.1405)				108.00
	TOTAL				876.65 Y
	Add 15% CPOH on "Y"				131.50
	TOTAL				1008.14 Z
	Add Cess @ 1% on "Z"				10.08
	Cost for one no.				1018.22
	Say				1018.20

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	30.00	30.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				461.32 W
	Add 1 % Water charges on "W"				4.61
	TOTAL				465.93 X
	Add GST on "X" (multiplying factor 0.1405)				65.46
	TOTAL				531.40 Y
	Add 15% CPOH on "Y"				79.71
	TOTAL				611.11 Z
	Add Cess @ 1% on "Z"				6.11
	Cost for one no.				617.22
	Say				617.20

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	49.00	49.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				480.32 W
	Add 1 % Water charges on "W"				4.80
	TOTAL				485.12 X
	Add GST on "X" (multiplying factor 0.1405)				68.16
	TOTAL				553.28 Y
	Add 15% CPOH on "Y"				82.99
	TOTAL				636.28 Z
	Add Cess @ 1% on "Z"				6.36
	Cost for one no.				642.64
	Say				642.65

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	108.00	108.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				539.32 W
	Add 1 % Water charges on "W"				5.39
	TOTAL				544.71 X
	Add GST on "X" (multiplying factor 0.1405)				76.53
	TOTAL				621.25 Y
	Add 15% CPOH on "Y"				93.19
	TOTAL				714.43 Z
	Add Cess @ 1% on "Z"				7.14
	Cost for one no.				721.58
	Say				721.60

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	141.00	141.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				572.32 W
	Add 1 % Water charges on "W"				5.72
	TOTAL				578.04 X
	Add GST on "X" (multiplying factor 0.1405)				81.22
	TOTAL				659.26 Y
	Add 15% CPOH on "Y"				98.89
	TOTAL				758.15 Z
	Add Cess @ 1% on "Z"				7.58
	Cost for one no.				765.73
	Say				765.75

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	192.00	192.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	0.33	558.00	184.14
	TOTAL				623.32 W
	Add 1 % Water charges on "W"				6.23
	TOTAL				629.55 X
	Add GST on "X" (multiplying factor 0.1405)				88.45
	TOTAL				718.01 Y
	Add 15% CPOH on "Y"				107.70
	TOTAL				825.71 Z
	Add Cess @ 1% on "Z"				8.26
	Cost for one no.				833.96
	Say				833.95

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	249.00	249.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.45	738.00	332.10
0114	Beldar	day	0.45	558.00	251.10
	TOTAL				835.84 W
	Add 1 % Water charges on "W"				8.36
	TOTAL				844.20 X
	Add GST on "X" (multiplying factor 0.1405)				118.61
	TOTAL				962.81 Y
	Add 15% CPOH on "Y"				144.42
	TOTAL				1107.23 Z
	Add Cess @ 1% on "Z"				11.07
	Cost for one no.				1118.30
	Say				1118.30

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	504.00	504.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.45	738.00	332.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.45	558.00	251.10
	TOTAL				1090.84 W
	Add 1 % Water charges on "W"				10.91
	TOTAL				1101.75 X
	Add GST on "X" (multiplying factor 0.1405)				154.80
	TOTAL				1256.54 Y
	Add 15% CPOH on "Y"				188.48
	TOTAL				1445.03 Z
	Add Cess @ 1% on "Z"				14.45
	Cost for one no.				1459.48
	Say				1459.50

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	563.00	563.00
9988	Carriage of materials and sundries	L.S.	1.82	2.00	3.64
	LABOUR				
0116	Fitter (grade 1)	day	0.45	738.00	332.10
0114	Beldar	day	0.45	558.00	251.10
	TOTAL				1149.84 W
	Add 1 % Water charges on "W"				11.50
	TOTAL				1161.34 X
	Add GST on "X" (multiplying factor 0.1405)				163.17
	TOTAL				1324.51 Y
	Add 15% CPOH on "Y"				198.68
	TOTAL				1523.18 Z
	Add Cess @ 1% on "Z"				15.23
	Cost for one no.				1538.41
	Say				1538.40

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	5.50	2750.00
9977	Carriage to site	L.S.	179.40	2.00	358.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Placing at terrace	L.S.	89.70	2.00	179.40
	TOTAL				3288.20 W
	Add 1 % Water charges on "W"				32.88
	TOTAL				3321.08 X
	Add GST on "X" (multiplying factor 0.1405)				466.61
	TOTAL				3787.69 Y
	Add 15% CPOH on "Y"				568.15
	TOTAL				4355.85 Z
	Add Cess @ 1% on "Z"				43.56
	Cost for 500 litre				4399.41
	Cost of one litre				8.80
	Say				8.80

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 ₹
1649	Details of cost for one no. tank of 500 litres				
	MATERIAL				
	Polyethylene water storage tank with cover and suitable locking arrangement	per litre	500.00	5.50	2750.00
9977	Carriage to site	L.S.	179.40	2.00	358.80
9999	Placing at terrace	L.S.	89.70	2.00	179.40
	TOTAL				3288.20 W
	Add 1 % Water charges on "W"				32.88
	TOTAL				3321.08 X
	Add GST on "X" (multiplying factor 0.1405)				466.61
	TOTAL				3787.69 Y
	Add 15% CPOH on "Y"				568.15
	TOTAL				4355.85 Z
	Add Cess @ 1% on "Z"				43.56
	Cost of 500 liters				4399.41
	Cost of 1 litre				8.80
	Say				8.80

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 ₹
7257	Details of cost for one no. MATERIAL C.P. Brass bibcock 15 mm	each	1.00	290.00	290.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carrige of material and fixing charges	L.S.	11.57	2.00	23.14
	TOTAL				313.14 W
	Add 1 % Water charges on "W"				3.13
	TOTAL				316.27 X
	Add GST on "X" (multiplying factor 0.1405)				44.44
	TOTAL				360.71 Y
	Add 15% CPOH on "Y"				54.11
	TOTAL				414.81 Z
	Add Cess @ 1% on "Z"				4.15
	Cost of 1 no.				418.96
	Say				418.95

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.				
7258	MATERIAL				
	C.P. Brass long nose bibcock 15 mm	each	1.00	430.00	430.00
9988	Carrige of material and fixing charges	L.S.	16.25	2.00	32.50
	TOTAL				462.50 W
	Add 1 % Water charges on "W"				4.63
	TOTAL				467.13 X
	Add GST on "X" (multiplying factor 0.1405)				65.63
	TOTAL				532.76 Y
	Add 15% CPOH on "Y"				79.91
	TOTAL				612.67 Z
	Add Cess @ 1% on "Z"				6.13
	Cost of 1 no.				618.80
	Say				618.80

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.				
7259	MATERIAL				
	C.P. Brass long body bibcock 15 mm	each	1.00	385.00	385.00
9988	Carrige of material and fixing charges	L.S.	13.91	2.00	27.82
	TOTAL				412.82 W
	Add 1 % Water charges on "W"				4.13
	TOTAL				416.95 X
	Add GST on "X" (multiplying factor 0.1405)				58.58
	TOTAL				475.53 Y
	Add 15% CPOH on "Y"				71.33
	TOTAL				546.86 Z
	Add Cess @ 1% on "Z"				5.47
	Cost of 1 no.				552.33
	Say				552.35

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 ₹
7260	Details of cost for one no. MATERIAL C.P. Brass stop cock (concealed) 15 mm	each	1.00	430.00	430.00
9988	Carriage of material and fixing charges	L.S.	11.57	2.00	23.14
	TOTAL				453.14 W
	Add 1 % Water charges on "W"				4.53
	TOTAL				457.67 X
	Add GST on "X" (multiplying factor 0.1405)				64.30
	TOTAL				521.97 Y
	Add 15% CPOH on "Y"				78.30
	TOTAL				600.27 Z
	Add Cess @ 1% on "Z"				6.00
	Cost of 1 no.				606.27
	Say				606.25

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 ₹
7261	Details of cost for one no. MATERIAL C.P. Brass angle valve 15 mm	each	1.00	375.00	375.00
9988	Carriage and fixing charges	L.S.	11.31	2.00	22.62
	TOTAL				397.62 W
	Add 1 % Water charges on "W"				3.98
	TOTAL				401.60 X
	Add GST on "X" (multiplying factor 0.1405)				56.42
	TOTAL				458.02 Y
	Add 15% CPOH on "Y"				68.70
	TOTAL				526.72 Z
	Add Cess @ 1% on "Z"				5.27
	Cost of 1 no.				531.99
	Say				532.00

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 ₹
0593	Details of cost for 1 no. MATERIAL C.P. Brass Extension Nipple (1/2"x2" size)	each	1.00	40.00	40.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.89	2.00	5.78
	TOTAL				45.78 W
	Add 1 % Water charges on "W"				0.46
	TOTAL				46.24 X
	Add GST on "X" (multiplying factor 0.1405)				6.50
	TOTAL				52.73 Y
	Add 15% CPOH on "Y"				7.91
	TOTAL				60.64 Z
	Add Cess @ 1% on "Z"				0.61
	Cost of 1 no.				61.25
	Say				61.25

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 ₹
7400	Details of cost for 1 no. MATERIAL	each	1.00	71.00	71.00
9988	15 mm PTMT bib cock	L.S.	8.06	2.00	16.12
	Carriage of materials and fixing charges				87.12 W
	TOTAL				0.87
	Add 1 % Water charges on "W"				87.99 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				12.36
	TOTAL				100.35 Y
	Add 15% CPOH on "Y"				15.05
	TOTAL				115.41 Z
	Add Cess @ 1% on "Z"				1.15
	Cost of 1 no.				116.56
	Say				116.55

18.54.2 15 mm nominal bore, 122mm long, weighing not less than 99 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7401	Details of cost for 1 no. MATERIAL	each	1.00	105.00	105.00
9988	15 mm PTMT bib cockwith flange (fancy)	L.S.	8.06	2.00	16.12
	Carriage of materials and fixing charges				121.12 W
	TOTAL				1.21
	Add 1 % Water charges on "W"				122.33 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				17.19
	TOTAL				139.52 Y
	Add 15% CPOH on "Y"				20.93
	TOTAL				160.45 Z
	Add Cess @ 1% on "Z"				1.60
	Cost of 1 no.				162.05
	Say				162.05

18.54.3 15 mm nominal bore, 165 mm long, weighing not less than 110 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7402	Details of cost for 1 no. MATERIAL 15 mm PTMT bib cock long body with flange	each	1.00	116.00	116.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				132.12 W
	Add 1 % Water charges on "W"				1.32
	TOTAL				133.44 X
	Add GST on "X" (multiplying factor 0.1405)				18.75
	TOTAL				152.19 Y
	Add 15% CPOH on "Y"				22.83
	TOTAL				175.02 Z
	Add Cess @ 1% on "Z"				1.75
	Cost of 1 No..				176.77
	Say				176.75

18.54.4 15 mm nominal bore, 90 mm long, weighing not less than 93 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7859	Details of cost for 1 no. MATERIAL P.T.M.T. Bib cock with nozzle 15mm	each	1.00	154.50	154.50
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				170.62 W
	Add 1 % Water charges on "W"				1.71
	TOTAL				172.33 X
	Add GST on "X" (multiplying factor 0.1405)				24.21
	TOTAL				196.54 Y
	Add 15% CPOH on "Y"				29.48
	TOTAL				226.02 Z
	Add Cess @ 1% on "Z"				2.26
	Cost of 1 no.				228.28
	Say				228.30

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 ₹
7403	Details of cost for 1 no. MATERIAL 15 mm dia PTMT stop cock (male thread)	each	1.00	71.00	71.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				87.12 W
	Add 1 % Water charges on "W"				0.87
	TOTAL				87.99 X
	Add GST on "X" (multiplying factor 0.1405)				12.36
	TOTAL				100.35 Y
	Add 15% CPOH on "Y"				15.05
	TOTAL				115.41 Z
	Add Cess @ 1% on "Z"				1.15
	Cost of 1 no.				116.56
	Say				116.55

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	97.00	97.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				113.12 W
	Add 1 % Water charges on "W"				1.13
	TOTAL				114.25 X
	Add GST on "X" (multiplying factor 0.1405)				16.05
	TOTAL				130.30 Y
	Add 15% CPOH on "Y"				19.55
	TOTAL				149.85 Z
	Add Cess @ 1% on "Z"				1.50
	Cost of 1 no.				151.35
	Say				151.35

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	133.50	133.50
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				149.62 W
	Add 1 % Water charges on "W"				1.50
	TOTAL				151.12 X
	Add GST on "X" (multiplying factor 0.1405)				21.23
	TOTAL				172.35 Y
	Add 15% CPOH on "Y"				25.85
	TOTAL				198.20 Z
	Add Cess @ 1% on "Z"				1.98
	Cost of 1 no.				200.18
	Say				200.20

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 ₹
7406	Details of cost for 1 no. MATERIAL	each	1.00	125.00	125.00
9988	PTMT pillar cock	L.S.	9.49	2.00	18.98
	Carriage of materials and fixing charges				143.98 W
	TOTAL				1.44
	Add 1 % Water charges on "W"				145.42 X
	TOTAL				20.43
	Add GST on "X" (multiplying factor 0.1405)				165.85 Y
	TOTAL				24.88
	Add 15% CPOH on "Y"				190.73 Z
	TOTAL				1.91
	Add Cess @ 1% on "Z"				192.64
	Cost of 1 no.				192.65
	Say				

18.56.2 15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7410	Details of cost for 1 no. MATERIAL	each	1.00	138.00	138.00
9988	PTMT pillar cock (fancy) 15 mm foam flow.	L.S.	9.49	2.00	18.98
	Carriage of materials and fixing charges				156.98 W
	TOTAL				1.57
	Add 1 % Water charges on "W"				158.55 X
	TOTAL				22.28
	Add GST on "X" (multiplying factor 0.1405)				180.83 Y
	TOTAL				27.12
	Add 15% CPOH on "Y"				207.95 Z
	TOTAL				2.08
	Add Cess @ 1% on "Z"				210.03
	Cost of 1 no.				210.05
	Say				

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 ₹
7407	Details of cost for 1 no. MATERIAL	each	1.00	62.00	62.00
9988	PTMT push cock 15 mm dia.	L.S.	8.06	2.00	16.12
	Carriage of materials and fixing charges				78.12 W
	TOTAL				0.78
	Add 1 % Water charges on "W"				78.90 X
	TOTAL				11.09
	Add GST on "X" (multiplying factor 0.1405)				89.99 Y
	TOTAL				13.50
	Add 15% CPOH on "Y"				103.48 Z
	TOTAL				1.03
	Add Cess @ 1% on "Z"				104.52
	Cost of 1 no.				104.50
	Say				

18.57.2 15 mm nominal bore, 80 mm long, weighing not less than 46 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7408	Details of cost for 1 no. MATERIAL PTMT push cock 12 mm dia. 20 mm BSP	each	1.00	57.00	57.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				73.12 W
	Add 1 % Water charges on "W"				0.73
	TOTAL				73.85 X
	Add GST on "X" (multiplying factor 0.1405)				10.38
	TOTAL				84.23 Y
	Add 15% CPOH on "Y"				12.63
	TOTAL				96.86 Z
	Add Cess @ 1% on "Z"				0.97
	Cost of 1 no.				97.83
	Say				97.85

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 ₹
7409	Details of cost for 1 no. MATERIAL PTMT grating 100 mm dia.	each	1.00	20.00	20.00
9988	Carriage of materials and fixing charges	L.S.	4.16	2.00	8.32
	TOTAL				28.32 W
	Add 1 % Water charges on "W"				0.28
	TOTAL				28.60 X
	Add GST on "X" (multiplying factor 0.1405)				4.02
	TOTAL				32.62 Y
	Add 15% CPOH on "Y"				4.89
	TOTAL				37.52 Z
	Add Cess @ 1% on "Z"				0.38
	Cost of 1 no.				37.89
	Say				37.90

18.58.1.2 125 mm nominal dia with 25 mm waste hole

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7411	Details of cost for 1 no. MATERIAL 125 mm grating with waste hole	each	1.00	30.00	30.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	4.16	2.00	8.32
	TOTAL				38.32 W
	Add 1 % Water charges on "W"				0.38
	TOTAL				38.70 X
	Add GST on "X" (multiplying factor 0.1405)				5.44
	TOTAL				44.14 Y
	Add 15% CPOH on "Y"				6.62
	TOTAL				50.76 Z
	Add Cess @ 1% on "Z"				0.51
	Cost of 1 no.				51.27
	Say				51.25

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 ₹
7412	Details of cost for 1 no. MATERIAL 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	2.00	8.32
	TOTAL				126.32 W
	Add 1 % Water charges on "W"				1.26
	TOTAL				127.58 X
	Add GST on "X" (multiplying factor 0.1405)				17.93
	TOTAL				145.51 Y
	Add 15% CPOH on "Y"				21.83
	TOTAL				167.33 Z
	Add Cess @ 1% on "Z"				1.67
	Cost of 1 no.				169.01
	Say				169.00

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	2.00	52.00
9999	Labour for laying double acting air valve	L.S.	39.00	2.00	78.00
	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply) 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 10 air valves Cost of 1 air valve Say	each	10.00	169.15	1691.50 A 38971.50 W 372.80 39344.30 X 5290.22 44634.52 Y 6441.45 51075.97 Z 493.84 51569.82 5156.98 5157.00

18.59.2 80 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7416	Details of cost for 10 no. double acting air valves MATERIAL Double acting air valve 80 mm	each	10.00	4525.00	45250.00
9977	Carriage of air valves	L.S.	26.00	2.00	52.00
9999	Labour for laying double acting air valve Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.	L.S.	39.00	2.00	78.00
18.30.1	(Rate as per item no 18.30.1 of SH : Water Supply) 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 10 air valves Cost of 1 air valve Say	each	10.00	169.15	1691.50 A 47071.50 W 453.80 47525.30 X 6439.65 53964.95 Y 7841.02 61805.97 Z 601.14 62407.11 6240.71 6240.70

18.59.3 100 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7417	Details of cost for 10 no. double acting air valves MATERIAL Double acting air valve 100 mm	each	10.00	5910.00	59100.00
9977	Carriage of air valves	L.S.	26.00	2.00	52.00
9999	Labour for laying double acting air valve Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc.	L.S.	52.00	2.00	104.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.30.2	(Rate as per item No.18.30.2 Of SH:Water Supply) 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 10 air valves Cost of 1 air valve Say	each	10.00	265.00	2650.00 A 61906.00 W 592.56 62498.56 X 8408.72 70907.28 Y 10238.59 81145.88 Z 784.96 81930.83 8193.08 8193.10

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 ₹
7418	Details of cost for one no. water meter MATERIAL Water meter (including testing charges) 80 mm	each	1.00	2030.00	2030.00
9999	Testing charges	L.S.	130.00	2.00	260.00
9977	Carriage of water meter	L.S.	26.00	2.00	52.00
9999	Labour for laying water meter	L.S.	39.00	2.00	78.00
18.30.1	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 18.30.1 of SH : Water Supply) 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 1 water meter Say	each	2.00	169.15	338.30 A 2758.30 W 24.20 2782.50 X 343.41 3125.91 Y 418.14 3544.05 Z 32.06 3576.11 3576.10

18.60.2 100 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7419	Details of cost for one no. water meter MATERIAL Water meter (including testing charges) 100 mm	each	1.00	3143.00	3143.00
9999	Testing charges	L.S.	130.00	2.00	260.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of water meter	L.S.	26.00	2.00	52.00
9999	Labour for laying water meter	L.S.	52.00	2.00	104.00
18.30.2	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.2) 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 1 water meter Say	each	2.00	265.00	530.00 A 4089.00 W 35.59 4124.59 X 505.04 4629.63 Y 614.94 5244.57 Z 47.15 5291.72 5291.70

18.60.3 150 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7420	Details of cost for one no. water meter MATERIAL Water meter (including testing charges) 150 mm	each	1.00	4765.00	4765.00
9999	Testing charges	L.S.	156.00	2.00	312.00
9977	Carriage of water meter	L.S.	39.00	2.00	78.00
9999	Labour for laying water meter	L.S.	65.00	2.00	130.00
18.30.4	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.4 Of SH: Water Supply) 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 1 water meter Say	each	2.00	327.40	654.80 A 5939.80 W 52.85 5992.65 X 749.97 6742.62 Y 913.17 7655.79 Z 70.01 7725.80 7725.80

18.60.4 200 mm dia nominal bore

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7421	Details of cost for one no. water meter MATERIAL Water meter (including testing charges) 200 mm	each	1.00	5145.00	5145.00
9999	Testing charges	L.S.	156.00	2.00	312.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of water meter	L.S.	52.00	2.00	104.00
9999	Labour for laying water meter	L.S.	104.00	2.00	208.00
18.30.5	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 20.47.5 of SH : Water Supply)	each	2.00	355.50	711.00 A
	TOTAL				6480.00 W
	Add 1 % Water charges on "W-A"				57.69
	TOTAL				6537.69 X
	Add GST on "X-A" (multiplying factor 0.1405)				818.65
	TOTAL				7356.34 Y
	Add 15% CPOH on "Y-A"				996.80
	TOTAL				8353.14 Z
	Add Cess @ 1% on "Z-A"				76.42
	Cost of 1 water meter				8429.56
	Say				8429.55

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 strainer 80 mm	each	1.00	2680.00	2680.00
9977	Carriage of dirt box strainer	L.S.	26.00	2.00	52.00
9999	Labour for laying dirt box strainer	L.S.	39.00	2.00	78.00
18.30.1	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 18.30.1 of SH : Water Supply)	each	2.00	169.15	338.30 A
	TOTAL				3148.30 W
	Add 1 % Water charges on "W-A"				28.10
	TOTAL				3176.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				398.75
	TOTAL				3575.15 Y
	Add 15% CPOH on "Y-A"				485.53
	TOTAL				4060.68 Z
	Add Cess @ 1% on "Z-A"				37.22
	Cost of 1 dirt box stainer				4097.90
	Say				4097.90

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 strainer 100 mm	each	1.00	4370.00	4370.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of dirt box strainer	L.S.	26.00	2.00	52.00
9999	Labour for laying dirt box strainer	L.S.	52.00	2.00	104.00
18.30.2	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.2 Of SH:Water Supply)				
	TOTAL	each	2.00	265.00	530.00 A
	Add 1 % Water charges on "W-A"				5056.00 W
	TOTAL				45.26
	Add GST on "X-A" (multiplying factor 0.1405)				5101.26 X
	TOTAL				642.26
	Add 15% CPOH on "Y-A"				5743.52 Y
	TOTAL				782.03
	Add Cess @ 1% on "Z-A"				6525.55 Z
	Cost of 1 dirt box stainer				59.96
	Say				6585.51
					6585.50

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	2.00	78.00
9999	Labour for laying dirt box strainer	L.S.	65.00	2.00	130.00
18.30.4	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item No.18.30.4 Of SH:Water Supply)				
	TOTAL	each	2.00	327.40	654.80 A
	Add 1 % Water charges on "W-A"				6402.80 W
	TOTAL				57.48
	Add GST on "X-A" (multiplying factor 0.1405)				6460.28 X
	TOTAL				815.67
	Add 15% CPOH on "Y-A"				7275.95 Y
	TOTAL				993.17
	Add Cess @ 1% on "Z-A"				8269.12 Z
	Cost for 1 dirt box stainer				76.14
	Say				8345.27
					8345.25

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	2.00	104.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Labour for laying dirt box strainer	L.S.	104.00	2.00	208.00
18.30.5	Providing flanged joints to double acting air valves with bolts, nuts and rubber insertions etc. (Rate as per item no 20.47.5 of SH : Water Supply)	each	2.00	355.50	711.00 A
	TOTAL				8883.00 W
	Add 1 % Water charges on "W-A"				81.72
	TOTAL				8964.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				1159.65
	TOTAL				10124.37 Y
	Add 15% CPOH on "Y-A"				1412.01
	TOTAL				11536.37 Z
	Add Cess @ 1% on "Z-A"				108.25
	Cost for 10 dirt box stainer				11644.63
	Say				11644.65

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 ₹
7495	Details of cost for one no. MATERIAL PTMT Ball Cock 15mm Complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	1.00	100.00	100.00
9988	Carriage of materials and fixing charges	L.S.	21.58	2.00	43.16
	TOTAL				143.16 W
	Add 1 % Water charges on "W"				1.43
	TOTAL				144.59 X
	Add GST on "X" (multiplying factor 0.1405)				20.32
	TOTAL				164.91 Y
	Add 15% CPOH on "Y"				24.74
	TOTAL				189.64 Z
	Add Cess @ 1% on "Z"				1.90
	Cost of one no.				191.54
	Say				191.55

18.62.2 20 mm nominal bore, 120 mm long, weighing not less than 198 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7496	Details of cost for one no. MATERIAL PTMT Ball Cock 20mm Complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	1.00	135.00	135.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	26.91	2.00	53.82
	TOTAL				188.82 W
	Add 1 % Water charges on "W"				1.89
	TOTAL				190.71 X
	Add GST on "X" (multiplying factor 0.1405)				26.79
	TOTAL				217.50 Y
	Add 15% CPOH on "Y"				32.63
	TOTAL				250.13 Z
	Add Cess @ 1% on "Z"				2.50
	Cost of one no.				252.63
	Say				252.65

18.62.3 25 mm nominal bore, 152mm long, weighing not less than 440 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7497	Details of cost for one no. MATERIAL PTMT Ball Cock 25mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	290.00	290.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.00	64.48
	TOTAL				354.48 W
	Add 1 % Water charges on "W"				3.54
	TOTAL				358.02 X
	Add GST on "X" (multiplying factor 0.1405)				50.30
	TOTAL				408.33 Y
	Add 15% CPOH on "Y"				61.25
	TOTAL				469.58 Z
	Add Cess @ 1% on "Z"				4.70
	Cost of one no.				474.27
	Say				474.25

18.62.4 40 mm nominal bore, 206mm long, weighing not less than 690 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7498	Details of cost for one no. MATERIAL PTMT Ball Cock 40mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	480.00	480.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.00	64.48
	TOTAL				544.48 W
	Add 1 % Water charges on "W"				5.44
	TOTAL				549.92 X
	Add GST on "X" (multiplying factor 0.1405)				77.26
	TOTAL				627.19 Y
	Add 15% CPOH on "Y"				94.08
	TOTAL				721.27 Z
	Add Cess @ 1% on "Z"				7.21
	Cost of one no.				728.48
	Say				728.50

18.62.5 50 mm nominal bore, 242mm long, weighing not less than 1240 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7499	Details of cost for one no. MATERIAL PTMT Ball Cock 50mm Complete with Epoxy Coated Aluminium Road & H.D. Ball	each	1.00	870.00	870.00
9988	Carriage of materials and fixing charges	L.S.	32.24	2.00	64.48
	TOTAL				934.48 W
	Add 1 % Water charges on "W"				9.34
	TOTAL				943.82 X
	Add GST on "X" (multiplying factor 0.1405)				132.61
	TOTAL				1076.43 Y
	Add 15% CPOH on "Y"				161.46
	TOTAL				1237.90 Z
	Add Cess @ 1% on "Z"				12.38
	Cost of one no.				1250.28
	Say				1250.30

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 ₹
7500	Details of cost for one no. MATERIAL PTMT Angle Stop cock with Flange 15mm	each	1.00	100.00	100.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				116.12 W
	Add 1 % Water charges on "W"				1.16
	TOTAL				117.28 X
	Add GST on "X" (multiplying factor 0.1405)				16.48
	TOTAL				133.76 Y
	Add 15% CPOH on "Y"				20.06
	TOTAL				153.82 Z
	Add Cess @ 1% on "Z"				1.54
	Cost of one no.				155.36
	Say				155.35

18.64 Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7501	Details of cost for one no. MATERIAL PTMT Swiveling shower 15mm	each	1.00	70.00	70.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	6.76	2.00	13.52
	TOTAL				83.52 W
	Add 1 % Water charges on "W"				0.84
	TOTAL				84.36 X
	Add GST on "X" (multiplying factor 0.1405)				11.85
	TOTAL				96.21 Y
	Add 15% CPOH on "Y"				14.43
	TOTAL				110.64 Z
	Add Cess @ 1% on "Z"				1.11
	Cost of one no.				111.74
	Say				111.75

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 ₹
7509	Details of cost for one no MATERIAL				
9988	PTMT Soap Dish/Holder 138x102x75mm	each	1.00	84.00	84.00
	Carriage of materials and fixing charges	L.S.	6.76	2.00	13.52
	TOTAL				97.52 W
	Add 1 % Water charges on "W"				0.98
	TOTAL				98.50 X
	Add GST on "X" (multiplying factor 0.1405)				13.84
	TOTAL				112.33 Y
	Add 15% CPOH on "Y"				16.85
	TOTAL				129.18 Z
	Add Cess @ 1% on "Z"				1.29
	Cost of one no				130.48
	Say				130.50

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 ₹
7708	Details of cost for 1 quintal MATERIAL				
	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
2309	Carriage of Cast iron fittings	tonne	0.10	92.24	9.22
	Labour for laying				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.24	Rate as per Item Number 18.24 of SH: Water Supply 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 1 quintal Say	quintal	1.00	491.50	491.50 A 5690.72 W 51.99 5742.72 X 737.80 6480.51 Y 898.35 7378.86 Z 68.87 7447.74 7447.75

18.66.2 Above 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7709	Details of cost for 1 quintal MATERIAL 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 Labour for laying	tonne	0.10	92.24	9.22
18.24	Rate as per Item Number 18.24 of SH: Water Supply 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 1 quintal Say	quintal	1.00	491.50	491.50 A 6700.72 W 62.09 6762.82 X 881.12 7643.94 Y 1072.87 8716.80 Z 82.25 8799.05 8799.05

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 ₹
7710	Details of cost for 1 quintal MATERIAL 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
2309	Carriage of Cast iron fittings Labour for laying	tonne	0.10	92.24	9.22

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	491.50	491.50 A
	TOTAL				9071.72 W
	Add 1 % Water charges on "W-A"				85.80
	TOTAL				9157.53 X
	Add GST on "X-A" (multiplying factor 0.1405)				1217.58
	TOTAL				10375.10 Y
	Add 15% CPOH on "Y-A"				1482.54
	TOTAL				11857.64 Z
	Add Cess @ 1% on "Z-A"				113.66
	Cost of 1 quintal				11971.30
	Say				11971.30

18.67.2 Above 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7711	Details of cost for 1 quintal MATERIAL				
	S&S Centrifugally (Spun) C.I. Pipe	quintal	1.00	9048.00	9048.00
2309	Specials suitable for mechanical joint as per IS 13382 over 300mm dia	tonne	0.10	92.24	9.22
	Carriage of Cast iron fittings				
	Labour for Laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	491.50	491.50 A
	TOTAL				9548.72 W
	Add 1 % Water charges on "W-A"				90.57
	TOTAL				9639.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				1285.27
	TOTAL				10924.56 Y
	Add 15% CPOH on "Y-A"				1564.96
	TOTAL				12489.52 Z
	Add Cess @ 1% on "Z-A"				119.98
	Cost of 1 quintal				12609.50
	Say				12609.50

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 ₹
7682	Details of cost for 1 quintal MATERIAL				
	Ductile Iron K - 12 specials suitable for push on jointing upto 600 mm dia	quintal	1.00	12400.00	12400.00
2309	Carriage of Cast iron fittings	tonne	0.10	92.24	9.22
	Labour for laying				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.24	Rate as per Item Number 18.24 of SH: Water Supply 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 1 quintal Say	quintal	1.00	491.50	491.50 A 12900.72 W 124.09 13024.82 X 1760.93 14785.75 Y 2144.14 16929.88 Z 164.38 17094.27 17094.25

18.68.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7683	Details of cost for 1 quintal MATERIAL 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	92.24	9.22
18.24	Rate as per Item Number 18.24 of SH: Water Supply 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 1 quintal Say	quintal	1.00	491.50	491.50 A 17700.72 W 172.09 17872.82 X 2442.07 20314.89 Y 2973.51 23288.40 Z 227.97 23516.37 23516.35

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 ₹
7684	Details of cost for 1 quintal MATERIAL Ductile Iron specials suitable for mechanical jointing as per I.S. 9523 - upto 600mm dia	quintal	1.00	13050.00	13050.00
2309	Carriage of Cast iron fittings Labour for laying	tonne	0.10	92.24	9.22

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	491.50	491.50 A
	TOTAL				13550.72 W
	Add 1 % Water charges on "W-A"				130.59
	TOTAL				13681.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				1853.17
	TOTAL				15534.49 Y
	Add 15% CPOH on "Y-A"				2256.45
	TOTAL				17790.93 Z
	Add Cess @ 1% on "Z-A"				172.99
	Cost of 1 quintal				17963.93
	Say				17963.95

18.69.2 Above 600 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7685	Details of cost for 1 quintal MATERIAL				
	Ductile Iron Specials suitable for mechanical jointing as per I.S. 9523 over 600mm dia	quintal	1.00	18750.00	18750.00
2309	Carriage of Cast iron fittings	tonne	0.10	92.24	9.22
	Labour for laying				
18.24	Rate as per Item Number 18.24 of SH: Water Supply	quintal	1.00	491.50	491.50 A
	TOTAL				19250.72 W
	Add 1 % Water charges on "W-A"				187.59
	TOTAL				19438.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				2662.03
	TOTAL				22100.34 Y
	Add 15% CPOH on "Y-A"				3241.33
	TOTAL				25341.67 Z
	Add Cess @ 1% on "Z-A"				248.50
	Cost of 1 quintal				25590.17
	Say				25590.15

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 ₹
7666	Details of cost for 50 Joints MATERIAL				
	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	738.00	738.00
0117	Assistant Fitter or 2nd class Fitter	day	1.00	679.00	679.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				3425.00 W
	Add 1 % Water charges on "W"				34.25
	TOTAL				3459.25 X
	Add GST on "X" (multiplying factor 0.1405)				486.02
	TOTAL				3945.27 Y
	Add 15% CPOH on "Y"				591.79
	TOTAL				4537.07 Z
	Add Cess @ 1% on "Z"				45.37
	Cost of 50 joints				4582.44
	Cost of 1 joint				91.65
	Say				91.65

18.70.2 150 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7668	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 150mm dia Labour	each	50.00	36.00	1800.00
0116	Fitter (grade 1)	day	1.50	738.00	1107.00
0117	Assistant Fitter or 2nd class Fitter	day	1.50	679.00	1018.50
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				5599.50 W
	Add 1 % Water charges on "W"				56.00
	TOTAL				5655.50 X
	Add GST on "X" (multiplying factor 0.1405)				794.60
	TOTAL				6450.09 Y
	Add 15% CPOH on "Y"				967.51
	TOTAL				7417.61 Z
	Add Cess @ 1% on "Z"				74.18
	Cost of 50 joints				7491.78
	Cost of 1 joint				149.84
	Say				149.85

18.70.3 200 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7669	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 200mm dia LABOUR	each	50.00	63.00	3150.00
0116	Fitter (grade 1)	day	2.00	738.00	1476.00
0117	Assistant Fitter or 2nd class Fitter	day	2.00	679.00	1358.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				8216.00 W
	Add 1 % Water charges on "W"				82.16
	TOTAL				8298.16 X
	Add GST on "X" (multiplying factor 0.1405)				1165.89
	TOTAL				9464.05 Y
	Add 15% CPOH on "Y"				1419.61
	TOTAL				10883.66 Z
	Add Cess @ 1% on "Z"				108.84
	Cost of 50 joints				10992.50
	Cost of 1 joint				219.85
	Say				219.85

18.70.4 250 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7670	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 250mm dia	each	50.00	74.00	3700.00
	LABOUR				
0116	Fitter (grade 1)	day	2.50	738.00	1845.00
0117	Assistant Fitter or 2nd class Fitter	day	2.50	679.00	1697.50
0114	Beldar	day	5.00	558.00	2790.00
	TOTAL				10032.50 W
	Add 1 % Water charges on "W"				100.33
	TOTAL				10132.83 X
	Add GST on "X" (multiplying factor 0.1405)				1423.66
	TOTAL				11556.49 Y
	Add 15% CPOH on "Y"				1733.47
	TOTAL				13289.96 Z
	Add Cess @ 1% on "Z"				132.90
	Cost of 50 joints				13422.86
	Cost of 1 joint				268.46
	Say				268.45

18.70.5 300 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7671	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 300mm dia	each	50.00	110.00	5500.00
	LABOUR				
0116	Fitter (grade 1)	day	3.00	738.00	2214.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	679.00	2037.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	6.00	558.00	3348.00
	TOTAL				13099.00 W
	Add 1 % Water charges on "W"				130.99
	TOTAL				13229.99 X
	Add GST on "X" (multiplying factor 0.1405)				1858.81
	TOTAL				15088.80 Y
	Add 15% CPOH on "Y"				2263.32
	TOTAL				17352.12 Z
	Add Cess @ 1% on "Z"				173.52
	Cost of 50 joints				17525.65
	Cost of 1 joint				350.51
	Say				350.50

18.70.6 350 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7672	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 350mm dia	each	50.00	126.00	6300.00
	LABOUR				
0116	Fitter (grade 1)	day	3.00	738.00	2214.00
0117	Assistant Fitter or 2nd class Fitter	day	3.00	679.00	2037.00
0114	Beldar	day	6.00	558.00	3348.00
	TOTAL				13899.00 W
	Add 1 % Water charges on "W"				138.99
	TOTAL				14037.99 X
	Add GST on "X" (multiplying factor 0.1405)				1972.34
	TOTAL				16010.33 Y
	Add 15% CPOH on "Y"				2401.55
	TOTAL				18411.88 Z
	Add Cess @ 1% on "Z"				184.12
	Cost of 50 joints				18596.00
	Cost of 1 joint				371.92
	Say				371.90

18.70.7 400 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7673	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 400mm dia	each	50.00	230.00	11500.00
	LABOUR				
0116	Fitter (grade 1)	day	4.00	738.00	2952.00
0117	Assistant Fitter or 2nd class Fitter	day	4.00	679.00	2716.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	8.00	558.00	4464.00
	TOTAL				21632.00 W
	Add 1 % Water charges on "W"				216.32
	TOTAL				21848.32 X
	Add GST on "X" (multiplying factor 0.1405)				3069.69
	TOTAL				24918.01 Y
	Add 15% CPOH on "Y"				3737.70
	TOTAL				28655.71 Z
	Add Cess @ 1% on "Z"				286.56
	Cost of 50 joints				28942.27
	Cost of 1 joint				578.85
	Say				578.85

18.70.8 450 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7674	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 450mm dia LABOUR	each	50.00	270.00	13500.00
0116	Fitter (grade 1)	day	4.50	738.00	3321.00
0117	Assistant Fitter or 2nd class Fitter	day	4.50	679.00	3055.50
0114	Beldar	day	9.00	558.00	5022.00
	TOTAL				24898.50 W
	Add 1 % Water charges on "W"				248.99
	TOTAL				25147.49 X
	Add GST on "X" (multiplying factor 0.1405)				3533.22
	TOTAL				28680.71 Y
	Add 15% CPOH on "Y"				4302.11
	TOTAL				32982.81 Z
	Add Cess @ 1% on "Z"				329.83
	Cost of 50 joints				33312.64
	Cost of 1 joint				666.25
	Say				666.25

18.70.9 500 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7675	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 500mm dia LABOUR	each	50.00	290.00	14500.00
0116	Fitter (grade 1)	day	4.75	738.00	3505.50
0117	Assistant Fitter or 2nd class Fitter	day	4.75	679.00	3225.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	9.50	558.00	5301.00
	TOTAL				26531.75 W
	Add 1 % Water charges on "W"				265.32
	TOTAL				26797.07 X
	Add GST on "X" (multiplying factor 0.1405)				3764.99
	TOTAL				30562.06 Y
	Add 15% CPOH on "Y"				4584.31
	TOTAL				35146.36 Z
	Add Cess @ 1% on "Z"				351.46
	Cost of 50 joints				35497.83
	Cost of 1 joint				709.96
	Say				709.95

18.70.10 600 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7676	Details of cost for 50 Joints				
	MATERIAL				
	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 600mm dia	each	50.00	365.00	18250.00
	LABOUR				
0116	Fitter (grade 1)	day	6.50	738.00	4797.00
0117	Assistant Fitter or 2nd class Fitter	day	6.50	679.00	4413.50
0114	Beldar	day	13.00	558.00	7254.00
	TOTAL				34714.50 W
	Add 1 % Water charges on "W"				347.15
	TOTAL				35061.65 X
	Add GST on "X" (multiplying factor 0.1405)				4926.16
	TOTAL				39987.81 Y
	Add 15% CPOH on "Y"				5998.17
	TOTAL				45985.98 Z
	Add Cess @ 1% on "Z"				459.86
	Cost of 50 joints				46445.84
	Cost of 1 joint				928.92
	Say				928.90

18.70.11 650 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7677	Details of cost for 50 Joints				
	MATERIAL				
	Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 700mm dia	each	50.00	550.00	27500.00
	LABOUR				
0116	Fitter (grade 1)	day	7.70	738.00	5682.60
0117	Assistant Fitter or 2nd class Fitter	day	7.70	679.00	5228.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	15.40	558.00	8593.20
	TOTAL				47004.10 W
	Add 1 % Water charges on "W"				470.04
	TOTAL				47474.14 X
	Add GST on "X" (multiplying factor 0.1405)				6670.12
	TOTAL				54144.26 Y
	Add 15% CPOH on "Y"				8121.64
	TOTAL				62265.90 Z
	Add Cess @ 1% on "Z"				622.66
	Cost of 50 joints				62888.56
	Cost of 1 joint				1257.77
	Say				1257.75

18.70.12 700 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7678	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 750mm dia	each	50.00	660.00	33000.00
	LABOUR				
0116	Fitter (grade 1)	day	7.70	738.00	5682.60
0117	Assistant Fitter or 2nd class Fitter	day	7.70	679.00	5228.30
0114	Beldar	day	15.40	558.00	8593.20
	TOTAL				52504.10 W
	Add 1 % Water charges on "W"				525.04
	TOTAL				53029.14 X
	Add GST on "X" (multiplying factor 0.1405)				7450.59
	TOTAL				60479.74 Y
	Add 15% CPOH on "Y"				9071.96
	TOTAL				69551.70 Z
	Add Cess @ 1% on "Z"				695.52
	Cost of 50 joints				70247.21
	Cost of 1 joint				1404.94
	Say				1404.95

18.70.13 800 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7679	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 800mm dia	each	50.00	725.00	36250.00
	LABOUR				
0116	Fitter (grade 1)	day	8.50	738.00	6273.00
0117	Assistant Fitter or 2nd class Fitter	day	8.50	679.00	5771.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	17.00	558.00	9486.00
	TOTAL				57780.50 W
	Add 1 % Water charges on "W"				577.81
	TOTAL				58358.31 X
	Add GST on "X" (multiplying factor 0.1405)				8199.34
	TOTAL				66557.65 Y
	Add 15% CPOH on "Y"				9983.65
	TOTAL				76541.29 Z
	Add Cess @ 1% on "Z"				765.41
	Cost of 50 joints				77306.71
	Cost of 1 joint				1546.13
	Say				1546.15

18.70.14 900 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7680	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 900mm dia	each	50.00	960.00	48000.00
	LABOUR				
0116	Fitter (grade 1)	day	10.00	738.00	7380.00
0117	Assistant Fitter or 2nd class Fitter	day	10.00	679.00	6790.00
0114	Beldar	day	20.00	558.00	11160.00
	TOTAL				73330.00 W
	Add 1 % Water charges on "W"				733.30
	TOTAL				74063.30 X
	Add GST on "X" (multiplying factor 0.1405)				10405.89
	TOTAL				84469.19 Y
	Add 15% CPOH on "Y"				12670.38
	TOTAL				97139.57 Z
	Add Cess @ 1% on "Z"				971.40
	Cost of 50 joints				98110.97
	Cost of 1 joint				1962.22
	Say				1962.20

18.70.15 1000 mm dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7681	Details of cost for 50 Joints MATERIAL Ruber Gaskets Conforming to I.S 5382 of S.B.R quality 1000mm dia	each	50.00	1145.00	57250.00
	LABOUR				
0116	Fitter (grade 1)	day	11.00	738.00	8118.00
0117	Assistant Fitter or 2nd class Fitter	day	11.00	679.00	7469.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	22.00	558.00	12276.00
	TOTAL				85113.00 W
	Add 1 % Water charges on "W"				851.13
	TOTAL				85964.13 X
	Add GST on "X" (multiplying factor 0.1405)				12077.96
	TOTAL				98042.09 Y
	Add 15% CPOH on "Y"				14706.31
	TOTAL				112748.40 Z
	Add Cess @ 1% on "Z"				1127.48
	Cost of 50 joints				113875.89
	Cost of 1 joint				2277.52
	Say				2277.50

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 ₹
7712	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 Screwed double flanged centrifugally 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	226.82	11.34
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	1.35	264.25	356.74 A
	TOTAL				6918.08 W
	Add 1 % Water charges on "W-A"				65.61
	TOTAL				6983.69 X
	Add GST on "X-A" (multiplying factor 0.1405)				931.09
	TOTAL				7914.78 Y
	Add 15% CPOH on "Y-A"				1133.71
	TOTAL				9048.49 Z
	Add Cess @ 1% on "Z-A"				86.92
	Cost of 5 metre				9135.40
	Cost of metre				1827.08
	Say				1827.10

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7713	Weight of 1 m pipes = 44.10 Kg Weight of 5 m pipes = 44.10x5 = 220.50 Kg Screwed double flanged centrifugally 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	378.03	18.90
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	2.21	264.25	583.99 A
	TOTAL				10842.89 W
	Add 1 % Water charges on "W-A"				102.59
	TOTAL				10945.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				1455.79
	TOTAL				12401.27 Y
	Add 15% CPOH on "Y-A"				1772.59
	TOTAL				14173.86 Z
	Add Cess @ 1% on "Z-A"				135.90
	Cost of 5 metre				14309.76
	Cost per metre				2861.95
	Say				2861.95

18.71.3 200 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7714	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 Screwed double flanged centrifugally 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	614.93	30.75
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	3.18	264.25	840.32 A
	TOTAL				17061.06 W
	Add 1 % Water charges on "W-A"				162.21
	TOTAL				17223.27 X
	Add GST on "X-A" (multiplying factor 0.1405)				2301.81
	TOTAL				19525.07 Y
	Add 15% CPOH on "Y-A"				2802.71
	TOTAL				22327.79 Z
	Add Cess @ 1% on "Z-A"				214.87
	Cost of 5 metre				22542.66
	Cost per metre				4508.53
	Say				4508.55

18.71.4 250 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7715	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 Screwed double flanged centrifugally 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	873.84	43.69
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	4.27	264.25	1128.35 A
	TOTAL				20697.04 W
	Add 1 % Water charges on "W-A"				195.69
	TOTAL				20892.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				2776.90
	TOTAL				23669.62 Y
	Add 15% CPOH on "Y-A"				3381.19
	TOTAL				27050.81 Z
	Add Cess @ 1% on "Z-A"				259.22
	Cost of 5 metre				27310.04
	Cost per metre				5462.01
	Say				5462.00

18.71.5 300 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7716	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 Screwed double flanged centrifugally 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	1080.08	54.00
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	5.50	264.25	1453.38 A
	TOTAL				26457.38 W
	Add 1 % Water charges on "W-A"				250.04
	TOTAL				26707.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				3548.19
	TOTAL				30255.61 Y
	Add 15% CPOH on "Y-A"				4320.34
	TOTAL				34575.95 Z
	Add Cess @ 1% on "Z-A"				331.23
	Cost of 5 metre				34907.17
	Cost per metre				6981.43
	Say				6981.45

18.71.6 350 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7717	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 Screwed double flanged centrifugally 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	1512.11	75.61
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	6.79	264.25	1794.26 A
	TOTAL				33299.86 W
	Add 1 % Water charges on "W-A"				315.06
	TOTAL				33614.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				4470.80
	TOTAL				38085.72 Y
	Add 15% CPOH on "Y-A"				5443.72
	TOTAL				43529.44 Z
	Add Cess @ 1% on "Z-A"				417.35
	Cost of 5 metre				43946.79
	Cost per metre				8789.36
	Say				8789.35

18.71.7 400 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7718	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 Screwed double flanged centrifugally 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	2061.97	103.10
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	8.34	264.25	2203.85 A
	TOTAL				43021.94 W
	Add 1 % Water charges on "W-A"				408.18
	TOTAL				43430.12 X
	Add GST on "X-A" (multiplying factor 0.1405)				5792.29
	TOTAL				49222.42 Y
	Add 15% CPOH on "Y-A"				7052.79
	TOTAL				56275.20 Z
	Add Cess @ 1% on "Z-A"				540.71
	Cost of 5 metre				56815.92
	Cost per metre				11363.18
	Say				11363.20

18.71.8 450 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7719	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 Screwed double flanged centrifugally 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	2520.19	126.01
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	10.08	264.25	2663.64 A
	TOTAL				54694.65 W
	Add 1 % Water charges on "W-A"				520.31
	TOTAL				55214.96 X
	Add GST on "X-A" (multiplying factor 0.1405)				7383.46
	TOTAL				62598.42 Y
	Add 15% CPOH on "Y-A"				8990.22
	TOTAL				71588.64 Z
	Add Cess @ 1% on "Z-A"				689.25
	Cost of 5 metre				72277.89
	Cost per metre				14455.58
	Say				14455.60

18.71.9 500 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7720	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 Screwed double flanged centrifugally 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	2520.19	126.01
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	11.74	264.25	3102.30 A
	TOTAL				67798.30 W
	Add 1 % Water charges on "W-A"				646.96
	TOTAL				68445.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				9180.69
	TOTAL				77625.95 Y
	Add 15% CPOH on "Y-A"				11178.55
	TOTAL				88804.50 Z
	Add Cess @ 1% on "Z-A"				857.02
	Cost of 5 metre				89661.52
	Cost per metre				17932.30
	Say				17932.30

18.71.10 600 mm dia C.I. Double Flanged Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7721	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 Screwed double flanged centrifugally 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	3780.28	189.01
18.23	Labour for laying Rate same as per item no 18.23 of SH: Water Supply	quintal	15.77	264.25	4167.22 A
	TOTAL				93881.24 W
	Add 1 % Water charges on "W-A"				897.14
	TOTAL				94778.38 X
	Add GST on "X-A" (multiplying factor 0.1405)				12730.87
	TOTAL				107509.24 Y
	Add 15% CPOH on "Y-A"				15501.30
	TOTAL				123010.55 Z
	Add Cess @ 1% on "Z-A"				1188.43
	Cost of 5 metre				124198.98
	Cost per metre				24839.80
	Say				24839.80

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 ₹
7722	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 Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 100mm dia	metre	10.00	800.00	8000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2343	Carriage of ductile iron pipes (k7) 100 mm dia	100 metre	0.10	226.82	22.68
18.23	Labour for laying				
	Rate same as per item no 18.23 of SH: Water Supply	quintal	1.54	264.25	406.95 A
	TOTAL				8429.63 W
	Add 1 % Water charges on "W-A"				80.23
	TOTAL				8509.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				1138.46
	TOTAL				9648.31 Y
	Add 15% CPOH on "Y-A"				1386.21
	TOTAL				11034.52 Z
	Add Cess @ 1% on "Z-A"				106.28
	Cost of 10 metre				11140.79
	Cost per metre				1114.08
	Say				1114.10

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	378.03	37.80
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	2.28	264.25	602.49 A
	TOTAL				12040.29 W
	Add 1 % Water charges on "W-A"				114.38
	TOTAL				12154.67 X
	Add GST on "X-A" (multiplying factor 0.1405)				1623.08
	TOTAL				13777.75 Y
	Add 15% CPOH on "Y-A"				1976.29
	TOTAL				15754.04 Z
	Add Cess @ 1% on "Z-A"				151.52
	Cost of 10 metre				15905.56
	Cost per metre				1590.56
	Say				1590.55

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	100 metre	0.10	614.93	61.49
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.01	264.25	795.39 A
	TOTAL				14856.89 W
	Add 1 % Water charges on "W-A"				140.61
	TOTAL				14997.50 X
	Add GST on "X-A" (multiplying factor 0.1405)				1995.40
	TOTAL				16992.90 Y
	Add 15% CPOH on "Y-A"				2429.63
	TOTAL				19422.52 Z
	Add Cess @ 1% on "Z-A"				186.27
	Cost of 10 metre				19608.79
	Cost per metre				1960.88
	Say				1960.90

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	100 metre	0.10	873.84	87.38
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	3.93	264.25	1038.50 A
	TOTAL				19125.89 W
	Add 1 % Water charges on "W-A"				180.87
	TOTAL				19306.76 X
	Add GST on "X-A" (multiplying factor 0.1405)				2566.69
	TOTAL				21873.45 Y
	Add 15% CPOH on "Y-A"				3125.24
	TOTAL				24998.69 Z
	Add Cess @ 1% on "Z-A"				239.60
	Cost of 10 metre				25238.29
	Cost per metre				2523.83
	Say				2523.85

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	1080.08	108.01
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	4.84	264.25	1278.97 A
	TOTAL				23886.98 W
	Add 1 % Water charges on "W-A"				226.08
	TOTAL				24113.06 X
	Add GST on "X-A" (multiplying factor 0.1405)				3208.19
	TOTAL				27321.25 Y
	Add 15% CPOH on "Y-A"				3906.34
	TOTAL				31227.59 Z
	Add Cess @ 1% on "Z-A"				299.49
	Cost of 10 metre				31527.08
	Cost per metre				3152.71
	Say				3152.70

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	1512.11	151.21
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	6.60	264.25	1744.05 A
	TOTAL				28395.26 W
	Add 1 % Water charges on "W-A"				266.51
	TOTAL				28661.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				3781.94
	TOTAL				32443.71 Y
	Add 15% CPOH on "Y-A"				4604.95
	TOTAL				37048.66 Z
	Add Cess @ 1% on "Z-A"				353.05
	Cost of 10 metre				37401.71
	Cost per metre				3740.17
	Say				3740.15

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	2061.97	206.20
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	7.83	264.25	2069.08 A
	TOTAL				34025.27 W
	Add 1 % Water charges on "W-A"				319.56
	TOTAL				34344.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				4534.74
	TOTAL				38879.58 Y
	Add 15% CPOH on "Y-A"				5521.58
	TOTAL				44401.16 Z
	Add Cess @ 1% on "Z-A"				423.32
	Cost of 10 metre				44824.48
	Cost per metre				4482.45
	Say				4482.45

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	2520.19	252.02
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	9.14	264.25	2415.25 A
	TOTAL				41187.26 W
	Add 1 % Water charges on "W-A"				387.72
	TOTAL				41574.98 X
	Add GST on "X-A" (multiplying factor 0.1405)				5501.94
	TOTAL				47076.93 Y
	Add 15% CPOH on "Y-A"				6699.25
	TOTAL				53776.18 Z
	Add Cess @ 1% on "Z-A"				513.61
	Cost of 10 metre				54289.79
	Cost per metre				5428.98
	Say				5429.00

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	2520.19	252.02
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	10.66	264.25	2816.91 A
	TOTAL				46568.92 W
	Add 1 % Water charges on "W-A"				437.52
	TOTAL				47006.44 X
	Add GST on "X-A" (multiplying factor 0.1405)				6208.63
	TOTAL				53215.07 Y
	Add 15% CPOH on "Y-A"				7559.73
	TOTAL				60774.80 Z
	Add Cess @ 1% on "Z-A"				579.58
	Cost of 10 metre				61354.38
	Cost per metre				6135.44
	Say				6135.45

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	3780.28	378.03
	Labour for laying				
18.23	Rate same as per item no 18.23 of SH: Water Supply	quintal	13.86	264.25	3662.51 A
	TOTAL				60040.53 W
	Add 1 % Water charges on "W-A"				563.78
	TOTAL				60604.31 X
	Add GST on "X-A" (multiplying factor 0.1405)				8000.32
	TOTAL				68604.64 Y
	Add 15% CPOH on "Y-A"				9741.32
	TOTAL				78345.96 Z
	Add Cess @ 1% on "Z-A"				746.83
	Cost of 10 metre				79092.79
	Cost per metre				7909.28
	Say				7909.30

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	3780.28	378.03
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	18.89	264.25	4991.68 A
	TOTAL				78369.71 W
	Add 1 % Water charges on "W-A"				733.78
	TOTAL				79103.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				10412.71
	TOTAL				89516.20 Y
	Add 15% CPOH on "Y-A"				12678.68
	TOTAL				102194.88 Z
	Add Cess @ 1% on "Z-A"				972.03
	Cost of 10 metre				103166.91
	Cost per metre				10316.69
	Say				10316.70

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	3780.28	378.03
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	24.35	264.25	6434.49 A
	TOTAL				97812.52 W
	Add 1 % Water charges on "W-A"				913.78
	TOTAL				98726.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				12967.00
	TOTAL				111693.29 Y
	Add 15% CPOH on "Y-A"				15788.82
	TOTAL				127482.12 Z
	Add Cess @ 1% on "Z-A"				1210.48
	Cost of 10 metre				128692.59
	Cost per metre				12869.26
	Say				12869.25

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	5670.42	567.04
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	28.27	264.25	7470.35 A
	TOTAL				126037.39 W
	Add 1 % Water charges on "W-A"				1185.67
	TOTAL				127223.06 X
	Add GST on "X-A" (multiplying factor 0.1405)				16825.26
	TOTAL				144048.32 Y
	Add 15% CPOH on "Y-A"				20486.70
	TOTAL				164535.01 Z
	Add Cess @ 1% on "Z-A"				1570.65
	Cost of 10 metre				166105.66
	Cost per metre				16610.57
	Say				16610.55

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	7560.57	756.06
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	34.82	264.25	9201.19 A
	TOTAL				132957.24 W
	Add 1 % Water charges on "W-A"				1237.56
	TOTAL				134194.80 X
	Add GST on "X-A" (multiplying factor 0.1405)				17561.60
	TOTAL				151756.41 Y
	Add 15% CPOH on "Y-A"				21383.28
	TOTAL				173139.69 Z
	Add Cess @ 1% on "Z-A"				1639.39
	Cost of 10 metre				174779.07
	Cost per metre				17477.91
	Say				17477.90

18.72.15 100 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7651	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 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	226.82	22.68
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.776	264.25	469.31 A
	TOTAL				8141.99 W
	Add 1 % Water charges on "W-A"				76.73
	TOTAL				8218.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				1088.79
	TOTAL				9307.51 Y
	Add 15% CPOH on "Y-A"				1325.73
	TOTAL				10633.24 Z
	Add Cess @ 1% on "Z-A"				101.64
	Cost of 10 metre				10734.88
	Cost per metre				1073.49
	Say				1073.50

18.72.16 150 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7652	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 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	378.03	37.80
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.627	264.25	694.18 A
	TOTAL				12231.99 W
	Add 1 % Water charges on "W-A"				115.38
	TOTAL				12347.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				1637.27
	TOTAL				13984.64 Y
	Add 15% CPOH on "Y-A"				1993.57
	TOTAL				15978.21 Z
	Add Cess @ 1% on "Z-A"				152.84
	Cost of 10 metre				16131.05
	Cost per metre				1613.10
	Say				1613.10

18.72.17 200 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7653	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 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	614.93	61.49
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	3.615	264.25	955.26 A
	TOTAL				16766.76 W
	Add 1 % Water charges on "W-A"				158.11
	TOTAL				16924.87 X
	Add GST on "X-A" (multiplying factor 0.1405)				2243.73
	TOTAL				19168.60 Y
	Add 15% CPOH on "Y-A"				2732.00
	TOTAL				21900.60 Z
	Add Cess @ 1% on "Z-A"				209.45
	Cost of 10 metre				22110.06
	Cost per metre				2211.01
	Say				2211.00

18.72.18 250 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7654	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 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	873.84	87.38
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	4.80	264.25	1268.40 A
	TOTAL				23355.78 W
	Add 1 % Water charges on "W-A"				220.87
	TOTAL				23576.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				3134.31
	TOTAL				26710.97 Y
	Add 15% CPOH on "Y-A"				3816.39
	TOTAL				30527.35 Z
	Add Cess @ 1% on "Z-A"				292.59
	Cost of 10 metre				30819.94
	Cost per metre				3081.99
	Say				3082.00

18.72.19 300 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7655	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 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	1080.08	108.01
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	6.049	264.25	1598.45 A
	TOTAL				29206.46 W
	Add 1 % Water charges on "W-A"				276.08
	TOTAL				29482.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				3917.71
	TOTAL				33400.25 Y
	Add 15% CPOH on "Y-A"				4770.27
	TOTAL				38170.52 Z
	Add Cess @ 1% on "Z-A"				365.72
	Cost of 10 metre				38536.24
	Cost per metre				3853.62
	Say				3853.60

18.72.20 350 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7656	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 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	1512.11	151.21
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	7.973	264.25	2106.87 A
	TOTAL				35758.08 W
	Add 1 % Water charges on "W-A"				336.51
	TOTAL				36094.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				4775.28
	TOTAL				40869.86 Y
	Add 15% CPOH on "Y-A"				5814.45
	TOTAL				46684.31 Z
	Add Cess @ 1% on "Z-A"				445.77
	Cost of 10 metre				47130.09
	Cost per metre				4713.01
	Say				4713.00

18.72.21 400 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7657	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 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 Labour for laying	100 metre	0.10	2061.97	206.20
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	9.48	264.25	2505.09 A
	TOTAL				45711.29 W
	Add 1 % Water charges on "W-A"				432.06
	TOTAL				46143.35 X
	Add GST on "X-A" (multiplying factor 0.1405)				6131.18
	TOTAL				52274.52 Y
	Add 15% CPOH on "Y-A"				7465.42
	TOTAL				59739.94 Z
	Add Cess @ 1% on "Z-A"				572.35
	Cost of 10 metre				60312.29
	Cost per metre				6031.23
	Say				6031.25

18.72.22 450 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7658	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 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 Labour for laying	100 metre	0.10	2520.19	252.02
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	11.097	264.25	2932.38 A
	TOTAL				53184.40 W
	Add 1 % Water charges on "W-A"				502.52
	TOTAL				53686.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				7131.01
	TOTAL				60817.93 Y
	Add 15% CPOH on "Y-A"				8682.83
	TOTAL				69500.77 Z
	Add Cess @ 1% on "Z-A"				665.68
	Cost of 10 metre				70166.45
	Cost per metre				7016.65
	Say				7016.65

18.72.23 500 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7659	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 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	2520.19	252.02
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	12.948	264.25	3421.51 A
	TOTAL				66373.53 W
	Add 1 % Water charges on "W-A"				629.52
	TOTAL				67003.05 X
	Add GST on "X-A" (multiplying factor 0.1405)				8933.21
	TOTAL				75936.25 Y
	Add 15% CPOH on "Y-A"				10877.21
	TOTAL				86813.47 Z
	Add Cess @ 1% on "Z-A"				833.92
	Cost of 10 metre				87647.39
	Cost per metre				8764.74
	Say				8764.75

18.72.24 600 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7660	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 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	3780.28	378.03
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	16.868	264.25	4457.37 A
	TOTAL				80435.40 W
	Add 1 % Water charges on "W-A"				759.78
	TOTAL				81195.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				10781.66
	TOTAL				91976.84 Y
	Add 15% CPOH on "Y-A"				13127.92
	TOTAL				105104.76 Z
	Add Cess @ 1% on "Z-A"				1006.47
	Cost of 10 metre				106111.23
	Cost per metre				10611.12
	Say				10611.10

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	2520.19	252.02
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	21.754	264.25	5748.49 A
	TOTAL				111000.51 W
	Add 1 % Water charges on "W-A"				1052.52
	TOTAL				112053.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				14935.79
	TOTAL				126988.82 Y
	Add 15% CPOH on "Y-A"				18186.05
	TOTAL				145174.87 Z
	Add Cess @ 1% on "Z-A"				1394.26
	Cost of 10 metre				146569.13
	Cost per metre				14656.91
	Say				14656.90

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	5670.42	567.04
	Labour for laying				
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	24.26	264.25	6410.71 A
	TOTAL				120477.75 W
	Add 1 % Water charges on "W-A"				1140.67
	TOTAL				121618.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				16186.68
	TOTAL				137805.10 Y
	Add 15% CPOH on "Y-A"				19709.16
	TOTAL				157514.26 Z
	Add Cess @ 1% on "Z-A"				1511.04
	Cost of 10 metre				159025.30
	Cost per metre				15902.53
	Say				15902.55

18.72.27 800 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7663	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 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	7560.57	756.06
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	26.71	264.25	7058.12 A
	TOTAL				122314.17 W
	Add 1 % Water charges on "W-A"				1152.56
	TOTAL				123466.74 X
	Add GST on "X-A" (multiplying factor 0.1405)				16355.41
	TOTAL				139822.15 Y
	Add 15% CPOH on "Y-A"				19914.60
	TOTAL				159736.75 Z
	Add Cess @ 1% on "Z-A"				1526.79
	Cost of 10 metre				161263.54
	Cost per metre				16126.35
	Say				16126.35

18.72.28 900 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7664	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 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	7560.57	756.06
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	32.129	264.25	8490.09 A
	TOTAL				148246.15 W
	Add 1 % Water charges on "W-A"				1397.56
	TOTAL				149643.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				19832.08
	TOTAL				169475.79 Y
	Add 15% CPOH on "Y-A"				24147.86
	TOTAL				193623.64 Z
	Add Cess @ 1% on "Z-A"				1851.34
	Cost of 10 metre				195474.98
	Cost per metre				19547.50
	Say				19547.50

18.72.29 1000 mm dia Ductile Iron Class K-9 pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7665	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 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 Labour for laying	100 metre	0.10	7560.57	756.06
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	38.019	264.25	10046.52 A
	TOTAL				166302.58 W
	Add 1 % Water charges on "W-A"				1562.56
	TOTAL				167865.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				22173.52
	TOTAL				190038.65 Y
	Add 15% CPOH on "Y-A"				26998.82
	TOTAL				217037.47 Z
	Add Cess @ 1% on "Z-A"				2069.91
	Cost of 10 metre				219107.38
	Cost per metre				21910.74
	Say				21910.75

**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 ₹
7686	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 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 Labour for laying	100 metre	0.05	226.82	11.34
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.09	264.25	288.03 A
	TOTAL				5799.37 W
	Add 1 % Water charges on "W-A"				55.11
	TOTAL				5854.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				782.09
	TOTAL				6636.57 Y
	Add 15% CPOH on "Y-A"				952.28
	TOTAL				7588.85 Z
	Add Cess @ 1% on "Z-A"				73.01
	Cost of 5 metre				7661.86
	Cost per metre				1532.37
	Say				1532.35

18.73.2 150 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7687	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 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 Labour for laying	100 metre	0.05	378.03	18.90
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	1.63	264.25	430.73 A
	TOTAL				8699.63 W
	Add 1 % Water charges on "W-A"				82.69
	TOTAL				8782.32 X
	Add GST on "X-A" (multiplying factor 0.1405)				1173.40
	TOTAL				9955.72 Y
	Add 15% CPOH on "Y-A"				1428.75
	TOTAL				11384.46 Z
	Add Cess @ 1% on "Z-A"				109.54
	Cost of 5 metre				11494.00
	Cost per metre				2298.80
	Say				2298.80

18.73.3 200 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7688	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 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 Labour for laying	100 metre	0.05	614.93	30.75
18.23	Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.21	264.25	583.99 A
	TOTAL				10989.74 W
	Add 1 % Water charges on "W-A"				104.06
	TOTAL				11093.80 X
	Add GST on "X-A" (multiplying factor 0.1405)				1476.63
	TOTAL				12570.42 Y
	Add 15% CPOH on "Y-A"				1797.96
	TOTAL				14368.39 Z
	Add Cess @ 1% on "Z-A"				137.84
	Cost of 5 metre				14506.23
	Cost per metre				2901.25
	Say				2901.25

18.73.4 250 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7689	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 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	873.84	43.69
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	2.97	264.25	784.82 A
	TOTAL				15578.51 W
	Add 1 % Water charges on "W-A"				147.94
	TOTAL				15726.45 X
	Add GST on "X-A" (multiplying factor 0.1405)				2099.30
	TOTAL				17825.75 Y
	Add 15% CPOH on "Y-A"				2556.14
	TOTAL				20381.89 Z
	Add Cess @ 1% on "Z-A"				195.97
	Cost of 5 metre				20577.86
	Cost per metre				4115.57
	Say				4115.55

18.73.5 300 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7690	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 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	1080.08	54.00
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	3.82	264.25	1009.44 A
	TOTAL				20013.44 W
	Add 1 % Water charges on "W-A"				190.04
	TOTAL				20203.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				2696.76
	TOTAL				22900.24 Y
	Add 15% CPOH on "Y-A"				3283.62
	TOTAL				26183.86 Z
	Add Cess @ 1% on "Z-A"				251.74
	Cost of 5 metre				26435.61
	Cost per metre				5287.12
	Say				5287.10

18.73.6 350 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7691	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 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	1512.11	75.61
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	4.57	264.25	1207.62 A
	TOTAL				25183.23 W
	Add 1 % Water charges on "W-A"				239.76
	TOTAL				25422.98 X
	Add GST on "X-A" (multiplying factor 0.1405)				3402.26
	TOTAL				28825.24 Y
	Add 15% CPOH on "Y-A"				4142.64
	TOTAL				32967.89 Z
	Add Cess @ 1% on "Z-A"				317.60
	Cost of 5 metre				33285.49
	Cost per metre				6657.10
	Say				6657.10

18.73.7 400 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7692	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 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	2061.97	103.10
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	5.40	264.25	1426.95 A
	TOTAL				32280.05 W
	Add 1 % Water charges on "W-A"				308.53
	TOTAL				32588.58 X
	Add GST on "X-A" (multiplying factor 0.1405)				4378.21
	TOTAL				36966.79 Y
	Add 15% CPOH on "Y-A"				5330.98
	TOTAL				42297.76 Z
	Add Cess @ 1% on "Z-A"				408.71
	Cost of 5 metre				42706.47
	Cost per metre				8541.29
	Say				8541.30

18.73.8 450 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7693	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 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	2520.19	126.01
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	6.39	264.25	1688.56 A
	TOTAL				34079.57 W
	Add 1 % Water charges on "W-A"				323.91
	TOTAL				34403.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				4596.45
	TOTAL				38999.92 Y
	Add 15% CPOH on "Y-A"				5596.70
	TOTAL				44596.63 Z
	Add Cess @ 1% on "Z-A"				429.08
	Cost of 5 metre				45025.71
	Cost per metre				9005.14
	Say				9005.15

18.73.9 500 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7694	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 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	2520.19	126.01
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	7.40	264.25	1955.45 A
	TOTAL				47981.46 W
	Add 1 % Water charges on "W-A"				460.26
	TOTAL				48441.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				6531.32
	TOTAL				54973.04 Y
	Add 15% CPOH on "Y-A"				7952.64
	TOTAL				62925.68 Z
	Add Cess @ 1% on "Z-A"				609.70
	Cost of 5 metre				63535.38
	Cost per metre				12707.08
	Say				12707.10

18.73.10 600 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7695	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 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	3780.28	189.01
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	9.95	264.25	2629.29 A
	TOTAL				63568.30 W
	Add 1 % Water charges on "W-A"				609.39
	TOTAL				64177.69 X
	Add GST on "X-A" (multiplying factor 0.1405)				8647.55
	TOTAL				72825.24 Y
	Add 15% CPOH on "Y-A"				10529.39
	TOTAL				83354.64 Z
	Add Cess @ 1% on "Z-A"				807.25
	Cost of 5 metre				84161.89
	Cost per metre				16832.38
	Say				16832.40

18.73.11 700 mm dia Ductile Iron Double Flanged

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7696	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 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	2520.19	126.01
18.23	Labour for laying Rate as per Item Number 18.23 of SH: Water Supply	quintal	12.75	264.25	3369.19 A
	TOTAL				75345.20 W
	Add 1 % Water charges on "W-A"				719.76
	TOTAL				76064.96 X
	Add GST on "X-A" (multiplying factor 0.1405)				10213.76
	TOTAL				86278.71 Y
	Add 15% CPOH on "Y-A"				12436.43
	TOTAL				98715.14 Z
	Add Cess @ 1% on "Z-A"				953.46
	Cost of 5 metre				99668.60
	Cost per metre				19933.72
	Say				19933.70

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 ₹
7862	Details of cost for one no. MATERIAL 15 mm nominal bore and 30 cm length PVC connection pipe with P.T.M.T.				
	Nuts	each	1.00	46.50	46.50
9988	Carriage of materials and fixing charges	L.S.	12.22	2.00	24.44
	TOTAL				70.94 W
	Add 1 % Water charges on "W"				0.71
	TOTAL				71.65 X
	Add GST on "X" (multiplying factor 0.1405)				10.07
	TOTAL				81.72 Y
	Add 15% CPOH on "Y"				12.26
	TOTAL				93.97 Z
	Add Cess @ 1% on "Z"				0.94
	Cost of one no.				94.91
	Say				94.90

18.74.2 15 mm nominal bore with 45 cm length

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7863	Details of cost for one no. MATERIAL 15 mm nominal bore and 45 cm length PVC connection pipe with P.T.M.T.				
	Nuts	each	1.00	57.00	57.00
9988	Carriage of materials and fixing charges	L.S.	13.52	2.00	27.04
	TOTAL				84.04 W
	Add 1 % Water charges on "W"				0.84
	TOTAL				84.88 X
	Add GST on "X" (multiplying factor 0.1405)				11.93
	TOTAL				96.81 Y
	Add 15% CPOH on "Y"				14.52
	TOTAL				111.33 Z
	Add Cess @ 1% on "Z"				1.11
	Cost of one no.				112.44
	Say				112.45

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 ₹
7864	Details of cost for one no. MATERIAL P.T.M.T. extension nipple 15mm	each	1.00	30.00	30.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Carriage of materials and fixing charges	L.S.	3.38	2.00	6.76
	TOTAL				36.76 W
	Add 1 % Water charges on "W"				0.37
	TOTAL				37.13 X
	Add GST on "X" (multiplying factor 0.1405)				5.22
	TOTAL				42.34 Y
	Add 15% CPOH on "Y"				6.35
	TOTAL				48.70 Z
	Add Cess @ 1% on "Z"				0.49
	Cost of one no.				49.18
	Say				49.20

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	54.00	54.00
9988	Carriage of materials and fixing charges	L.S.	3.38	2.00	6.76
	TOTAL				60.76 W
	Add 1 % Water charges on "W"				0.61
	TOTAL				61.37 X
	Add GST on "X" (multiplying factor 0.1405)				8.62
	TOTAL				69.99 Y
	Add 15% CPOH on "Y"				10.50
	TOTAL				80.49 Z
	Add Cess @ 1% on "Z"				0.80
	Cost of one no.				81.29
	Say				81.30

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	78.00	78.00
9988	Carriage of materials and fixing charges	L.S.	3.38	2.00	6.76
	TOTAL				84.76 W
	Add 1 % Water charges on "W"				0.85
	TOTAL				85.61 X
	Add GST on "X" (multiplying factor 0.1405)				12.03
	TOTAL				97.64 Y
	Add 15% CPOH on "Y"				14.65
	TOTAL				112.28 Z
	Add Cess @ 1% on "Z"				1.12
	Cost of one no.				113.40
	Say				113.40

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	738.00	118.08
0124	Mason (brick layer) 2nd class	day	0.16	679.00	108.64
0114	Beldar	day	1.25	558.00	697.50
	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 Rate as per item No 6.4.1 of SH :- Brick work.	cum	0.21	7809.25	1639.94 A
	12 mm cement plaster 1:4 (1 cement : 4 coarse sand) 10x2x0.3x0.3m = 1.80 sqm Less 33% for pipe etc. = (-) 0.59 sqm = 1.21 sqm Say 1.20 sqm (Rate as per item no 13.4.1 of SH : Finishing)	sqm	1.20	276.15	331.38 A
9999	Add for delay	L.S.	16.12	2.00	32.24
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				2943.90 W
	Add 1 % Water charges on "W-A"				9.73
	TOTAL				2953.63 X
	Add GST on "X-A" (multiplying factor 0.1405)				138.01
	TOTAL				3091.64 Y
	Add 15% CPOH on "Y-A"				168.05
	TOTAL				3259.69 Z
	Add Cess @ 1% on "Z-A"				12.88
	Cost of 10 holes				3272.57
	Cost of 1 hole				327.26
	Say				327.25

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	738.00	612.54
0124	Mason (brick layer) 2nd class	day	0.83	679.00	563.57
0114	Beldar	day	1.67	558.00	931.86
	Cement concrete 1:2:4 (1 cement : 2 coarse sand ; 4 graded stone aggregate 20 mm nominal size)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.3	10x0.15x0.15x0.15 m = 0.033 cum Les 33% for pipe etc. = (-) 0.011 cum = 0.022 cum Say 0.02 cum Rate as per item no. 4.1.3 of SH : concrete Work	cum	0.02	6788.60	135.77 A
9999	Finishing top and bottom and making the holes leak proof	L.S.	121.16	2.00	242.32
9999	Add for delay	L.S.	40.30	2.00	80.60
9999	Sundries	L.S.	21.58	2.00	43.16
	TOTAL				2609.82 W
	Add 1 % Water charges on "W-A"				24.74
	TOTAL				2634.56 X
	Add GST on "X-A" (multiplying factor 0.1405)				351.08
	TOTAL				2985.64 Y
	Add 15% CPOH on "Y-A"				427.48
	TOTAL				3413.12 Z
	Add Cess @ 1% on "Z-A"				32.77
	Cost of 10 holes				3445.90
	Cost of 1 hole				344.59
	Say				344.60

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 ₹
0123	Details of cost for 10 metres Labour for making chases	day	0.25	738.00	184.50
0124	Mason (brick layer) 1st class	day	0.25	679.00	169.75
0114	Mason (brick layer) 2nd class	day	1.00	558.00	558.00
	Beldar				
	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 Rate as per item no 4.2.5 of SH : Concrete work	cum	0.04	8025.00	321.00 A
4.2.5	TOTAL				1233.25 W
	Add 1 % Water charges on "W-A"				9.12
	TOTAL				1242.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				129.45
	TOTAL				1371.83 Y
	Add 15% CPOH on "Y-A"				157.62
	TOTAL				1529.45 Z
	Add Cess @ 1% on "Z-A"				12.08
	Cost of 10 metre				1541.53
	Cost of 1 metre				154.15
	Say				154.15

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 ₹
4.2.5	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 $3.14 \times (0.15)^2 / 4 \times 10 = (-) 0.177$ cum = 0.223 cum Say 0.22 cum Rate as per item no 4.2.5 of SH : Concrete work	cum	0.22	8025.00	1765.50 A
9999	Disposal of malba	L.S.	13.52	2.00	27.04
	TOTAL				1792.54 W
	Add 1 % Water charges on "W-A"				0.27
	TOTAL				1792.81 X
	Add GST on "X-A" (multiplying factor 0.1405)				3.84
	TOTAL				1796.65 Y
	Add 15% CPOH on "Y-A"				4.67
	TOTAL				1801.32 Z
	Add Cess @ 1% on "Z-A"				0.36
	Cost of 10 metre				1801.68
	Cost of 1 metre				180.17
	Say				180.15

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 ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder $3 \times 3.14 / 4 \times (80/10)^2 \times (100 \times 100) / 1000 \times 0.5$ gms = 754.28 gms Say 0.008 q	quintal	0.008	1800.00	14.40
0116	LABOUR Fitter (grade 1)	day	0.33	738.00	243.54
0114	Beldar	day	1.31	558.00	730.98
9999	Sundries including testing of samples	L.S.	9.88	2.00	19.76
	TOTAL				1008.68 W
	Add 1 % Water charges on "W"				10.09
	TOTAL				1018.77 X
	Add GST on "X" (multiplying factor 0.1405)				143.14
	TOTAL				1161.90 Y
	Add 15% CPOH on "Y"				174.29
	TOTAL				1336.19 Z
	Add Cess @ 1% on "Z"				13.36
	Cost of 100 metre				1349.55
	Say				1349.55

18.80.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (100/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	361.62
0114	Beldar	day	1.64	558.00	915.12
9999	Sundries including testing of samples	L.S.	13.52	2.00	27.04
	TOTAL				1325.38 W
	Add 1 % Water charges on "W"				13.25
	TOTAL				1338.63 X
	Add GST on "X" (multiplying factor 0.1405)				188.08
	TOTAL				1526.71 Y
	Add 15% CPOH on "Y"				229.01
	TOTAL				1755.72 Z
	Add Cess @ 1% on "Z"				17.56
	Cost of 100 metre				1773.28
	Say				1773.30

18.80.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (125/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	487.08
0114	Beldar	day	1.97	558.00	1099.26
9999	Sundries including testing of samples	L.S.	17.94	2.00	35.88
	TOTAL				1654.62 W
	Add 1 % Water charges on "W"				16.55
	TOTAL				1671.17 X
	Add GST on "X" (multiplying factor 0.1405)				234.80
	TOTAL				1905.97 Y
	Add 15% CPOH on "Y"				285.89
	TOTAL				2191.86 Z
	Add Cess @ 1% on "Z"				21.92
	Cost of 100 metre				2213.78
	Say				2213.80

18.80.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (150/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	605.16
0114	Beldar	day	2.30	558.00	1283.40
9999	Sundries including testing of samples	L.S.	22.88	2.00	45.76
	TOTAL				1982.92 W
	Add 1 % Water charges on "W"				19.83
	TOTAL				2002.75 X
	Add GST on "X" (multiplying factor 0.1405)				281.39
	TOTAL				2284.14 Y
	Add 15% CPOH on "Y"				342.62
	TOTAL				2626.76 Z
	Add Cess @ 1% on "Z"				26.27
	Cost of 100 metre				2653.02
	Say				2653.00

18.80.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (200/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	848.70
0114	Beldar	day	2.95	558.00	1646.10
9999	Sundries including testing of samples	L.S.	31.46	2.00	62.92
	TOTAL				2642.32 W
	Add 1 % Water charges on "W"				26.42
	TOTAL				2668.74 X
	Add GST on "X" (multiplying factor 0.1405)				374.96
	TOTAL				3043.70 Y
	Add 15% CPOH on "Y"				456.56
	TOTAL				3500.26 Z
	Add Cess @ 1% on "Z"				35.00
	Cost of 100 metre				3535.26
	Say				3535.25

18.80.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (250/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	1092.24
0114	Beldar	day	3.61	558.00	2014.38
9999	Sundries including testing of samples	L.S.	40.30	2.00	80.60
	TOTAL				3320.42 W
	Add 1 % Water charges on "W"				33.20
	TOTAL				3353.62 X
	Add GST on "X" (multiplying factor 0.1405)				471.18
	TOTAL				3824.81 Y
	Add 15% CPOH on "Y"				573.72
	TOTAL				4398.53 Z
	Add Cess @ 1% on "Z"				43.99
	Cost of 100 metre				4442.51
	Say				4442.50

18.80.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (300/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	1210.32
0114	Beldar	day	3.94	558.00	2198.52
9999	Sundries including testing of samples	L.S.	44.46	2.00	88.92
	TOTAL				3688.56 W
	Add 1 % Water charges on "W"				36.89
	TOTAL				3725.45 X
	Add GST on "X" (multiplying factor 0.1405)				523.43
	TOTAL				4248.87 Y
	Add 15% CPOH on "Y"				637.33
	TOTAL				4886.20 Z
	Add Cess @ 1% on "Z"				48.86
	Cost of 100 metre				4935.06
	Say				4935.05

18.80.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (350/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	1328.40
0114	Beldar	day	4.27	558.00	2382.66
9999	Sundries including testing of samples	L.S.	48.36	2.00	96.72
	TOTAL				4066.98 W
	Add 1 % Water charges on "W"				40.67
	TOTAL				4107.65 X
	Add GST on "X" (multiplying factor 0.1405)				577.12
	TOTAL				4684.77 Y
	Add 15% CPOH on "Y"				702.72
	TOTAL				5387.49 Z
	Add Cess @ 1% on "Z"				53.87
	Cost of 100 metre				5441.37
	Say				5441.35

18.80.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (400/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	1453.86
0114	Beldar	day	4.59	558.00	2561.22
9999	Sundries including testing of samples	L.S.	53.82	2.00	107.64
	TOTAL				4462.92 W
	Add 1 % Water charges on "W"				44.63
	TOTAL				4507.55 X
	Add GST on "X" (multiplying factor 0.1405)				633.31
	TOTAL				5140.86 Y
	Add 15% CPOH on "Y"				771.13
	TOTAL				5911.99 Z
	Add Cess @ 1% on "Z"				59.12
	Cost of 100 metre				5971.11
	Say				5971.10

18.80.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (450/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	1571.94
0114	Beldar	day	4.92	558.00	2745.36
9999	Sundries including testing of samples	L.S.	58.24	2.00	116.48
	TOTAL				4863.98 W
	Add 1 % Water charges on "W"				48.64
	TOTAL				4912.62 X
	Add GST on "X" (multiplying factor 0.1405)				690.22
	TOTAL				5602.84 Y
	Add 15% CPOH on "Y"				840.43
	TOTAL				6443.27 Z
	Add Cess @ 1% on "Z"				64.43
	Cost of 100 metre				6507.70
	Say				6507.70

18.80.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (500/10)^2 \times (100 \times 100)/1000 \times 0.5$ 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	738.00	1697.40
0114	Beldar	day	5.25	558.00	2929.50
9999	Sundries including testing of samples	L.S.	63.7	2.00	127.40
	TOTAL				5285.30 W
	Add 1 % Water charges on "W"				52.85
	TOTAL				5338.15 X
	Add GST on "X" (multiplying factor 0.1405)				750.01
	TOTAL				6088.16 Y
	Add 15% CPOH on "Y"				913.22
	TOTAL				7001.39 Z
	Add Cess @ 1% on "Z"				70.01
	Cost of 100 metre				7071.40
	Say				7071.40

18.80.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder				
	$3 \times 3.14/4 \times (600/10)^2 \times (100 \times 100)/1000 \times 0.5 \text{ gms} = 42411.5 \text{ gms}$ Say 0.424 q				
1301	Bleaching powder	quintal	0.424	1800.00	763.20
	LABOUR				
0116	Fitter (grade 1)	day	2.62	738.00	1933.56
0114	Beldar	day	5.91	558.00	3297.78
9999	Sundries including testing of samples	L.S.	71.37	2.00	142.74
	TOTAL				6137.28 W
	Add 1 % Water charges on "W"				61.37
	TOTAL				6198.65 X
	Add GST on "X" (multiplying factor 0.1405)				870.91
	TOTAL				7069.56 Y
	Add 15% CPOH on "Y"				1060.43
	TOTAL				8130.00 Z
	Add Cess @ 1% on "Z"				81.30
	Cost of 100 metre				8211.30
	Say				8211.30

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				
	Bleaching powder				
	$3 \times 3.14/4 \times (80/10)^2 \times (100 \times 100)/1000 \times 0.5 \text{ gms} = 42411.5 \text{ gms}$ Say 0.003 q				
1301	Bleaching powder	quintal	0.003	1800.00	5.40
	LABOUR				
0116	Fitter (grade 1)	day	0.11	738.00	81.18
0114	Beldar	day	0.49	558.00	273.42
9999	Sundries including testing of samples	L.S.	4.42	2.00	8.84
	TOTAL				368.84 W
	Add 1 % Water charges on "W"				3.69
	TOTAL				372.53 X
	Add GST on "X" (multiplying factor 0.1405)				52.34
	TOTAL				424.87 Y
	Add 15% CPOH on "Y"				63.73
	TOTAL				488.60 Z
	Add Cess @ 1% on "Z"				4.89
	Cost of 100 metre				493.48
	Say				493.50

18.81.2 100 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.004	1800.00	7.20
	LABOUR				
0116	Fitter (grade 1)	day	0.16	738.00	118.08
0114	Beldar	day	0.57	558.00	318.06
9999	Sundries including testing of samples	L.S.	4.42	2.00	8.84
	TOTAL				452.18 W
	Add 1 % Water charges on "W"				4.52
	TOTAL				456.70 X
	Add GST on "X" (multiplying factor 0.1405)				64.17
	TOTAL				520.87 Y
	Add 15% CPOH on "Y"				78.13
	TOTAL				599.00 Z
	Add Cess @ 1% on "Z"				5.99
	Cost of 100 metre				604.99
	Say				605.00

18.81.3 125 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.006	1800.00	10.80
	LABOUR				
0116	Fitter (grade 1)	day	0.22	738.00	162.36
0114	Beldar	day	0.66	558.00	368.28
9999	Sundries including testing of samples	L.S.	5.46	2.00	10.92
	TOTAL				552.36 W
	Add 1 % Water charges on "W"				5.52
	TOTAL				557.88 X
	Add GST on "X" (multiplying factor 0.1405)				78.38
	TOTAL				636.27 Y
	Add 15% CPOH on "Y"				95.44
	TOTAL				731.71 Z
	Add Cess @ 1% on "Z"				7.32
	Cost of 100 metre				739.02
	Say				739.00

18.81.4 150 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.009	1800.00	16.20
	LABOUR				
0116	Fitter (grade 1)	day	0.27	738.00	199.26
0114	Beldar	day	0.74	558.00	412.92

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including testing of samples	L.S.	7.15	2.00	14.30
	TOTAL				642.68 W
	Add 1 % Water charges on "W"				6.43
	TOTAL				649.11 X
	Add GST on "X" (multiplying factor 0.1405)				91.20
	TOTAL				740.31 Y
	Add 15% CPOH on "Y"				111.05
	TOTAL				851.35 Z
	Add Cess @ 1% on "Z"				8.51
	Cost of 100 metre				859.87
	Say				859.85

18.81.5 200 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder	quintal	0.016	1800.00	28.80
	LABOUR				
0116	Fitter (grade 1)	day	0.58	738.00	428.04
0114	Beldar	day	0.90	558.00	502.20
9999	Sundries including testing of samples	L.S.	9.88	2.00	19.76
	TOTAL				978.80 W
	Add 1 % Water charges on "W"				9.79
	TOTAL				988.59 X
	Add GST on "X" (multiplying factor 0.1405)				138.90
	TOTAL				1127.48 Y
	Add 15% CPOH on "Y"				169.12
	TOTAL				1296.61 Z
	Add Cess @ 1% on "Z"				12.97
	Cost of 100 metre				1309.57
	Say				1309.55

18.81.6 250 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres				
	MATERIAL				
	Bleaching powder	quintal	0.025	1800.00	45.00
	LABOUR				
0116	Fitter (grade 1)	day	0.60	738.00	442.80
0114	Beldar	day	1.10	558.00	613.80
9999	Sundries including testing of samples	L.S.	10.79	2.00	21.58
	TOTAL				1123.18 W
	Add 1 % Water charges on "W"				11.23
	TOTAL				1134.41 X
	Add GST on "X" (multiplying factor 0.1405)				159.38
	TOTAL				1293.80 Y
	Add 15% CPOH on "Y"				194.07
	TOTAL				1487.87 Z
	Add Cess @ 1% on "Z"				14.88
	Cost of 100 metre				1502.74
	Say				1502.75

18.81.7 300 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.035	1800.00	63.00
	LABOUR				
0116	Fitter (grade 1)	day	0.60	738.00	442.80
0114	Beldar	day	1.30	558.00	725.40
9999	Sundries including testing of samples	L.S.	13.52	2.00	27.04
	TOTAL				1258.24 W
	Add 1 % Water charges on "W"				12.58
	TOTAL				1270.82 X
	Add GST on "X" (multiplying factor 0.1405)				178.55
	TOTAL				1449.37 Y
	Add 15% CPOH on "Y"				217.41
	TOTAL				1666.78 Z
	Add Cess @ 1% on "Z"				16.67
	Cost of 100 metre				1683.45
	Say				1683.45

18.81.8 350 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.048	1800.00	86.40
	LABOUR				
0116	Fitter (grade 1)	day	0.70	738.00	516.60
0114	Beldar	day	1.50	558.00	837.00
9999	Sundries including testing of samples	L.S.	16.12	2.00	32.24
	TOTAL				1472.24 W
	Add 1 % Water charges on "W"				14.72
	TOTAL				1486.96 X
	Add GST on "X" (multiplying factor 0.1405)				208.92
	TOTAL				1695.88 Y
	Add 15% CPOH on "Y"				254.38
	TOTAL				1950.26 Z
	Add Cess @ 1% on "Z"				19.50
	Cost of 100 metre				1969.77
	Say				1969.75

18.81.9 400 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.063	1800.00	113.40
	LABOUR				
0116	Fitter (grade 1)	day	0.80	738.00	590.40
0114	Beldar	day	1.70	558.00	948.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including testing of samples	L.S.	17.94	2.00	35.88
	TOTAL				1688.28 W
	Add 1 % Water charges on "W"				16.88
	TOTAL				1705.16 X
	Add GST on "X" (multiplying factor 0.1405)				239.58
	TOTAL				1944.74 Y
	Add 15% CPOH on "Y"				291.71
	TOTAL				2236.45 Z
	Add Cess @ 1% on "Z"				22.36
	Cost of 100 metre				2258.81
	Say				2258.80

18.81.10 450 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.08	1800.00	144.00
0116	LABOUR Fitter (grade 1)	day	0.90	738.00	664.20
0114	Beldar	day	1.90	558.00	1060.20
9999	Sundries including testing of samples	L.S.	20.67	2.00	41.34
	TOTAL				1909.74 W
	Add 1 % Water charges on "W"				19.10
	TOTAL				1928.84 X
	Add GST on "X" (multiplying factor 0.1405)				271.00
	TOTAL				2199.84 Y
	Add 15% CPOH on "Y"				329.98
	TOTAL				2529.81 Z
	Add Cess @ 1% on "Z"				25.30
	Cost of 100 metre				2555.11
	Say				2555.10

18.81.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.098	1800.00	176.40
0116	LABOUR Fitter (grade 1)	day	1.00	738.00	738.00
0114	Beldar	day	2.10	558.00	1171.80
9999	Sundries including testing of samples	L.S.	23.27	2.00	46.54
	TOTAL				2132.74 W
	Add 1 % Water charges on "W"				21.33
	TOTAL				2154.07 X
	Add GST on "X" (multiplying factor 0.1405)				302.65
	TOTAL				2456.71 Y
	Add 15% CPOH on "Y"				368.51
	TOTAL				2825.22 Z
	Add Cess @ 1% on "Z"				28.25
	Cost of 100 metre				2853.47
	Say				2853.45

18.81.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1301	Details of cost for 100 metres MATERIAL Bleaching powder	quintal	0.141	1800.00	253.80
0116	LABOUR Fitter (grade 1)	day	1.20	738.00	885.60
0114	Beldar	day	2.50	558.00	1395.00
9999	Sundries including testing of samples	L.S.	26.00	2.00	52.00
	TOTAL				2586.40 W
	Add 1 % Water charges on "W"				25.86
	TOTAL				2612.26 X
	Add GST on "X" (multiplying factor 0.1405)				367.02
	TOTAL				2979.29 Y
	Add 15% CPOH on "Y"				446.89
	TOTAL				3426.18 Z
	Add Cess @ 1% on "Z"				34.26
	Cost of 100 metre				3460.44
	Say				3460.45

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 ₹
2.8.1	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 (Rate as per item no. 2.8.1 of SH: Earth work)	cum	16.31	252.30	4115.01 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.31	219.65	3582.49 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	679.00	339.50
0114	Beldar	day	4.00	558.00	2232.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Sundries and carriage	L.S.	53.82	2.00	107.64
	TOTAL				10582.09 W
	Add 1 % Water charges on "W-A"				28.85
	TOTAL				10610.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				409.34
	TOTAL				11020.28 Y
	Add 15% CPOH on "Y-A"				498.42
	TOTAL				11518.69 Z
	Add Cess @ 1% on "Z-A"				38.21
	Cost of 40.26 metre				11556.91
	Cost of one metre				287.06
	Say				287.05

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	252.30	4079.69 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.17	219.65	3551.74 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	679.00	427.77
0114	Beldar	day	4.50	558.00	2511.00
9988	Sundries and carriage	L.S.	53.82	2.00	107.64
	TOTAL				10929.79 W
	Add 1 % Water charges on "W-A"				32.98
	TOTAL				10962.78 X
	Add GST on "X-A" (multiplying factor 0.1405)				468.05
	TOTAL				11430.83 Y
	Add 15% CPOH on "Y-A"				569.91
	TOTAL				12000.74 Z
	Add Cess @ 1% on "Z-A"				43.69
	Cost of 40.26 metre				12044.43
	Cost of one metre				299.17
	Say				299.15

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	252.30	4026.71 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	15.96	219.65	3505.61 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	679.00	509.25
0114	Beldar	day	5.00	558.00	2790.00
9988	Sundries and carriage	L.S.	53.82	2.00	107.64
	TOTAL				11247.11 W
	Add 1 % Water charges on "W-A"				37.15
	TOTAL				11284.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				527.15
	TOTAL				11811.41 Y
	Add 15% CPOH on "Y-A"				641.86
	TOTAL				12453.27 Z
	Add Cess @ 1% on "Z-A"				49.21
	Cost of 40.26 metre				12502.48
	Cost of one metre				310.54
	Say				310.55

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	252.30	3961.11 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	15.70	219.65	3448.51 A
	Breaking lead caulked joints, blocks and stacking				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0761	MATERIAL				
	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	679.00	597.52
0114	Beldar	day	5.50	558.00	3069.00
9988	Sundries and carriage	L.S.	67.21	2.00	134.42
	TOTAL				11565.46 W
	Add 1 % Water charges on "W-A"				41.56
	TOTAL				11607.01 X
	Add GST on "X-A" (multiplying factor 0.1405)				589.73
	TOTAL				12196.75 Y
	Add 15% CPOH on "Y-A"				718.07
	TOTAL				12914.82 Z
	Add Cess @ 1% on "Z-A"				55.05
	Cost of 40.26 metre				12969.87
	Cost of one metre				322.15
	Say				322.15

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	252.30	4178.09 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	16.56	219.65	3637.40 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	679.00	746.90
0114	Beldar	day	6.50	558.00	3627.00
9988	Sundries and carriage	L.S.	67.21	2.00	134.42
	TOTAL				12781.69 W
	Add 1 % Water charges on "W-A"				49.66
	TOTAL				12831.35 X
	Add GST on "X-A" (multiplying factor 0.1405)				704.73
	TOTAL				13536.08 Y
	Add 15% CPOH on "Y-A"				858.09
	TOTAL				14394.17 Z
	Add Cess @ 1% on "Z-A"				65.79
	Cost of 40.26 metre				14459.96
	Cost of one metre				359.16
	Say				359.15

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	252.30	4354.70 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.26	219.65	3791.16 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	679.00	882.70
0114	Beldar	day	7.50	558.00	4185.00
9988	Sundries and carriage	L.S.	80.73	2.00	161.46
	TOTAL				13944.84 W
	Add 1 % Water charges on "W-A"				57.99
	TOTAL				14002.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				822.90
	TOTAL				14825.74 Y
	Add 15% CPOH on "Y-A"				1001.98
	TOTAL				15827.72 Z
	Add Cess @ 1% on "Z-A"				76.82
	Cost of 40.26 metre				15904.54
	Cost of one metre				395.05
	Say				395.05

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	252.30	4488.42 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.79	219.65	3907.57 A
	Breaking lead caulked joints, blocks and stacking				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0761	MATERIAL				
	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	679.00	1018.50
0114	Beldar	day	8.50	558.00	4743.00
9988	Sundries and carriage	L.S.	94.12	2.00	188.24
	TOTAL				14981.48 W
	Add 1 % Water charges on "W-A"				65.85
	TOTAL				15047.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				934.51
	TOTAL				15981.85 Y
	Add 15% CPOH on "Y-A"				1137.88
	TOTAL				17119.73 Z
	Add Cess @ 1% on "Z-A"				87.24
	Cost of 40.26 metre				17206.97
	Cost of one metre				427.40
	Say				427.40

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	252.30	4576.72 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.14	219.65	3984.45 A
	Breaking lead caulked joints, blocks and stacking				
	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	679.00	1188.25
0114	Beldar	day	9.50	558.00	5301.00
9988	Sundries and carriage	L.S.	107.64	2.00	215.28
	TOTAL				15947.95 W
	Add 1 % Water charges on "W-A"				73.87
	TOTAL				16021.82 X
	Add GST on "X-A" (multiplying factor 0.1405)				1048.22
	TOTAL				17070.04 Y
	Add 15% CPOH on "Y-A"				1276.33
	TOTAL				18346.37 Z
	Add Cess @ 1% on "Z-A"				97.85
	Cost of 40.26 metre				18444.22
	Cost of one metre				458.13
	Say				458.15

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	252.30	4599.43 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.23	219.65	4004.22 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	679.00	1358.00
0114	Beldar	day	10.50	558.00	5859.00
9988	Sundries and carriage	L.S.	121.03	2.00	242.06
	TOTAL				16810.41 W
	Add 1 % Water charges on "W-A"				82.07
	TOTAL				16892.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				1164.58
	TOTAL				18057.06 Y
	Add 15% CPOH on "Y-A"				1418.01
	TOTAL				19475.07 Z
	Add Cess @ 1% on "Z-A"				108.71
	Cost of 40.26 metre				19583.78
	Cost of one metre				486.43
	Say				486.45

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	252.30	4637.27 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.38	219.65	4037.17 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0117	LABOUR				
	Assistant Fitter or 2nd class Fitter	day	2.25	679.00	1527.75
0114	Beldar	day	11.50	558.00	6417.00
9988	Sundries and carriage	L.S.	134.55	2.00	269.10
	TOTAL				17701.94 W
	Add 1 % Water charges on "W-A"				90.28
	TOTAL				17792.22 X
	Add GST on "X-A" (multiplying factor 0.1405)				1281.05
	TOTAL				19073.26 Y
	Add 15% CPOH on "Y-A"				1559.82
	TOTAL				20633.09 Z
	Add Cess @ 1% on "Z-A"				119.59
	Cost of 40.26 metre				20752.67
	Cost of one metre				515.47
	Say				515.45

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	252.30	4601.95 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	18.24	219.65	4006.42 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	679.00	1697.50
0114	Beldar	day	12.50	558.00	6975.00
9988	Sundries and carriage	L.S.	147.94	2.00	295.88
	TOTAL				18455.35 W
	Add 1 % Water charges on "W-A"				98.47
	TOTAL				18553.82 X
	Add GST on "X-A" (multiplying factor 0.1405)				1397.34
	TOTAL				19951.15 Y
	Add 15% CPOH on "Y-A"				1701.42
	TOTAL				21652.57 Z
	Add Cess @ 1% on "Z-A"				130.44
	Cost of 40.26 metre				21783.01
	Cost of one metre				541.06
	Say				541.05

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	252.30	4400.11 A
2.25	(Rate as per item No.2.25 of SH Earth work)	cum	17.44	219.65	3830.70 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	679.00	2037.00
0114	Beldar	day	14.50	558.00	8091.00
9988	Sundries and carriage	L.S.	174.85	2.00	349.70
	TOTAL				19719.01 W
	Add 1 % Water charges on "W-A"				114.88
	TOTAL				19833.89 X
	Add GST on "X-A" (multiplying factor 0.1405)				1630.23
	TOTAL				21464.12 Y
	Add 15% CPOH on "Y-A"				1985.00
	TOTAL				23449.12 Z
	Add Cess @ 1% on "Z-A"				152.18
	Cost of 40.26 metre				23601.30
	Cost of one metre				586.22
	Say				586.20

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	738.00	44.28
0114	Beldar	day	0.06	558.00	33.48
9999	Sundries	L.S.	1.82	2.00	3.64
	TOTAL				81.40 W
	Add 1 % Water charges on "W"				0.81
	TOTAL				82.21 X
	Add GST on "X" (multiplying factor 0.1405)				11.55
	TOTAL				93.77 Y
	Add 15% CPOH on "Y"				14.06
	TOTAL				107.83 Z
	Add Cess @ 1% on "Z"				1.08
	Cost of each cut				108.91
	Say				108.90

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	738.00	59.04
0114	Beldar	day	0.08	558.00	44.64
9999	Sundries	L.S.	2.73	2.00	5.46
	TOTAL				109.14 W
	Add 1 % Water charges on "W"				1.09
	TOTAL				110.23 X
	Add GST on "X" (multiplying factor 0.1405)				15.49
	TOTAL				125.72 Y
	Add 15% CPOH on "Y"				18.86
	TOTAL				144.58 Z
	Add Cess @ 1% on "Z"				1.45
	Cost of each cut				146.02
	Say				146.00

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	738.00	81.18
0114	Beldar	day	0.11	558.00	61.38
9999	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				151.40 W
	Add 1 % Water charges on "W"				1.51
	TOTAL				152.91 X
	Add GST on "X" (multiplying factor 0.1405)				21.48
	TOTAL				174.40 Y
	Add 15% CPOH on "Y"				26.16
	TOTAL				200.56 Z
	Add Cess @ 1% on "Z"				2.01
	Cost of each cut				202.56
	Say				202.55

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	738.00	110.70
0114	Beldar	day	0.15	558.00	83.70
9999	Sundries	L.S.	5.33	2.00	10.66
	TOTAL				205.06 W
	Add 1 % Water charges on "W"				2.05
	TOTAL				207.11 X
	Add GST on "X" (multiplying factor 0.1405)				29.10
	TOTAL				236.21 Y
	Add 15% CPOH on "Y"				35.43
	TOTAL				271.64 Z
	Add Cess @ 1% on "Z"				2.72
	Cost of each cut				274.36
	Say				274.35

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	738.00	147.60
0114	Beldar	day	0.20	558.00	111.60
9999	Sundries	L.S.	7.15	2.00	14.30
	TOTAL				273.50 W
	Add 1 % Water charges on "W"				2.74
	TOTAL				276.24 X
	Add GST on "X" (multiplying factor 0.1405)				38.81
	TOTAL				315.05 Y
	Add 15% CPOH on "Y"				47.26
	TOTAL				362.30 Z
	Add Cess @ 1% on "Z"				3.62
	Cost of each cut				365.93
	Say				365.95

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	738.00	184.50
0114	Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				340.12 W
	Add 1 % Water charges on "W"				3.40
	TOTAL				343.52 X
	Add GST on "X" (multiplying factor 0.1405)				48.26
	TOTAL				391.79 Y
	Add 15% CPOH on "Y"				58.77
	TOTAL				450.55 Z
	Add Cess @ 1% on "Z"				4.51
	Cost of each cut				455.06
	Say				455.05

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	738.00	221.40
0114	Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	9.88	2.00	19.76
	TOTAL				408.56 W
	Add 1 % Water charges on "W"				4.09
	TOTAL				412.65 X
	Add GST on "X" (multiplying factor 0.1405)				57.98
	TOTAL				470.62 Y
	Add 15% CPOH on "Y"				70.59
	TOTAL				541.22 Z
	Add Cess @ 1% on "Z"				5.41
	Cost of each cut				546.63
	Say				546.65

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	738.00	258.30
0114	Beldar	day	0.35	558.00	195.30
9999	Sundries	L.S.	10.79	2.00	21.58
	TOTAL				475.18 W
	Add 1 % Water charges on "W"				4.75
	TOTAL				479.93 X
	Add GST on "X" (multiplying factor 0.1405)				67.43
	TOTAL				547.36 Y
	Add 15% CPOH on "Y"				82.10
	TOTAL				629.47 Z
	Add Cess @ 1% on "Z"				6.29
	Cost of each cut				635.76
	Say				635.75

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	738.00	295.20
0114	Beldar	day	0.40	558.00	223.20
9999	Sundries	L.S.	12.48	2.00	24.96
	TOTAL				543.36 W
	Add 1 % Water charges on "W"				5.43
	TOTAL				548.79 X
	Add GST on "X" (multiplying factor 0.1405)				77.11
	TOTAL				625.90 Y
	Add 15% CPOH on "Y"				93.88
	TOTAL				719.78 Z
	Add Cess @ 1% on "Z"				7.20
	Cost of each cut				726.98
	Say				727.00

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	738.00	332.10
0114	Beldar	day	0.45	558.00	251.10
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				610.24 W
	Add 1 % Water charges on "W"				6.10
	TOTAL				616.34 X
	Add GST on "X" (multiplying factor 0.1405)				86.60
	TOTAL				702.94 Y
	Add 15% CPOH on "Y"				105.44
	TOTAL				808.38 Z
	Add Cess @ 1% on "Z"				8.08
	Cost of each cut				816.46
	Say				816.45

18.83.11 500 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
0116	LABOUR				
	Fitter (grade 1)	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	15.21	2.00	30.42
	TOTAL				678.42 W
	Add 1 % Water charges on "W"				6.78
	TOTAL				685.20 X
	Add GST on "X" (multiplying factor 0.1405)				96.27
	TOTAL				781.48 Y
	Add 15% CPOH on "Y"				117.22
	TOTAL				898.70 Z
	Add Cess @ 1% on "Z"				8.99
	Cost of each cut				907.68
	Say				907.70

18.83.12 600 mm diameter C.I. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for one cut.				
0116	LABOUR				
	Fitter (grade 1)	day	0.60	738.00	442.80
0114	Beldar	day	0.60	558.00	334.80
9999	Sundries	L.S.	16.12	2.00	32.24
	TOTAL				809.84 W
	Add 1 % Water charges on "W"				8.10
	TOTAL				817.94 X
	Add GST on "X" (multiplying factor 0.1405)				114.92
	TOTAL				932.86 Y
	Add 15% CPOH on "Y"				139.93
	TOTAL				1072.79 Z
	Add Cess @ 1% on "Z"				10.73
	Cost of each cut				1083.52
	Say				1083.50

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.				
3327	MATERIAL				
	15 mm Battery Based Sensor Pillar Cock	each	1.00	5800.00	5800.00
9988	Carriage of materials and fixing charges	L.S.	8.06	2.00	16.12
	TOTAL				5816.12 W
	Add 1 % Water charges on "W"				58.16
	TOTAL				5874.28 X
	Add GST on "X" (multiplying factor 0.1405)				825.34
	TOTAL				6699.62 Y
	Add 15% CPOH on "Y"				1004.94
	TOTAL				7704.56 Z
	Add Cess @ 1% on "Z"				77.05
	Cost of one no.				7781.61
	Say				7781.60

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 ₹
8779	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	10.00	130.00	1300.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00301	92.24	0.28
	Add 3% for pipe inserted into fitting and wastage etc. on P				39.00
9999	3 X P / 100 Cement, sand and grit	L.S.	2.73	2.00	5.46
	Add 2% for special T&P and sundries etc. on p				26.00
	2 X P / 100 LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				2430.70 W
	Add 1 % Water charges on "W"				24.31
	TOTAL				2455.00 X
	Add GST on "X" (multiplying factor 0.1405)				344.93
	TOTAL				2799.93 Y
	Add 15% CPOH on "Y"				419.99
	TOTAL				3219.92 Z
	Add Cess @ 1% on "Z"				32.20
	Cost of 10 metre				3252.12
	Cost of 1 metre				325.21
	Say				325.20

18.85.2 22.22 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8780	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	10.00	243.00	2430.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00529	92.24	0.49
	Add 3% for pipe inserted into fitting and wastage etc. on P				72.90
	3 X P / 100				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Cement, sand and grit Add 2% for special T&P and sundries etc. on P 2 X P / 100 LABOUR	L.S.	2.73	2.00	5.46 48.60
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3617.41 W
	Add 1 % Water charges on "W"				36.17
	TOTAL				3653.58 X
	Add GST on "X" (multiplying factor 0.1405)				513.33
	TOTAL				4166.91 Y
	Add 15% CPOH on "Y"				625.04
	TOTAL				4791.95 Z
	Add Cess @ 1% on "Z"				47.92
	Cost of 10 metre				4839.87
	Cost of 1 metre				483.99
	Say				484.00

18.85.3 28.58 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8781	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 28.58 mm outer dia	metre	10.00	297.00	2970.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00687	92.24	0.63
	Add 3% for pipe inserted into fitting and wastage etc. on P 3 X P / 100				89.10
9999	Cement, sand and grit Add 2% for special T&P and sundries etc. on P 2 X P / 100 LABOUR	L.S.	4.16	2.00	8.32 59.40
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				4187.41 W
	Add 1 % Water charges on "W"				41.87
	TOTAL				4229.29 X
	Add GST on "X" (multiplying factor 0.1405)				594.21
	TOTAL				4823.50 Y
	Add 15% CPOH on "Y"				723.53
	TOTAL				5547.03 Z
	Add Cess @ 1% on "Z"				55.47
	Cost of 10 metre				5602.50
	Cost of 1 metre				560.25
	Say				560.25

18.85.4 34.00 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8782	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 34.00 mm outer dia	metre	10.00	423.00	4230.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0098	92.24	0.90
	Add 3% for pipe inserted into fitting and wastage etc. on P				126.90
9999	3 X P / 100 Cement, sand and grit	L.S.	4.16	2.00	8.32
	Add 2% for special T&P and sundries etc. on P				84.60
	2 X P / 100 LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				5510.68 W
	Add 1 % Water charges on "W"				55.11
	TOTAL				5565.79 X
	Add GST on "X" (multiplying factor 0.1405)				781.99
	TOTAL				6347.78 Y
	Add 15% CPOH on "Y"				952.17
	TOTAL				7299.95 Z
	Add Cess @ 1% on "Z"				73.00
	Cost of 10 metre				7372.95
	Cost of 1 metre				737.30
	Say				737.30

18.85.5 42.70 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8783	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 42.70 mm outer dia	metre	10.00	441.00	4410.00 P
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0124	92.24	1.14
	Add 3% for pipe inserted into fitting and wastage etc. on P				132.30
9999	3 X P / 100 Cement, sand and grit	L.S.	5.33	2.00	10.66
	Add 2% for special T&P and sundries etc. on P				88.20
	2 X P / 100 LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				5702.26 W
	Add 1 % Water charges on "W"				57.02
	TOTAL				5759.29 X
	Add GST on "X" (multiplying factor 0.1405)				809.18
	TOTAL				6568.47 Y
	Add 15% CPOH on "Y"				985.27
	TOTAL				7553.74 Z
	Add Cess @ 1% on "Z"				75.54
	Cost of 10 metre				7629.27
	Cost of 1 metre				762.93
	Say				762.95

18.85.6 48.60 mm outer dia Pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8701	Details of cost for 10 metre MATERIAL				
	SS pipe 304 grades with press fit technology as per JIS 3448 standard	metre	10.00	610.00	6100.00 P
2272	48.60 mm outer dia Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.0142	92.24	1.31
	Add 3% for pipe inserted into fitting and wastage etc. on P				183.00
9999	3 X P / 100 Cement, sand and grit	L.S.	5.33	2.00	10.66
	Add 2% for special T&P and sundries etc. on P				122.00
	2 X P / 100 LABOUR				
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				7476.93 W
	Add 1 % Water charges on "W"				74.77
	TOTAL				7551.70 X
	Add GST on "X" (multiplying factor 0.1405)				1061.01
	TOTAL				8612.71 Y
	Add 15% CPOH on "Y"				1291.91
	TOTAL				9904.62 Z
	Add Cess @ 1% on "Z"				99.05
	Cost of 10 metre				10003.67
	Cost of 1 metre				1000.37
	Say				1000.35

- 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 .Pipes.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8779	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia Add 3% for pipe inserted into fitting and wastage etc. on P 3 X P / 100	metre	10.00	130.00	1300.00 P 39.00
2272	Carriage of Stainless Steel pipes below 100 mm dia Making chases upto 7.5x7.5 cm.in walls and making good the same	tonne	0.00301	92.24	0.28
18.78	Rate as per Item No.18.78 of SH:WATER SUPPLY Add 2% for special T&P and sundries etc. on P 2 X P / 100	metre	10.00	154.15	1541.5 A 26.00
0116	LABOUR Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				3966.74 W
	Add 1 % Water charges on "W-A"				24.25
	TOTAL				3990.99 X
	Add GST on "X-A" (multiplying factor 0.1405)				344.15
	TOTAL				4335.14 Y
	Add 15% CPOH on "Y-A"				419.05
	TOTAL				4754.19 Z
	Add Cess @ 1% on "Z-A"				32.13
	Cost of 10 metre				4786.32
	Cost of 1 metre				478.63
	Say				478.65

18.86.2 22.22 mm Outer dia pipes

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8780	Details of cost for 10 metre MATERIAL SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia Add 3% for pipe inserted into fitting and wastage etc. on P 3 X P / 100	metre	10.00	243.00	2430.00 P 72.90

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	0.00529	92.24	0.49
18.78	Making chases upto 7.5x7.5 cm.in walls and making good the same Rate as per Item No.18.78 of SH: WATER SUPPLY Add 2% for special T&P and sundries etc. on P 2 X P / 100 LABOUR	metre	10.00	154.15	1541.5 A 48.60
0116	Fitter (grade 1)	day	0.33	738.00	243.54
0117	Assistant Fitter or 2nd class Fitter	day	0.66	679.00	448.14
0114	Beldar	day	0.66	558.00	368.28
	TOTAL				5153.45 W
	Add 1 % Water charges on "W-A"				36.12
	TOTAL				5189.57 X
	Add GST on "X-A" (multiplying factor 0.1405)				512.55
	TOTAL				5702.12 Y
	Add 15% CPOH on "Y-A"				624.09
	TOTAL				6326.21 Z
	Add Cess @ 1% on "Z-A"				47.85
	Cost of 10 metre				6374.06
	Cost of 1 metre				637.41
	Say				637.40

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 ₹
8702	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 15.88 mm outer dia SS pipe TOTAL	each	1.00	59.00	59.00 59.00 W
	Add 1 % Water charges on "W"				0.59
	TOTAL				59.59 X
	Add GST on "X" (multiplying factor 0.1405)				8.37
	TOTAL				67.96 Y
	Add 15% CPOH on "Y"				10.19
	TOTAL				78.16 Z
	Add Cess @ 1% on "Z"				0.78
	Cost of 1 no.				78.94
	Say				78.95

18.87.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8786	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 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	63.00	63.00 63.00 W 0.63 63.63 X 8.94 72.57 Y 10.89 83.46 Z 0.83 84.29 84.30

18.87.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8787	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 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	89.00	89.00 89.00 W 0.89 89.89 X 12.63 102.52 Y 15.38 117.90 Z 1.18 119.08 119.10

18.87.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8788	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 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	131.00	131.00 131.00 W 1.31 132.31 X 18.59 150.90 Y 22.63 173.53 Z 1.74 175.27 175.25

18.87.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8789	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 42.70 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	158.00	158.00 158.00 W 1.58 159.58 X 22.42 182.00 Y 27.30 209.30 Z 2.09 211.39 211.40

18.87.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8790	Details of cost for 1 no. MATERIAL Coupling/Socket fittings for 48.60 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	180.00	180.00 180.00 W 1.80 181.80 X 25.54 207.34 Y 31.10 238.44 Z 2.38 240.83 240.85

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 direction of Engineer-in-charge.

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8791	Reducer for 22.22 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	103.00	103.00 103.00 W 1.03 104.03 X 14.62 118.65 Y 17.80 136.44 Z 1.36 137.81 137.80

18.88.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8792	Details of cost for 1 no. MATERIAL Reducer for 28.58 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	141.00	141.00 141.00 W 1.41 142.41 X 20.01 162.42 Y 24.36 186.78 Z 1.87 188.65 188.65

18.88.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8793	Details of cost for 1 no. MATERIAL Reducer for 28.58 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	145.00	145.00 145.00 W 1.45 146.45 X 20.58 167.03 Y 25.05 192.08 Z 1.92 194.00 194.00

18.88.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8794	Details of cost for 1 no. MATERIAL Reducer for 34.00 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	184.00	184.00 184.00 W 1.84 185.84 X 26.11 211.95 Y 31.79 243.74 Z 2.44 246.18 246.20

18.88.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8795	Details of cost for 1 no. MATERIAL Reducer for 34.00 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	187.00	187.00 187.00 W 1.87 188.87 X 26.54 215.41 Y 32.31 247.72 Z 2.48 250.19 250.20

18.88.6 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8796	Details of cost for 1 no. MATERIAL Reducer for 34.00 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	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

18.88.7 For 42.70 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8797	Details of cost for 1 no. MATERIAL Reducer for 42.70 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	359.00	359.00 359.00 W 3.59 362.59 X 50.94 413.53 Y 62.03 475.56 Z 4.76 480.32 480.30

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	362.00	362.00 362.00 W 3.62 365.62 X 51.37 416.99 Y 62.55 479.54 Z 4.80 484.33 484.35

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	362.00	362.00 362.00 W 3.62 365.62 X 51.37 416.99 Y 62.55 479.54 Z 4.80 484.33 484.35

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	387.00	387.00 387.00 W 3.87 390.87 X 54.92 445.79 Y 66.87 512.66 Z 5.13 517.78 517.80

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	410.00	410.00 410.00 W 4.10 414.10 X 58.18 472.28 Y 70.84 543.12 Z 5.43 548.55 548.55

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	410.00	410.00 410.00 W 4.10 414.10 X 58.18 472.28 Y 70.84 543.12 Z 5.43 548.55 548.55

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	410.00	410.00 410.00 W 4.10 414.10 X 58.18 472.28 Y 70.84 543.12 Z 5.43 548.55 548.55

18.88.14 For 48.60 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8804	Details of cost for 1 no. MATERIAL Reducer for 48.60 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	410.00	410.00 410.00 W 4.10 414.10 X 58.18 472.28 Y 70.84 543.12 Z 5.43 548.55 548.55

18.88.15 For 48.60 mm x 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8805	Details of cost for 1 no. MATERIAL Reducer for 48.60 mm X 42.70 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	410.00	410.00 410.00 W 4.10 414.10 X 58.18 472.28 Y 70.84 543.12 Z 5.43 548.55 548.55

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 ₹
8806	Details of cost for 1 no. MATERIAL Slip Coupling / Socket 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	47.00	47.00 47.00 W 0.47 47.47 X 6.67 54.14 Y 8.12 62.26 Z 0.62 62.88 62.90

18.89.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8807	Details of cost for 1 no. MATERIAL Slip Coupling / Socket 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	63.00	63.00 63.00 W 0.63 63.63 X 8.94 72.57 Y 10.89 83.46 Z 0.83 84.29 84.30

18.89.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8808	Details of cost for 1 no. MATERIAL Slip Coupling / Socket 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	89.00	89.00 89.00 W 0.89 89.89 X 12.63 102.52 Y 15.38 117.90 Z 1.18 119.08 119.10

18.89.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8809	Details of cost for 1 no. MATERIAL Slip Coupling / Socket 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	131.00	131.00 131.00 W 1.31 132.31 X 18.59 150.90 Y 22.63 173.53 Z 1.74 175.27 175.25

18.89.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8810	Details of cost for 1 no. MATERIAL Slip Coupling / Socket 42.70 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	158.00	158.00 158.00 W 1.58 159.58 X 22.42 182.00 Y 27.30 209.30 Z 2.09 211.39 211.40

18.89.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8811	Details of cost for 1 no. MATERIAL Slip Coupling / Socket 48.60 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	170.00	170.00 170.00 W 1.70 171.70 X 24.12 195.82 Y 29.37 225.20 Z 2.25 227.45 227.45

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 ₹
8812	Details of cost for 1 no. MATERIAL Elbow 90° 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	58.00	58.00 58.00 W 0.58 58.58 X 8.23 66.81 Y 10.02 76.83 Z 0.77 77.60 77.60

18.90.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8813	Details of cost for 1 no. MATERIAL Elbow 90° for 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	63.00	63.00 63.00 W 0.63 63.63 X 8.94 72.57 Y 10.89 83.46 Z 0.83 84.29 84.30

18.90.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8814	Details of cost for 1 no. MATERIAL Elbow 90° for 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	96.00	96.00 96.00 W 0.96 96.96 X 13.62 110.58 Y 16.59 127.17 Z 1.27 128.44 128.45

18.90.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8815	Details of cost for 1 no. MATERIAL Elbow 90° for 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	109.00	109.00 109.00 W 1.09 110.09 X 15.47 125.56 Y 18.83 144.39 Z 1.44 145.84 145.85

18.90.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8816	Details of cost for 1 no. MATERIAL Elbow 90° for 42.70 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	116.00	116.00 116.00 W 1.16 117.16 X 16.46 133.62 Y 20.04 153.66 Z 1.54 155.20 155.20

18.90.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8817	Details of cost for 1 no. MATERIAL Elbow 90° for 48.60 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	150.00	150.00 150.00 W 1.50 151.50 X 21.29 172.79 Y 25.92 198.70 Z 1.99 200.69 200.70

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.

18.91.1 Reducing Elbow 90° For 22.22 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8818	Details of cost for 1 no. MATERIAL Reducing Elbow 90° for 22.22 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	148.00	148.00 148.00 W 1.48 149.48 X 21.00 170.48 Y 25.57 196.05 Z 1.96 198.01 198.00

18.91.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8819	Details of cost for 1 no. MATERIAL Reducing Elbow 90° for 28.58 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	191.00	191.00 191.00 W 1.91 192.91 X 27.10 220.01 Y 33.00 253.02 Z 2.53 255.55 255.55

18.91.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8820	Details of cost for 1 no. MATERIAL Reducing Elbow 90° for 28.58 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	221.00	221.00 221.00 W 2.21 223.21 X 31.36 254.57 Y 38.19 292.76 Z 2.93 295.68 295.70

18.91.4 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8821	Details of cost for 1 no. MATERIAL Reducing Elbow 90° for 34.00 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	287.00	287.00 287.00 W 2.87 289.87 X 40.73 330.60 Y 49.59 380.19 Z 3.80 383.99 384.00

18.91.5 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8822	Details of cost for 1 no. MATERIAL Reducing Elbow 90° for 34.00 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	345.00	345.00 345.00 W 3.45 348.45 X 48.96 397.41 Y 59.61 457.02 Z 4.57 461.59 461.60

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	179.00	179.00 179.00 W 1.79 180.79 X 25.40 206.19 Y 30.93 237.12 Z 2.37 239.49 239.50

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	159.00	159.00 159.00 W 1.59 160.59 X 22.56 183.15 Y 27.47 210.63 Z 2.11 212.73 212.75

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 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	231.00	231.00 231.00 W 2.31 233.31 X 32.78 266.09 Y 39.91 306.00 Z 3.06 309.06 309.05

18.92.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8826	Details of cost for 1 no. MATERIAL Equal Tee for 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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

18.92.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8827	Details of cost for 1 no. MATERIAL Equal Tee for 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.92.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8828	Details of cost for 1 no. MATERIAL Equal Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.92.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8829	Details of cost for 1 no. MATERIAL Equal Tee for 48.60 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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 ₹
8830	Details of cost for 1 no. MATERIAL Reducing Tee for 22.22 mm X 15.88 mm outer dia SS 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	179.00	179.00 179.00 W 1.79 180.79 X 25.40 206.19 Y 30.93 237.12 Z 2.37 239.49 239.50

18.93.2 For 28.58 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8831	Details of cost for 1 no. MATERIAL Reducing Tee for 28.58 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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

18.93.3 For 28.58 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8832	Details of cost for 1 no. MATERIAL Reducing Tee for 28.58 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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

18.93.4 For 34.00 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8833	Details of cost for 1 no. MATERIAL Reducing Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.93.5 For 34.00 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8834	Details of cost for 1 no. MATERIAL Reducing Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.93.6 For 34.00 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8835	Details of cost for 1 no. MATERIAL Reducing Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.93.7 For 42.70 mm x 15.88 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8836	Details of cost for 1 no. MATERIAL Reducing Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.93.8 For 42.70 mm x 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8837	Details of cost for 1 no. MATERIAL Reducing Tee 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.93.9 For 42.70 mm x 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8838	Details of cost for 1 no. MATERIAL Reducing Tee 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.93.10 For 42.70 mm x 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8839	Details of cost for 1 no. MATERIAL Reducing Tee 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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 ₹
8845	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee 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	179.00	179.00 179.00 W 1.79 180.79 X 25.40 206.19 Y 30.93 237.12 Z 2.37 239.49 239.50

18.94.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8846	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee 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	200.00	200.00 200.00 W 2.00 202.00 X 28.38 230.38 Y 34.56 264.94 Z 2.65 267.59 267.60

18.94.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8847	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee 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	205.00	205.00 205.00 W 2.05 207.05 X 29.09 236.14 Y 35.42 271.56 Z 2.72 274.28 274.30

18.94.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8848	Details of cost for 1 no. MATERIAL 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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

18.94.5 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8849	Details of cost for 1 no. MATERIAL 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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

18.94.6 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8850	Details of cost for 1 no. MATERIAL 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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

18.94.7 For 34.00 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8851	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.94.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8852	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.94.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8853	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.94.10 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8854	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 34.00 mm outer dia X 32 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.94.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8855	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.94.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8856	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.94.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8857	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.94.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8858	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 42.70 mm outer dia X 32 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.94.15 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8859	Details of cost for 1 no. MATERIAL Stainless steel Male 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.94.16 For 48.60 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8860	Details of cost for 1 no. MATERIAL Stainless steel Male 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.94.17 For 48.60 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8861	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 48.60 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.94.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8862	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 48.60 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.94.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8863	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 48.60 mm outer dia X 32 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.94.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8864	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 48.60 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.94.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8865	Details of cost for 1 no. MATERIAL Stainless steel Male thread Tee for 48.60 mm outer dia X 50 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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 ₹
8866	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee 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	179.00	179.00 179.00 W 1.79 180.79 X 25.40 206.19 Y 30.93 237.12 Z 2.37 239.49 239.50

18.95.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8867	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee 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	200.00	200.00 200.00 W 2.00 202.00 X 28.38 230.38 Y 34.56 264.94 Z 2.65 267.59 267.60

18.95.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8868	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee 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	200.00	200.00 200.00 W 2.00 202.00 X 28.38 230.38 Y 34.56 264.94 Z 2.65 267.59 267.60

18.95.4 For 28.58 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8869	Details of cost for 1 no. MATERIAL Stainless steel Female 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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

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	273.00	273.00 273.00 W 2.73 275.73 X 38.74 314.47 Y 47.17 361.64 Z 3.62 365.26 365.25

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 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.95.8 For 34.00 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8873	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.95.9 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8874	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 34.00 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.95.10 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8875	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 34.00 mm outer dia X 32 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	437.00	437.00 437.00 W 4.37 441.37 X 62.01 503.38 Y 75.51 578.89 Z 5.79 584.68 584.70

18.95.11 For 42.70 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8876	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.95.12 For 42.70 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8877	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.95.13 For 42.70 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8878	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 42.70 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.95.14 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8879	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 42.70 mm outer dia X 32 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.95.18 For 48.60 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8883	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 48.60 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.95.19 For 48.60 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8884	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 48.60 mm outer dia X 32 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.95.20 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8885	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 48.60 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

18.95.21 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8886	Details of cost for 1 no. MATERIAL Stainless steel Female thread Tee for 48.60 mm outer dia X 50 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	887.00	887.00 887.00 W 8.87 895.87 X 125.87 1021.74 Y 153.26 1175.00 Z 11.75 1186.75 1186.75

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8887	Stainless steel Female threaded Connector/Adapter 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	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

18.96.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8888	Details of cost for 1 no. MATERIAL 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	237.00	237.00 237.00 W 2.37 239.37 X 33.63 273.00 Y 40.95 313.95 Z 3.14 317.09 317.10

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	286.00	286.00 286.00 W 2.86 288.86 X 40.58 329.44 Y 49.42 378.86 Z 3.79 382.65 382.65

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	337.00	337.00 337.00 W 3.37 340.37 X 47.82 388.19 Y 58.23 446.42 Z 4.46 450.88 450.90

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 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	409.00	409.00 409.00 W 4.09 413.09 X 58.04 471.13 Y 70.67 541.80 Z 5.42 547.22 547.20

18.96.8 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8894	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 34.00 mm outer dia X 32 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	538.00	538.00 538.00 W 5.38 543.38 X 76.34 619.72 Y 92.96 712.68 Z 7.13 719.81 719.80

18.96.9 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8895	Details of cost for 1 no. MATERIAL Stainless steel Female threaded Connector/Adapter for 42.70 mm outer dia X 32 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	576.00	576.00 576.00 W 5.76 581.76 X 81.74 663.50 Y 99.52 763.02 Z 7.63 770.65 770.65

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 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	681.00	681.00 681.00 W 6.81 687.81 X 96.64 784.45 Y 117.67 902.11 Z 9.02 911.14 911.15

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 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	838.00	838.00 838.00 W 8.38 846.38 X 118.92 965.30 Y 144.79 1110.09 Z 11.10 1121.19 1121.20

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 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	965.00	965.00 965.00 W 9.65 974.65 X 136.94 1111.59 Y 166.74 1278.33 Z 12.78 1291.11 1291.10

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 ₹
8899	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/ Adapter 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	193.00	193.00 193.00 W 1.93 194.93 X 27.39 222.32 Y 33.35 255.67 Z 2.56 258.22 258.20

18.97.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8900	Details of cost for 1 no. MATERIAL Stainless steel Male 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	227.00	227.00 227.00 W 2.27 229.27 X 32.21 261.48 Y 39.22 300.70 Z 3.01 303.71 303.70

18.97.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8901	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/Adapter for 22.22 mm outer dia X 20mm 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	248.00	248.00 248.00 W 2.48 250.48 X 35.19 285.67 Y 42.85 328.52 Z 3.29 331.81 331.80

18.97.4 For 28.58 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8902	Details of cost for 1 no. MATERIAL Stainless steel Male 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	313.00	313.00 313.00 W 3.13 316.13 X 44.42 360.55 Y 54.08 414.63 Z 4.15 418.77 418.75

18.97.5 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8903	Details of cost for 1 no. MATERIAL Stainless steel Male 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	320.00	320.00 320.00 W 3.20 323.20 X 45.41 368.61 Y 55.29 423.90 Z 4.24 428.14 428.15

18.97.6 For 34.00 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8904	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/Adapter for 34.00 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	461.00	461.00 461.00 W 4.61 465.61 X 65.42 531.03 Y 79.65 610.68 Z 6.11 616.79 616.80

18.97.7 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8905	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/Adapter for 34.00 mm outer dia X 32 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	565.00	565.00 565.00 W 5.65 570.65 X 80.18 650.83 Y 97.62 748.45 Z 7.48 755.93 755.95

18.97.8 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8906	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/Adapter for 42.70 mm outer dia X 32 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	649.00	649.00 649.00 W 6.49 655.49 X 92.10 747.59 Y 112.14 859.72 Z 8.60 868.32 868.30

18.97.9 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8907	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/Adapter 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	726.00	726.00 726.00 W 7.26 733.26 X 103.02 836.28 Y 125.44 961.73 Z 9.62 971.34 971.35

18.97.10 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8908	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/Adapter for 48.60 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	840.00	840.00 840.00 W 8.40 848.40 X 119.20 967.60 Y 145.14 1112.74 Z 11.13 1123.87 1123.85

18.97.11 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8909	Details of cost for 1 no. MATERIAL Stainless steel Male threaded Connector/Adapter for 48.60 mm outer dia X 50 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	1138.00	1138.00 1138.00 W 11.38 1149.38 X 161.49 1310.87 Y 196.63 1507.50 Z 15.07 1522.57 1522.55

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	234.00	234.00 234.00 W 2.34 236.34 X 33.21 269.55 Y 40.43 309.98 Z 3.10 313.08 313.10

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	276.00	276.00 276.00 W 2.76 278.76 X 39.17 317.93 Y 47.69 365.61 Z 3.66 369.27 369.25

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 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

18.98.4 For 28.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8913	Details of cost for 1 no. MATERIAL Stainless steel Valve Connector 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	424.00	424.00 424.00 W 4.24 428.24 X 60.17 488.41 Y 73.26 561.67 Z 5.62 567.29 567.30

18.98.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8914	Details of cost for 1 no. MATERIAL Stainless steel Valve Connector for 34.00 mm outer dia X 32 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	629.00	629.00 629.00 W 6.29 635.29 X 89.26 724.55 Y 108.68 833.23 Z 8.33 841.56 841.55

18.98.6 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8915	Details of cost for 1 no. MATERIAL Stainless steel Valve Connector 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	875.00	875.00 875.00 W 8.75 883.75 X 124.17 1007.92 Y 151.19 1159.10 Z 11.59 1170.70 1170.70

18.98.7 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8916	Details of cost for 1 no. MATERIAL Stainless steel Valve Connector for 48.60 mm outer dia X 50 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	1176.00	1176.00 1176.00 W 11.76 1187.76 X 166.88 1354.64 Y 203.20 1557.84 Z 15.58 1573.41 1573.40

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8917	SS Female Threaded Elbow 90° 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	150.00	150.00 150.00 W 1.50 151.50 X 21.29 172.79 Y 25.92 198.70 Z 1.99 200.69 200.70

18.99.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8918	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° 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	191.00	191.00 191.00 W 1.91 192.91 X 27.10 220.01 Y 33.00 253.02 Z 2.53 255.55 255.55

18.99.3 For 22.22 mm outer dia x 20 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8919	Details of cost for 1 no. MATERIAL Stainless steel Female 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	191.00	191.00 191.00 W 1.91 192.91 X 27.10 220.01 Y 33.00 253.02 Z 2.53 255.55 255.55

18.99.4 For 25.58 mm outer dia x 25 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8920	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 25.58 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 for 1 no. Say	each	1.00	205.00	205.00 205.00 W 2.05 207.05 X 29.09 236.14 Y 35.42 271.56 Z 2.72 274.28 274.30

18.99.5 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8921	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 34.00 mm outer dia X 32 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 for 1 no. Say	each	1.00	287.00	287.00 287.00 W 2.87 289.87 X 40.73 330.60 Y 49.59 380.19 Z 3.80 383.99 384.00

18.99.6 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8922	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 42.70 mm outer dia X 32 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	478.00	478.00 478.00 W 4.78 482.78 X 67.83 550.61 Y 82.59 633.20 Z 6.33 639.53 639.55

18.99.7 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8923	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° 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	478.00	478.00 478.00 W 4.78 482.78 X 67.83 550.61 Y 82.59 633.20 Z 6.33 639.53 639.55

18.99.8 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8924	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 48.60 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.99.9 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8925	Details of cost for 1 no. MATERIAL Stainless steel Female Threaded Elbow 90° for 48.60 mm outer dia X 50 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

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 ₹
8926	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° 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	191.00	191.00 191.00 W 1.91 192.91 X 27.10 220.01 Y 33.00 253.02 Z 2.53 255.55 255.55

18.100.2 For 22.22 mm outer dia x 15 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8927	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° 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	205.00	205.00 205.00 W 2.05 207.05 X 29.09 236.14 Y 35.42 271.56 Z 2.72 274.28 274.30

18.100.3 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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8928	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	205.00	205.00 205.00 W 2.05 207.05 X 29.09 236.14 Y 35.42 271.56 Z 2.72 274.28 274.30

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	205.00	205.00 205.00 W 2.05 207.05 X 29.09 236.14 Y 35.42 271.56 Z 2.72 274.28 274.30

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" 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	287.00	287.00 287.00 W 2.87 289.87 X 40.73 330.60 Y 49.59 380.19 Z 3.80 383.99 384.00

18.100.6 For 34.00 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8931	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 34.00 mm outer dia X 32 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	287.00	287.00 287.00 W 2.87 289.87 X 40.73 330.60 Y 49.59 380.19 Z 3.80 383.99 384.00

18.100.7 For 42.70 mm outer dia x 32 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8932	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X 32 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	478.00	478.00 478.00 W 4.78 482.78 X 67.83 550.61 Y 82.59 633.20 Z 6.33 639.53 639.55

18.100.8 For 42.70 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8933	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 42.70 mm outer dia X40 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	478.00	478.00 478.00 W 4.78 482.78 X 67.83 550.61 Y 82.59 633.20 Z 6.33 639.53 639.55

18.100.9 For 48.60 mm outer dia x 40 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8934	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 48.60 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

18.100.10 For 48.60 mm outer dia x 50 mm nominal dia threaded

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8935	Details of cost for 1 no. MATERIAL Stainless steel Male Threaded Elbow 90° for 48.60 mm outer dia X 50 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	683.00	683.00 683.00 W 6.83 689.83 X 96.92 786.75 Y 118.01 904.76 Z 9.05 913.81 913.80

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8936	Stainless steel Cap for 15.88 mm outer dia 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	45.00	45.00 45.00 W 0.45 45.45 X 6.39 51.84 Y 7.78 59.61 Z 0.60 60.21 60.20

18.101.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8937	Details of cost for 1 no. MATERIAL Stainless steel Cap for 22.22 mm outer dia 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	64.00	64.00 64.00 W 0.64 64.64 X 9.08 73.72 Y 11.06 84.78 Z 0.85 85.63 85.65

18.101.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8938	Details of cost for 1 no. MATERIAL Stainless steel Cap for 28.58 mm outer dia 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	84.00	84.00 84.00 W 0.84 84.84 X 11.92 96.76 Y 14.51 111.27 Z 1.11 112.39 112.40

18.101.4 For 34.00 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8939	Details of cost for 1 no. MATERIAL Stainless steel Cap for 34.00 mm outer dia 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	163.00	163.00 163.00 W 1.63 164.63 X 23.13 187.76 Y 28.16 215.92 Z 2.16 218.08 218.10

18.101.5 For 42.70 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8940	Details of cost for 1 no. MATERIAL Stainless steel Cap for 42.70 mm outer dia 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	236.00	236.00 236.00 W 2.36 238.36 X 33.49 271.85 Y 40.78 312.63 Z 3.13 315.75 315.75

18.101.6 For 48.60 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8941	Details of cost for 1 no. MATERIAL Stainless steel Cap for 48.60 mm outer dia 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	299.00	299.00 299.00 W 2.99 301.99 X 42.43 344.42 Y 51.66 396.08 Z 3.96 400.04 400.05

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 ₹
8942	Details of cost for 1 no. MATERIAL Stainless steel Pipe Bridge for 15.88 mm outer dia 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	214.00	214.00 214.00 W 2.14 216.14 X 30.37 246.51 Y 36.98 283.48 Z 2.83 286.32 286.30

18.102.2 For 22.22 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8943	Details of cost for 1 no. MATERIAL Stainless steel Pipe Bridge for 15.88 mm outer dia 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	271.00	271.00 271.00 W 2.71 273.71 X 38.46 312.17 Y 46.82 358.99 Z 3.59 362.58 362.60

18.102.3 For 28.58 mm outer dia pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8944	Details of cost for 1 no. MATERIAL Stainless steel Pipe Bridge for 28.58 mm outer dia 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 for 1 no. Say	each	1.00	407.00	407.00 407.00 W 4.07 411.07 X 57.76 468.83 Y 70.32 539.15 Z 5.39 544.54 544.55

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 ₹
1854	Details of cost for 30 metre MATERIAL Stoneware pipes grade A (60 cm long) 100 mm dia	each	55.00	55.00	3025.00
2224	Added 10% allowance for breakage Carriage of S.W. pipes 100 mm dia Added 10% allowance for breakage Cement for 50 joints = 0.019 tonne	100 metre	0.33	138.36	45.66
0367	Portland Cement (OPC-43 grade)	tonne	0.019	4940.00	93.86
2209	Carriage of Cement	tonne	0.019	92.24	1.75
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	103.77	1.04
1881	Spun yarn or plain gaskin @ 0.09 kg per joint = 0.09x50 = 4.50 kg	kilogram	4.50	50.00	225.00
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.00	738.00	738.00
0124	Mason (brick layer) 2nd class	day	1.00	679.00	679.00
0114	Beldar	day	3.00	558.00	1674.00
0101	Bhisti	day	1.00	617.00	617.00
	TOTAL				7109.31 W
	Add 1 % Water charges on "W"				71.09
	TOTAL				7180.40 X
	Add GST on "X" (multiplying factor 0.1405)				1008.85
	TOTAL				8189.25 Y
	Add 15% CPOH on "Y"				1228.39
	TOTAL				9417.64 Z
	Add Cess @ 1% on "Z"				94.18
	Cost of 30 metre				9511.81
	Cost of 1 metre				317.06
	Say				317.05

19.1.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1855	Details of cost for 30 metre MATERIAL Stoneware pipes grade A (60 cm long) 150 mm dia	each	55.00	100.00	5500.00
2225	Added 10% allowance for breakage Carriage of S.W. pipes 150 mm dia Added 10% allowance for breakage Cement of 50 joints = 0.036 tonne	100 metre	0.33	276.72	91.32
0367	Portland Cement (OPC-43 grade)	tonne	0.036	4940.00	177.84
2209	Carriage of Cement	tonne	0.036	92.24	3.32
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	103.77	1.97

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1881	Spun yarn or plain gaskin @ 0.18 kg per joint = 0.18x50 = 9 kg LABOUR	kilogram	9.00	50.00	450.00
0123	Mason (brick layer) 1st class	day	1.50	738.00	1107.00
0124	Mason (brick layer) 2nd class	day	1.50	679.00	1018.50
0114	Beldar	day	4.00	558.00	2232.00
0101	Bhisti	day	1.00	617.00	617.00
	TOTAL				11216.05 W
	Add 1 % Water charges on "W"				112.16
	TOTAL				11328.21 X
	Add GST on "X" (multiplying factor 0.1405)				1591.61
	TOTAL				12919.82 Y
	Add 15% CPOH on "Y"				1937.97
	TOTAL				14857.80 Z
	Add Cess @ 1% on "Z"				148.58
	Cost of 30 metre				15006.38
	Cost of 1 metre				500.21
	Say				500.20

19.1.3 200 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1856	Details of cost for 30 metre MATERIAL Stoneware pipes grade A (60 cm long) 200 mm dia	each	55.00	200.00	11000.00
2226	Added 10% allowance for breakage Carriage of S.W. pipes 200 mm dia Added 10% allowance for breakage Cement of 50 joints = 0.053 tonne	100 metre	0.33	461.19	152.19
0367	Portland Cement (OPC-43 grade)	tonne	0.053	4940.00	261.82
2209	Carriage of Cement	tonne	0.053	92.24	4.89
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	103.77	2.91
1881	Spun yarn or plain gaskin @ 0.24 kg per joint = 0.24x50 =12.00 kg LABOUR	kilogram	12.00	50.00	600.00
0123	Mason (brick layer) 1st class	day	1.75	738.00	1291.50
0124	Mason (brick layer) 2nd class	day	1.75	679.00	1188.25
0114	Beldar	day	4.50	558.00	2511.00
0101	Bhisti	day	1.25	617.00	771.25
	TOTAL				17809.01 W
	Add 1 % Water charges on "W"				178.09
	TOTAL				17987.10 X
	Add GST on "X" (multiplying factor 0.1405)				2527.19
	TOTAL				20514.28 Y
	Add 15% CPOH on "Y"				3077.14
	TOTAL				23591.43 Z
	Add Cess @ 1% on "Z"				235.91
	Cost of 30 metre				23827.34
	Cost of 1 metre				794.24
	Say				794.25

19.1.4 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1858	Details of cost for 30 metre MATERIAL Stoneware pipes grade A (60 cm long) 250 mm dia	each	55.00	320.00	17600.00
2228	Added 10% allowance for breakage Carriage of S.W. pipes 250 mm dia Added 10% allowance for breakage Cement of 50 joints = 0.094 tonne	100 metre	0.33	790.62	260.90
0367	Portland Cement (OPC-43 grade)	tonne	0.094	4940.00	464.36
2209	Carriage of Cement	tonne	0.094	92.24	8.67
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	103.77	5.19
1881	Spun yarn or plain gaskin @ 0.30 kg per joint = 0.30x50= 15.00 kg	kilogram	15.00	50.00	750.00
0123	LABOUR Mason (brick layer) 1st class	day	2.25	738.00	1660.50
0124	Mason (brick layer) 2nd class	day	2.25	679.00	1527.75
0114	Beldar	day	5.50	558.00	3069.00
0101	Bhisti	day	1.50	617.00	925.50
	TOTAL				26316.87 W
	Add 1 % Water charges on "W"				263.17
	TOTAL				26580.04 X
	Add GST on "X" (multiplying factor 0.1405)				3734.50
	TOTAL				30314.54 Y
	Add 15% CPOH on "Y"				4547.18
	TOTAL				34861.72 Z
	Add Cess @ 1% on "Z"				348.62
	Cost of 30 metre				35210.34
	Cost of 1 metre				1173.68
	Say				1173.70

19.1.5 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1859	Details of cost for 30 metre MATERIAL Stoneware pipes grade A (60 cm long) 300 mm dia	each	55.00	478.00	26290.00
2229	Added 10% allowance for breakage Carriage of S.W. pipes 300 mm dia Added 10% allowance for breakage Cement of 50 joints = 0.125 tonne	100 metre	0.33	988.27	326.13
0367	Portland Cement (OPC-43 grade)	tonne	0.125	4940.00	617.50
2209	Carriage of Cement	tonne	0.125	92.24	11.53
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	103.77	7.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1881	Spun yarn or plain gaskin @ 0.36 kg / joint = 0.36x50 =18.00 kg LABOUR	kilogram	18.00	50.00	900.00
0123	Mason (brick layer) 1st class	day	2.50	738.00	1845.00
0124	Mason (brick layer) 2nd class	day	2.50	679.00	1697.50
0114	Beldar	day	6.00	558.00	3348.00
0101	Bhisti	day	1.50	617.00	925.50
	TOTAL				36036.44 W
	Add 1 % Water charges on "W"				360.36
	TOTAL				36396.81 X
	Add GST on "X" (multiplying factor 0.1405)				5113.75
	TOTAL				41510.56 Y
	Add 15% CPOH on "Y"				6226.58
	TOTAL				47737.14 Z
	Add Cess @ 1% on "Z"				477.37
	Cost of 30 metre				48214.51
	Cost of 1 metre				1607.15
	Say				1607.15

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 ₹
4.1.10	<p>Details of cost for 10 metre</p> $\text{Area} = W \times W/2 + \frac{1}{2} \times (3.14 \times W^2 / 4) - (3.14 \times D^2 / 4)$ $= W^2 \times (0.5 + 3.14 / 8) - (3.14 \times D^2 / 4)$ <p>Where $W = D + X$</p> <p>$D = 100 + 12 + 12 = 124 \text{ mm or } 12.4 \text{ cm}$</p> <p>$X = 300 \text{ mm as trench depth is less than } 1200 \text{ mm}$</p> <p>$W = 12.4 + 30 = 42.4$</p> $\text{Area} = 42.4^2 \times (0.5 + 3.14 / 8) - (3.14 \times 12.4^2 / 4)$ <p>$= 1484 \text{ sqcm} = 0.1484 \text{ sqm Say } 0.148 \text{ sqm}$</p> <p>For 10 m length qty. of concrete reqd. $= 1.48 \text{ cum}$</p> <p>Rate as per item no 4.1.10 of SH : Concrete Work</p> <p>Cost of 10 metres</p> <p>Cost of metre</p> <p>Say</p>	cum	1.48	5520.30	8170.04 A
					8170.04
					817.00
					817.00

19.2.2 150 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.10	<p>Details of cost for 10 metre</p> $\text{Area} = W \times W/2 + \frac{1}{2} \times (3.14 \times W^2 / 4) - (3.14 \times D^2 / 4)$ $= W^2 \times (0.5 + 3.14 / 8) - (3.14 \times D^2 / 4)$ <p>Where $W = D + X$</p> $D = 150 + 16 + 16 = 182 \text{ mm or } 18.2 \text{ cm}$ $X = 300 \text{ mm as trench depth is less than } 1200 \text{ mm}$ $W = 18.2 + 30 = 48.2$ $\text{Area} = 48.2^2 \times (0.5 + 3.14 / 8) - (3.14 \times 18.2^2 / 4)$ $= 1807.66 \text{ sqcm} = 0.1808 \text{ sqm.}$ <p>Say 0.181 sqm</p> <p>For 10 m length qty. of concrete reqd. = 1.81 cum</p> <p>Rate as per item no 4.1.10 of SH : Concrete Work</p> <p>Cost of 10 metres</p> <p>Cost of metre</p> <p>Say</p>	cum	1.81	5520.30	9991.74 A 9991.74 999.17 999.15

19.2.3 200 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.10	<p>Details of cost for 10 metre</p> $\text{Area} = W \times W/2 + \frac{1}{2} \times (3.14 \times W^2 / 4) - (3.14 \times D^2 / 4)$ $= W^2 \times (0.5 + 3.14 / 8) - (3.14 \times D^2 / 4)$ <p>Where $W = D + X$</p> $D = 200 + 17 + 17 = 234 \text{ mm or } 23.4 \text{ cm}$ $X = 300 \text{ mm as trench depth is less than } 1200 \text{ mm}$ $W = 23.4 + 30 = 53.4$ $\text{Area} = 53.4^2 \times (0.5 + 3.14 / 8) - (3.14 \times 23.4^2 / 4)$ $= 2115 \text{ sqcm} = 0.2115 \text{ sqm}$ <p>Say 0.211 sqm</p> <p>For 10 m length qty. of concrete reqd. = 2.11 cum</p> <p>Rate as per item no 4.1.10 of SH : Concrete Work</p> <p>Cost of 10 metres</p> <p>Cost of metre</p> <p>Say</p>	cum	2.11	5520.30	11647.83 A 11647.83 1164.78 1164.80

19.2.4 250 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	<p>Details of cost for 10 metre</p> $\text{Area} = W \times W/2 + \frac{1}{2} \times (3.14 \times W^2 / 4) - (3.14 \times D^2 / 4)$				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.10	$= W^2 \times (0.5 + 3.14 / 8) - (3.14 \times D^2 / 4)$ Where $W = D + X$ $D = 250 + 20 + 20 = 290 \text{ mm or } 29.0 \text{ cm}$ $X = 300 \text{ mm as trench depth is less than } 1200 \text{ mm}$ $W = 29 + 30 = 59$ $\text{Area} = 59^2 \times (0.5 + 3.14 / 8) - (3.14 \times 29^2 / 4)$ $= 2447 \text{ sqcm} = 0.2447 \text{ sqm.}$ Say 0.244 sqm For 10 m length qty. of concrete reqd. = 2.44 cum Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost of metre Say	cum	2.44	5520.30	13469.53 A 13469.53 1346.95 1346.95

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 $\text{Area} = W \times D1 + 2 \times \frac{1}{2} \times R \cot Q \times R - [R^2 / 2(3.14 / 2 - Q)] - (3.14 / 2) R^2$ $= WD1 + R^2(\cot Q - 3.14 / 2 - Q) - (3.14 / 2) R^2$ $= WD1 + R^2(\cot Q - 3.14 + Q)$ Where $\sin Q = [R / (W/2)] = 2R/W$ $W = D + X ; X = 300 \text{ mm, } D = 100 + 12 + 12 = 124 \text{ mm}$ $W = 124 + 300 = 424 \text{ mm}$ $D1 = \text{Depth} = 100 + (\frac{1}{2} \times 124) = 162 \text{ mm}$ $R = 62 \text{ mm}$ $\sin Q = (2 \times 62) / 424 = 0.292 \text{ therefor } Q = 17^\circ 0'$ Hence $\tan Q = 0.3057$ $\text{Area} = 424 \times 162 + (62)^2 (\cot Q - 3.14 + Q)$ $= [68688 + 3844 (1/0.3057 - 180^\circ + 17^\circ 0')] \text{ sqmm}$ $= [68688 + 3844 (3.27 - 163^\circ 0' \times 3.14 / 180)] \text{ sqmm}$ $= (68688 + 3844 \times 0.43) \text{ sqmm}$ $= (68688 + 1652.92) \text{ sqmm}$ $= 70340.92 \text{ sqmm}$ Say 70341 sqmm or 0.070341 sqm For 10 m length qty. of concrete reqd. = $0.07034 \times 10 = 0.7034 \text{ cum}$				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	5520.30	3882.98 A 3882.98 388.30 388.30

19.3.2 150 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.10	<p>Details of cost for 10 metre length pipe</p> $\text{Area} = W \times D1 + 2 \times \frac{1}{2} \times R \cot Q \times R - [R^2/2(3.14/2-Q)] - (3.14/2)R^2$ $= WD1 + R^2(\cot Q) - R^2(3.14/2 - Q) - (3.14/2)R^2$ $= WD1 + R^2(\cot Q - 3.14 + Q)$ <p>Where $\sin Q = [R/(W/2)] = 2R/W$ $W = D + X$; $X = 300 \text{ mm}$, $D = 150 + 16 + 16 = 182 \text{ mm}$ $W = 182 + 300 = 482 \text{ mm}$ $D1 = \text{Depth} = 150 + (\frac{1}{2} \times 182) = 241 \text{ mm}$ $R = 91 \text{ mm}$ $\sin Q = (2 \times 91)/482 = 0.3776$ therefor $Q = 22^\circ 12'$ Hence $\tan Q = 0.4081$ $\text{Area} = 482 \times 241 + (91)^2 (\cot Q - 3.14 + Q)$ $= [116162 + 8281 (1/0.4081 - 180^\circ + 22^\circ 12')] \text{ sqmm}$ $= [116162 + 8281 (2.45 - 157^\circ 48' \times 3.14/180)] \text{ sqmm}$ $= [116162 + 8281 \times (2.45 - 2.75)] \text{ sqmm}$ $= [116162 + 8281 \times (-0.30)] \text{ sqmm}$ $= (116162 - 2484.3) \text{ sqmm} = 113677.7 \text{ sqmm}$ Say 113677.7 sqmm or 0.1136777 sqm For 10 m length qty. of concrete reqd. $= 0.1136777 \times 10 = 1.136777 \text{ cum.}$ Say 1.14 cum</p> <p>Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost per metre Say</p>	cum	1.14	5520.30	6293.14 A 6293.14 629.31 629.30

19.3.3 200 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	<p>Details of cost for 10 metre length pipe</p> $\text{Area} = W \times D1 + 2 \times \frac{1}{2} \times R \cot Q \times R - [R^2/2(3.14/2-Q)] - (3.14/2)R^2$ $= WD1 + R^2(\cot Q) - R^2(3.14/2 - Q) - (3.14/2)R^2$ $= WD1 + R^2(\cot Q - 3.14 + Q)$				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.10	<p>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 $D1 = \text{Depth} = 150 + (\frac{1}{2} \times 234) = 267$ mm $R = 117$ mm $\sin Q = (2 \times 117)/534 = 0.4382$ therefor $Q = 26^\circ 0'$ Hence $\tan Q = 0.4877$ $\text{Area} = 534 \times 267 + (117)^2 (\cot Q - 3.14 + Q)$ $= [142578 + 13689 (1/0.4877 - 180^\circ + 26^\circ 0')] \text{ sqmm}$ $= [142578 + 13689 (2.05 - 154^\circ 0' \times 3.14/180)] \text{ sqmm}$ $= [142578 + 13689 \times (2.05 - 2.69)] \text{ sqmm}$ $= [142578 + 13689 \times (-0.64)] \text{ sqmm}$ $= (142578 - 8760.96) \text{ sqmm}$ $= 133817.04 \text{ sqmm}$ Say 133817 sqmm or 0.134 sqm For 10 m length qty. of concrete reqd. $= 0.134 \times 10 = 1.34$ cum Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost per metre Say</p>	cum	1.34	5520.30	7397.20 A 7397.20 739.72 739.70

19.3.4 250 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	<p>Details of cost for 10 metre length pipe $\text{Area} = W \times D1 + 2 \times \frac{1}{2} \times R \cot Q \times R - [R^2/2(3.14/2 - Q)] - (3.14/2)R^2$ $= WD1 + R^2(\cot Q) - R^2(3.14/2 - Q) - (3.14/2)R^2$ $= WD1 + R^2(\cot Q - 3.14 + Q)$ Where $\sin Q = [R/(W/2)] = 2R/W$ $W = D + X$; $X = 300$ mm, $D = 250 + 20 + 20 = 290$ mm $W = 290 + 300 = 590$ mm $D1 = \text{Depth} = 150 + (\frac{1}{2} \times 290) = 295$ mm $R = 145$ mm $\sin Q = (2 \times 145)/590 = 0.49154$ therefor $Q = 29^\circ 26'$ Hence $\tan Q = 0.5635$ $\text{Area} = 590 \times 295 + (145)^2 (\cot Q - 3.14 + Q)$ $= [174050 + 21025 (1/0.5635 - 180^\circ + 29^\circ 26')] \text{ sqmm}$ $= [174050 + 21025 (1.77 - 150^\circ 34' \times 3.14/180)] \text{ sqmm}$</p>				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.10	$= [174050 + 21025 \times (1.77-2.63)]$ sqmm $= [174050 + 21025 \times (-0.86)]$ sqmm $= (174050 - 18081.5)$ sqmm $= 155968.5$ sqmm Say 155968 sqmm or 0.156 sqm For 10 m length qty. of concrete reqd. $= 0.156 \times 10 = 1.56$ cum Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost per metre Say	cum	1.56	5520.30	8611.67 A 8611.67 861.17 861.15

19.3.5 300 mm diameter S.W. pipe

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.10	Details of cost for 10 metre length pipe Area $= W \times D1 + 2 \times \frac{1}{2} \times R \cot Q \times R -$ $[R^2/2(3.14/2-Q)] - (3.14/2)R^2$ $= WD1 + R^2(\cot Q) - R^2(3.14/2 - Q) -$ $(3.14/2)R^2$ $= WD1 + R^2(\cot Q - 3.14 + Q)$ Where $\sin Q = [R/(W/2)] = 2R/W$ $W = D + X$; $X = 300$ mm, $D = 300 +$ $25 + 25 = 350$ mm $W = 350 + 300 = 650$ mm $D1 = \text{Depth} = 150 + (\frac{1}{2} \times 350) = 325$ mm $R = 175$ mm $\sin Q = (2 \times 175)/650 = 0.5385$ therefor $Q = 32^\circ 34'$ Hence $\tan Q = 0.6387$ Area $= 650 \times 325 + (175)^2 (\cot Q -$ $3.14 + Q)$ $= [211250 + 30625 (1/0.6387 - 180^\circ +$ $32^\circ 34')]$ sqmm $= [211250 + 30625 (1.566 - 147^\circ 26' \times$ $3.14/180)]$ sqmm $= [211250 + 30625 \times (1.566 -$ $2.571)]$ sqmm $= [211250 + 30625 \times (-1.005)]$ sqmm $= [211250 - 30778.13]$ sqmm $= 180471.87$ sqmm Say 0.180 sqm For 10 m length qty. of concrete reqd. $= 0.180 \times 10 = 1.80$ cum Rate as per item no 4.1.10 of SH : Concrete Work Cost of 10 metres Cost per metre Say	cum	1.80	5520.30	9936.54 A 9936.54 993.65 993.65

- 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 ₹
1900	Details of cost of one gully tarp				
1364	S.W. gully trap P type 100x100 mm	each	1.00	100.00	100.00
1352	C.I. grating 100x100 mm	each	1.00	40.22	40.22
9977	C.I. cover and frame 300x300 mm inside	each	1.00	477.00	477.00
	Carriage of materials	L.S.	4.50	2.00	9.00
	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:				
	$0.345 \div 3 \times [0.09 + 0.01 + (0.09 \times 0.01) 1/2]$				
	= 0.015 cum				
	$3.14/4 \times (0.124)^2 \times 0.47 = 0.006$ 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	cum	0.09	5225.15	470.26 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	6376.25	828.91 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	8554.50	68.44 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement :				
	$[1/2 \times 0.358 \times (1.20 + 0.40)] = 0.286$ sqm.				
	say 0.29 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	350.15	101.54 A
	TOTAL				2095.38 W
	Add 1 % Water charges on "W-A"				6.26
	TOTAL				2101.64 X
	Add GST on "X-A" (multiplying factor 0.1405)				88.86
	TOTAL				2190.50 Y
	Add 15% CPOH on "Y-A"				108.20
	TOTAL				2298.70 Z
	Add Cess @ 1% on "Z-A"				8.30
	Cost of each				2307.00
	Say				2307.00

19.4.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1900	Detaila of cost of one gully tarp				
1364	S.W. gully trap P type 100x100 mm	each	1.00	100.00	100.00
1352	C.I. grating 100x100 mm	each	1.00	40.22	40.22
9977	C.I. cover and frame 300x300 mm inside	each	1.00	477.00	477.00
	Carriage of materials	L.S.	4.50	2.00	9.00
	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	cum	0.09	5225.15	470.26 A
	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				
6.36.1	Rate as per item No 6.36.1 of SH : Brick Work	cum	0.13	6407.35	832.96 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	8554.50	68.44 A
	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				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.29	350.15	101.54 A
	TOTAL				2099.42 W
	Add 1 % Water charges on "W-A"				6.26
	TOTAL				2105.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				88.86
	TOTAL				2194.54 Y
	Add 15% CPOH on "Y-A"				108.20
	TOTAL				2302.75 Z
	Add Cess @ 1% on "Z-A"				8.30
	Cost of each				2311.04
	Say				2311.05

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 ₹
1902	Details of cost of one gully tarp				
1366	S.W. gully trap P type 150x100 mm	each	1.00	130.00	130.00
1352	C.I. grating 150x150 mm	each	1.00	54.42	54.42
9977	C.I. cover and frame 300x300 mm inside	each	1.00	477.00	477.00
	Carriage of materials	L.S.	4.50	2.00	9.00
	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:				
	$0.322 \div 3 \times [0.09 + 0.023 + (0.09 \times 0.023) / 2] = 0.017$ cum				
	$3.14 / 4 \times (0.124)^2 \times 0.485 = 0.006$ 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	5225.15	418.01 A
	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				
6.1.1	Rate as per item no 6.1.1 of SH : Brick Work	cum	0.13	6376.25	828.91 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	8554.50	68.44 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement :				
	$[1/2 \times 0.337 \times (1.20 + 0.60)] = 0.303$ sqm. say 0.30 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.30	350.15	105.05 A
	TOTAL				2090.83 W
	Add 1 % Water charges on "W-A"				6.70
	TOTAL				2097.53 X
	Add GST on "X-A" (multiplying factor 0.1405)				95.14
	TOTAL				2192.67 Y
	Add 15% CPOH on "Y-A"				115.84
	TOTAL				2308.50 Z
	Add Cess @ 1% on "Z-A"				8.88
	Cost of each				2317.39
	Say				2317.40

19.4.2.2 With sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1902	Details of cost of one gully tarp				
1366	S.W. gully trap P type 150x100 mm	each	1.00	130.00	130.00
1352	C.I. grating 150x150 mm	each	1.00	54.42	54.42
9977	C.I. cover and frame 300x300 mm inside	each	1.00	477.00	477.00
	Carriage of materials	L.S.	4.50	2.00	9.00
	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: 0.322÷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	5225.15	418.01 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	6407.35	832.96 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	8554.50	68.44 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	350.15	105.05 A
	TOTAL				2094.87 W
	Add 1 % Water charges on "W-A"				6.70
	TOTAL				2101.57 X
	Add GST on "X-A" (multiplying factor 0.1405)				95.14
	TOTAL				2196.71 Y
	Add 15% CPOH on "Y-A"				115.84
	TOTAL				2312.55 Z
	Add Cess @ 1% on "Z-A"				8.88
	Cost of each				2321.43
	Say				2321.45

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 ₹
1904	Details of cost of one gully tarp				
1367	S.W. gully trap P type 180x150 mm	each	1.00	225.00	225.00
1352	C.I. grating 180x180 mm	each	1.00	65.00	65.00
9977	C.I. cover and frame 300x300 mm inside	each	1.00	477.00	477.00
	Carriage of materials	L.S.	4.50	2.00	9.00
	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:				
	$0.155 \div 3 \times [0.09 + 0.032 + (0.09 \times 0.032) / 2] = 0.008$ cum				
	$3.14 / 4 \times (0.182)^2 \times 0.70 = 0.018$ 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	5225.15	418.01 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	6376.25	828.91 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	8554.50	68.44 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement :				
	$[1/2 \times 0.166 \times (1.20 + 0.72)] = 0.159$ sqm				
	say 0.16 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	350.15	56.02 A
	TOTAL				2147.38 W
	Add 1 % Water charges on "W-A"				7.76
	TOTAL				2155.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				110.12
	TOTAL				2265.26 Y
	Add 15% CPOH on "Y-A"				134.08
	TOTAL				2399.34 Z
	Add Cess @ 1% on "Z-A"				10.28
	Cost of each				2409.62
	Say				2409.60

19.4.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1904	Details of cost of one gully tarp				
1367	S.W. gully trap P type 180x150 mm	each	1.00	225.00	225.00
1352	C.I. grating 180x180 mm	each	1.00	65.00	65.00
9977	C.I. cover and frame 300x300 mm inside	each	1.00	477.00	477.00
	Carriage of materials	L.S.	4.50	2.00	9.00
	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:				
	$0.155 \div 3 \times [0.09 + 0.032 + (0.09 \times 0.032) \frac{1}{2}] = 0.008 \text{ cum}$				
	$3.14/4 \times (0.182)^2 \times 0.70 = 0.018 \text{ cum}$				
	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	5225.15	418.01 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	6407.35	832.96 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	8554.50	68.44 A
	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement :				
	$[1/2 \times 0.166 \times (1.20 + 0.72)] = 0.159 \text{ sqm}$ say 0.16 sqm				
13.9.1	Rate as per item no 13.9.1 of SH : Finishing	sqm	0.16	350.15	56.02 A
	TOTAL				2151.43 W
	Add 1 % Water charges on "W-A"				7.76
	TOTAL				2159.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				110.12
	TOTAL				2269.31 Y
	Add 15% CPOH on "Y-A"				134.08
	TOTAL				2403.39 Z
	Add Cess @ 1% on "Z-A"				10.28
	Cost of each				2413.67
	Say				2413.65

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 ₹
0114	Details of cost for 10 metre LABOUR				
	Beldar	day	0.49	558.00	273.42
0115	Coolie	day	0.36	558.00	200.88
	TOTAL				474.30 W
	Add 1 % Water charges on "W"				4.74
	TOTAL				479.04 X
	Add GST on "X" (multiplying factor 0.1405)				67.31
	TOTAL				546.35 Y
	Add 15% CPOH on "Y"				81.95
	TOTAL				628.30 Z
	Add Cess @ 1% on "Z"				6.28
	Cost of 10 metres				634.58
	Cost of 1 metre				63.46
	Say				63.45

19.5.2 150 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Details of cost for 10 metre LABOUR				
	Beldar	day	0.49	558.00	273.42
0115	Coolie	day	0.45	558.00	251.10
	TOTAL				524.52 W
	Add 1 % Water charges on "W"				5.25
	TOTAL				529.77 X
	Add GST on "X" (multiplying factor 0.1405)				74.43
	TOTAL				604.20 Y
	Add 15% CPOH on "Y"				90.63
	TOTAL				694.83 Z
	Add Cess @ 1% on "Z"				6.95
	Cost of 10 metres				701.78
	Cost of 1 metre				70.18
	Say				70.20

19.5.3 200 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Details of cost for 10 metre LABOUR				
	Beldar	day	0.49	558.00	273.42

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0115	Coolie	day	0.51	558.00	284.58
	TOTAL				558.00 W
	Add 1 % Water charges on "W"				5.58
	TOTAL				563.58 X
	Add GST on "X" (multiplying factor 0.1405)				79.18
	TOTAL				642.76 Y
	Add 15% CPOH on "Y"				96.41
	TOTAL				739.18 Z
	Add Cess @ 1% on "Z"				7.39
	Cost of 10 metres				746.57
	Cost of 1 metre				74.66
	Say				74.65

19.5.4 250 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Details of cost for 10 metre LABOUR				
	Beldar	day	0.49	558.00	273.42
0115	Coolie	day	0.57	558.00	318.06
	TOTAL				591.48 W
	Add 1 % Water charges on "W"				5.91
	TOTAL				597.39 X
	Add GST on "X" (multiplying factor 0.1405)				83.93
	TOTAL				681.33 Y
	Add 15% CPOH on "Y"				102.20
	TOTAL				783.53 Z
	Add Cess @ 1% on "Z"				7.84
	Cost of 10 metres				791.36
	Cost of 1 metre				79.14
	Say				79.15

19.5.5 300 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Details of cost for 10 metre LABOUR				
	Beldar	day	0.49	558.00	273.42
0115	Coolie	day	0.63	558.00	351.54
	TOTAL				624.96 W
	Add 1 % Water charges on "W"				6.25
	TOTAL				631.21 X
	Add GST on "X" (multiplying factor 0.1405)				88.68
	TOTAL				719.89 Y
	Add 15% CPOH on "Y"				107.98
	TOTAL				827.88 Z
	Add Cess @ 1% on "Z"				8.28
	Cost of 10 metres				836.16
	Cost of 1 metre				83.62
	Say				83.60

19.5.6 350 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Details of cost for 10 metre LABOUR				
0115	Beldar	day	0.60	558.00	334.80
	Coolie	day	0.69	558.00	385.02
	TOTAL				719.82 W
	Add 1 % Water charges on "W"				7.20
	TOTAL				727.02 X
	Add GST on "X" (multiplying factor 0.1405)				102.15
	TOTAL				829.16 Y
	Add 15% CPOH on "Y"				124.37
	TOTAL				953.54 Z
	Add Cess @ 1% on "Z"				9.54
	Cost of 10 metres				963.07
	Cost of 1 metre				96.31
	Say				96.30

19.5.7 400 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Details of cost for 10 metre LABOUR				
0115	Beldar	day	0.66	558.00	368.28
	Coolie	day	0.75	558.00	418.50
	TOTAL				786.78 W
	Add 1 % Water charges on "W"				7.87
	TOTAL				794.65 X
	Add GST on "X" (multiplying factor 0.1405)				111.65
	TOTAL				906.30 Y
	Add 15% CPOH on "Y"				135.94
	TOTAL				1042.24 Z
	Add Cess @ 1% on "Z"				10.42
	Cost of 10 metres				1052.66
	Cost of 1 metre				105.27
	Say				105.25

19.5.7 400 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Details of cost for 10 metre LABOUR				
0115	Beldar	day	0.66	558.00	368.28
	Coolie	day	0.75	558.00	418.50
	TOTAL				786.78 W
	Add 1 % Water charges on "W"				7.87
	TOTAL				794.65 X
	Add GST on "X" (multiplying factor 0.1405)				111.65
	TOTAL				906.30 Y
	Add 15% CPOH on "Y"				135.94
	TOTAL				1042.24 Z
	Add Cess @ 1% on "Z"				10.42
	Cost of 10 metres				1052.66
	Cost of 1 metre				105.27
	Say				105.25

19.5.8 450 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metre LABOUR				
0114	Beldar	day	0.66	558.00	368.28
0115	Coolie	day	0.81	558.00	451.98
	TOTAL				820.26 W
	Add 1 % Water charges on "W"				8.20
	TOTAL				828.46 X
	Add GST on "X" (multiplying factor 0.1405)				116.40
	TOTAL				944.86 Y
	Add 15% CPOH on "Y"				141.73
	TOTAL				1086.59 Z
	Add Cess @ 1% on "Z"				10.87
	Cost of 10 metres				1097.46
	Cost of 1 metre				109.75
	Say				109.75

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	200.00	2000.00
1714	R.C.C. collars NP2 class 100 mm dia 5 Nos.	each	5.00	30.00	150.00
2275	Carriage of R.C.C. pipes 100 mm dia Cement of 5 joints = $5 \times 0.00065 = 0.00325$ cum = 0.0048 t say 0.005 tonne	100 metre	0.10	226.82	22.68
0367	Portland Cement (OPC-43 grade)	tonne	0.005	4940.00	24.70
2209	Carriage of Cement	tonne	0.005	92.24	0.46
	Fine sand for 5 joint = $0.0013 \times 5 = 0.0065$ 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	103.77	0.62
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.32	738.00	236.16
0124	Mason (brick layer) 2nd class	day	0.32	679.00	217.28
0114	Beldar	day	0.63	558.00	351.54
0101	Bhisti	day	0.16	617.00	98.72
	TOTAL				3107.57 W
	Add 1 % Water charges on "W"				31.08
	TOTAL				3138.64 X
	Add GST on "X" (multiplying factor 0.1405)				440.98
	TOTAL				3579.62 Y
	Add 15% CPOH on "Y"				536.94
	TOTAL				4116.56 Z
	Add Cess @ 1% on "Z"				41.17
	Cost of 10 metres				4157.73
	Cost of 1 metre				415.77
	Say				415.75

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	212.00	2120.00
1715	R.C.C. collars NP2 class 150 mm dia 5 Nos.	each	5.00	35.00	175.00
2281	Carriage of R.C.C. pipes 150 mm dia	100 metre	0.10	378.03	37.80
	Cement of 5 joints = $5 \times 0.0008 = 0.004$ cum = 0.006 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.006	4940.00	29.64
2209	Carriage of Cement	tonne	0.006	92.24	0.55
	Fine sand for 5 joint = $0.0016 \times 5 = 0.008$ 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	103.77	0.83
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.39	738.00	287.82
0124	Mason (brick layer) 2nd class	day	0.39	679.00	264.81
0114	Beldar	day	0.78	558.00	435.24
0101	Bhisti	day	0.16	617.00	98.72
	TOTAL				3457.62 W
	Add 1 % Water charges on "W"				34.58
	TOTAL				3492.19 X
	Add GST on "X" (multiplying factor 0.1405)				490.65
	TOTAL				3982.85 Y
	Add 15% CPOH on "Y"				597.43
	TOTAL				4580.27 Z
	Add Cess @ 1% on "Z"				45.80
	Cost of 10 metres				4626.08
	Cost of 1 metre				462.61
	Say				462.60

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	350.00	3500.00
1716	R.C.C. collars NP2 class 250 mm dia 5 Nos.	each	5.00	50.00	250.00
2287	Carriage of R.C.C. pipes 250 mm dia	100 metre	0.10	873.84	87.38
	Cement of 5 joints = $5 \times 0.0012 = 0.006$ cum = 0.009 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.009	4940.00	44.46
2209	Carriage of Cement	tonne	0.009	92.24	0.83
	Fine sand for 5 joint = $0.0024 \times 5 = 0.012$ 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	103.77	1.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.54	738.00	398.52
0124	Mason (brick layer) 2nd class	day	0.54	679.00	366.66
0114	Beldar	day	1.50	558.00	837.00
0101	Bhisti	day	0.23	617.00	141.91
	TOTAL				5638.81 W
	Add 1 % Water charges on "W"				56.39
	TOTAL				5695.20 X
	Add GST on "X" (multiplying factor 0.1405)				800.18
	TOTAL				6495.37 Y
	Add 15% CPOH on "Y"				974.31
	TOTAL				7469.68 Z
	Add Cess @ 1% on "Z"				74.70
	Cost of 10 metres				7544.38
	Cost of 1 metre				754.44
	Say				754.45

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	445.00	4450.00
1717	R.C.C. collars NP2 class 300 mm dia 4 Nos.	each	4.00	55.00	220.00
2290	Carriage of R.C.C. pipes 300 mm dia Cement of 4 joints = $4 \times 0.00185 = 0.0074$ cum = 0.011 tonne	100 metre	0.10	1080.08	108.01
0367	Portland Cement (OPC-43 grade)	tonne	0.011	4940.00	54.34
2209	Carriage of Cement	tonne	0.011	92.24	1.01
	Fine sand for 4 joint = $0.0037 \times 4 = 0.0148$ say 0.015 cum				
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	103.77	1.56
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.59	738.00	435.42
0124	Mason (brick layer) 2nd class	day	0.59	679.00	400.61
0114	Beldar	day	1.16	558.00	647.28
0101	Bhisti	day	0.20	617.00	123.40
	TOTAL				6455.13 W
	Add 1 % Water charges on "W"				64.55
	TOTAL				6519.68 X
	Add GST on "X" (multiplying factor 0.1405)				916.02
	TOTAL				7435.70 Y
	Add 15% CPOH on "Y"				1115.35
	TOTAL				8551.05 Z
	Add Cess @ 1% on "Z"				85.51
	Cost of 10 metres				8636.56
	Cost of 1 metre				863.66
	Say				863.65

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	750.00	7500.00
1718	R.C.C. collars NP2 class 450 mm dia 4 Nos.	each	4.00	100.00	400.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	2520.19	252.02
	Cement of 4 joints = $4 \times 0.0041 = 0.0164$ cum = 0.024 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.024	4940.00	118.56
2209	Carriage of Cement	tonne	0.024	92.24	2.21
	Fine sand for 4 joint = $0.0082 \times 4 = 0.033$ 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	103.77	3.42
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.75	738.00	553.50
0124	Mason (brick layer) 2nd class	day	0.75	679.00	509.25
0114	Beldar	day	1.50	558.00	837.00
0101	Bhisti	day	0.33	617.00	203.61
	TOTAL				10409.28 W
	Add 1 % Water charges on "W"				104.09
	TOTAL				10513.37 X
	Add GST on "X" (multiplying factor 0.1405)				1477.13
	TOTAL				11990.50 Y
	Add 15% CPOH on "Y"				1798.57
	TOTAL				13789.07 Z
	Add Cess @ 1% on "Z"				137.89
	Cost of 10 metres				13926.96
	Cost of 1 metre				1392.70
	Say				1392.70

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	925.00	9250.00
1719	R.C.C. collars NP2 class 500 mm dia 4 Nos.	each	4.00	115.00	460.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	2520.19	252.02
	Cement of 4 joints = $4 \times 0.0045 = 0.018$ cum = 0.026 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.026	4940.00	128.44
2209	Carriage of Cement	tonne	0.026	92.24	2.40
	Fine sand for 4 joints = $0.0089 \times 4 = 0.0356$ cum = 0.036 cum				
0983	Fine sand (zone IV)	cum	0.036	900.00	32.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2261	Carriage of Fine sand (1 part badarpur sand : 2 parts jamuna sand)	cum	0.036	103.77	3.74
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.81	738.00	597.78
0124	Mason (brick layer) 2nd class	day	0.81	679.00	549.99
0114	Beldar	day	1.62	558.00	903.96
0101	Bhisti	day	0.33	617.00	203.61
	TOTAL				12384.33 W
	Add 1 % Water charges on "W"				123.84
	TOTAL				12508.18 X
	Add GST on "X" (multiplying factor 0.1405)				1757.40
	TOTAL				14265.58 Y
	Add 15% CPOH on "Y"				2139.84
	TOTAL				16405.41 Z
	Add Cess @ 1% on "Z"				164.05
	Cost of 10 metres				16569.47
	Cost of 1 metre				1656.95
	Say				1656.95

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	1100.00	11000.00
1720	R.C.C. collars NP2 class 600 mm dia 4 Nos.	each	4.00	140.00	560.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	3780.28	378.03
	Cement of 4 joints = $4 \times 0.0054 = 0.0216$ cum = 0.032 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.032	4940.00	158.08
2209	Carriage of Cement	tonne	0.032	92.24	2.95
	Fine sand for 4 joints = $0.0108 \times 4 = 0.043$ cum				
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)	cum	0.043	103.77	4.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.92	738.00	678.96
0124	Mason (brick layer) 2nd class	day	0.92	679.00	624.68
0114	Beldar	day	1.83	558.00	1021.14
0101	Bhisti	day	0.33	617.00	203.61
	TOTAL				14670.61 W
	Add 1 % Water charges on "W"				146.71
	TOTAL				14817.32 X
	Add GST on "X" (multiplying factor 0.1405)				1957.00
	TOTAL				16774.32 Y
	Add 15% CPOH on "Y"				2516.15
	TOTAL				19290.47 Z
	Add Cess @ 1% on "Z"				192.90
	Cost of 10 metres				19483.37
	Cost of 1 metre				1948.34
	Say				1948.35

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	1485.00	14850.00
1721	R.C.C. collars NP2 class 700 mm dia 4 Nos.	each	4.00	150.00	600.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	3780.28	378.03
	Cement of 4 joints = $4 \times 0.0062 = 0.0248$ cum = 0.037 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.037	4940.00	182.78
2209	Carriage of Cement	tonne	0.037	92.24	3.41
	Fine sand for 4 joints = $0.0124 \times 4 = 0.0496$ 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	103.77	5.19
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.03	738.00	760.14
0124	Mason (brick layer) 2nd class	day	1.03	679.00	699.37
0114	Beldar	day	2.06	558.00	1149.48
0101	Bhisti	day	0.42	617.00	259.14
	TOTAL				18932.54 W
	Add 1 % Water charges on "W"				189.33
	TOTAL				19121.86 X
	Add GST on "X" (multiplying factor 0.1405)				2686.62
	TOTAL				21808.49 Y
	Add 15% CPOH on "Y"				3271.27
	TOTAL				25079.76 Z
	Add Cess @ 1% on "Z"				250.80
	Cost of 10 metres				25330.56
	Cost of 1 metre				2533.06
	Say				2533.05

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	1800.00	18000.00
1723	R.C.C. collars NP2 class 800 mm dia 4 Nos.	each	4.00	200.00	800.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	3780.28	378.03
	Cement of 4 joints = $4 \times 0.0072 = 0.0288$ cum = 0.042 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.042	4940.00	207.48
2209	Carriage of Cement	tonne	0.042	92.24	3.87
	Fine sand for 4 joints = $0.0143 \times 4 = 0.0572$ 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	103.77	5.91

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0123	LABOUR				
0123	Mason (brick layer) 1st class	day	1.14	738.00	841.32
0124	Mason (brick layer) 2nd class	day	1.14	679.00	774.06
0114	Beldar	day	2.28	558.00	1272.24
0101	Bhisti	day	0.42	617.00	259.14
	TOTAL				22593.36 W
	Add 1 % Water charges on "W"				225.93
	TOTAL				22819.29 X
	Add GST on "X" (multiplying factor 0.1405)				3206.11
	TOTAL				26025.40 Y
	Add 15% CPOH on "Y"				3903.81
	TOTAL				29929.21 Z
	Add Cess @ 1% on "Z"				299.29
	Cost of 10 metres				30228.50
	Cost of 1 metre				3022.85
	Say				3022.85

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	2500.00	25000.00
1724	R.C.C. collars NP2 class 900 mm dia 4 Nos.	each	4.00	235.00	940.00
2331	Carriage of R.C.C. pipes 900 mm dia Cement of 4 joints = $4 \times 0.0082 = 0.0328$ cum = 0.0488 t Say 0.049	100 metre	0.10	5670.42	567.04
0367	Portland Cement (OPC-43 grade)	tonne	0.049	4940.00	242.06
2209	Carriage of Cement	tonne	0.049	92.24	4.52
	Fine sand for 4 joints = $0.0164 \times 4 = 0.066$ 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	103.77	6.85
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.25	738.00	922.50
0124	Mason (brick layer) 2nd class	day	1.25	679.00	848.75
0114	Beldar	day	3.00	558.00	1674.00
0101	Bhisti	day	0.50	617.00	308.50
	TOTAL				30573.62 W
	Add 1 % Water charges on "W"				305.74
	TOTAL				30879.36 X
	Add GST on "X" (multiplying factor 0.1405)				4338.55
	TOTAL				35217.91 Y
	Add 15% CPOH on "Y"				5282.69
	TOTAL				40500.59 Z
	Add Cess @ 1% on "Z"				405.01
	Cost of 10 metres				40905.60
	Cost of 1 metre				4090.56
	Say				4090.55

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	2900.00	29000.00
1725	R.C.C. collars NP2 class 1000 mm dia 4 Nos.	each	4.00	280.00	1120.00
2332	Carriage of R.C.C. pipes 1000 mm dia Cement of 4 joints = $4 \times 0.0092 = 0.0368$ cum = 0.055 tonne	100 metre	0.10	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.055	4940.00	271.70
2209	Carriage of Cement	tonne	0.055	92.24	5.07
	Fine sand for 4 joints = $0.0185 \times 4 = 0.074$ 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	103.77	7.68
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.36	738.00	1003.68
0124	Mason (brick layer) 2nd class	day	1.36	679.00	923.44
0114	Beldar	day	4.33	558.00	2416.14
0101	Bhisti	day	0.50	617.00	308.50
	TOTAL				35878.87 W
	Add 1 % Water charges on "W"				358.79
	TOTAL				36237.66 X
	Add GST on "X" (multiplying factor 0.1405)				5091.39
	TOTAL				41329.05 Y
	Add 15% CPOH on "Y"				6199.36
	TOTAL				47528.41 Z
	Add Cess @ 1% on "Z"				475.28
	Cost of 10 metres				48003.69
	Cost of 1 metre				4800.37
	Say				4800.35

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	3200.00	32000.00
1726	R.C.C. collars NP2 class 1100 mm dia 4 Nos.	each	4.00	300.00	1200.00
2333	Carriage of R.C.C. pipes 1100 mm dia Cement of 4 joints = $4 \times 0.0103 = 0.0412$ cum = 0.061 tonne	100 metre	0.10	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.061	4940.00	301.34
2209	Carriage of Cement	tonne	0.061	92.24	5.63
	Fine sand for 4 joints = $0.0206 \times 4 = 0.0824$ 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	103.77	8.51

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.47	738.00	1084.86
0124	Mason (brick layer) 2nd class	day	1.47	679.00	998.13
0114	Beldar	day	6.30	558.00	3515.40
0101	Bhisti	day	0.60	617.00	370.20
	TOTAL				40313.92 W
	Add 1 % Water charges on "W"				403.14
	TOTAL				40717.06 X
	Add GST on "X" (multiplying factor 0.1405)				5720.75
	TOTAL				46437.81 Y
	Add 15% CPOH on "Y"				6965.67
	TOTAL				53403.48 Z
	Add Cess @ 1% on "Z"				534.03
	Cost of 10 metress				53937.52
	Cost of 1 metre				5393.75
	Say				5393.75

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	3510.00	35100.00
1727	R.C.C. collars NP2 class 1200 mm dia 4 Nos.	each	4.00	350.00	1400.00
2334	Carriage of R.C.C. pipes 1200 mm dia Cement of 4 joints = $4 \times 0.0114 = 0.0456$ cum = 0.068 tonne	100 metre	0.10	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.068	4940.00	335.92
2209	Carriage of Cement	tonne	0.068	92.24	6.27
	Fine sand for 4 joints = $0.0229 \times 4 = 0.0916$ 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	103.77	9.55
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.59	738.00	1173.42
0124	Mason (brick layer) 2nd class	day	1.59	679.00	1079.61
0114	Beldar	day	8.67	558.00	4837.86
0101	Bhisti	day	0.67	617.00	413.39
	TOTAL				45194.88 W
	Add 1 % Water charges on "W"				451.95
	TOTAL				45646.82 X
	Add GST on "X" (multiplying factor 0.1405)				6413.38
	TOTAL				52060.20 Y
	Add 15% CPOH on "Y"				7809.03
	TOTAL				59869.23 Z
	Add Cess @ 1% on "Z"				598.69
	Cost of 10 metres				60467.93
	Cost of 1 metre				6046.79
	Say				6046.80

- 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 : 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 ₹
4.1.8	Details of cost for 1 manhole Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) $1.51 \times 1.41 \times 0.20 \text{ m} = 0.426 \text{ cum}$ Say 0.43 cum Rate as per item no 4.1.8 of SH : Concrete Work	cum	0.43	5789.60	2489.53 A
6.1.1	Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) $4.32 \times 0.23 \times 0.35 \text{ m} = 0.348 \text{ cum}$ Less for pipe $2 \times 3.14 \times (0.15 \text{ m})^2 \times 0.23 \text{ m} = (-) 0.008 \text{ cum}$ Total = 0.340 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	0.34	6376.25	2167.93 A
4.1.3	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching $2 \times 0.90 \times (0.80/2) \times (0.30 + 0.20)/2 = 0.18 \text{ cum}$ Less for pipe $1 \times 0.90 \times 3.14/4 \times (0.15 \text{ m})^2 = (-) 0.02 \text{ cum}$ = 0.16 cum Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.16	6788.60	1086.18 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement $3.40 \text{ m} \times 0.05 \text{ m} = 0.17 \text{ sqm}$ $2 \times \frac{1}{2} \times 0.80 \times 0.10 \text{ m} = 0.08 \text{ sqm}$ Total= 0.25 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	0.25	350.15	87.54 A
	Reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.3	For slab : $1.36 \times 1.26 \times 0.15 \text{ m} = 0.257 \text{ cum}$ Less for cover $0.61 \times 0.455 \times 0.15 \text{ m} = (-) 0.042 \text{ cum}$ $= 0.215 \text{ cum}$ Say 0.22 cum Rate as per item no 5.3 of SH : RCC Work Less labour for not lifting the materials upto floor five level	cum	0.22	9763.80	2148.04 A
0115	Coolie	day	-0.41	558.00	-228.78
5.22.1	Mild steel reinforcement for slab : $0.22 \text{ cum} @ 48.06 \text{ kg/cum} = 10.57 \text{ kg}$ Rate as per item no. 5.22.1 of SH : RCC work Form work = $0.90 \times 0.80 = 0.72 \text{ sqm}$ Less cover = $0.61 \times 0.455 \text{ m} = (-) 0.278 \text{ sqm}$ $= 0.442 \text{ sqm}$ Say 0.44 sqm	kg	10.57	82.10	867.80 A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR	sqm	0.44	693.05	304.94 A
0123	Extra labour for making channel : Mason (brick layer) 1st class	day	0.06	738.00	44.28
0124	Mason (brick layer) 2nd class	day	0.06	679.00	40.74
1354	Rectangular cover $455 \times 610 \text{ mm}$ with frame (low duty) (inside)	each	1.00	1400.00	1400.00
9977	Carriage of C.I. cover & frame	L.S.	6.76	2.00	13.52
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				10462.26 W
	Add 1 % Water charges on "W-A"				13.10
	TOTAL				10475.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				185.94
	TOTAL				10661.31 Y
	Add 15% CPOH on "Y-A"				226.40
	TOTAL				10887.71 Z
	Add Cess @ 1% on "Z-A"				17.36
	Cost of each				10905.07
	Say				10905.05

19.7.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.8	Details of cost for 1 manhole Cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) $1.51 \times 1.41 \times 0.20 \text{ m} = 0.426 \text{ cum}$ Say 0.43 cum Rate as per item no 4.1.8 of SH : Concrete Work Brick work with sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement : 4 coarse sand)	cum	0.43	5789.60	2489.53 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m) ² x 0.23m = (-) 0.008 cum Total= 0.340 cum 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 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	cum	0.34	6407.35	2178.50 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	6788.60	1086.18 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	350.15	87.54 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	9763.80	2148.04 A
0115	Coolie	day	-0.41	558.00	-228.78
5.22.1	Mild steel reinforcement for slab : 0.22 cum @ 48.06 kg/cum = 10.57 kg 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	82.10	867.80 A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR	sqm	0.44	693.05	304.94 A
0123	Extra labour for making channel :	day	0.06	738.00	44.28
0124	Mason (brick layer) 1st class	day	0.06	679.00	40.74
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	2.00	13.52
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.00	13.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				10472.84 W
	Add 1 % Water charges on "W-A"				13.10
	TOTAL				10485.94 X
	Add GST on "X-A" (multiplying factor 0.1405)				185.94
	TOTAL				10671.88 Y
	Add 15% CPOH on "Y-A"				226.40
	TOTAL				10898.28 Z
	Add Cess @ 1% on "Z-A"				17.36
	Cost of each				10915.64
	Say				10915.65

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 ₹
4.1.8	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) $1.81 \times 1.51 \times 0.20 \text{ m} = 0.547 \text{ cum}$ Say 0.55 cum Rate as per item no 4.1.8 of SH : Concrete Work Brick work with bricks of class designation 7.5 in foundation & plinth in cement mortar 1:4 (1 cement : 4 coarse sand) $5.12 \times 0.23 \times 0.80 \text{ m} = 0.942 \text{ cum}$ Less for pipe $2 \times 3.14 \times (0.15 \text{ m})^2 \times 0.23 \text{ m} = (-) 0.008 \text{ cum}$ Total= 0.934 cum Say 0.93 cum	cum	0.55	5789.60	3184.28 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) for benching $2 \times 1.20 \times (0.90/2) \times (0.30 + 0.20)/2 = 2.70 \text{ cum}$ Less for pipe $1.20 \times 3.14/4 \times (0.15 \text{ m})^2 = (-) 0.021 \text{ cum}$ Total= 0.249 cum say 0.25	cum	0.93	6376.25	5929.91 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 $4.20 \text{ m} \times 0.50 \text{ m} = 2.10 \text{ sqm}$ $2 \times \frac{1}{2} \times 0.90 \times 0.10 \text{ m} = 0.09 \text{ sqm}$ = 2.19 sqm	cum	0.25	6788.60	1697.15 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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) ² x0.15m = (-) 0.029 cum = 0.31 cum	sqm	2.19	350.15	766.83 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	0.31	9763.80	3026.78 A
0115	Coolie Mild steel reinforcement for slab :	day	-0.58	558.00	-323.64
	0.31 cum @ 80.09 kg/cum = 24.83 kg	kg	24.83	82.10	2038.54 A
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 LABOUR	sqm	0.88	693.05	609.88 A
0123	Extra labour for making channel : Mason (brick layer) 1st class	day	0.08	738.00	59.04
0124	Mason (brick layer) 2nd class	day	0.08	679.00	54.32
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	2.00	13.52
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	16.64	2.00	33.28
	TOTAL				21503.42 W
	Add 1 % Water charges on "W-A"				42.50
	TOTAL				21545.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				603.10
	TOTAL				22149.02 Y
	Add 15% CPOH on "Y-A"				734.35
	TOTAL				22883.36 Z
	Add Cess @ 1% on "Z-A"				56.30
	Cost of each				22939.66
	Say				22939.65

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.8	Rate as per item no 4.1.8 of SH : Concrete Work Brick work with modular extruded burnt 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) ² x 0.23m = (-) 0.008 cum = 0.934 cum Say 0.93 cum	cum	0.55	5789.60	3184.28 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) 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	6407.35	5958.84 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	6788.60	1697.15 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) ² x0.15m = (-) 0.029 cum = 0.31 cum	sqm	2.19	350.15	766.83 A
5.3	Rate as per item no 5.3 of SH : RCC Work Less labour for not lifting the materials upto floor five level	cum	0.31	9763.80	3026.78 A
0115	Coolie Mild steel reinforcement for slab : 0.31 cum @ 80.09 kg/cum = 24.83 kg	day	-0.58	558.00	-323.64
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	82.10	2038.54 A
5.9.3	Rate as per item no 5.9.3 of SH : RCC Work LABOUR	sqm	0.88	693.05	609.88 A
0123	Extra labour for making channel : Mason (brick layer) 1st class	day	0.08	738.00	59.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0124	Mason (brick layer) 2nd class	day	0.08	679.00	54.32
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	2.00	13.52
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	16.64	2.00	33.28
	TOTAL				21532.34 W
	Add 1 % Water charges on "W-A"				42.50
	TOTAL				21574.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				603.10
	TOTAL				22177.94 Y
	Add 15% CPOH on "Y-A"				734.35
	TOTAL				22912.29 Z
	Add Cess @ 1% on "Z-A"				56.30
	Cost of each				22968.59
	Say				22968.60

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 ₹
4.1.8	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 Rate as per item no 4.1.8 of SH : Concrete Work 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) ² x 0.23m = (-) 0.008 cum = 0.803 cum Say 0.80 cum	cum	0.55	5789.60	3184.28 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) for benching 2x1.20x(0.90/2)x(0.30+0.20)/2 = 0.27 cum	cum	0.80	6376.25	5101.00 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.3	Less for pipe $1.20 \times 3.14 / 4 \times (0.15\text{m})^2$ = (-) 0.021 cum = 0.249 cum say 0.25 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 $4.20\text{m} \times 0.35\text{m} = 1.47 \text{ sqm}$ $2 \times 0.56 \times 0.15 \text{ m} = 0.17 \text{ sqm}$ $2 \times \frac{1}{2} \times 0.90 \times 0.10\text{m} = 0.09 \text{ sqm}$ For fixing cover $0.96 \times 0.96 \text{ m} = 0.922 \text{ sqm}$ = 2.652 sqm Less cover $3.14 / 4 \times (0.56)^2 =$ (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm	cum	0.25	6788.60	1697.15 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 : $1.66 \times 1.36 \times 0.15\text{m} =$ 0.339 cum Add extra concreting $1 \times (0.56 + 0.79) \times$ $0.15 \times 0.15 \text{ m} = 0.03 \text{ cum}$ Total= 0.369 cum Less for cover $0.7854 \times (0.56)^2 \times$ $0.15\text{m} = (-) 0.037 \text{ cum}$ = 0.332 cum Say 0.33 cum	sqm	2.41	350.15	843.86 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	9763.80	3222.05 A
0115	Coolie Steel reinforcement for slab @ 80.09 Kg/cum For 0.33 cum = 26.43 kg.	day	-0.62	558.00	-345.96
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work Form work inside area of man-hole $1.20 \times 0.90 = 1.08 \text{ sqm}$ Less cover = $3.14 / 4 \times (0.56)^2 =$ (-) 0.246 sqm = 0.834 sqm Say 0.83 sqm	kg	26.43	82.10	2169.90 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	693.05	575.23 A
0123	Mason (brick layer) 1st class	day	0.08	738.00	59.04
0124	Mason (brick layer) 2nd class	day	0.08	679.00	54.32
3860	560 mm dia cover with frame (Heavy duty)	each	1.00	9000.00	9000.00
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.00	27.04
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.00	13.52

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	20.28	2.00	40.56
	TOTAL				25642.00 W
	Add 1 % Water charges on "W-A"				88.49
	TOTAL				25730.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				1255.65
	TOTAL				26986.13 Y
	Add 15% CPOH on "Y-A"				1528.90
	TOTAL				28515.03 Z
	Add Cess @ 1% on "Z-A"				117.22
	Cost of each				28632.25
	Say				28632.25

19.7.3.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.8	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) $1.81 \times 1.51 \times 0.20 \text{ m} = 0.547 \text{ cum}$ Say 0.55 cum Rate as per item no 4.1.8 of SH : Concrete Work sewer bricks conforming to IS:4885 in cement mortar 1:4 (1 cement :4 coarse sand)	cum	0.55	5789.60	3184.28 A
6.36.1	$5.12 \times 0.23 \times 0.65 \text{ m} = 0.765 \text{ cum}$ $1 \times 0.56 \times 0.23 \times 0.15 \text{ m} = 0.019 \text{ cum}$ $1 \times 0.79 \times 0.23 \times 0.15 = 0.027 \text{ cum}$ Total= 0.811 cum Less for pipe $2 \times 3.14 \times (0.15 \text{ m})^2 \times 0.23 \text{ m} = (-) 0.008 \text{ cum}$ = 0.803 cum Say 0.80 cum Rate as per item No 6.36.1 of SH : Brick Work	cum	0.80	6407.35	5125.88 A
4.1.3	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for benching $2 \times 1.20 \times (0.90/2) \times (0.30 + 0.20)/2 = 0.27 \text{ cum}$ Less for pipe $1.20 \times 3.14/4 \times (0.15 \text{ m})^2 = (-) 0.021 \text{ cum}$ = 0.249 cum say 0.25 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 $4.20 \text{ m} \times 0.35 \text{ m} = 1.47 \text{ sqm}$ $2 \times 0.56 \times 0.15 \text{ m} = 0.17 \text{ sqm}$ $2 \times \frac{1}{2} \times 0.90 \times 0.10 \text{ m} = 0.09 \text{ sqm}$	cum	0.25	6788.60	1697.15 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.9.1	For fixing cover 0.96x0.96 m =0.922 sqm Total= 2.652 sqm Less cover $3.14/4 \times (0.56)^2 =$ (-) 0.246 sqm = 2.406 sqm Say 2.41 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	2.41	350.15	843.86 A
5.3	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 $1 \times (0.56+0.79) \times$ 0.15x0.15 m = 0.03 cum = 0.369 cum Less for cover $0.7854 \times (0.56)^2 \times$ 0.15m = (-) 0.037 cum = 0.332 cum Say 0.33 cum Rate as per item no 5.3 of SH : RCC Work	cum	0.33	9763.80	3222.05 A
0115	Less labour for not lifting the materilas upto floor five level Coolie	day	-0.62	558.00	-345.96
5.22.1	Steel reinforcement for slab @ 80.09 Kg/cum For 0.33 cum = 26.43 kg Rate as per item no. 5.22.1 of SH : RCC work	kg	26.43	82.10	2169.90 A
5.9.3	Form work inside area of man-hole 1.20x0.90 = 1.08 sqm Less cover = $3.14/4 \times (0.56)^2 =$ (-) 0.246 sqm = 0.834 sqm Say 0.83 sqm Rate as per item no 5.9.3 of SH : RCC Work	sqm	0.83	693.05	575.23 A
0123	LABOUR Extra labour for making channel : Mason (brick layer) 1st class	day	0.08	738.00	59.04
0124	Mason (brick layer) 2nd class	day	0.08	679.00	54.32
3860	560 mm dia cover with frame (Heavy duty)	each	1.00	9000.00	9000.00
9977	Carriage of C.I. cover & frame	L.S.	13.52	2.00	27.04
9999	Painting of C.I. cover & frame with coal tar	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	20.28	2.00	40.56
	TOTAL				25666.88 W
	Add 1 % Water charges on "W-A"				88.49
	TOTAL				25755.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				1255.65
	TOTAL				27011.01 Y
	Add 15% CPOH on "Y-A"				1528.90
	TOTAL				28539.91 Z
	Add Cess @ 1% on "Z-A"				117.22
	Cost of each				28657.13
	Say				28657.15

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 ₹
6.1.1	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 Rate as per item no. 6.1.1 of S.H : brick work	cum	0.99	6376.25	6312.49 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40x1 m = 3.40 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	350.15	1190.51 A
	TOTAL				7503.00
	Cost for one metre				7503.00
	Say				7503.00

19.8.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	Details of cost for one metre MATERIAL Brick work with modular extruded burnt 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 Rate as per item No 6.36.1 of SH : Brick Work	cum	0.99	6407.35	6343.28 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 3.40x1 m = 3.40 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	3.40	350.15	1190.51 A
	TOTAL				7533.79
	Cost for one metre				7533.79
	Say				7533.80

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	1:4 (1 cement 4: coarse sand) 5.12x0.23x1.0 m = 1.178 cum Say 1.18 cum Rate as per item no. 6.1.1 of S.H : brick work	cum	1.18	6376.25	7523.98 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20x1 m = 4.20 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	4.20	350.15	1470.63 A
	TOTAL				8994.61
	Cost for one metre				8994.61
	Say				8994.60

19.8.2.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	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 Rate as per item No 6.36.1 of SH : Brick Work	cum	1.18	6407.35	7560.67 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement 4.20x1 m = 4.20 sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	4.20	350.15	1470.63 A
	TOTAL				9031.30
	Cost for one metre				9031.30
	Say				9031.30

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 ₹
4.1.6	<p>Details of cost for 1 manhole</p> <p>MATERIAL</p> <p>Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)</p> <p>$1.67 \times 1.67 \times 0.225 \text{ m} = 0.63 \text{ cum}$</p> <p>Rate as per item no 4.1.6 of SH : Concrete Work</p> <p>Brick work with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand)</p> <p>Curved on plan</p> <p>$3.14 \times 1.14 \times 0.074 \times 0.23 = 0.061$</p> <p>$3.14 \times (1.14 + 0.79) / 2 \times 0.711 \times 0.23 = 0.496$</p> <p>Total = 0.557</p> <p>Duduct arch ring and portion of pipe</p> <p>$2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$</p> <p>$2 \times 3.14 / 4 \times (0.15)^2 \times 0.230 = 0.008 \text{ cum}$</p> <p>Total = 0.026 cum</p> <p>Net quantity $0.557 - 0.026 = 0.531$</p> <p>Say 0.53</p>	cum	0.63	6126.25	3859.54 A
6.1.1	<p>Rate as per item no 6.1.1 of SH : Brick Work</p> <p>Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 fine sand)</p> <p>$2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$ Say 0.02 cum</p>	cum	0.53	6376.25	3379.41 A
6.9	<p>Rate as per item no 6.9 of SH : Brick Work</p> <p>Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)</p> <p>For benching :</p> <p>$3.14 / 4 \times (0.91 + 0.82)^2 \times 0.20 = 0.118 \text{ cum}$</p> <p>$[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.45)^3 = 0.017 \text{ cum}$</p> <p>Total = 0.135 cum</p> <p>Less pipe : $0.91 \times 3.14 / 4 \times (0.15)^2 = (-) 0.016 \text{ cum}$</p> <p>= 0.119 cum Say 0.12 cum</p>	cum	0.02	12352.95	247.06 A
4.1.3	<p>Rate as per item no. 4.1.3 of SH : concrete Work</p> <p>Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate : 20 mm nominal size)</p> <p>For fixing cover : $3.14 / 4 \times d^2 \times \text{thickness}$</p> <p>$3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$</p> <p>Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$</p> <p>Total = 0.086 cum Say 0.09 cum</p>	cum	0.12	6788.60	814.63 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 $3.14 \times (0.80 + 0.56) / 2 \times 0.49 = 1.05$ sqm $3.14 \times 0.56 \times 0.075 = 0.13$ sqm Benching $3.14 \times (0.80)^2 / 4 - 0.80 \times 0.15 + 0.80 \times \frac{1}{2} \times$ $3.14 \times 0.15 = 0.57$ sqm Total= 1.75 sqm	cum	0.09	8554.50	769.91 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR	sqm	1.75	350.15	612.76 A
0123	Extra labour for making channel : Mason (brick layer) 1st class	day	0.06	738.00	44.28
0124	Mason (brick layer) 2nd class S.F.R.C cover	day	0.06	679.00	40.74
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	2.00	13.78
9999	Sundries	L.S.	16.9	2.00	33.80
	TOTAL				10695.91 W
	Add 1 % Water charges on "W-A"				10.13
	TOTAL				10706.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				143.69
	TOTAL				10849.73 Y
	Add 15% CPOH on "Y-A"				174.96
	TOTAL				11024.69 Z
	Add Cess @ 1% on "Z-A"				13.41
	Cost of one manhole				11038.10
	Say				11038.10

19.9.1.2 With Sewer bricks conforming to IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.6	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) $1.67 \times 1.67 \times 0.225$ m = 0.63 cum 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 $3.14 \times 1.14 \times 0.074 \times 0.23 = 0.061$ $3.14 \times (1.14 + 0.79) / 2 \times 0.711 \times 0.23 = 0.496$ = 0.557	cum	0.63	6126.25	3859.54 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	Duct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.25 \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$ $2 \times 3.14 / 4 \times (0.15)^2 \times 0.230 = 0.008 \text{ cum}$ Total= 0.026 cum Net quantity 0.557-0.026 = 0.531 Say 0.53 Rate as per item No 6.36.1 of SH : Brick Work Brick work in arches with modular extruded burnt fly ash clay sewer bricks conforming to IS : 4885 in cement mortar 1:3 (1 cement : 3 fine sand) $2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$ Say 0.02 cum 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 : $3.14 / 4 \times (0.91 + 0.82)^2 \times 0.20 = 0.118 \text{ cum}$ $[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.45)^3 = 0.017 \text{ cum}$ Total= 0.135 cum Less pipe : $0.91 \times 3.14 / 4 \times (0.15)^2 = (-) 0.016 \text{ cum}$ Total= 0.119 cum Say 0.12 cum 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 : $3.14 / 4 \times d^2 \times \text{thickness}$ $3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$ Total = 0.086 cum Say 0.09 cum 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 $3.14 \times (0.80 + 0.56) / 2 \times 0.49 = 1.05 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (0.80)^2 / 4 - 0.80 \times 0.15 + 0.80 \times \frac{1}{2} \times 3.14 \times 0.15 = 0.57 \text{ sqm}$ Total= 1.75 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	0.53	6407.35	3395.90 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 : $3.14 / 4 \times (0.91 + 0.82)^2 \times 0.20 = 0.118 \text{ cum}$ $[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.45)^3 = 0.017 \text{ cum}$ Total= 0.135 cum Less pipe : $0.91 \times 3.14 / 4 \times (0.15)^2 = (-) 0.016 \text{ cum}$ Total= 0.119 cum Say 0.12 cum 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 : $3.14 / 4 \times d^2 \times \text{thickness}$ $3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$ Total = 0.086 cum Say 0.09 cum 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 $3.14 \times (0.80 + 0.56) / 2 \times 0.49 = 1.05 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (0.80)^2 / 4 - 0.80 \times 0.15 + 0.80 \times \frac{1}{2} \times 3.14 \times 0.15 = 0.57 \text{ sqm}$ Total= 1.75 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	0.02	11309.95	226.20 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 : $3.14 / 4 \times d^2 \times \text{thickness}$ $3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$ Total = 0.086 cum Say 0.09 cum 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 $3.14 \times (0.80 + 0.56) / 2 \times 0.49 = 1.05 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (0.80)^2 / 4 - 0.80 \times 0.15 + 0.80 \times \frac{1}{2} \times 3.14 \times 0.15 = 0.57 \text{ sqm}$ Total= 1.75 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	0.12	6788.60	814.63 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 $3.14 \times (0.80 + 0.56) / 2 \times 0.49 = 1.05 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (0.80)^2 / 4 - 0.80 \times 0.15 + 0.80 \times \frac{1}{2} \times 3.14 \times 0.15 = 0.57 \text{ sqm}$ Total= 1.75 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	0.09	8554.50	769.91 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	sqm	1.75	350.15	612.76 A
0123	Extra labour for making channel : Mason (brick layer) 1st class	day	0.06	738.00	44.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0124	Mason (brick layer) 2nd class	day	0.06	679.00	40.74
7135	S.F.R.C cover 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	2.00	13.78
9999	Sundries	L.S.	16.90	2.00	33.80
	TOTAL				10691.53 W
	Add 1 % Water charges on "W-A"				10.13
	TOTAL				10701.66 X
	Add GST on "X-A" (multiplying factor 0.1405)				143.69
	TOTAL				10845.35 Y
	Add 15% CPOH on "Y-A"				174.96
	TOTAL				11020.31 Z
	Add Cess @ 1% on "Z-A"				13.41
	Cost of one manhole				11033.73
	Say				11033.75

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 ₹
6.1.1	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) Rate as per item no 6.1.1 of SH : Brick Work	cum	0.63	6376.25	4017.04 A
4.1.3	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone 20mm nominal size) Rate as per item no 4.1.3 of SH : Concrete Work	cum	0.01	6788.60	67.89 A
13.9.1	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with neat cement. Rate as per item no 13.9.1 of SH : Finishing	sqm	2.33	350.15	815.85 A
	Cost for 0.76 metre				4900.77
	Cost for 1.00 metre				6448.39
	Say				6448.40

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 burnt 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 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone 20mm nominal size)	cum	0.63	6407.35	4036.63 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	6788.60	67.89 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Cost for 0.76 metre Cost for 1.00 metre Say	sqm	2.33	350.15	815.85 A 4920.37 6474.17 6474.15

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 ₹
4.1.6	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 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)/2x1.32x 0.23 = 1.069 Total= 1.320	cum	1.18	6126.25	7228.98 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	Duct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.25 \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$ $2 \times 3.14 / 4 \times (0.15)^2 \times 0.230 = 0.008 \text{ cum}$ Total = 0.026 cum Net quantity 1.320 - 0.026 = 1.294 Say 1.29 cum 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) $2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$ Say 0.02 cum	cum	1.29	6376.25	8225.36 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 : $3.14 / 4 \times (1.22)^2 \times 0.20 = 0.234 \text{ cum}$ $[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.61)^3 = 0.043 \text{ cum}$ Total = 0.277 cum Less pipe : $1.22 \times 3.14 / 4 \times (0.15)^2 (-) = 0.0216 \text{ cum}$ Total = 0.2554 cum Say 0.26 cum	cum	0.02	12352.95	247.06 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 : $3.14 / 4 \times d^2 \times \text{thickness}$ $3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} : (-) = 0.037 \text{ cum}$ Total = 0.086 cum Say 0.09 cum	cum	0.26	6788.60	1765.04 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 $3.14 \times (1.136 + 0.56) / 2 \times 1.216 = 3.241 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ $3.14 \times (1.136)^2 / 4 - 1.136 \times 1 / 2 \times 3.14 \times 0.15 = 1.112 \text{ sqm}$ Total = 4.483 sqm Say 4.48 sqm	cum	0.09	8554.50	769.91 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel :	sqm	4.48	350.15	1568.67 A
0123	Mason (brick layer) 1st class	day	0.10	738.00	73.80
0124	Mason (brick layer) 2nd class	day	0.10	679.00	67.90
	S.F.R.C manhole cover				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	2.00	13.78
9999	Sundries	L.S.	16.9	2.00	33.80
	TOTAL				20874.29 W
	Add 1 % Water charges on "W-A"				10.69
	TOTAL				20884.98 X
	Add GST on "X-A" (multiplying factor 0.1405)				151.74
	TOTAL				21036.72 Y
	Add 15% CPOH on "Y-A"				184.76
	TOTAL				21221.47 Z
	Add Cess @ 1% on "Z-A"				14.16
	Cost of one manhole				21235.64
	Say				21235.65

19.11.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.6	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) $1.98 \times 1.98 \times 0.30 \text{ m} = 1.178 \text{ cum}$ Say 1.18 cum Rate as per item no 4.1.6 of SH : Concrete Work	cum	1.18	6126.25	7228.98 A
6.36.1	Brick work with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:4 (1 cement : 4 coarse sand) Curved on plan $3.14 \times 1.45 \times 0.24 \times 0.23 = 0.251$ $3.14 \times (1.45 + 0.79) / 2 \times 1.32 \times 0.23 = 1.069$ Total = 1.320 Duduct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$ $2 \times 3.14 / 4 \times (0.15)^2 \times 0.230 = 0.008 \text{ cum}$ Total = 0.026 cum Net quantity $1.320 - 0.026 = 1.294$ Say 1.29 cum Rate as per item No 6.36.1 of SH : Brick Work	cum	1.29	6407.35	8265.48 A
6.37	Brick work in arches with modular extruded brunt fly ash clay sewer bricks in cement mortar 1:3 (1 cement : 3 fine sand) $2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.230 \times 0.10 \text{ m} = 0.018 \text{ cum}$ Say 0.02 cum Rate as per item No 6.37 of SH : Brick Work Cement concrete 1:2:4(1 cement : 2 coarse sand : 4 graded stone	cum	0.02	11309.95	226.20 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.3	aggregate 20 mm nominal size) For benching : $3.14/4 \times (1.22)^2 \times 0.20 = 0.234 \text{ cum}$ $[(2 \times 8.133)/360] \times (4/3) \times 3.14 \times (0.61)^3 = 0.043 \text{ cum}$ Total= 0.277 cum Less pipe : $1.22 \times 3.14/4 \times (0.15)^2 \times (-) = 0.0216 \text{ cum}$ Total= 0.2554 cum Say 0.26 cum 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 : $3.14/4 \times d^2 \times \text{thickness}$ $3.14/4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14/4 \times (0.28)^2 \times 0.15 \text{ m} : = (-) 0.037 \text{ cum}$ Total= 0.086 cum Say 0.09 cum 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 $3.14 \times (1.136 + 0.56)/2 \times 1.216 = 3.241 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ $3.14 \times (1.136)^2/4 - 1.136 \times 1/2 \times 3.14 \times 0.15 = 1.112 \text{ sqm}$ Total= 4.483 sqm Say 4.48 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : 0123 Mason (brick layer) 1st class 0124 Mason (brick layer) 2nd class 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 9977 CARRIAGE 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	cum	0.26	6788.60	1765.04 A
4.2.3	SH : Concrete 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement $3.14 \times (1.136 + 0.56)/2 \times 1.216 = 3.241 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ $3.14 \times (1.136)^2/4 - 1.136 \times 1/2 \times 3.14 \times 0.15 = 1.112 \text{ sqm}$ Total= 4.483 sqm Say 4.48 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : 0123 Mason (brick layer) 1st class 0124 Mason (brick layer) 2nd class 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 9977 CARRIAGE 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	cum	0.09	8554.50	769.91 A
13.9.1	SH : Finishing LABOUR Extra labour for making channel : 0123 Mason (brick layer) 1st class 0124 Mason (brick layer) 2nd class 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 9977 CARRIAGE 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	sqm	4.48	350.15	1568.67 A
0123	Mason (brick layer) 1st class	day	0.10	738.00	73.80
0124	Mason (brick layer) 2nd class	day	0.10	679.00	67.90
7135	S.F.R.C manhole cover and frame 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	2.00	13.78
9999	Sundries	L.S.	16.9	2.00	33.80
	TOTAL				20893.55 W
	Add 1 % Water charges on "W-A"				10.69
	TOTAL				20904.24 X
	Add GST on "X-A" (multiplying factor 0.1405)				151.74
	TOTAL				21055.98 Y
	Add 15% CPOH on "Y-A"				184.76
	TOTAL				21240.73 Z
	Add Cess @ 1% on "Z-A"				14.16
	Cost of one manhole				21254.90
	Say				21254.90

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 ₹
6.1.1	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) Rate as per item no 6.1.1 of SH : Brick Work	cum	0.66	6376.25	4208.33 A
13.9.1	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement. Rate as per item no 13.9.1 of SH : Finishing	sqm	2.56	350.15	896.38 A
	Cost for 0.61 metre				5104.71
	Cost for 1.00 metre				8368.38
	Say				8368.40

19.12.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	Detail of cost of 0.61 m extra depth Brick work with modular extruded burnt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement : 4 coarse sand) Rate as per item No 6.36.1 of SH : Brick Work	cum	0.66	6407.35	4228.85 A
13.9.1	12mm cement plaster 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement. Rate as per item no 13.9.1 of SH : Finishing	sqm	2.56	350.15	896.38 A
	Cost for 0.61 metre				5125.24
	Cost for 1.00 metre				8402.02
	Say				8402.00

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 ₹
4.1.6	<p>Details of cost for 1 manhole</p> <p>MATERIAL</p> <p>Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)</p> <p>$2.74 \times 2.74 \times 0.30 \text{ m} = 2.25 \text{ cum}$</p> <p>Rate as per item no 4.1.6 of SH : Concrete Work</p> <p>Brick work with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand)</p> <p>Curved on plan</p> <p>$3.14 \times 1.98 \times 0.25 \times 0.46 = 0.716 \text{ cum}$</p> <p>$3.14 \times (1.98 + 0.905) / 2 \times 0.345 \times 1.93 = 3.019 \text{ cum}$</p> <p>Total = 3.735 cum</p> <p>Duduct arch ring and portion of pipe</p> <p>$2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.46 \times 0.10 \text{ m} = 0.036 \text{ cum}$</p> <p>$2 \times 3.14 / 4 \times (0.15)^2 \times 0.460 = 0.016 \text{ cum}$</p> <p>Total = 0.052 cum</p> <p>Net quantity $3.735 - 0.052 = 3.683 \text{ cum}$</p> <p>Say 3.68 cum</p>	cum	2.25	6126.25	13784.06 A
6.1.1	<p>Rate as per item no 6.1.1 of SH : Brick Work</p> <p>Brick work in arches with 7.5 class designation brick in cement mortar 1:3 (1 cement : 3 coarse sand)</p> <p>$2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.460 \times 0.10 \text{ m} = 0.036 \text{ cum}$</p> <p>Say 0.04 cum</p>	cum	3.68	6376.25	23464.60 A
6.9	<p>Rate as per item no 6.9 of SH : Brick Work</p> <p>Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)</p> <p>For benching :</p> <p>$3.14 / 4 \times (1.52)^2 \times 0.20 = 0.363 \text{ cum}$</p> <p>$[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.76)^3 = 0.083 \text{ cum}$</p> <p>Total = 0.446 cum</p> <p>Less pipe : $1.52 \times 3.14 / 4 \times (0.15)^2 (-) = 0.027 \text{ cum}$</p> <p>Total = 0.419 cum Say 0.42 cum</p>	cum	0.04	12352.95	494.12 A
4.1.3	<p>Rate as per item no. 4.1.3 of SH : concrete</p> <p>Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)</p> <p>For fixing cover : $3.14 / 4 \times d^2 \times \text{thickness}$</p> <p>$3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$</p> <p>Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$</p> <p>Total = 0.086 cum Say 0.09 cum</p>	cum	0.42	6788.60	2851.21 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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 $3.14 \times (1.454 + 0.56) / 2 \times 1.799 = 5.694$ sqm $3.14 \times 0.56 \times 0.075 = 0.13$ sqm Benching $3.14 \times (1.454)^2 / 4 - 1.454 \times 0.15 + 1.454 \times 1 / 2 \times$ $3.14 \times 0.15 = 1.786$ sqm Total= 7.61 sqm	cum	0.09	8554.50	769.91 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR	sqm	7.61	350.15	2664.64 A
0123	Extra labour for making channel : Mason (brick layer) 1st class	day	0.10	738.00	73.80
0124	Mason (brick layer) 2nd class S.F.R.C cover	day	0.10	679.00	67.90
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	2.00	13.78
9999	Sundries	L.S.	16.90	2.00	33.80
	TOTAL				45097.82 W
	Add 1 % Water charges on "W-A"				10.69
	TOTAL				45108.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				151.74
	TOTAL				45260.25 Y
	Add 15% CPOH on "Y-A"				184.76
	TOTAL				45445.00 Z
	Add Cess @ 1% on "Z-A"				14.16
	Cost of one manhole				45459.17
	Say				45459.15

19.13.1.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.6	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) $2.74 \times 2.74 \times 0.30$ m = 2.25 cum 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 $3.14 \times 1.98 \times 0.25 \times 0.46 = 0.716$ cum $3.14 \times (1.98 + 0.905) / 2 \times 0.345 \times$ $1.93 = 3.019$ cum Total= 3.735 cum	cum	2.25	6126.25	13784.06 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	Duduct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.25 \times 0.46 \times 0.10 \text{ m} = 0.036 \text{ cum}$ $2 \times 3.14 / 4 \times (0.15)^2 \times 0.460 = 0.016 \text{ cum}$ Total= 0.052 cum Net quantity 3.735-0.052 = 3.683 cum Say 3.68 cum 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) $2 \times \frac{1}{2} \times 3.14 \times 0.25 \text{ m} \times 0.460 \times 0.10 \text{ m} = 0.036 \text{ cum}$ Say 0.04 cum 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 : $3.14 / 4 \times (1.52)^2 \times 0.20 = 0.363 \text{ cum}$ $[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.76)^3 = 0.083 \text{ cum}$ Total= 0.446 cum Less pipe : $1.52 \times 3.14 / 4 \times (0.15)^2 (-) = 0.027 \text{ cum}$ = 0.419 cum Say 0.42 cum 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 : $3.14 / 4 \times d^2 \times \text{thickness}$ $3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$ Net Quantity= 0.086 cum Say 0.09 cum 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 $3.14 \times (1.454 + 0.56) / 2 \times 1.799 = 5.694 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (1.454)^2 / 4 - 1.454 \times 0.15 + 1.454 \times 1/2 \times 3.14 \times 0.15 = 1.786 \text{ sqm}$ Total= 7.61 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	3.68	6407.35	23579.05 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 : $3.14 / 4 \times (1.52)^2 \times 0.20 = 0.363 \text{ cum}$ $[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.76)^3 = 0.083 \text{ cum}$ Total= 0.446 cum Less pipe : $1.52 \times 3.14 / 4 \times (0.15)^2 (-) = 0.027 \text{ cum}$ = 0.419 cum Say 0.42 cum 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 : $3.14 / 4 \times d^2 \times \text{thickness}$ $3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$ Net Quantity= 0.086 cum Say 0.09 cum 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 $3.14 \times (1.454 + 0.56) / 2 \times 1.799 = 5.694 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (1.454)^2 / 4 - 1.454 \times 0.15 + 1.454 \times 1/2 \times 3.14 \times 0.15 = 1.786 \text{ sqm}$ Total= 7.61 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	0.04	11309.95	452.40 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 : $3.14 / 4 \times d^2 \times \text{thickness}$ $3.14 / 4 \times (1.020)^2 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} = (-) 0.037 \text{ cum}$ Net Quantity= 0.086 cum Say 0.09 cum 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 $3.14 \times (1.454 + 0.56) / 2 \times 1.799 = 5.694 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (1.454)^2 / 4 - 1.454 \times 0.15 + 1.454 \times 1/2 \times 3.14 \times 0.15 = 1.786 \text{ sqm}$ Total= 7.61 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	0.42	6788.60	2851.21 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 $3.14 \times (1.454 + 0.56) / 2 \times 1.799 = 5.694 \text{ sqm}$ $3.14 \times 0.56 \times 0.075 = 0.13 \text{ sqm}$ Benching $3.14 \times (1.454)^2 / 4 - 1.454 \times 0.15 + 1.454 \times 1/2 \times 3.14 \times 0.15 = 1.786 \text{ sqm}$ Total= 7.61 sqm Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	cum	0.09	8554.50	769.91 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR Extra labour for making channel : Mason (brick layer) 1st class	sqm	7.61	350.15	2664.64 A
0123	Extra labour for making channel : Mason (brick layer) 1st class	day	0.10	738.00	73.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0124	Mason (brick layer) 2nd class	day	0.10	679.00	67.90
7135	S.F.R.C cover 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	2.00	13.78
9999	Sundries	L.S.	16.90	2.00	33.80
	TOTAL				45170.55 W
	Add 1 % Water charges on "W-A"				10.69
	TOTAL				45181.24 X
	Add GST on "X-A" (multiplying factor 0.1405)				151.74
	TOTAL				45332.98 Y
	Add 15% CPOH on "Y-A"				184.76
	TOTAL				45517.73 Z
	Add Cess @ 1% on "Z-A"				14.16
	Cost of one manhole				45531.90
	Say				45531.90

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 ₹
6.1.1	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) Rate as per item no 6.1.1 of SH : Brick Work	cum	5.26	6376.25	33539.08 A
13.9.1	12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement Rate as per item no 13.9.1 of SH : Finishing	sqm	8.99	350.15	3147.85 A
	Cost for 1.88 metre				36686.92
	Cost for 1.00 metre				19514.32
	Say				19514.30

19.14.2 With Sewer bricks conforming IS : 4885

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.36.1	Detail of cost of 1.88 m extra depth Brick work with modular extruded burnt fly ash clay sewer bricks (Conforming to IS: 4885) in cement mortar 1:4 (1 cement: 4 coarse sand) Rate as per item No 6.36.1 of SH : Brick Work	cum	5.26	6407.35	33702.66 A
	12 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Cost for 1.88 metre Cost for 1.00 metre Say	sqm	8.99	350.15	3147.85 A 36850.51 19601.33 19601.35

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	4500.00	108.00
9988	Carriage, painting, and other sundries	L.S.	1.82	2.00	3.64
	LABOUR for fabrication				
0103	Blacksmith 2nd class	day	0.10	679.00	67.90
0114	Beldar	day	0.10	558.00	55.80
	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	8025.00	32.10 A
	LABOUR for fixing M.S. foot rests				
0123	Mason (brick layer) 1st class	day	0.02	738.00	14.76
0124	Mason (brick layer) 2nd class	day	0.02	679.00	13.58
0114	Beldar	day	0.05	558.00	27.90
	TOTAL				323.68 W
	Add 1 % Water charges on "W-A"				2.92
	TOTAL				326.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				41.38
	TOTAL				367.97 Y
	Add 15% CPOH on "Y-A"				50.38
	TOTAL				418.35 Z
	Add Cess @ 1% on "Z-A"				3.86
	Cost for 1 no.				422.22
	Say				422.20

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 brass 20 mm dia 0.75 m @ 2.47kg/m = 0.018 q				
1003	Mild steel round bar above 12 mm dia	quintal	0.018	4400.00	79.20
9988	Carriage, painting, and other sundries	L.S.	1.82	2.00	3.64
	Labour for fabrication				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0103	Blacksmith 2nd class	day	0.10	679.00	67.90
0114	Beldar	day	0.10	558.00	55.80
4.2.5	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 Rate as per item no 4.2.5 of SH : Concrete work LABOUR	cum	0.004	8025.00	32.10 A
0123	Mason (brick layer) 1st class	day	0.02	738.00	14.76
0124	Mason (brick layer) 2nd class	day	0.02	679.00	13.58
0114	Beldar	day	0.05	558.00	27.90
	TOTAL				294.88 W
	Add 1 % Water charges on "W-A"				2.63
	TOTAL				297.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				37.29
	TOTAL				334.80 Y
	Add 15% CPOH on "Y-A"				45.40
	TOTAL				380.20 Z
	Add Cess @ 1% on "Z-A"				3.48
	Cost for 1 no.				383.68
	Say				383.70

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 ₹
7354	Details of cost for one no. MATERIAL Plastic encapsuled M.S. foot rest 30x20x15 cm	each	1.00	110.00	110.00
9988	Carriage and other sundries	L.S.	1.82	2.00	3.64
4.2.5	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) Rate as per item no 4.2.5 of SH : Concrete work LABOUR	cum	0.009	8025.00	72.23 A
0123	Mason (brick layer) 1st class	day	0.02	738.00	14.76
0124	Mason (brick layer) 2nd class	day	0.20	679.00	135.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.05	558.00	27.90
	TOTAL				364.33 W
	Add 1 % Water charges on "W-A"				2.92
	TOTAL				367.25 X
	Add GST on "X-A" (multiplying factor 0.1405)				41.45
	TOTAL				408.70 Y
	Add 15% CPOH on "Y-A"				50.47
	TOTAL				459.17 Z
	Add Cess @ 1% on "Z-A"				3.87
	Cost for 1 no.				463.04
	Say				463.05

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	4500.00	108.00
9988	Carriage,painting, and other sundries	L.S.	1.82	2.00	3.64
	Labour for fabrication				
0103	Blacksmith 2nd class	day	0.10	679.00	67.90
0114	Beldar	day	0.10	558.00	55.80
	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	8025.00	32.10 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	738.00	36.90
0124	Mason (brick layer) 2nd class	day	0.05	679.00	33.95
0114	Beldar	day	0.1	558.00	55.80
	TOTAL				394.09 W
	Add 1 % Water charges on "W-A"				3.62
	TOTAL				397.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				51.37
	TOTAL				449.08 Y
	Add 15% CPOH on "Y-A"				62.55
	TOTAL				511.62 Z
	Add Cess @ 1% on "Z-A"				4.80
	Cost for 1 no.				516.42
	Say				516.40

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				
1003	M.S. round bars 20 mm dia 0.75 m @ 2.47 kg/m =0.018 q	quintal	0.018	4400.00	79.20
9988	Mild steel round bar above 12 mm dia Carriage,painting, and other sundries	L.S.	1.82	2.00	3.64
	Labour for fabrication				
0103	Blacksmith 2nd class	day	0.10	679.00	67.90
0114	Beldar	day	0.10	558.00	55.80
	Cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)				
4.2.5	0.20x0.20x0.10 m = 0.004 cum				
	Rate as per item no 4.2.5 of SH : Concrete work	cum	0.004	8025.00	32.10 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	738.00	36.90
0124	Mason (brick layer) 2nd class	day	0.05	679.00	33.95
0114	Beldar	day	0.10	558.00	55.80
	TOTAL				365.29 W
	Add 1 % Water charges on "W-A"				3.33
	TOTAL				368.62 X
	Add GST on "X-A" (multiplying factor 0.1405)				47.28
	TOTAL				415.90 Y
	Add 15% CPOH on "Y-A"				57.57
	TOTAL				473.47 Z
	Add Cess @ 1% on "Z-A"				4.41
	Cost for 1 no.				477.89
	Say				477.90

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	2.00	14.30
	LABOUR				
0114	Beldar	day	0.12	558.00	66.96
	TOTAL				991.26 W
	Add 1 % Water charges on "W"				9.91
	TOTAL				1001.17 X
	Add GST on "X" (multiplying factor 0.1405)				140.66
	TOTAL				1141.84 Y
	Add 15% CPOH on "Y"				171.28
	TOTAL				1313.11 Z
	Add Cess @ 1% on "Z"				13.13
	Cost for 1 cover				1326.24
	Say				1326.25

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				
1357	MATERIAL 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	2.00	26.94
	LABOUR				
0114	Beldar	day	0.12	558.00	66.96
	TOTAL				2393.90 W
	Add 1 % Water charges on "W"				23.94
	TOTAL				2417.84 X
	Add GST on "X" (multiplying factor 0.1405)				339.71
	TOTAL				2757.55 Y
	Add 15% CPOH on "Y"				413.63
	TOTAL				3171.18 Z
	Add Cess @ 1% on "Z"				31.71
	Cost for 1 no.				3202.89
	Say				3202.90

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				
3861	MATERIAL 560 mm dia cover without frame (Heavy duty)	each	1.00	5000.00	5000.00
9977	Carriage of C.I. cover	L.S.	16.12	2.00	32.24
	LABOUR				
0114	Beldar	day	0.12	558.00	66.96
	TOTAL				5099.20 W
	Add 1 % Water charges on "W"				50.99
	TOTAL				5150.19 X
	Add GST on "X" (multiplying factor 0.1405)				723.60
	TOTAL				5873.79 Y
	Add 15% CPOH on "Y"				881.07
	TOTAL				6754.86 Z
	Add Cess @ 1% on "Z"				67.55
	Cost for 1 no.				6822.41
	Say				6822.40

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7130	Rectangular shape 600x450 mm precast R.C.C. manhole cover with frame - L.D. - 2.5	each	1.00	675.00	675.00
	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	6788.60	271.54 A
9977	Carriage of R.C.C cover with frame	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				987.10 W
	Add 1 % Water charges on "W-A"				7.16
	TOTAL				994.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				101.54
	TOTAL				1095.80 Y
	Add 15% CPOH on "Y-A"				123.64
	TOTAL				1219.44 Z
	Add Cess @ 1% on "Z-A"				9.48
	Cost for 1 no.				1228.92
	Say				1228.90

19.19.1.2 Square shape 450 mm internal dimensions

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7131	Details of cost for one no. MATERIAL				
	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	2.00	13.52
	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	6788.60	203.66 A
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				819.22 W
	Add 1 % Water charges on "W-A"				6.16
	TOTAL				825.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				87.35
	TOTAL				912.72 Y
	Add 15% CPOH on "Y-A"				106.36
	TOTAL				1019.08 Z
	Add Cess @ 1% on "Z-A"				8.15
	Cost for 1 no.				1027.24
	Say				1027.25

19.19.1.3 Circular shape 450 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7132	Details of cost for one no. MATERIAL 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 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) $3.14/4 \times (0.775)^2 \times 0.15 = 0.0708$ cum Less cover with frame $3.14/4 \times (0.625)^2 \times 0.15 = (-) 0.0460$ cum = 0.0248 cum Say 0.03 cum	L.S.	6.76	2.00	13.52
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	6788.60	203.66 A
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				819.22 W
	Add 1 % Water charges on "W-A"				6.16
	TOTAL				825.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				87.35
	TOTAL				912.72 Y
	Add 15% CPOH on "Y-A"				106.36
	TOTAL				1019.08 Z
	Add Cess @ 1% on "Z-A"				8.15
	Cost for 1 no.				1027.24
	Say				1027.25

19.19.2 M D - 10

19.19.2.1 Square shape 450 mm internal dimension

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7133	Details of cost for one no. MATERIAL 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 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) $0.95 \times 0.95 \times 0.15 = 0.1354$ cum Less cover with frame $0.80 \times 0.80 \times 0.15 = (-) 0.096$ cum = 0.0394 cum Say 0.04 cum	L.S.	6.76	2.00	13.52
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.04	6788.60	271.54 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	16.64	2.00	33.28
	TOTAL				988.34 W
	Add 1 % Water charges on "W-A"				7.17
	TOTAL				995.51 X
	Add GST on "X-A" (multiplying factor 0.1405)				101.72
	TOTAL				1097.23 Y
	Add 15% CPOH on "Y-A"				123.85
	TOTAL				1221.08 Z
	Add Cess @ 1% on "Z-A"				9.50
	Cost for 1 no.				1230.58
	Say				1230.60

19.19.2.2 Circular shape 500 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7134	Details of cost for one no. MATERIAL 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 Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size) $3.14/4 \times (0.95)^2 \times 0.15 = 0.1064$ cum Less cover with frame $3.14/4 \times (0.8)^2 \times 0.15 = (-) 0.0754$ cum = 0.031 cum Say 0.03 cum	L.S.	6.76	2.00	13.52
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	6788.60	203.66 A
9999	Sundries	L.S.	16.64	2.00	33.28
	TOTAL				825.46 W
	Add 1 % Water charges on "W-A"				6.22
	TOTAL				831.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				88.24
	TOTAL				919.91 Y
	Add 15% CPOH on "Y-A"				107.44
	TOTAL				1027.35 Z
	Add Cess @ 1% on "Z-A"				8.24
	Cost for 1 no.				1035.59
	Say				1035.60

19.19.3 H D - 20

19.19.3.1 Circular shape 560 mm internal diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7135	Details of cost for one no. MATERIAL 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) $3.14/4 \times (1.05)^2 \times 0.15 = 0.1299$ cum Less cover with frame $3.14/4 \times (0.9)^2 \times 0.15 = (-) 0.0955$ cum = 0.0344 cum Say 0.03 cum	L.S.	13.52	2.00	27.04
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	6788.60	203.66 A
9999	Sundries	L.S.	20.28	2.00	40.56
	TOTAL				1151.26 W
	Add 1 % Water charges on "W-A"				9.48
	TOTAL				1160.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				134.47
	TOTAL				1295.20 Y
	Add 15% CPOH on "Y-A"				163.73
	TOTAL				1458.93 Z
	Add Cess @ 1% on "Z-A"				12.55
	Cost for 1 no.				1471.49
	Say				1471.50

19.19.4 EHD - 35

19.19.4.1 Circular shape 560 mm internal dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7136	Details of cost for one no. MATERIAL 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) $3.14/4 \times (1.05)^2 \times 0.15 = 0.1299$ cum Less cover with frame $3.14/4 \times (0.9)^2 \times 0.15 = (-) 0.0955$ cum = 0.0344 cum Say 0.03 cum	L.S.	13.52	2.00	27.04
4.1.3	Rate as per item no. 4.1.3 of SH : Concrete Work	cum	0.03	6788.60	203.66 A
9999	Sundries	L.S.	20.28	2.00	40.56
	TOTAL				1441.26 W
	Add 1 % Water charges on "W-A"				12.38
	TOTAL				1453.63 X
	Add GST on "X-A" (multiplying factor 0.1405)				175.62
	TOTAL				1629.26 Y
	Add 15% CPOH on "Y-A"				213.84
	TOTAL				1843.10 Z
	Add Cess @ 1% on "Z-A"				16.39
	Cost for 1 no.				1859.49
	Say				1859.50

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 ₹
1353	Details of cost for one cover MATERIAL 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	2.00	5.40
0114	LABOUR Beldar	day	0.03	558.00	16.74
	TOTAL				499.14 W
	Add 1 % Water charges on "W"				4.99
	TOTAL				504.13 X
	Add GST on "X" (multiplying factor 0.1405)				70.83
	TOTAL				574.96 Y
	Add 15% CPOH on "Y"				86.24
	TOTAL				661.21 Z
	Add Cess @ 1% on "Z"				6.61
	Cost for 1 cover				667.82
	Say				667.80

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 ₹
4.1.3	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 = 1/2x3.14x0.23x0.23x 0.23 = 0.0096 cum = 0.0111 cum Say 0.01 cum Rate as per item no. 4.1.3 of SH : Concrete	cum	0.01	6788.60	67.89 A
13.9.1	12 mm cement plater 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement 2x0.35x0.35 =0.25sqm Rate as per item no 13.9.1 of SH : Finishing	sqm	0.25	350.15	87.54 A
0123	LABOUR (For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.) Mason (brick layer) 1st class	day	0.12	738.00	88.56
0124	Mason (brick layer) 2nd class	day	0.12	679.00	81.48

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.25	558.00	139.50
9999	Add for delay sundries etc.	L.S.	20.15	2.00	40.30
	TOTAL				505.26 W
	Add 1 % Water charges on "W-A"				3.50
	TOTAL				508.76 X
	Add GST on "X-A" (multiplying factor 0.1405)				49.64
	TOTAL				558.41 Y
	Add 15% CPOH on "Y-A"				60.45
	TOTAL				618.85 Z
	Add Cess @ 1% on "Z-A"				4.63
	Cost for 1 connection				623.49
	Say				623.50

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	6788.60	135.77 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	350.15	112.05 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	738.00	88.56
0124	Mason (brick layer) 2nd class	day	0.12	679.00	81.48
0114	Beldar	day	0.25	558.00	139.50
9999	Add for delay sundries etc.	L.S.	20.67	2.00	41.34
	TOTAL				598.70 W
	Add 1 % Water charges on "W-A"				3.51
	TOTAL				602.21 X
	Add GST on "X-A" (multiplying factor 0.1405)				49.79
	TOTAL				652.00 Y
	Add 15% CPOH on "Y-A"				60.63
	TOTAL				712.63 Z
	Add Cess @ 1% on "Z-A"				4.65
	Cost for 1 connection				717.28
	Say				717.30

19.21.3 For pipes 350 to 450 mm diameter

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.1.3	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 = 1/2x3.14x0.45x0.45x0.30 = 0.048 cum = 0.027 cum Say 0.03 cum Rate as per item no. 4.1.3 of SH : Concrete Work 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	cum	0.03	6788.60	203.66 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing LABOUR (For cutting holes average size 30x30 cm in 23 cm thick wall and making channel etc.)	sqm	0.60	350.15	210.09 A
0123	Mason (brick layer) 1st class	day	0.16	738.00	118.08
0124	Mason (brick layer) 2nd class	day	0.16	679.00	108.64
0114	Beldar	day	0.33	558.00	184.14
9999	Add for delay sundries etc.	L.S.	26.91	2.00	53.82
	TOTAL				878.43 W
	Add 1 % Water charges on "W-A"				4.65
	TOTAL				883.07 X
	Add GST on "X-A" (multiplying factor 0.1405)				65.94
	TOTAL				949.02 Y
	Add 15% CPOH on "Y-A"				80.29
	TOTAL				1029.31 Z
	Add Cess @ 1% on "Z-A"				6.16
	Cost for 1 connection				1035.46
	Say				1035.45

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 ₹
1617	Details of cost for one drop connection MATERIAL S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia = 38+30+33 =101 cm say 1 metre Length of pipe = 1m. Hence, Qty = 1 /1.8 =0.55556 Nos	each	0.55556	1135.00	630.56
9977	Carriage of pipe Cutting charges	L.S.	1.43	2.00	2.86
18.83.2	Rate as per item no 18.83.2 of SH: Water supply	each cut	3.00	146.00	438.00 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	258.00	258.00
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	1.00	360.00	360.00
6.1.1	Brick work in cement mortar 1:4 (1 cement : 4 coarse sand) 0.20x0.20x0.23 = 0.009 cum Less pipe 1/2x3.14x0.10x0.10x 0.23 = 0.002 cum Net Qty= 0.009 - 0.002 = 0.007 cum 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) 0.40x0.45x1.05 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	cum	0.007	6376.25	44.63 A
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work 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	0.21	5225.15	1097.28 A
13.9.1	Rate as per item no 13.9.1 of SH : Finishing Providing lead caulked joints to 100 mm diameter pipe and special	sqm	0.06	350.15	21.01 A
12.39.1	Rate as per item no. 12.39.1 of SH : Roofing	each	4.00	421.15	1684.60 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	2.00	53.82
5.9.2	Form work 1.30x1.05 m = 1.36 sqm	sqm	1.36	609.30	828.65 A
9988	Rate as per item no 5.9.2 of SH : RCC Sundries including carriage of bends etc. LABOUR	L.S.	26.91	2.00	53.82
	For cutting holes 5 cm deep in alternate course of brick work benching and channel				
0123	Mason (brick layer) 1st class	day	0.70	738.00	516.60
0124	Mason (brick layer) 2nd class	day	0.70	679.00	475.30
0114	Beldar	day	2.70	558.00	1506.60
	TOTAL				8015.73 W
	Add 1 % Water charges on "W-A"				39.02
	TOTAL				8054.75 X
	Add GST on "X-A" (multiplying factor 0.1405)				553.65
	TOTAL				8608.40 Y
	Add 15% CPOH on "Y-A"				674.13
	TOTAL				9282.53 Z
	Add Cess @ 1% on "Z-A"				51.68
	Cost of one drop connection				9334.22
	Say				9334.20

19.22.2 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1618	Details of cost for one drop connection MATERIAL 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	2.00	3.64
18.83.4	Cutting charges				
	Rate as per item no 18.83.4 of SH Water Supply	each cut	3.00	274.35	823.05 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	460.00	460.00
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 1/2x3.14x0.15x0.15x 0.23 = 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	6376.25	31.88 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	5225.15	1463.04 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	350.15	21.01 A
12.39.2	Rate as per item no. 12.39.2 of SH : Roofing	each	4.00	575.95	2303.80 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	2.00	79.82
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.67	609.30	1017.53 A
9988	Sundries including carriage of bends etc. LABOUR For cutting holes 45 holes 5 cm deep toothing in alternate course of brick work benching and making channel	L.S.	34.06	2.00	68.12
0123	Mason (brick layer) 1st class	day	0.85	738.00	627.30
0124	Mason (brick layer) 2nd class	day	0.85	679.00	577.15
0114	Beldar	day	3.50	558.00	1953.00
	TOTAL				11021.57 W
	Add 1 % Water charges on "W-A"				53.61
	TOTAL				11075.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				760.79
	TOTAL				11835.98 Y
	Add 15% CPOH on "Y-A"				926.35
	TOTAL				12762.32 Z
	Add Cess @ 1% on "Z-A"				71.02
	Cost of one drop connection				12833.34
	Say				12833.35

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 ₹
1617	Details of cost for one metre MATERIAL S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia Length of pipe = 1m. Hence, Qty = 1 / 1.8 = 0.55556 Nos.	each	0.55556	1135.00	630.56
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) 0.40x0.45x1.00 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	L.S.	13.39	2.00	26.78
4.1.11	Rate as per item no 4.1.11 of SH : Concrete Work Form work 1.30x1.00 m = 1.30 sqm	cum	0.16	5225.15	836.02 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.30	609.30	792.09 A
9999	Sundries LABOUR For cutting holes 5 cm deep in alternate course of brick work	L.S.	7.15	2.00	14.30
0123	Mason (brick layer) 1st class	day	0.04	738.00	29.52
0124	Mason (brick layer) 2nd class	day	0.04	679.00	27.16
0114	Beldar	day	0.04	558.00	22.32
	TOTAL				2378.75 W
	Add 1 % Water charges on "W-A"				7.51
	TOTAL				2386.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				106.52
	TOTAL				2492.78 Y
	Add 15% CPOH on "Y-A"				129.70
	TOTAL				2622.48 Z
	Add Cess @ 1% on "Z-A"				9.94
	Cost of one metre				2632.42
	Say				2632.40

19.23.2 For 150 mm dia sand cast iron drop connection

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1618	Details of cost for one metre MATERIAL 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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 m = 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	2.00	26.78
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	5225.15	1045.03 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	1.45	609.30	883.49 A
9999	Sundries LABOUR For cutting 5 cm deep in alternate course of brick work	L.S.	8.09	2.00	16.18
0123	Mason (brick layer) 1st class	day	0.05	738.00	36.90
0124	Mason (brick layer) 2nd class	day	0.05	679.00	33.95
0114	Beldar	day	0.05	558.00	27.90
	TOTAL				3042.46 W
	Add 1 % Water charges on "W-A"				11.14
	TOTAL				3053.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				158.07
	TOTAL				3211.67 Y
	Add 15% CPOH on "Y-A"				192.47
	TOTAL				3404.14 Z
	Add Cess @ 1% on "Z-A"				14.76
	Cost of one metre				3418.90
	Say				3418.90

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 ₹
15.2.2	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 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)	cum	0.43	1072.80	461.30 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.7.4	4.32x0.23x0.35 m = 0.348 cum Less for pipe 2x3.14x(0.15m) ² x 0.23m = (-) 0.008 cum Net Qty 0.348 - 0.008 = 0.340 cum Rate as per item no. 15.7.4 of SH :dismantling and demolishing 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	1469.90	499.77 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	1737.45	277.99 A
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.22	2534.70	557.63 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.00	14.30
	TOTAL				1811.00 W
	Add 1 % Water charges on "W-A"				0.14
	TOTAL				1811.14 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.03
	TOTAL				1813.17 Y
	Add 15% CPOH on "Y-A"				2.47
	TOTAL				1815.64 Z
	Add Cess @ 1% on "Z-A"				0.19
	Cost of one no				1815.83
	Say				1815.85

19.24.2 Rectangular manhole 120x90 cm and 90 cm deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.2	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 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	cum	0.55	1072.80	590.04 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.7.4	Less for pipe $2 \times 3.14 \times (0.15\text{m})^2 \times 0.23\text{ m} = (-) 0.008\text{ cum}$ Net qty = 0.934 cum Say 0.93 cum Rate as per item no. 15.7.4 of SH :dismantling and demolishing Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) $2 \times 1.20 \times 0.90 \times (0.80/2) \times (0.30 + 0.20)/2 = 2.70\text{ cum}$ Less for pipe $1.20 \times 3.14/4 \times (0.15\text{m})^2 = (-) 0.021\text{ cum}$ = 0.249 cum say 0.25	cum	0.93	1469.90	1367.01 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 : $1.66 \times 1.36 \times 0.15\text{m} = 0.339\text{ cum}$ Less for cover $3.14/4 \times (0.50)^2 \times 0.15\text{m} = (-) 0.029\text{ cum}$ Net qty = 0.31 cum	cum	0.25	1737.45	434.36 A
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling	cum	0.31	2534.70	785.76 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.00	14.30
	TOTAL				3191.47 W
	Add 1 % Water charges on "W-A"				0.14
	TOTAL				3191.61 X
	Add GST on "X-A" (multiplying factor 0.1405)				2.03
	TOTAL				3193.64 Y
	Add 15% CPOH on "Y-A"				2.47
	TOTAL				3196.11 Z
	Add Cess @ 1% on "Z-A"				0.19
	Cost of one no				3196.30
	Say				3196.30

19.24.3 Rectangular arch type manhole 140x90 cm and 2.45 m deep

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.2	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) $2.16\text{m} \times 1.66\text{m} \times 0.20\text{m} = 0.72\text{ cum}$ 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 $5.52\text{m} \times 0.23\text{m} \times 1.20\text{m} = 1.524\text{ cum}$ $3.92\text{m} \times 0.23\text{m} \times 1.15\text{m} = 1.037\text{ cum} = 2.561\text{ cum}$	cum	0.72	1072.80	772.42 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.7.4	Deduct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.25 \times 0.23 \times 0.1 \text{ m} = 0.018 \text{ cum}$ $2 \times 3.14 \times \frac{1}{4} \times (0.15)^2 \times 0.23 \text{ m} = 0.008 \text{ cum}$ $= (-) 0.026 \text{ cum}$ Net qty = $2.561 - 0.026 = 2.535 \text{ cum}$ Say 2.54 cum Brick work in arch $\frac{1}{2} \times 3.14 \times 1.13 \times 0.80 \times 0.23 \text{ m} = 0.327 \text{ cum}$ $2 \times \frac{1}{2} \times 3.14 \times 0.25 \times 0.23 \times 0.1 \text{ m}$ $= 0.018 \text{ cum}$ $= 0.345 \text{ cum}$ Say 0.35 cum Net qty = $2.54 + 0.35 = 2.89 \text{ cum}$ Rate as per item no. 15.7.4 of SH :dismantling and demolishing Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) $2 \times 1.4 \times 0.90 / 2 \times (0.20 + 0.30) / 2 = 0.315 \text{ cum}$ Less pipe $1.4 \times 3.14 / 4 \times (0.15)^2$ $= (-) 0.025 \text{ cum}$ Net qty = 0.290 cum 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) $1.36 \text{ m} \times 1.06 \text{ m} \times 0.15 = 0.216 \text{ cum}$ Less cover $3.14 / 4 \times (0.50)^2 \times 0.15 \text{ m}$ $= (-) 0.029 \text{ cum}$ $= 0.187 \text{ cum}$ Say 0.19 cum Rate as per item no 15.3 of SH : Demolishing and dismantling Removal of C.I. Cover with frame Removal of M.S foot rest 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 no Say	cum	2.89	1469.90	4248.01 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) $1.36 \text{ m} \times 1.06 \text{ m} \times 0.15 = 0.216 \text{ cum}$ Less cover $3.14 / 4 \times (0.50)^2 \times 0.15 \text{ m}$ $= (-) 0.029 \text{ cum}$ $= 0.187 \text{ cum}$ Say 0.19 cum Rate as per item no 15.3 of SH : Demolishing and dismantling Removal of C.I. Cover with frame Removal of M.S foot rest 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 no Say	cum	0.29	1737.45	503.86 A
15.3	Rate as per item no 15.3 of SH : Demolishing and dismantling Removal of C.I. Cover with frame Removal of M.S foot rest 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 no Say	cum	0.19	2534.70	481.59 A
9999	Removal of C.I. Cover with frame	L.S.	7.15	2.00	14.30
9999	Removal of M.S foot rest	L.S.	8.06	2.00	16.12
	TOTAL				6036.30 W
	Add 1 % Water charges on "W-A"				0.30
	TOTAL				6036.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.32
	TOTAL				6040.92 Y
	Add 15% CPOH on "Y-A"				5.26
	TOTAL				6046.18 Z
	Add Cess @ 1% on "Z-A"				0.40
	Cost of one no				6046.58
	Say				6046.60

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)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.1	1.98x1.98x0.30 m = 1.178 cum Say 1.18 cum 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 $3.14 \times 1.45 \times 0.24 \times 0.23 = 0.251$ $3.14 \times (1.45 + 0.79) / 2 \times 1.32 \times 0.23 = 1.069$ $= 1.320$ Duct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.25 \times 0.23 \times 0.10 \text{ m} =$ 0.018 cum $2 \times 3.14 / 4 \times (0.15)^2 \times 0.23 = 0.008 \text{ cum}$ $= 0.026 \text{ cum}$ Net quantity $1.320 - 0.026 = 1.294$ Say 1.29 cum Brick work in arches $2 \times 1/2 \times 3.14 \times 0.25 \text{ m} \times 0.230 \times 0.10 \text{ m}$ $= 0.018 \text{ cum}$ Say 0.02 cum Total = $1.294 + 0.02 = 1.1.314 \text{ cum.}$ Say 1.131 cum	cum	1.18	1737.45	2050.19 A
15.7.4	Rate as per item no. 15.7.4 of SH : dismantling and demolishing Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) For benching : $3.14 / 4 \times (1.22)^2 \times 0.20 = 0.234 \text{ cum}$ $[(2 \times 8.133) / 360] \times (4/3) \times 3.14 \times (0.61)^3$ Total = 0.043 cum $0.024 + 0.043 = 0.277 \text{ cum}$ Less pipe : $1.22 \times 3.14 / 4 \times (0.15)^2 =$ $(-) 0.0216 \text{ cum}$ Net Qty. = $0.277 - 0.0216 = 0.26 \text{ cum}$ In cover fixing $0.7854 \times 1.020 \times 1.020 \times$ $0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} :$ $= (-) 0.037 \text{ cum}$ $= 0.086 \text{ cum}$ Say 0.09 cum Total = $0.26 + 0.09 = 0.35 \text{ cum}$	cum	1.31	1469.90	1925.57 A
15.2.1	Rate as per item no 15.2.1 of	cum	0.35	1737.45	608.11 A
9999	SH : Demolishing and dismantling				
9999	Removal of S.F.R.C cover with frame	L.S.	7.15	2.00	14.30
9999	size 560 mm diameter (medium duty)	L.S.	8.06	2.00	16.12
	Removal of M.S. foot rests				
	TOTAL				4614.29 W
	Add 1 % Water charges on "W-A"				0.30
	TOTAL				4614.59 X
	Add GST on "X-A" (multiplying				
	factor 0.1405)				4.32
	TOTAL				4618.91 Y
	Add 15% CPOH on "Y-A"				5.26
	TOTAL				4624.16 Z
	Add Cess @ 1% on "Z-A"				0.40
	Cost of one no				4624.57
	Say				4624.55

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 ₹
15.7.4	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 Rate as per item no. 15.7.4 of SH :dismantling and demolishing	cum	0.99	1469.90	1455.20 A
9999	Removing of M.S. foot rests	L.S.	1.82	2.00	3.64
	TOTAL				1458.84 W
	Add 1 % Water charges on "W-A"				0.04
	TOTAL				1458.88 X
	Add GST on "X-A" (multiplying factor 0.1405)				0.52
	TOTAL				1459.39 Y
	Add 15% CPOH on "Y-A"				0.63
	TOTAL				1460.02 Z
	Add Cess @ 1% on "Z-A"				0.05
	Cost for one metre				1460.07
	Say				1460.05

19.25.2 Rectangular manhole 120x90 cm and beyond 90 cm depth

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.7.4	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 Rate as per item no. 15.7.4 of SH :dismantling and demolishing	cum	1.18	1469.90	1734.48 A
9999	Removing of M.S. foot rests	L.S.	1.82	2.00	3.64
	TOTAL				1738.12 W
	Add 1 % Water charges on "W-A"				0.04
	TOTAL				1738.16 X
	Add GST on "X-A" (multiplying factor 0.1405)				0.52
	TOTAL				1738.67 Y
	Add 15% CPOH on "Y-A"				0.63
	TOTAL				1739.30 Z
	Add Cess @ 1% on "Z-A"				0.05
	Cost for one metre				1739.35
	Say				1739.35

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 ₹
15.7.4	<p>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 $5.52\text{m} \times 0.23\text{m} \times 1.20\text{m} = 1.524 \text{ cum}$ $3.92\text{m} \times 0.23\text{m} \times 1.15\text{m} = 1.037 \text{ cum}$ Total = 2.561 cum Deduct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.25\text{m} \times 0.23 \times 0.1\text{m} = 0.018 \text{ cum}$ $2 \times 3.14 / 4 \times (0.15)^2 \times 0.23\text{m} = 0.008 \text{ cum}$ Total deduction = (-) 0.026 cum Net 2.561 - 0.026 = 2.535 cum Say 2.54 cum Qty in arch $\frac{1}{2} \times 3.14 \times 1.13 \times 0.80 \times 0.23\text{m} = 0.327 \text{ cum}$ $2 \times \frac{1}{2} \times 3.14 \times 0.25\text{m} \times 0.23 \times 0.1\text{m} = 0.018 \text{ cum}$ Total = 0.345 cum Say 0.35 cum Total for 4.45 m depth 2.54 + 0.35 = 2.89 cum Qty for 4.25m depth $5.52\text{m} \times 0.23\text{m} \times 1.20\text{m} = 1.524 \text{ cum}$ $3.92\text{m} \times 0.23\text{m} \times 2.95\text{m} = 2.660 \text{ cum}$ Total = 4.184 cum Deduct arch ring and portion of pipe $2 \times \frac{1}{2} \times 3.14 \times 0.70\text{m} \times 0.23 \times 0.1\text{m} = 0.051 \text{ cum}$ $2 \times 3.14 / 4 \times (0.60)^2 \times 0.23 = 0.130 \text{ cum}$ Total deduction = (-) 0.181 cum Net 4.184 - 0.181 = 4.003 cum Say 4.00 cum Qty in arch $\frac{1}{2} \times 3.14 \times 1.13 \times 0.80 \times 0.23\text{m} = 0.327 \text{ cum}$ $2 \times \frac{1}{2} \times 3.14 \times 0.70\text{m} \times 0.23 \times 0.1\text{m} = 0.051 \text{ cum}$ 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 Rate as per item no. 15.7.4 of SH :dismantling and demolishing Dismantling cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size) Qty for 4.25m depth $2 \times 1.4 \times (0.90/2) \times (0.65 + 0.75)/2 = 0.882 \text{ cum}$ Less pipe : $1.4 \times 3.14 / 4 \times (0.60)^2 \times (-) = 0.396 \text{ cum}$ = 0.486 cum Say 0.49 cum</p>	cum	1.49	1469.90	2190.15 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.1	Qty for 2.45m depth $2 \times 1.4 \times (0.90/2) \times (0.20 + 0.30)/2$ = 0.315 cum Less pipe : $1.4 \times 3.14/4 \times (0.15)^2 (-)$ = 0.025 cum = 0.290 cum Say 0.29 cum Net difference = 0.49 - 0.29 = 0.20 cum 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	1737.45	347.49 A 2537.64 1409.80 1409.80

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 ₹
15.2.1	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) $1.98 \times 1.98 \times 0.30 = 1.178$ cum. Say 1.18 cum. (Rate as per item No.15.2.1 of SH. dismantling and Demolishing)	cum	1.18	1737.45	2050.19 A
15.7.4	Dismantling IInd class brick work in cement mortar 1:4 (1 Cement : 4 Coarse sand) Curved on plan $3.14 \times 1.45 \times 0.85 \times 0.23 = 0.891$ $3.14 \times (1.45 + 0.79)/2 \times 1.32 \times 0.23 = 1.069$ Total = 0.891 + 1.069 = 1.96 cum Duct arch ring and portion of pipe $2 \times 1/2 \times 3.14 \times 0.25 \times 0.23 \times 0.10$ m = 0.018 cum $2 \times 3.14/4 \times (0.15)^2 \times 0.23 = 0.008$ cum Total deduction = 0.026 cum Net quantity 1.96 - 0.026 = 1.934 Say 1.93 cum Qty in arch $2 \times 1/2 \times 3.14 \times 0.25$ m $\times 0.23 \times 0.10$ m = 0.018 cum Say 0.02 cum Total = 1.93 + 0.02 = 1.97 cum Rate as per item no 15.7.4 of SH : Dismantling and demolishing Dismantling cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size For benching : $3.14/4 \times (1.22)^2 \times 0.20 = 0.234$ cum $[(2 \times 8.133)/360] \times (4/3) \times 3.14 \times (0.61)^3$ = 0.043 cum = 0.277 cum	cum	1.97	1469.90	2895.70 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.2.1	Less pipe : $1.22 \times 3.14 / 4 \times (0.15)^2 (-)$ = 0.0216 cum Net qty = 0.2554 cum Say 0.26 cum For fixing cover : $3.14 / 4 \times d^2 \times \text{thickness}$ $0.7854 \times 1.020 \times 1.020 \times 0.15 \text{ m} = 0.123 \text{ cum}$ Less cover $3.14 / 4 \times (0.28)^2 \times 0.15 \text{ m} :$ = (-) 0.037 cum Net qty = 0.086 cum Say 0.09 cum Total = 0.26 + 0.09 = 0.35 cum				
9999	Rate as per item no 15.2.1 of SH : Dismantling	cum	0.35	1737.45	608.11 A
9999	Removal of SFRC cover	L.S.	7.15	2.00	14.30
9999	Removal of M.S. foot rests	L.S.	8.09	2.00	16.18
19.24.4	Deduct cost of dismantling manhole 1.68m deep Rate as per Item No.19.24.4 of SH: DRAINAGE	each	-1.00	4624.55	-4624.55 A
	TOTAL				959.93 W
	Add 1 % Water charges on "W-A"				0.30
	TOTAL				960.24 X
	Add GST on "X-A" (multiplying factor 0.1405)				4.33
	TOTAL				964.56 Y
	Add 15% CPOH on "Y-A"				5.27
	TOTAL				969.83 Z
	Add Cess @ 1% on "Z-A"				0.40
	Cost of manhole 0.61m depth				970.23
	Cost per metre depth				1590.54
	Say				1590.55

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 ₹
15.3	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) = $1.36 \times 1.26 \times 0.15 = 0.257 \text{ cum}$ Less cover with frame portion $0.85 \times 0.70 \times 0.15 = (-) 0.089 \text{ cum}$ Net qty = 0.168 cum Say 0.17 cum Rate as per item no. 15.3 of SH : Dismantling and demolishing				
9999	Removal of R.C.C cover and frame	cum	0.17	2534.70	430.90 A
	Removal of R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	L.S.	7.15	2.00	14.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.3	For raised slab = $1.36 \times 1.26 \times 0.15$ = 0.257 cum Less portion cover with frame = $0.85 \times 0.70 \times 0.15$ = (-) 0.089 cum Net qty = 0.168 cum Say 0.17 cum Rate as per item no. 5.3 of SH : RCC work	cum	0.17	9763.80	1659.85 A
5.9.3	Form work = 0.90×0.80 = 0.72 sqm Less cover = 0.60×0.45 = (-) 0.27 sqm Net qty = 0.45 sqm Rate as per item no 5.9.3 of SH : RCC work	sqm	0.45	693.05	311.87 A
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				2443.96 W
	Add 1 % Water charges on "W-A"				0.41
	TOTAL				2444.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				5.87
	TOTAL				2450.24 Y
	Add 15% CPOH on "Y-A"				7.14
	TOTAL				2457.38 Z
	Add Cess @ 1% on "Z-A"				0.55
	Cost of one no				2457.93
	Say				2457.95

19.26.2 Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.3	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) $1.66 \times 1.36 \times 0.15$ = 0.339 cum Less for R.C.C cover with frame $3.14/4 \times (0.80)^2 \times 0.15$ = (-) 0.075 cum Net qty 0.264 cum Say 0.26 cum Rate as per item no. 15.3 of SH : Dismantling and demolishing	cum	0.26	2534.70	659.02 A
9999	Removal of R.C.C cover and frame R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) $1.66 \times 1.36 \times 0.15$ = 0.339 cum Less portion cover with frame = $3.14/4 \times 0.80 \times 0.80 \times 0.15$ = (-) 0.075 cum Net qty= 0.264 cum Say 0.26 cum Rate as per item no 5.3 of SH : RCC Work	L.S.	7.15	2.00	14.30
5.3	Form work = 1.2×0.90 = 1.08 sqm Less cover = $3.14/4 \times (0.50)^2$ = (-) 0.196 sqm Net qty= 0.884 sqm Say .88 sqm Rate as per item no 5.9.3 of SH : RCC work	cum	0.26	9763.80	2538.59 A
5.9.3		sqm	0.88	693.05	609.88 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	16.64	2.00	33.28
	TOTAL				3855.07 W
	Add 1 % Water charges on "W-A"				0.48
	TOTAL				3855.55 X
	Add GST on "X-A" (multiplying factor 0.1405)				6.75
	TOTAL				3862.30 Y
	Add 15% CPOH on "Y-A"				8.22
	TOTAL				3870.52 Z
	Add Cess @ 1% on "Z-A"				0.63
	Cost of one no				3871.15
	Say				3871.15

19.26.3 Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.3	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) $1.66 \times 1.36 \times 0.15 = 0.339$ cum Less for R.C.C cover with frame $3.14/4 \times (0.90)^2 \times 0.15 = (-) 0.095$ cum Net qty 0.244 cum Say 0.24 cum Rate as per item no 15.3 of	cum	0.24	2534.70	608.33 A
9999	SH : Dismantling and demolishing Removal of R.C.C cover and frame R.C.C work 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) $1.66 \times 1.36 \times 0.15 = 0.339$ cum Less portion cover with frame = $3.14/4 \times 0.90 \times 0.90 \times 0.15 = (-) 0.095$ cum Net qty= 0.244 cum Say 0.24 cum Rate as per item no 5.3 of	L.S.	7.15	2.00	14.30
5.3	SH : RCC Work Form work = $1.2 \times 0.90 = 1.08$ sqm Less cover = $3.14/4 \times (0.56)^2 = (-) 0.246$ sqm Net qty= 0.834 sqm Say .83 sqm Rate as per item no 5.9.3 of	cum	0.24	9763.80	2343.31 A
5.9.3	SH : RCC work	sqm	0.83	693.05	575.23 A
9999	Sundries	L.S.	20.28	2.00	40.56
	TOTAL				3581.73 W
	Add 1 % Water charges on "W-A"				0.55
	TOTAL				3582.28 X
	Add GST on "X-A" (multiplying factor 0.1405)				7.78
	TOTAL				3590.07 Y
	Add 15% CPOH on "Y-A"				9.48
	TOTAL				3599.54 Z
	Add Cess @ 1% on "Z-A"				0.73
	Cost of one no				3600.27
	Say				3600.25

19.26.4 Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
15.3	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) $= 3.14/4 \times (0.985)^2 \times 0.15 = 0.114$ cum Less cover $= 3.14/4 \times (0.90)^2 \times 0.15 =$ (-) 0.095 cum Net qty= 0.019 cum Say 0.02 cum Rate as per item no. 15.3 of	cum	0.02	2534.70	50.69 A
9999	SH : Dismantling and demolishing Removal of R.C.C cover and frame C.C work 1:2:4 (1 cement : 2 coarse sand 4 graded stone aggregate 20 mm nominal size) $3.14/4 \times (0.985)^2 \times 0.15 = 0.114$ cum Less portion cover with frame $= 3.14/4 \times$ $(0.90)^2 \times 0.15 = (-) 0.095$ cum Net qty= 0.019 cum Say 0.02 cum Rate as per item no 4.2.3 of	L.S.	8.06	2.00	16.12
4.2.3	SH : Concrete Work	cum	0.02	8554.50	171.09 A
9999	Sundries	L.S.	20.28	2.00	40.56
	TOTAL				278.46 W
	Add 1 % Water charges on "W-A"				0.57
	TOTAL				279.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.04
	TOTAL				287.07 Y
	Add 15% CPOH on "Y-A"				9.79
	TOTAL				296.87 Z
	Add Cess @ 1% on "Z-A"				0.75
	Cost of one no				297.62
	Say				297.60

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 ₹
4.1.11	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) $1.11 \text{ m} \times 1.06 \text{ m} \times 0.15 \text{ m} = 0.176$ cum Say 0.18 cum Rate as per item no 4.1.11 of SH : Concrete Work Brick work in bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) $2.82 \text{ m} \times 0.23 \text{ m} \times 0.45 \text{ m} = 0.29$ cum	cum	0.18	5225.15	940.53 A

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 : 1.90x0.45 m = 0.855 sqm Bed : 0.45x0.50 m = 0.225 sqm Total= 1.080 sqm	cum	0.29	6376.25	1849.11 A
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) 2.82x0.23x0.15 m = 0.097 cum Say 0.10 cum	sqm	1.08	350.15	378.16 A
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Form work 3.50x0.15 m = 0.525 sqm Say 0.53 sqm	cum	0.10	8554.50	855.45 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.53	609.30	322.93 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	2.00	14.30
9999	Fixing R.C.C. grating	L.S.	5.33	2.00	10.66
	TOTAL				4991.14 W
	Add 1 % Water charges on "W-A"				6.45
	TOTAL				4997.59 X
	Add GST on "X-A" (multiplying factor 0.1405)				91.52
	TOTAL				5089.11 Y
	Add 15% CPOH on "Y-A"				111.44
	TOTAL				5200.55 Z
	Add Cess @ 1% on "Z-A"				8.54
	Cost of one chamber				5209.10
	Say				5209.10

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 ₹
4.1.11	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 Rate as per item no 4.1.11 of SH : Concrete Work 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	cum	0.17	5225.15	888.28 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	Deduct opening 0.45x0.23x0.10 m = 0.01 cum Block $3 \times (0.075)^3 = 0.001$ cum Total deduction = 0.011 cum Net qty. = 0.438 (-) 0.011 = 0.427 cum Say 0.43 cum 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 : 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	cum	0.43	6376.25	2741.79 A
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) Block = $3 \times (0.75)^3 = 0.001$ cum 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) 0.91x0.91x0.075 m = 0.062 cum Say 0.06 cum	sqm	1.55	350.15	542.73 A
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) 0.91x0.91x0.075 m = 0.062 cum Say 0.06 cum	cum	0.001	8554.50	8.55 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	0.06	9763.80	585.83 A
0115	Coolie 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	day	-0.113	558.00	-63.05
5.9.2	Rate as per item no 5.9.2 of SH : RCC Mild steel reinforcement for R.C.C work 0.062 cum @ 80 kg/cum = 4.96 kg	sqm	0.55	609.30	335.12 A
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	4.96	82.10	407.22 A
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	1.00	235.00	235.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Fixing and carriage of R.C.C. grating 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 chamber Say	L.S.	20.67	2.00	41.34 5722.80 W 2.13 5724.93 X 30.27 5755.19 Y 36.85 5792.05 Z 2.83 5794.87 5794.85

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 ₹
4.1.11	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 Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.29	5225.15	1515.29 A
6.1.1	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 Rate as per item no 6.1.1 of SH : Brick Work	cum	0.54	6376.25	3443.18 A
13.9.1	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 Rate as per item no 13.9.1 of SH : Finishing	sqm	2.36	350.15	826.35 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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
4.2.3	Rate as per item no 4.2.3 of SH : Concrete Work 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	cum	0.07	8554.50	598.82 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	0.06	9763.80	585.83 A
0115	Coolie 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	day	-0.113	558.00	-63.05
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	12464.25	498.57 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	609.30	554.46 A
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	8.00	82.10	656.80 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	2.00	14.30
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	2.00	68.12
	TOTAL				9553.66 W
	Add 1 % Water charges on "W-A"				8.74
	TOTAL				9562.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				124.08
	TOTAL				9686.49 Y
	Add 15% CPOH on "Y-A"				151.08
	TOTAL				9837.56 Z
	Add Cess @ 1% on "Z-A"				11.58
	Cost of one chamber				9849.15
	Say				9849.15

- 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 coarse 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 ₹
4.1.11	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 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) ² x0.23 m = (-) 0.004 cum Net Qty= 0.206 cum Say 0.21 cum	cum	0.20	5225.15	1045.03 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	6376.25	1339.01 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	350.15	315.14 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	9763.80	1074.02 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC	sqm	0.56	609.30	341.21 A
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1.00	1400.00	1400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of C.I.cover and frame	L.S.	7.15	2.00	14.30
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				5570.04 W
	Add 1 % Water charges on "W-A"				14.56
	TOTAL				5584.60 X
	Add GST on "X-A" (multiplying factor 0.1405)				206.56
	TOTAL				5791.16 Y
	Add 15% CPOH on "Y-A"				251.51
	TOTAL				6042.68 Z
	Add Cess @ 1% on "Z-A"				19.28
	Cost of one chamber				6061.96
	Say				6061.95

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 ₹
4.1.11	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 Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.22	5225.15	1149.53 A
6.1.1	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) ² x0.23 m = (-) 0.005 cum Net Qty= 0.224 cum Say 0.22 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	0.22	6376.25	1402.78 A
13.9.1	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 Rate as per item no 13.9.1 of SH : Finishing	sqm	1.05	350.15	367.66 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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.3	Deduct cover 0.61x0.45x0.15 m = (-) 0.042 cum Net Qty= 0.125 cum Say 0.13 cum Rate as per item no. 5.3 of SH : RCC work 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	cum	0.13	9763.80	1269.29 A
5.9.2	Rate as per item no 5.9.2 of SH : RCC Less labour for not lifting the materials upto floor five level	sqm	0.67	609.30	408.23 A
0115	Coolie M.S.reinforcement for slab 0.13 cum @ 48.06 kg/cum = 6.25 kg	day	-0.24	558.00	-133.92
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	6.25	82.10	513.13 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	2.00	14.30
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				6432.34 W
	Add 1 % Water charges on "W-A"				13.22
	TOTAL				6445.55 X
	Add GST on "X-A" (multiplying factor 0.1405)				187.56
	TOTAL				6633.11 Y
	Add 15% CPOH on "Y-A"				228.37
	TOTAL				6861.49 Z
	Add Cess @ 1% on "Z-A"				17.51
	Cost of one chamber				6878.99
	Say				6879.00

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 ₹
4.1.11	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 Rate as per item no 4.1.11 of SH : Concrete Work	cum	0.26	5225.15	1358.54 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
6.1.1	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) ² x0.23 m = (-) 0.009 cum Net Qty= 0.255 cum Say 0.26 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	0.26	6376.25	1657.83 A
13.9.1	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 Rate as per item no 13.9.1 of SH : Finishing	sqm	1.34	350.15	469.20 A
5.3	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 Rate as per item no. 5.3 of SH : RCC work	cum	0.17	9763.80	1659.85 A
0115	Less labour for not lifting the materilas upto floor five level Coolie	day	-0.32	558.00	-178.56
5.9.2	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 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	609.30	554.46 A
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	8.17	82.10	670.76 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	2.00	14.30
9999	Painting of C.I. Cover and frame with coal tar	L.S.	7.15	2.00	14.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				7647.71 W
	Add 1 % Water charges on "W-A"				12.77
	TOTAL				7660.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				181.22
	TOTAL				7841.71 Y
	Add 15% CPOH on "Y-A"				220.66
	TOTAL				8062.37 Z
	Add Cess @ 1% on "Z-A"				16.92
	Cost of one chamber				8079.28
	Say				8079.30

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 ₹
6.1.1	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) 3.05 m x 0.23m x1.00 m = 0.70 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	0.70	6376.25	4463.38 A
13.9.1	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 Rate as per item no 13.9.1 of SH : Finishing	sqm	2.13	350.15	745.82 A
	TOTAL				5209.19
	Cost per metre				3979.12
	Say				3979.10

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 ₹
6.1.1	Details of cost for one metre Brick work in bricks of class designation 7.5 in cement mortar 1:5 (1 cement : 5 fine sand) 3.32 m x 0.23m x1.00 m = 0.76 cum Rate as per item no 6.1.1 of SH : Brick Work	cum	0.76	6376.25	4845.95 A
13.9.1	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 Rate as per item no 13.9.1 of SH : Finishing	sqm	2.40	350.15	840.36 A
	TOTAL				5686.31
	Cost per metre				5686.31
	Say				5686.30

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 ₹
6.1.1	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) $3.82 \text{ m} \times 0.23 \text{ m} \times 1.00 \text{ m} = 0.88 \text{ cum}$ Rate as per item no 6.1.1 of SH : Brick Work	cum	0.88	6376.25	5611.10 A
13.9.1	12 mm cement plaster 1:3 (1 cement : 3 coarse sand finished with floating coat of neat cement Wall : $2.90 \times 1.00 \text{ m} = 2.90 \text{ sqm}$ Rate as per item no 13.9.1 of SH : Finishing	sqm	2.9	350.15	1015.44 A
	TOTAL				6626.54
	Cost per metre				6626.54
	Say				6626.55

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 ₹
2.8.1	Details of cost for one soak pit Earth work in excavation including disposal of surplus earth 3.14/ $4 \times (2.5)^2 \times 3 \text{ m} = 14.73 \text{ cum}$ Rate as per item no. 2.8.1 of SH: Earth work	cum	14.73	252.30	3716.38 A
2.26.1	Rate as per item no. 2.26.1 of SH : Earth work $= 3.14/4 \times (2.5)^2 \times 1.5 \text{ m} = 7.37 \text{ cum}$ 2nd class bricks perimetre = $4 \times 0.35 = 1.40 \text{ m}$ Area = $1.40 \times 2.925 \text{ m} = 4.1 \text{ sqm}$ Number of brick = $4.1 \times 487 \times 0.066 = 131.78$ Wastage 10% = 13.718 Total= 144.96 Say 145 numbers Common burnt clay F.P.S. (non modular) bricks class designation 7.5	cum	7.37	90.40	666.25 A
2602	Brick bats = $3.14/4 \times (1.2)^2 \times 2.925 \text{ m} = 3.33 \text{ cum}$ Deduct = $0.45 \times 0.45 \times 2.925 \text{ m} = 0.59 \text{ cum}$ Net qty= 2.74 cum	1000 Nos	0.145	4500.00	652.50
0362	Brick bats Brick aggregate 50 to 80 mm nominal size = $3.14 \times 1.50 \times 0.03 \times 2.925 \text{ m} = 4.13 \text{ cum}$	cum	2.74	450.00	1233.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0285	Brick Aggregate (Single size) : 63 mm nominal size	cum	4.13	650.00	2684.50
0287	Brick aggregate 40 mm nominal size = 3.14x2.15x0.35x2.925 m =6.91 cum Brick Aggregate (Single size) : 40 mm nominal size	cum	6.91	650.00	4491.50
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	3.00	55.00	165.00
2260	Carriage of brick bats and aggregate	cum	13.78	112.79	1554.25
2201	Carriage of Bricks	1000 Nos	0.145	276.72	40.12
9999	Single matting 2.5x2.5 m = 6.25 sqm 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 Rate as per item no 5.12 of SH : RCC Reinforcement @ 80 kg/cum = 0.02x80 =1.6 kg	L.S.	112.14	2.00	224.28
5.12	Rate as per item no 5.12 of SH : RCC Reinforcement @ 80 kg/cum = 0.02x80 =1.6 kg	cum	0.02	8886.35	177.73 A
5.22.1	Rate as per item no. 5.22.1 of SH : RCC work	kg	1.60	82.10	131.36 A
16.8.1	2nd class brick edging laid length wise with half brick depth 3.14x2.6 m =8.17 m Rate as per item no. 16.8.1 of SH : Road work	metre	8.17	46.75	381.95 A
0123	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	3.00	558.00	1674.00
0115	Coolie	day	3.00	558.00	1674.00
	TOTAL				20175.31 W
	Add 1 % Water charges on "W-A"				151.02
	TOTAL				20326.33 X
	Add GST on "X-A" (multiplying factor 0.1405)				2143.00
	TOTAL				22469.33 Y
	Add 15% CPOH on "Y-A"				2609.35
	TOTAL				25078.68 Z
	Add Cess @ 1% on "Z-A"				200.05
	Cost of one soak pit				25278.73
	Say				25278.75

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 ₹
2.8.1	Details of cost for one soak pit Earth work in excavation including disposal of surplus earth 1.2x1.2x1.2m = 1.73 cum (Rate as per item no. 2.8.1 of SH: Earth work)	cum	1.73	252.30	436.48 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	112.79	195.13
16.8.1	Rate as per item no. 16.8.1 of SH : Road work	metre	5.20	46.75	243.10 A
1854	Second class brick edging laid length wise with half brick depth				
	Stoneware pipes grade A (60 cm long)				
	100 mm dia	each	2.00	55.00	110.00
9999	Sundries	L.S.	25.84	2.00	51.68
	LABOUR				
	For filling brick bats				
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries	L.S.	13.52	2.00	27.04
	TOTAL				2120.93 W
	Add 1 % Water charges on "W-A"				14.41
	TOTAL				2135.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				204.53
	TOTAL				2339.87 Y
	Add 15% CPOH on "Y-A"				249.04
	TOTAL				2588.92 Z
	Add Cess @ 1% on "Z-A"				19.09
	Cost of one soak pit				2608.01
	Say				2608.00

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	2.00	2.08
0367	Portland Cement (OPC-43 grade)	tonne	0.0013	4940.00	6.42
2209	Carriage of Cement	tonne	0.0013	92.24	0.12
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	103.77	0.10
1881	Spun yarn	kilogram	0.09	50.00	4.50
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.02	738.00	14.76
0124	Mason (brick layer) 2nd class	day	0.02	679.00	13.58
0114	Beldar	day	0.06	558.00	33.48
0101	Bhisti	day	0.02	617.00	12.34
	TOTAL				273.29 W
	Add 1 % Water charges on "W"				2.73
	TOTAL				276.02 X
	Add GST on "X" (multiplying factor 0.1405)				38.78
	TOTAL				314.80 Y
	Add 15% CPOH on "Y"				47.22
	TOTAL				362.02 Z
	Add Cess @ 1% on "Z"				3.62
	Cost of one no.				365.64
	Say				365.65

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	2.00	4.16
0367	Portland Cement (OPC-43 grade)	tonne	0.0019	4940.00	9.39
2209	Carriage of Cement	tonne	0.0019	92.24	0.18
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	103.77	0.15
1881	Spun yarn	kilogram	0.18	50.00	9.00
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.03	738.00	22.14
0124	Mason (brick layer) 2nd class	day	0.03	679.00	20.37
0114	Beldar	day	0.08	558.00	44.64
0101	Bhisti	day	0.03	617.00	18.51
	TOTAL				369.79 W
	Add 1 % Water charges on "W"				3.70
	TOTAL				373.48 X
	Add GST on "X" (multiplying factor 0.1405)				52.47
	TOTAL				425.96 Y
	Add 15% CPOH on "Y"				63.89
	TOTAL				489.85 Z
	Add Cess @ 1% on "Z"				4.90
	Cost of one no.				494.75
	Say				494.75

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	1496.00	14960.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	2520.19	252.02
0367	Portland Cement (OPC-43 grade)	tonne	0.012	4940.00	59.28
2209	Carriage of Cement	tonne	0.012	92.24	1.11
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	103.77	1.76
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.375	738.00	276.75
0124	Mason (brick layer) 2nd class	day	0.375	679.00	254.63
0114	Beldar	day	2.41	558.00	1344.78

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.33	617.00	203.61
	TOTAL				17369.23 W
	Add 1 % Water charges on "W"				173.69
	TOTAL				17542.93 X
	Add GST on "X" (multiplying factor 0.1405)				2464.78
	TOTAL				20007.71 Y
	Add 15% CPOH on "Y"				3001.16
	TOTAL				23008.86 Z
	Add Cess @ 1% on "Z"				230.09
	Detail of cost for 10 metre				23238.95
	Rate per metre				2323.90
	Say				2323.90

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	1995.00	19950.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	3780.28	378.03
0367	Portland Cement (OPC-43 grade)	tonne	0.016	4940.00	79.04
2209	Carriage of Cement	tonne	0.016	92.24	1.48
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	103.77	2.28
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.46	738.00	339.48
0124	Mason (brick layer) 2nd class	day	0.46	679.00	312.34
0114	Beldar	day	1.83	558.00	1021.14
0101	Bhisti	day	0.33	617.00	203.61
	TOTAL				22307.20 W
	Add 1 % Water charges on "W"				223.07
	TOTAL				22530.27 X
	Add GST on "X" (multiplying factor 0.1405)				3165.50
	TOTAL				25695.77 Y
	Add 15% CPOH on "Y"				3854.37
	TOTAL				29550.14 Z
	Add Cess @ 1% on "Z"				295.50
	Detail of cost for 10 metre				29845.64
	Rate per metre				2984.56
	Say				2984.55

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	3150.00	31500.00
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	0.10	5670.42	567.04
0367	Portland Cement (OPC-43 grade)	tonne	0.025	4940.00	123.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2209	Carriage of Cement	tonne	0.025	92.24	2.31
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	103.77	3.42
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.625	738.00	461.25
0124	Mason (brick layer) 2nd class	day	0.625	679.00	424.38
0114	Beldar	day	3.00	558.00	1674.00
0101	Bhisti	day	0.50	617.00	308.50
	TOTAL				35094.10 W
	Add 1 % Water charges on "W"				350.94
	TOTAL				35445.04 X
	Add GST on "X" (multiplying factor 0.1405)				4980.03
	TOTAL				40425.07 Y
	Add 15% CPOH on "Y"				6063.76
	TOTAL				46488.83 Z
	Add Cess @ 1% on "Z"				464.89
	Detail of cost for 10 metre				46953.71
	Rate per metre				4695.37
	Say				4695.35

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	3885.00	38850.00
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.028	4940.00	138.32
2209	Carriage of Cement	tonne	0.028	92.24	2.58
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	103.77	3.84
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.68	738.00	501.84
0124	Mason (brick layer) 2nd class	day	0.68	679.00	461.72
0114	Beldar	day	4.33	558.00	2416.14
0101	Bhisti	day	0.50	617.00	308.50
	TOTAL				43472.30 W
	Add 1 % Water charges on "W"				434.72
	TOTAL				43907.02 X
	Add GST on "X" (multiplying factor 0.1405)				6168.94
	TOTAL				50075.96 Y
	Add 15% CPOH on "Y"				7511.39
	TOTAL				57587.35 Z
	Add Cess @ 1% on "Z"				575.87
	Detail of cost for 10 metre				58163.23
	Rate per metre				5816.32
	Say				5816.30

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	5040.00	50400.00
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	0.10	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.034	4940.00	167.96
2209	Carriage of Cement	tonne	0.034	92.24	3.14
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	103.77	4.77
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.795	738.00	586.71
0124	Mason (brick layer) 2nd class	day	0.795	679.00	539.81
0114	Beldar	day	8.67	558.00	4837.86
0101	Bhisti	day	0.67	617.00	413.39
	TOTAL				57751.09 W
	Add 1 % Water charges on "W"				577.51
	TOTAL				58328.60 X
	Add GST on "X" (multiplying factor 0.1405)				8195.17
	TOTAL				66523.77 Y
	Add 15% CPOH on "Y"				9978.57
	TOTAL				76502.34 Z
	Add Cess @ 1% on "Z"				765.02
	Detail of cost for 10 metre				77267.36
	Rate per metre				7726.74
	Say				7726.75

19.35.6 1800 mm dia RCC pipes. (Laying by manual/ machanical 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	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.049	4940.00	242.06
2209	Carriage of Cement	tonne	0.049	92.24	4.52
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	103.77	5.71
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.15	738.00	848.70
0124	Mason (brick layer) 2nd class	day	1.15	679.00	780.85
0114	Beldar	day	13.00	558.00	7254.00
0101	Bhisti	day	1.00	617.00	617.00
	TOTAL				105058.39 W
	Add 1 % Water charges on "W"				1050.58
	TOTAL				106108.98 X
	Add GST on "X" (multiplying factor 0.1405)				14908.31
	TOTAL				121017.29 Y
	Add 15% CPOH on "Y"				18152.59
	TOTAL				139169.88 Z
	Add Cess @ 1% on "Z"				1391.70
	Detail of cost for 10 metre				140561.58
	Rate per metre				14056.16
	Say				14056.15

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	1733.00	17330.00
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	0.10	2520.19	252.02
0367	Portland Cement (OPC-43 grade)	tonne	0.012	4940.00	59.28
2209	Carriage of Cement	tonne	0.012	92.24	1.11
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	103.77	1.76
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.375	738.00	276.75
0124	Mason (brick layer) 2nd class	day	0.375	679.00	254.63
0114	Beldar	day	2.41	558.00	1344.78
0101	Bhisti	day	0.33	617.00	203.61
	TOTAL				19739.23 W
	Add 1 % Water charges on "W"				197.39
	TOTAL				19936.63 X
	Add GST on "X" (multiplying factor 0.1405)				2801.10
	TOTAL				22737.72 Y
	Add 15% CPOH on "Y"				3410.66
	TOTAL				26148.38 Z
	Add Cess @ 1% on "Z"				261.48
	Detail of cost for 10 metre				26409.87
	Rate per metre				2640.99
	Say				2641.00

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	2310.00	23100.00
2303	Carriage of R.C.C. pipes 600, 700, 750 & 800 mm dia	100 metre	0.10	3780.28	378.03
0367	Portland Cement (OPC-43 grade)	tonne	0.016	4940.00	79.04
2209	Carriage of Cement	tonne	0.016	92.24	1.48
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	103.77	2.28
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.46	738.00	339.48
0124	Mason (brick layer) 2nd class	day	0.46	679.00	312.34
0114	Beldar	day	1.83	558.00	1021.14

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0101	Bhisti	day	0.33	617.00	203.61
	TOTAL				25457.20 W
	Add 1 % Water charges on "W"				254.57
	TOTAL				25711.77 X
	Add GST on "X" (multiplying factor 0.1405)				3612.50
	TOTAL				29324.27 Y
	Add 15% CPOH on "Y"				4398.64
	TOTAL				33722.91 Z
	Add Cess @ 1% on "Z"				337.23
	Detail of cost for 10 metre				34060.14
	Rate per metre				3406.01
	Say				3406.00

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	4494.00	44940.00
2331	R.C.C. pipes 900 mm dia	100 metre	0.10	5670.42	567.04
0367	Portland Cement (OPC-43 grade)	tonne	0.025	4940.00	123.50
2209	Carriage of Cement	tonne	0.025	92.24	2.31
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	103.77	3.42
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.625	738.00	461.25
0124	Mason (brick layer) 2nd class	day	0.625	679.00	424.38
0114	Beldar	day	3.00	558.00	1674.00
0101	Bhisti	day	0.5	617.00	308.50
	TOTAL				48534.10 W
	Add 1 % Water charges on "W"				485.34
	TOTAL				49019.44 X
	Add GST on "X" (multiplying factor 0.1405)				6887.23
	TOTAL				55906.67 Y
	Add 15% CPOH on "Y"				8386.00
	TOTAL				64292.67 Z
	Add Cess @ 1% on "Z"				642.93
	Detail of cost for 10 metre				64935.60
	Rate per metre				6493.56
	Say				6493.55

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	5565.00	55650.00
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	0.10	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.028	4940.00	138.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2209	Carriage of Cement	tonne	0.028	92.24	2.58
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	103.77	3.84
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.68	738.00	501.84
0124	Mason (brick layer) 2nd class	day	0.68	679.00	461.72
0114	Beldar	day	4.33	558.00	2416.14
0101	Bhisti	day	0.5	617.00	308.50
	TOTAL				60272.30 W
	Add 1 % Water charges on "W"				602.72
	TOTAL				60875.02 X
	Add GST on "X" (multiplying factor 0.1405)				8552.94
	TOTAL				69427.96 Y
	Add 15% CPOH on "Y"				10414.19
	TOTAL				79842.16 Z
	Add Cess @ 1% on "Z"				798.42
	Detail of cost for 10 metre				80640.58
	Rate per metre				8064.06
	Say				8064.05

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	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.034	4940.00	167.96
2209	Carriage of Cement	tonne	0.034	92.24	3.14
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	103.77	4.77
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.795	738.00	586.71
0124	Mason (brick layer) 2nd class	day	0.795	679.00	539.81
0114	Beldar	day	8.67	558.00	4837.86
0101	Bhisti	day	0.67	617.00	413.39
	TOTAL				72451.09 W
	Add 1 % Water charges on "W"				724.51
	TOTAL				73175.60 X
	Add GST on "X" (multiplying factor 0.1405)				10281.17
	TOTAL				83456.77 Y
	Add 15% CPOH on "Y"				12518.52
	TOTAL				95975.29 Z
	Add Cess @ 1% on "Z"				959.75
	Detail of cost for 10 metre				96935.04
	Rate per metre				9693.50
	Say				9693.50

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	7560.57	756.06
0367	Portland Cement (OPC-43 grade)	tonne	0.049	4940.00	242.06
2209	Carriage of Cement	tonne	0.049	92.24	4.52
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	103.77	5.71
	LABOUR				
0123	Mason (brick layer) 1st class	day	1.15	738.00	848.70
0114	Beldar	day	13.00	558.00	7254.00
0101	Bhisti	day	1.00	617.00	617.00
	TOTAL				146277.54 W
	Add 1 % Water charges on "W"				1462.78
	TOTAL				147740.32 X
	Add GST on "X" (multiplying factor 0.1405)				20757.51
	TOTAL				168497.83 Y
	Add 15% CPOH on "Y"				25274.68
	TOTAL				193772.51 Z
	Add Cess @ 1% on "Z"				1937.73
	Detail of cost for 10 metre				195710.23
	Rate per metre				19571.02
	Say				19571.00

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 ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete - $3.14/4 \times 0.40^2 \times 20 = 2.51$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	2.51	7997.30	20073.22 A
9999	Sundries	L.S.	521.08	2.00	1042.16
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
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	30000.00	10800.00
0025	Hire and running charges of light crane. LABOUR	day	0.06	3000.00	180.00
0130	Work supervisor				
0114	Mistry	day	0.08	738.00	59.04
	Beldar	day	2.00	558.00	1116.00
	TOTAL				38615.42 W
	Add 1 % Water charges on "W-A"				185.42
	TOTAL				38800.85 X
	Add GST on "X-A" (multiplying factor 0.1405)				2631.23
	TOTAL				41432.08 Y
	Add 15% CPOH on "Y-A"				3203.83
	TOTAL				44635.90 Z
	Add Cess @ 1% on "Z-A"				245.63
	Cost of 20 metre pile				44881.53
	Cost of 1 metre pile				2244.08
	Say				2244.10

20.1.2 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete - $3.14/4 \times 0.45^2 \times 20 = 3.18$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	3.18	7997.30	25431.41 A
9999	Sundries	L.S.	392.70	2.00	785.40
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7182	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	43.00	1505.00
0024	@ 35 kg per pile MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.48	30000.00	14400.00
0025	Hire and running charges of light crane. LABOUR	day	0.06	3000.00	180.00
0130	Work supervisor	day	0.08	738.00	59.04
0114	Mistry	day	2.00	558.00	1116.00
	Beldar				
	TOTAL				47316.85 W
	Add 1 % Water charges on "W-A"				218.85
	TOTAL				47535.71 X
	Add GST on "X-A" (multiplying factor 0.1405)				3105.65
	TOTAL				50641.36 Y
	Add 15% CPOH on "Y-A"				3781.49
	TOTAL				54422.85 Z
	Add Cess @ 1% on "Z-A"				289.91
	Cost of 20 metre pile				54712.77
	Cost of 1 metre pile				2735.64
	Say				2735.65

20.1.3 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete $3.14/4 \times 0.50^2 \times 20 = 3.925$ cum				
	Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	3.925	7997.30	31389.40 A
9999	Sundries	L.S.	530.00	2.00	1060.00
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				
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.60	30000.00	18000.00
0025	Hire and running charges of light crane. LABOUR	day	0.06	3000.00	180.00
	Work supervisor				
0130	Mistry	day	0.08	738.00	59.04

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				57149.44 W
	Add 1 % Water charges on "W-A"				257.60
	TOTAL				57407.04 X
	Add GST on "X-A" (multiplying factor 0.1405)				3655.48
	TOTAL				61062.52 Y
	Add 15% CPOH on "Y-A"				4450.97
	TOTAL				65513.49 Z
	Add Cess @ 1% on "Z-A"				341.24
	Cost of 20 metre pile				65854.73
	Cost of 1 metre pile				3292.74
	Say				3292.75

20.1.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete $3.14/4 \times 0.55^2 \times 20 = 4.75$ cum Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	4.75	7997.30	37987.18 A
9999	Sundries	L.S.	371.88	2.00	743.76
7181	C.I. pile shoe of 80 kg per pile	kilogram	80.00	48.00	3840.00
7182	@ 80 kg per pile				
	M.S. clamps for pile shoe of 35 kg per pile	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.60	30000.00	18000.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	738.00	59.04
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				63430.98 W
	Add 1 % Water charges on "W-A"				254.44
	TOTAL				63685.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				3610.60
	TOTAL				67296.02 Y
	Add 15% CPOH on "Y-A"				4396.33
	TOTAL				71692.34 Z
	Add Cess @ 1% on "Z-A"				337.05
	Cost of 20 metre pile				72029.39
	Cost of 1 metre pile				3601.47
	Say				3601.45

20.1.5 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 15 m length of pile MATERIAL Concrete $3.14/4 \times 0.75^2 \times 15 = 6.62$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	6.62	7997.30	52942.13 A
9999	Sundries	L.S.	573.57	2.00	1147.14
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
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.70	30000.00	21000.00
0025	Hire and running charges of light crane. LABOUR	day	0.06	3000.00	180.00
0130	Work supervisor				
0114	Mistry	day	0.14	738.00	103.32
	Beldar	day	3.50	558.00	1953.00
	TOTAL				82670.59 W
	Add 1 % Water charges on "W-A"				297.28
	TOTAL				82967.87 X
	Add GST on "X-A" (multiplying factor 0.1405)				4218.62
	TOTAL				87186.49 Y
	Add 15% CPOH on "Y-A"				5136.65
	TOTAL				92323.14 Z
	Add Cess @ 1% on "Z-A"				393.81
	Cost of 15 metre pile				92716.95
	Cost of 1 metre pile				6181.13
	Say				6181.15

20.1.6 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 10 m length of pile MATERIAL Concrete $3.14/4 \times 1.00^2 \times 10 = 7.85$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	7.85	7997.30	62778.81 A
9999	Sundries	L.S.	897.89	2.00	1795.78
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
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.68	30000.00	20400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.16	738.00	118.08
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				92849.67 W
	Add 1 % Water charges on "W-A"				300.71
	TOTAL				93150.37 X
	Add GST on "X-A" (multiplying factor 0.1405)				4267.21
	TOTAL				97417.58 Y
	Add 15% CPOH on "Y-A"				5195.82
	TOTAL				102613.40 Z
	Add Cess @ 1% on "Z-A"				398.35
	Cost of 10 metre pile				103011.74
	Cost of 1 metre pile				10301.17
	Say				10301.15

20.1.7 1200 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 9 m length of pile				
	MATERIAL				
5.33.1	Concrete $3.14/4 \times 1.2^2 \times 9 = 10.17$ cum				
	Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	10.17	7997.30	81332.54 A
9999	Sundries	L.S.	733.37	2.00	1466.74
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	0.67	30000.00	20100.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.18	738.00	132.84
0114	Beldar	day	4.50	558.00	2511.00
	TOTAL				111068.12 W
	Add 1 % Water charges on "W-A"				297.36
	TOTAL				111365.48 X
	Add GST on "X-A" (multiplying factor 0.1405)				4219.63
	TOTAL				115585.10 Y
	Add 15% CPOH on "Y-A"				5137.88
	TOTAL				120722.99 Z
	Add Cess @ 1% on "Z-A"				393.90
	Cost of 9 metre pile				121116.89
	Cost of 1 metre pile				13457.43
	Say				13457.45

20.1.8 1500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 9 m length of pile MATERIAL Concrete $3.14/4 \times 1.5^2 \times 9 = 15.90$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	15.90	7997.30	127157.07 A
9999	Sundries	L.S.	1113.48	2.00	2226.96
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
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.77	30000.00	23100.00
0025	Hire and running charges of light crane. LABOUR	day	0.10	3000.00	300.00
0130	Work supervisor				
0114	Mistry	day	0.20	738.00	147.60
	Beldar	day	5.00	558.00	2790.00
	TOTAL				161066.63 W
	Add 1 % Water charges on "W-A"				339.10
	TOTAL				161405.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				4811.94
	TOTAL				166217.66 Y
	Add 15% CPOH on "Y-A"				5859.09
	TOTAL				172076.75 Z
	Add Cess @ 1% on "Z-A"				449.20
	Cost of 9 metre pile				172525.95
	Cost of 1 metre pile				19169.55
	Say				19169.55

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 $3.14/4 \times 0.45^2 \times 20 = 3.18$ cum				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	3.18	7997.30	25431.41 A
7183	Bentonite	tonne	0.25	2960.00	740.00
9999	Sundries	L.S.	230.69	2.00	461.38
	MACHINERY				
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	0.94	1900.00	1786.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.38	3500.00	1330.00
0018	Hire and running charges of loader	day	0.30	5000.00	1500.00
0017	Hire and running charges of tipper	day	0.30	1700.00	510.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	738.00	88.56
0114	Beldar	day	2.50	558.00	1395.00
	TOTAL				33422.35 W
	Add 1 % Water charges on "W-A"				79.91
	TOTAL				33502.26 X
	Add GST on "X-A" (multiplying factor 0.1405)				1133.95
	TOTAL				34636.22 Y
	Add 15% CPOH on "Y-A"				1380.72
	TOTAL				36016.94 Z
	Add Cess @ 1% on "Z-A"				105.86
	Cost of 20 metre pile				36122.79
	Cost of 1 metre pile				1806.14
	Say				1806.15

20.2.2 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
	Concrete $3.14/4 \times 0.50^2 \times 20 = 3.925$ cum				
5.33.1	Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	3.925	7997.30	31389.40 A
7183	Bentonite	tonne	0.28	2960.00	828.80
9999	Sundries	L.S.	87.95	2.00	175.90
	MACHINERY				
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.20	1900.00	2280.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.38	3500.00	1330.00
0017	Hire and running charges of tipper	day	0.30	1700.00	510.00
0018	Hire and running charges of loader	day	0.30	5000.00	1500.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	738.00	88.56

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.50	558.00	1395.00
	TOTAL				39677.66 W
	Add 1 % Water charges on "W-A"				82.88
	TOTAL				39760.55 X
	Add GST on "X-A" (multiplying factor 0.1405)				1176.15
	TOTAL				40936.69 Y
	Add 15% CPOH on "Y-A"				1432.09
	TOTAL				42368.78 Z
	Add Cess @ 1% on "Z-A"				109.79
	Cost of 20 metre pile				42478.58
	Cost of 1 metre pile				2123.93
	Say				2123.95

20.2.3 600 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete $3.14/4 \times 0.60^2 \times 20 = 5.65$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	5.65	7997.30	45184.75 A
7183	Bentonite	tonne	0.33	2960.00	976.80
9999	Sundries	L.S.	317.43	2.00	634.86
	MACHINERY				
0015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.50	1900.00	2850.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.38	3500.00	1330.00
0017	Hire and running charges of tipper	day	0.30	1700.00	510.00
0018	Hire and running charges of loader	day	0.30	5000.00	1500.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	738.00	88.56
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				54928.97 W
	Add 1 % Water charges on "W-A"				97.44
	TOTAL				55026.41 X
	Add GST on "X-A" (multiplying factor 0.1405)				1382.75
	TOTAL				56409.16 Y
	Add 15% CPOH on "Y-A"				1683.66
	TOTAL				58092.82 Z
	Add Cess @ 1% on "Z-A"				129.08
	Cost of 20 metre pile				58221.90
	Cost of 1 metre pile				2911.10
	Say				2911.10

20.2.4 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 15 m length of pile MATERIAL Concrete $3.14/4 \times 0.75^2 \times 15 = 6.62$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	6.62	7997.30	52942.13 A
7183	Bentonite	tonne	0.30	2960.00	888.00
9999	Sundries	L.S.	131.58	2.00	263.16
0015	MACHINERY Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	day	1.40	1900.00	2660.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.75	3500.00	2625.00
0017	Hire and running charges of tipper	day	0.30	1700.00	510.00
0018	Hire and running charges of loader	day	0.30	5000.00	1500.00
	LABOUR Work supervisor				
0130	Mistry	day	0.14	738.00	103.32
0114	Beldar	day	3.50	558.00	1953.00
	TOTAL				63624.61 W
	Add 1 % Water charges on "W-A"				106.82
	TOTAL				63731.43 X
	Add GST on "X-A" (multiplying factor 0.1405)				1515.90
	TOTAL				65247.33 Y
	Add 15% CPOH on "Y-A"				1845.78
	TOTAL				67093.11 Z
	Add Cess @ 1% on "Z-A"				141.51
	Cost of 15 metre pile				67234.62
	Cost of 1 metre pile				4482.31
	Say				4482.30

20.2A Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade 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 piling 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 ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete $3.14/4 \times 0.60^2 \times 20 = 5.65$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	5.65	7997.30	45184.75 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7183	Bentonite	tonne	0.33	2960.00	976.80
9999	Sundries	L.S.	317.43	2.00	634.86
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.75	30000.00	22500.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.38	3500.00	1330.00
0018	Hire and running charges of loader	day	0.30	5000.00	1500.00
0017	Hire and running charges of tipper	day	0.30	1700.00	510.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.12	738.00	88.56
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				74578.97 W
	Add 1 % Water charges on "W-A"				293.94
	TOTAL				74872.91 X
	Add GST on "X-A" (multiplying factor 0.1405)				4171.19
	TOTAL				79044.09 Y
	Add 15% CPOH on "Y-A"				5078.90
	TOTAL				84123.00 Z
	Add Cess @ 1% on "Z-A"				389.38
	Cost of 20 metre pile				84512.38
	Cost of 1 metre pile				4225.62
	Say				4225.60

20.2A.2 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 15 m length of pile				
	MATERIAL				
5.33.1	Concrete $3.14/4 \times 0.75^2 \times 15 = 6.62$ cum				
	Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	6.62	7997.30	52942.13 A
7183	Bentonite	tonne	0.30	2960.00	888.00
9999	Sundries	L.S.	131.58	2.00	263.16
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.70	30000.00	21000.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.75	3500.00	2625.00
0018	Hire and running charges of loader	day	0.30	5000.00	1500.00
0017	Hire and running charges of tipper	day	0.30	1700.00	510.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.14	738.00	103.32

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	3.50	558.00	1953.00
	TOTAL				81964.61 W
	Add 1 % Water charges on "W-A"				290.22
	TOTAL				82254.83 X
	Add GST on "X-A" (multiplying factor 0.1405)				4118.44
	TOTAL				86373.27 Y
	Add 15% CPOH on "Y-A"				5014.67
	TOTAL				91387.94 Z
	Add Cess @ 1% on "Z-A"				384.46
	Cost of 15 metre pile				91772.39
	Cost of 1 metre pile				6118.16
	Say				6118.15

20.2A.3 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 10 m length of pile MATERIAL Concrete $3.14/4 \times 1.00^2 \times 10 = 7.85$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	7.85	7997.30	62778.81 A
7183	Bentonite	tonne	0.35	2960.00	1036.00
9999	Sundries	L.S.	175.89	2.00	351.78
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.69	30000.00	20700.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.75	3500.00	2625.00
0018	Hire and running charges of loader	day	0.40	5000.00	2000.00
0017	Hire and running charges of tipper	day	0.40	1700.00	680.00
	LABOUR Work supervisor				
0130	Mistry	day	0.16	738.00	118.08
0114	Beldar	day	4.00	558.00	2232.00
	TOTAL				92701.67 W
	Add 1 % Water charges on "W-A"				299.23
	TOTAL				93000.89 X
	Add GST on "X-A" (multiplying factor 0.1405)				4246.20
	TOTAL				97247.10 Y
	Add 15% CPOH on "Y-A"				5170.24
	TOTAL				102417.34 Z
	Add Cess @ 1% on "Z-A"				396.39
	Cost of 10 metre pile				102813.73
	Cost of 1 metre pile				10281.37
	Say				10281.35

20.2A.4 1200 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 9 m length of pile MATERIAL Concrete $3.14/4 \times 1.20^2 \times 9 = 10.17$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	10.17	7997.30	81332.54 A
7183	Bentonite	tonne	0.385	2960.00	1139.60
9999	Sundries	L.S.	290.79	2.00	581.58
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.67	30000.00	20100.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.75	3500.00	2625.00
0018	Hire and running charges of loader.	day	0.50	5000.00	2500.00
0017	Hire and running charges of tipper LABOUR Work supervisor	day	0.50	1700.00	850.00
0130	Mistry	day	0.18	738.00	132.84
0114	Beldar	day	4.50	558.00	2511.00
	TOTAL				111952.56 W
	Add 1 % Water charges on "W-A"				306.20
	TOTAL				112258.76 X
	Add GST on "X-A" (multiplying factor 0.1405)				4345.13
	TOTAL				116603.90 Y
	Add 15% CPOH on "Y-A"				5290.70
	TOTAL				121894.60 Z
	Add Cess @ 1% on "Z-A"				405.62
	Cost of 9 metre pile				122300.22
	Cost of 1 metre pile				13588.91
	Say				13588.90

20.2A.5 1500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 9 m length of pile MATERIAL Concrete $3.14/4 \times 1.50^2 \times 9 = 15.90$ cum Rate as per item no 5.33.1 of SH : RCC Work	cum	15.90	7997.30	127157.07 A
7183	Bentonite	tonne	0.45	2960.00	1332.00
9999	Sundries	L.S.	593.48	2.00	1186.96
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.77	30000.00	23100.00
0025	Hire and running charges of light crane.	day	0.10	3000.00	300.00
0026	Hire and running charges of bentonite pump.	day	0.96	3500.00	3360.00
0018	Hire and running charges of loader	day	0.75	5000.00	3750.00
0017	Hire and running charges of tipper	day	0.75	1700.00	1275.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0130	LABOUR				
	Work supervisor				
0114	Mistry	day	0.25	738.00	184.50
	Beldar	day	5.00	558.00	2790.00
	TOTAL				164435.53 W
	Add 1 % Water charges on "W-A"				372.78
	TOTAL				164808.31 X
	Add GST on "X-A" (multiplying factor 0.1405)				5290.00
	TOTAL				170098.31 Y
	Add 15% CPOH on "Y-A"				6441.19
	TOTAL				176539.50 Z
	Add Cess @ 1% on "Z-A"				493.82
	Cost of 9 metre pile				177033.33
	Cost of 1 metre pile				19670.37
	Say				19670.35

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 $-3.14/4 \times (0.30)^2 \times 9.625 = 0.680$ cum				
	Bulb $-3.14/4 \times (0.75)^2 \times 0.075 = 0.033$ cum				
	$2 \times 3.14/4 \times (0.525)^2 \times 0.150 = 0.065$ cum				
	$= 0.778$ cum				
5.33.1	Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	0.778	7997.30	6221.90 A
7183	Bentonite	tonne	0.08	2960.00	236.80
9999	Sundries	L.S.	410.92	2.00	821.84
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	30000.00	10800.00
0025	Hire and running charges of light crane.	day	0.03	3000.00	90.00
0026	Hire and running charges of bentonite pump.	day	0.02	3500.00	70.00
	LABOUR				
0130	Work supervisor	day	0.08	738.00	59.04
	Mistry				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				19415.58 W
	Add 1 % Water charges on "W-A"				131.94
	TOTAL				19547.52 X
	Add GST on "X-A" (multiplying factor 0.1405)				1872.25
	TOTAL				21419.77 Y
	Add 15% CPOH on "Y-A"				2279.68
	TOTAL				23699.45 Z
	Add Cess @ 1% on "Z-A"				174.78
	Cost of 10 metre pile				23874.22
	Cost of 1 metre pile				2387.42
	Say				2387.40

20.3.2 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres				
	MATERIAL				
	R.C.C				
	Stem $-3.14/4 \times (0.40)^2 \times 9.30 = 1.169$ cum				
	Bulb $-3.14/4 \times (1.00)^2 \times 0.1 = 0.079$ cum				
	$2 \times 3.14/4 \times (0.7)^2 \times 0.30 = 0.23$ cum				
	$= 1.478$ cum				
5.33.1	Rate as per item no 5.33.1 of				
	SH : RCC Work	cum	1.478	7997.30	11820.01 A
7183	Bentonite	tonne	0.15	2960.00	444.00
9999	Sundries	L.S.	276.82	2.00	553.64
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	30000.00	10800.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.02	3500.00	70.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	738.00	59.04
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				25042.69 W
	Add 1 % Water charges on "W-A"				132.23
	TOTAL				25174.92 X
	Add GST on "X-A" (multiplying factor 0.1405)				1876.36
	TOTAL				27051.28 Y
	Add 15% CPOH on "Y-A"				2284.69
	TOTAL				29335.97 Z
	Add Cess @ 1% on "Z-A"				175.16
	Cost of 10 metre pile				29511.13
	Cost of 1 metre pile				2951.11
	Say				2951.10

20.3.3 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres MATERIAL R.C.C Stem $-3.14/4 \times (0.45)^2 \times 9.212 = 1.465$ cum Bulb $-3.14/4 \times (1.125)^2 \times 0.113 = 0.112$ cum $2 \times 3.14/4 \times (0.788)^2 \times 0.337 = 0.329$ cum $= 1.906$ cum				
5.33.1	Rate as per item no 5.33.1 of SH : RCC Work	cum	1.906	7997.30	15242.85 A
7183	Bentonite	tonne	0.19	2960.00	562.40
9999	Sundries	L.S.	194.81	2.00	389.62
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	30000.00	10800.00
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.02	3500.00	70.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	738.00	59.04
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				28419.91 W
	Add 1 % Water charges on "W-A"				131.77
	TOTAL				28551.68 X
	Add GST on "X-A" (multiplying factor 0.1405)				1869.89
	TOTAL				30421.58 Y
	Add 15% CPOH on "Y-A"				2276.81
	TOTAL				32698.38 Z
	Add Cess @ 1% on "Z-A"				174.56
	Cost of 10 metre pile				32872.94
	Cost of 1 metre pile				3287.29
	Say				3287.30

20.3.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10 metres MATERIAL R.C.C Stem $-3.14/4 \times (0.50)^2 \times 9.125 = 1.792$ cum Bulb $-3.14/4 \times (1.25)^2 \times 0.125 = 0.153$ cum $2 \times 3.14/4 \times (0.875)^2 \times 0.375 = 0.451$ cum $= 2.396$ cum				
5.33.1	Rate as per item no 5.33.1 of SH : RCC Work	cum	2.40	7997.30	19193.52 A
7183	Bentonite	tonne	0.20	2960.00	592.00
9999	Sundries	L.S.	208.15	2.00	416.30
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.36	30000.00	10800.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0025	Hire and running charges of light crane.	day	0.06	3000.00	180.00
0026	Hire and running charges of bentonite pump.	day	0.02	3500.00	70.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.08	738.00	59.04
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				32426.86 W
	Add 1 % Water charges on "W-A"				132.33
	TOTAL				32559.19 X
	Add GST on "X-A" (multiplying factor 0.1405)				1877.88
	TOTAL				34437.07 Y
	Add 15% CPOH on "Y-A"				2286.53
	TOTAL				36723.60 Z
	Add Cess @ 1% on "Z-A"				175.30
	Cost of 10 metre pile				36898.90
	Cost of 1 metre pile				3689.89
	Say				3689.90

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				
5.33.1	Bulb - 0.033 cum				
	Rate as per item no 5.33.1 of SH : RCC Work	cum	0.033	7997.30	263.91 A
7183	Bentonite	tonne	0.003	2960.00	8.88
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	30000.00	600.00
0025	Hire and running charges of light crane.	day	0.01	3000.00	30.00
0026	Hire and running charges of bentonite pump.	day	0.01	3500.00	35.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.02	738.00	14.76
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				1510.55 W
	Add 1 % Water charges on "W-A"				12.47
	TOTAL				1523.02 X
	Add GST on "X-A" (multiplying factor 0.1405)				176.90
	TOTAL				1699.92 Y
	Add 15% CPOH on "Y-A"				215.40
	TOTAL				1915.32 Z
	Add Cess @ 1% on "Z-A"				16.51
	Cost of 1 bulb				1931.84
	Say				1931.85

20.4.2 400 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 1 bulb. MATERIAL Bulb - 0.063 cum Rate as per item no 5.33.1 of SH : RCC Work	cum	0.063	7997.30	503.83 A
7183	Bentonite	tonne	0.006	2960.00	17.76
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	30000.00	600.00
0025	Hire and running charges of light crane.	day	0.01	3000.00	30.00
0026	Hire and running charges of bentonite pump.	day	0.01	3500.00	35.00
	LABOUR Work supervisor				
0130	Mistry	day	0.02	738.00	14.76
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				1759.35 W
	Add 1 % Water charges on "W-A"				12.56
	TOTAL				1771.91 X
	Add GST on "X-A" (multiplying factor 0.1405)				178.16
	TOTAL				1950.07 Y
	Add 15% CPOH on "Y-A"				216.94
	TOTAL				2167.01 Z
	Add Cess @ 1% on "Z-A"				16.63
	Cost of 1 bulb				2183.64
	Say				2183.65

20.4.3 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 1 bulb. MATERIAL Bulb - 0.081 cum Rate as per item no 5.33.1 of SH : RCC Work	cum	0.081	7997.30	647.78 A
7183	Bentonite	tonne	0.008	2960.00	23.68
0024	MACHINERY Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	30000.00	600.00
0025	Hire and running charges of light crane.	day	0.01	3000.00	30.00
0026	Hire and running charges of bentonite pump.	day	0.01	3500.00	35.00
	LABOUR Work supervisor				
0130	Mistry	day	0.02	738.00	14.76

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				1909.22 W
	Add 1 % Water charges on "W-A"				12.61
	TOTAL				1921.84 X
	Add GST on "X-A" (multiplying factor 0.1405)				179.00
	TOTAL				2100.84 Y
	Add 15% CPOH on "Y-A"				217.96
	TOTAL				2318.80 Z
	Add Cess @ 1% on "Z-A"				16.71
	Cost of 1 bulb				2335.51
	Say				2335.50

20.4.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 bulb.				
	MATERIAL				
5.33.1	Bulb - 0.102 cum				
	Rate as per item no 5.33.1 of SH : RCC Work	cum	0.102	7997.30	815.72 A
7183	Bentonite	tonne	0.01	2960.00	29.60
	MACHINERY				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site.	day	0.02	30000.00	600.00
0025	Hire and running charges of light crane.	day	0.01	3000.00	30.00
0026	Hire and running charges of bentonite pump.	day	0.02	3500.00	70.00
	LABOUR				
	Work supervisor				
0130	Mistry	day	0.02	738.00	14.76
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				2118.08 W
	Add 1 % Water charges on "W-A"				13.02
	TOTAL				2131.11 X
	Add GST on "X-A" (multiplying factor 0.1405)				184.81
	TOTAL				2315.92 Y
	Add 15% CPOH on "Y-A"				225.03
	TOTAL				2540.95 Z
	Add Cess @ 1% on "Z-A"				17.25
	Cost of 1 bulb				2558.20
	Say				2558.20

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				
5.33.1	Concrete $-3.14/4 \times (0.40)^2 \times 20 = 2.51$ cum				
	Rate as per item no 5.33.1 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	13020.50	32681.46 A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-2.51	7296.35	-18313.84 A
3.7	Cement mortar 1:2 for grout Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5345.55	133.64
9999	Sundries	L.S.	442.00	2.00	884.00
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				
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				
0130	Work supervisor Mistry	day	0.12	738.00	88.56
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				54386.04 W
	Add 1 % Water charges on "W-A"				199.45
	TOTAL				54585.49 X
	Add GST on "X-A" (multiplying factor 0.1405)				2830.32
	TOTAL				57415.81 Y
	Add 15% CPOH on "Y-A"				3446.25
	TOTAL				60862.06 Z
	Add Cess @ 1% on "Z-A"				264.21
	Cost of 20 metre pile				61126.27
	Cost of 1 metre pile				3056.31
	Say				3056.30

20.5.2 450 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile MATERIAL				
5.33.1	Concrete $-3.14/4 \times (0.45)^2 \times 20 = 3.18$ cum				
	Rate as per item no 5.33.1 of SH : RCC Work	cum	3.18	7997.30	25431.41 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.19	Add Rate as per item no 5.19 SH : RCC	cum	3.18	13020.50	41405.19 A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-3.18	7296.35	-23202.39 A
3.7	Cement mortar 1:2 for grout Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5345.55	133.64
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.00	884.00
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
0027	MACHINERY 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. LABOUR	day	0.06	7000.00	420.00
0130	Work supervisor Mistry	day	1.08	738.00	797.04
0114	Beldar	day	10.78	558.00	6015.24
	TOTAL				68629.13 W
	Add 1 % Water charges on "W-A"				249.95
	TOTAL				68879.08 X
	Add GST on "X-A" (multiplying factor 0.1405)				3546.90
	TOTAL				72425.98 Y
	Add 15% CPOH on "Y-A"				4318.77
	TOTAL				76744.75 Z
	Add Cess @ 1% on "Z-A"				331.11
	Cost of 20 metre pile				77075.85
	Cost of 1 metre pile				3853.79
	Say				3853.80

20.5.3 500 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete $-3.14/4 \times (0.50)^2 \times 20 = 3.925$ cum Rate as per item no 5.33.1 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	13020.50	51105.46 A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-3.925	7296.35	-28638.17 A
3.7	Cement mortar 1:2 for grout Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5345.55	133.64
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.00	884.00
7181	C.I. pile shoe of 80 kg per pile @ 80 kg per pile	kilogram	80.00	48.00	3840.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7182	M.S. clamps for pile shoe @ 35 kg per pile	kilogram	35.00	43.00	1505.00
0027	MACHINERY 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	738.00	88.56
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				73801.89 W
	Add 1 % Water charges on "W-A"				199.45
	TOTAL				74001.34 X
	Add GST on "X-A" (multiplying factor 0.1405)				2830.32
	TOTAL				76831.67 Y
	Add 15% CPOH on "Y-A"				3446.25
	TOTAL				80277.91 Z
	Add Cess @ 1% on "Z-A"				264.21
	Cost of 20 metre pile				80542.12
	Cost of 1 metre pile				4027.11
	Say				4027.10

20.5.4 550 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile MATERIAL				
5.33.1	Concrete $-3.14/4 \times (0.55)^2 \times 20 = 4.75$ cum Rate as per item no 5.33.1 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	13020.50	61847.38 A
5.1.3	Deduct Rate as per item no 5.1.3				
	SH : RCC	cum	-4.75	7296.35	-34657.66 A
3.7	Rate as per Item Number 3.7 of				
	SH: Mortars	cum	0.025	5345.55	133.64
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.00	884.00
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 @ 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	738.00	88.56

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				85122.09 W
	Add 1 % Water charges on "W-A"				199.45
	TOTAL				85321.54 X
	Add GST on "X-A" (multiplying factor 0.1405)				2830.32
	TOTAL				88151.86 Y
	Add 15% CPOH on "Y-A"				3446.25
	TOTAL				91598.11 Z
	Add Cess @ 1% on "Z-A"				264.21
	Cost of 20 metre pile				91862.32
	Cost of 1 metre pile				4593.12
	Say				4593.10

20.5.5 750 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 20 m length of pile				
	MATERIAL				
5.33.1	Concrete $-3.14/4 \times (0.75)^2 \times 20 = 10.88$ cum				
	Rate as per item no 5.33.1 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	13020.50	141663.04 A
5.1.3	Deduct Rate as per item no 5.1.3				
	SH : RCC	cum	-10.88	7296.35	-79384.29 A
3.7	Rate as per Item Number 3.7 of				
	SH: Mortars	cum	0.025	5345.55	133.64
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.00	884.00
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				
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	738.00	88.56
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				169234.57 W
	Add 1 % Water charges on "W-A"				199.45
	TOTAL				169434.03 X
	Add GST on "X-A" (multiplying factor 0.1405)				2830.32
	TOTAL				172264.35 Y
	Add 15% CPOH on "Y-A"				3446.25
	TOTAL				175710.60 Z
	Add Cess @ 1% on "Z-A"				264.21
	Cost of 20 metre pile				175974.81
	Cost of 1 metre pile				8798.74
	Say				8798.75

20.5.6 1000 mm dia piles

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.1	Details of cost for 20 m length of pile MATERIAL Concrete $-3.14/4 \times (1.00)^2 \times 20 = 15.70$ cum Rate as per item no 5.33.1 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	13020.50	204421.85 A
5.1.3	Deduct Rate as per item no 5.1.3 SH : RCC	cum	-15.7	7296.35	-114552.70 A
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	5345.55	133.64
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.00	884.00
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
0027	MACHINERY 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	738.00	88.56
0114	Beldar	day	3.00	558.00	1674.00
	TOTAL				235371.96 W
	Add 1 % Water charges on "W-A"				199.45
	TOTAL				235571.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				2830.32
	TOTAL				238401.74 Y
	Add 15% CPOH on "Y-A"				3446.25
	TOTAL				241847.99 Z
	Add Cess @ 1% on "Z-A"				264.21
	Cost of 20 metre pile				242112.20
	Cost of 1 metre pile				12105.61
	Say				12105.60

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 ₹
7246	Details of cost for 1 test Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (Part-IV)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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. 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	40000.00	40000.00 40000.00 W 400.00 40400.00 X 5676.20 46076.20 Y 6911.43 52987.63 Z 529.88 53517.51 53517.50

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	15000.00	15000.00 15000.00 W 150.00 15150.00 X 2128.58 17278.58 Y 2591.79 19870.36 Z 198.70 20069.06 20069.05

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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	45000.00	45000.00 45000.00 W 450.00 45450.00 X 6385.73 51835.73 Y 7775.36 59611.08 Z 596.11 60207.19 60207.20

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) 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	23000.00	23000.00 23000.00 W 230.00 23230.00 X 3263.82 26493.82 Y 3974.07 30467.89 Z 304.68 30772.57 30772.55

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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	50000.00	50000.00 50000.00 W 500.00 50500.00 X 7095.25 57595.25 Y 8639.29 66234.54 Z 662.35 66896.88 66896.90

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) including prepration of pile head etc. for Group of two piles upto 50 tonne capacity each 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	29500.00	29500.00 29500.00 W 295.00 29795.00 X 4186.20 33981.20 Y 5097.18 39078.38 Z 390.78 39469.16 39469.15

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 TOTAL	per test	1.00	15000.00	15000.00 15000.00 W

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add 1 % Water charges on "W"				150.00
	TOTAL				15150.00 X
	Add GST on "X" (multiplying factor 0.1405)				2128.58
	TOTAL				17278.58 Y
	Add 15% CPOH on "Y"				2591.79
	TOTAL				19870.36 Z
	Add Cess @ 1% on "Z"				198.70
	Cost per test				20069.06
	Say				20069.05

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	23000.00	23000.00
	TOTAL				23000.00 W
	Add 1 % Water charges on "W"				230.00
	TOTAL				23230.00 X
	Add GST on "X" (multiplying factor 0.1405)				3263.82
	TOTAL				26493.82 Y
	Add 15% CPOH on "Y"				3974.07
	TOTAL				30467.89 Z
	Add Cess @ 1% on "Z"				304.68
	Cost per test				30772.57
	Say				30772.55

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 ₹
7251	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 Group of two piles upto 50 tonne capacity each	per test	1.00	29500.00	29500.00
	TOTAL				29500.00 W
	Add 1 % Water charges on "W"				295.00
	TOTAL				29795.00 X
	Add GST on "X" (multiplying factor 0.1405)				4186.20
	TOTAL				33981.20 Y
	Add 15% CPOH on "Y"				5097.18
	TOTAL				39078.38 Z
	Add Cess @ 1% on "Z"				390.78
	Cost per test				39469.16
	Say				39469.15

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 ₹
7252	Details of cost for 1 test 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 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	15000.00	15000.00 15000.00 W 150.00 15150.00 X 2128.58 17278.58 Y 2591.79 19870.36 Z 198.70 20069.06 20069.05

20.8.2 Above 50 tonne and upto 100 tonne capacity pile

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7253	Details of cost for 1 test 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 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	23600.00	23600.00 23600.00 W 236.00 23836.00 X 3348.96 27184.96 Y 4077.74 31262.70 Z 312.63 31575.33 31575.35

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 ₹
0081	Detail of cost for one pit test (Ten pits in one day) MATERIAL Pile Integrity testing equipment	day	0.10	3000.00	300.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0160	LABOUR Technician	day	0.10	775.00	77.50
0161	Helper (Technician)	day	0.10	558.00	55.80
	Miscellaneous				
9999	Reporting charges	L.S.	100.67	2.00	201.34
9977	Transportation and consumables etc.	L.S.	33.56	2.00	67.12
	TOTAL				701.76 W
	Add 1 % Water charges on "W"				7.02
	TOTAL				708.78 X
	Add GST on "X" (multiplying factor 0.1405)				99.58
	TOTAL				808.36 Y
	Add 15% CPOH on "Y"				121.25
	TOTAL				929.61 Z
	Add Cess @ 1% on "Z"				9.30
	Cost per test				938.91
	Say				938.90

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) $V = 2 \times 2.40 = 4.80$ m $H = 2 \times 3 \times 0.95 = 5.70$ m $= 10.50$ m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) $V = 2 \times 2.40 = 4.80$ m $H = 1 \times 3 \times 0.95 = 2.85$ m $= 7.65$ m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) $2 \times 6 \times 2 (1.14 + 0.95) = 50.16$ m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat $38 \times 38 \times 4.8$ mm 50 mm long $18 \times 0.05 = 0.900$ 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	kilogram	42.02	190.00	7983.80
0589	(v) C.P. brass /stainless steel screws 20 mm for cleat angle $18 \times 4 = 72$ Nos	100 Nos	0.72	160.00	115.20
7389	Chromium plated Brass screws 20 mm (vi) Anodising 15 microns on aluminium sections	kilogram	42.02	38.00	1596.76
9977	(vii) Carriage of material LABOUR	L.S.	52.00	2.00	104.00
0116	For fabrication of frame Fitter (grade 1)	day	2.00	738.00	1476.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	617.00	617.00
0114	Beldar	day	1.00	558.00	558.00
0100	Bandhani	day	0.05	617.00	30.85

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries 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 40.02 kg Cost for 1 kg Say	L.S.	100.00	2.00	200.00 12681.61 W 126.82 12808.43 X 1799.58 14608.01 Y 2191.20 16799.21 Z 167.99 16967.20 423.97 423.95

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) $V = 2 \times 2.40 = 4.80$ m $H = 2 \times 3 \times 0.95 = 5.70$ m $= 10.50$ m @ 1.653 kg/m = 17.36 kg (ii) Internal member of the frame (Jindal section no 4604) $V = 2 \times 2.40 = 4.80$ m $H = 1 \times 3 \times 0.95 = 2.85$ m $= 7.65$ m @ 1.692 kg/m = 12.94 kg (iii) Aluminium snap beading on both side (Jindal section no 4407) $2 \times 6 \times 2 (1.14 + 0.95) = 50.16$ m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg (iv) Angle cleat 38x38x4.8 mm 50 mm long $18 \times 0.05 = 0.900$ 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	kilogram	42.02	190.00	7983.80
0589	(v) C.P. brass /stainless steel screws 20 mm for cleat angle $18 \times 4 = 72$ Nos Chromium plated Brass screws 20 mm	100 Nos	0.72	160.00	115.20
7392	(vi) Epoxy Powder coating 50 microns on aluminium sections	kilogram	42.02	61.00	2563.22
9977	(vii) Carriage of material	L.S.	52.00	2.00	104.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0116	LABOUR For fabrication of frame				
	Fitter (grade 1)	day	2.00	738.00	1476.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	617.00	617.00
0114	Beldar	day	1.00	558.00	558.00
0100	Bandhani	day	0.05	617.00	30.85
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries				
	TOTAL	L.S.	100.00	2.00	200.00
	Add 1 % Water charges on "W"				13648.07 W
	TOTAL				136.48
	Add GST on "X" (multiplying factor 0.1405)				13784.55 X
	TOTAL				1936.73
	Add 15% CPOH on "Y"				15721.28 Y
	TOTAL				2358.19
	Add Cess @ 1% on "Z"				18079.47 Z
	Cost for 40.02 kg				180.79
	Cost for 1 kg				18260.27
	Say				456.28
					456.30

21.1.1.3 Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7306	<p>Details of cost for 40.02 kg MATERIAL</p> <p>(i) External member of the frame (Jindal section no 4605) $V = 2 \times 2.40 = 4.80$ m $H = 2 \times 3 \times 0.95 = 5.70$ m $= 10.50$ m @ 1.653 kg/m = 17.36 kg</p> <p>(ii) Internal member of the frame (Jindal section no 4604) $V = 2 \times 2.40 = 4.80$ m $H = 1 \times 3 \times 0.95 = 2.85$ m $= 7.65$ m @ 1.692 kg/m = 12.94 kg</p> <p>(iii) Aluminium snap beading on both side (Jindal section no 4407) $2 \times 6 \times 2 (1.14 + 0.95) = 50.16$ m Snap beading = 50.16 m @ 0.176 kg/m = 8.33 kg</p> <p>(iv) Angle cleat $38 \times 38 \times 4.8$ mm 50 mm long $18 \times 0.05 = 0.900$ m @ 0.985 kg/m = 0.89 kg Sub total = 40.02 kg Add 5% wastage = 2.00 kg Total = 42.02 kg</p> <p>Aluminium T or L sections</p> <p>(v) C.P. brass /stainless steel screws 20 mm for cleat angle $18 \times 4 = 72$ Nos</p>	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 LABOUR For fabrication of frame	L.S.	52.00	2.00	104.00
0116	Fitter (grade 1)	day	2.00	738.00	1476.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	617.00	617.00
0114	Beldar	day	1.00	558.00	558.00
0100	Bandhani	day	0.05	617.00	30.85
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners and sundries	L.S.	100.00	2.00	200.00
	TOTAL				13900.19 W
	Add 1 % Water charges on "W"				139.00
	TOTAL				14039.19 X
	Add GST on "X" (multiplying factor 0.1405)				1972.51
	TOTAL				16011.70 Y
	Add 15% CPOH on "Y"				2401.75
	TOTAL				18413.45 Z
	Add Cess @ 1% on "Z"				184.13
	Cost for 40.02 kg				18597.59
	Cost for 1 kg				464.71
	Say				464.70

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 (vi) Aluminium snap beading (Jindal section no 4497) on both side				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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	kilogram	21.65	190.00	4113.50
0689	(viii) Anodised Aluminium butt hinges 100x75x4 mm	10 Nos	0.40	393.00	157.20
	(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				
0589	Chromium plated Brass screws 20 mm	100 Nos	0.92	160.00	147.20
7389	(x) Anodising 15 microns on aluminium sections	kilogram	21.65	38.00	822.70
9977	(xi) Carriage of material	L.S.	31.20	2.00	62.40
7390	(xii) Neoprene/ EPDM gasket in groove of meeting style Neoprene/EPDM rubber gasket LABOUR	metre	2.35	19.00	44.65
0116	For fabrication				
0139	Fitter (grade 1)	day	1.00	738.00	738.00
0114	Skilled Beldar (for floor rubbing etc.)	day	1.00	617.00	617.00
0100	Beldar	day	0.50	558.00	279.00
	Bandhani	day	0.40	617.00	246.80
	For fixing the shutter including hinges :				
0111	Carpenter 1st class	day	0.20	738.00	147.60
0114	Beldar	day	0.50	558.00	279.00
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.00	100.00
	TOTAL				7755.05 W
	Add 1 % Water charges on "W"				77.55
	TOTAL				7832.60 X
	Add GST on "X" (multiplying factor 0.1405)				1100.48
	TOTAL				8933.08 Y
	Add 15% CPOH on "Y"				1339.96
	TOTAL				10273.04 Z
	Add Cess @ 1% on "Z"				102.73
	Cost for 20.21 kg				10375.77
	Cost for 1 kg				513.40
	Say				513.40

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) 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 0589 Chromium plated Brass screws 20 mm (x) Epoxy 7392 Powder coating 50 microns on aluminium sections 9977 Carriage of material (xii) Neoprene/ EPDM rubber gasket in groove of meeting style 7390 Neoprene/EPDM rubber gasket LABOUR 0116 Fitter (grade 1) 0139 Skilled Beldar (for floor rubbing etc.) 0114 Beldar 0100 Bandhani For fixing the shutter including hinges :				
		kilogram	21.65	190.00	4113.50
		10 Nos	0.40	393.00	157.20
		100 Nos	0.92	160.00	147.20
		kilogram	21.65	61.00	1320.65
		L.S.	31.20	2.00	62.40
		metre	2.35	19.00	44.65
		day	1.00	738.00	738.00
		day	1.00	617.00	617.00
		day	0.50	558.00	279.00
		day	0.40	617.00	246.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	Carpenter 1st class	day	0.20	738.00	147.60
0114	Beldar	day	0.50	558.00	279.00
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.00	100.00
	TOTAL				8253.00 W
	Add 1 % Water charges on "W"				82.53
	TOTAL				8335.53 X
	Add GST on "X" (multiplying factor 0.1405)				1171.14
	TOTAL				9506.67 Y
	Add 15% CPOH on "Y"				1426.00
	TOTAL				10932.67 Z
	Add Cess @ 1% on "Z"				109.33
	Cost for 20.21 kg				11042.00
	Cost for 1 kg				546.36
	Say				546.35

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
0689	Anodised Aluminium butt hinges 100x75x4 mm	10 Nos	0.40	393.00	157.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0589	(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 Chromium plated Brass screws 20 mm	100 Nos	0.92	160.00	147.20
7393	(x) Polyester powder coating 50 microns on aluminium sections	kilogram	21.65	67.00	1450.55
9977	(xi) Carriage of material	L.S.	31.20	2.00	62.40
7390	(xii) Neoprene/ EPDM rubber gasket in groove of meeting style Neoprene/EPDM rubber gasket LABOUR For fabrication	metre	2.35	19.00	44.65
0116	Fitter (grade 1)	day	1.00	738.00	738.00
0139	Skilled Beldar (for floor rubbing etc.)	day	1.00	617.00	617.00
0114	Beldar	day	0.50	558.00	279.00
0100	Bandhani	day	0.40	617.00	246.80
0111	For fixing the shutter including hinges : Carpenter 1st class	day	0.20	738.00	147.60
114	Beldar	day	0.50	558.00	279.00
9999	Labour for making provision for fittings and carriage of screws etc. including sundries	L.S.	50.00	2.00	100.00
	TOTAL				8382.90 W
	Add 1 % Water charges on "W"				83.83
	TOTAL				8466.73 X
	Add GST on "X" (multiplying factor 0.1405)				1189.58
	TOTAL				9656.30 Y
	Add 15% CPOH on "Y"				1448.45
	TOTAL				11104.75 Z
	Add Cess @ 1% on "Z"				111.05
	Cost for 20.21 kg				11215.80
	Cost for 1 kg				554.96
	Say				554.95

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7477	Add 5% wastage = 0.35 sqm Total = 7.35 sqm 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	540.00	3969.00
9977	Carriage of particle board	L.S.	13.65	2.00	27.30
9999	Sundries & screws etc.	L.S.	27.30	2.00	54.60
	LABOUR				
0112	Carpenter 2nd class	day	0.90	679.00	611.10
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				5220.00 W
	Add 1 % Water charges on "W"				52.20
	TOTAL				5272.20 X
	Add GST on "X" (multiplying factor 0.1405)				740.74
	TOTAL				6012.94 Y
	Add 15% CPOH on "Y"				901.94
	TOTAL				6914.89 Z
	Add Cess @ 1% on "Z"				69.15
	Cost for 7 sqm				6984.03
	Cost for 1 sqm				997.72
	Say				997.70

21.2.2 Pre-laminated particle board with decorative lamination on both sides

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7480	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 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	575.00	4226.25
9977	Carriage of particle board	L.S.	13.65	2.00	27.30
9999	Sundries & screws etc.	L.S.	27.30	2.00	54.60
	LABOUR				
0112	Carpenter 2nd class	day	0.90	679.00	611.10
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				5477.25 W
	Add 1 % Water charges on "W"				54.77
	TOTAL				5532.02 X
	Add GST on "X" (multiplying factor 0.1405)				777.25
	TOTAL				6309.27 Y
	Add 15% CPOH on "Y"				946.39
	TOTAL				7255.66 Z
	Add Cess @ 1% on "Z"				72.56
	Cost for 7 sqm				7328.22
	Cost for 1 sqm				1046.89
	Say				1046.90

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	300.00	330.00
9977	Carriage of glass	L.S.	2.42	2.00	4.84
7390	Neoprene/EPDM rubber gasket	metre	6.00	19.00	114.00
	LABOUR				
0112	Carpenter 2nd class	day	0.23	679.00	156.17
0114	Beldar	day	0.23	558.00	128.34
9988	Sundries and carriage of gasket	L.S.	6.89	2.00	13.78
	TOTAL				747.13 W
	Add 1 % Water charges on "W"				7.47
	TOTAL				754.60 X
	Add GST on "X" (multiplying factor 0.1405)				106.02
	TOTAL				860.62 Y
	Add 15% CPOH on "Y"				129.09
	TOTAL				989.72 Z
	Add Cess @ 1% on "Z"				9.90
	Cost for 1 sqm				999.61
	Say				999.60

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	500.00	550.00
9977	Carriage of glass	L.S.	3.33	2.00	6.66
7390	Neoprene/EPDM rubber gasket	metre	6.00	19.00	114.00
	LABOUR				
0112	Carpenter 2nd class	day	0.23	679.00	156.17
0114	Beldar	day	0.23	558.00	128.34

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9988	Sundries and carriage of gasket	L.S.	6.89	2.00	13.78
	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 for 1 sqm				1296.39
	Say				1296.40

21.3.3 With float glass panes of 8 mm thickness (weight not less than 20 kg/sqm)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2408	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 Float glass sheet of nominal thickness 8 mm.(weight not less than 20.00 kg/sqm).	sqm	1.10	610.00	671.00
9977	Carriage of glass	L.S.	4.84	2.00	9.68
7390	Neoprene/EPDM rubber gasket	metre	6.00	19.00	114.00
	LABOUR				
0112	Carpenter 2nd class	day	0.23	679.00	156.17
0114	Beldar	day	0.23	558.00	128.34
9988	Sundries and carriage of gasket	L.S.	6.89	2.00	13.78
	TOTAL				1092.97 W
	Add 1 % Water charges on "W"				10.93
	TOTAL				1103.90 X
	Add GST on "X" (multiplying factor 0.1405)				155.10
	TOTAL				1259.00 Y
	Add 15% CPOH on "Y"				188.85
	TOTAL				1447.85 Z
	Add Cess @ 1% on "Z"				14.48
	Cost for 1 sqm				1462.33
	Say				1462.35

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	2.00	26.00
9999	Sundries and screws	L.S.	26.00	2.00	52.00
	Cement concrete 1:2:4				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete work	cum	0.002	6788.60	13.58 A
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.08	738.00	59.04
0124	Mason (brick layer) 2nd class	day	0.08	679.00	54.32
0112	Carpenter 2nd class	day	0.01	679.00	6.79
0114	Beldar	day	0.17	558.00	94.86
	TOTAL				1806.59 W
	Add 1 % Water charges on "W-A"				17.93
	TOTAL				1824.52 X
	Add GST on "X-A" (multiplying factor 0.1405)				254.44
	TOTAL				2078.95 Y
	Add 15% CPOH on "Y-A"				309.81
	TOTAL				2388.76 Z
	Add Cess @ 1% on "Z-A"				23.75
	Cost for each				2412.51
	Say				2412.50

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	2.00	26.00
9999	Sundries and screws	L.S.	26.00	2.00	52.00
	Cement concrete 1:2:4				
4.1.3	Rate as per item no. 4.1.3 of SH : concrete work	cum	0.002	6788.60	13.58 A
	LABOUR				
	For cutting hole and making it good				
0123	Mason (brick layer) 1st class	day	0.08	738.00	59.04
0124	Mason (brick layer) 2nd class	day	0.08	679.00	54.32
0112	Carpenter 2nd class	day	0.01	679.00	6.79
0114	Beldar	day	0.17	558.00	94.86
	TOTAL				1926.59 W
	Add 1 % Water charges on "W-A"				19.13
	TOTAL				1945.72 X
	Add GST on "X-A" (multiplying factor 0.1405)				271.47
	TOTAL				2217.18 Y
	Add 15% CPOH on "Y-A"				330.54
	TOTAL				2547.72 Z
	Add Cess @ 1% on "Z-A"				25.34
	Cost for each				2573.07
	Say				2573.05

- 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 ₹
	<p>Details of cost for 6.35 kg (2.40x2.40 = 5.76 sqm)</p> <p>MATERIAL</p> <p>(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</p> <p>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</p> <p>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</p> <p>(ii) CLEATS</p> <p>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</p> <p>Sub total = 2.370 + 1.630 + 2.045 + 0.309 =6.354 kg Add 5% wastage = 0.318 kg Total = 6.672 kg</p>				
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.)	each	24.00	25.00	600.00
	Epoxy				
7392	Powder coating 50 microns on aluminium sections	kilogram	6.67	61.00	406.87
	(vi)				
9977	Carriage of material	L.S.	13.00	2.00	26.00
	(vii)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	C.P. brass screws for fixing frame with suspenders	L.S.	13.00	2.00	26.00
	LABOUR				
	For fabrication and erection				
0111	Carpenter 1st class	day	0.64	738.00	472.32
0114	Beldar	day	0.64	558.00	357.12
9999	Scaffolding and sundries	L.S.	13.00	2.00	26.00
	TOTAL				3183.85 W
	Add 1 % Water charges on "W"				31.84
	TOTAL				3215.68 X
	Add GST on "X" (multiplying factor 0.1405)				451.80
	TOTAL				3667.49 Y
	Add 15% CPOH on "Y"				550.12
	TOTAL				4217.61 Z
	Add Cess @ 1% on "Z"				42.18
	Cost for 6.35 kg				4259.79
	Cost for 1 kg				670.83
	Say				670.85

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	11.00	253.00
9977	Carriage of materials	L.S.	5.20	2.00	10.40
	LABOUR				
0111	Carpenter 1st class	day	0.35	738.00	258.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.27	558.00	150.66
	TOTAL				1202.36 W
	Add 1 % Water charges on "W"				12.02
	TOTAL				1214.38 X
	Add GST on "X" (multiplying factor 0.1405)				170.62
	TOTAL				1385.00 Y
	Add 15% CPOH on "Y"				207.75
	TOTAL				1592.76 Z
	Add Cess @ 1% on "Z"				15.93
	Cost for 23 hangers				1608.68
	Cost for one hanger				69.94
	Say				69.95

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 x 0.17 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	15.00	450.00
9977	Carriage of materials	L.S.	6.50	2.00	13.00
	LABOUR				
0112	Carpenter 2nd class	day	0.392	679.00	266.17
0114	Beldar	day	0.392	558.00	218.74

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries including machine work	L.S.	21.45	2.00	42.90
	TOTAL				3045.20 W
	Add 1 % Water charges on "W"				30.45
	TOTAL				3075.66 X
	Add GST on "X" (multiplying factor 0.1405)				432.13
	TOTAL				3507.79 Y
	Add 15% CPOH on "Y"				526.17
	TOTAL				4033.95 Z
	Add Cess @ 1% on "Z"				40.34
	Cost for 7.00 kg				4074.29
	Cost for 1 kg				582.04
	Say				582.05

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 x 0.17 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
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	15.00	450.00
9977	Carriage of materials	L.S.	6.50	2.00	13.00
	LABOUR				
0112	Carpenter 2nd class	day	0.392	679.00	266.17
0114	Beldar	day	0.392	558.00	218.74
9999	Sundries including machine work	L.S.	21.45	2.00	42.90
	TOTAL				3214.25 W
	Add 1 % Water charges on "W"				32.14
	TOTAL				3246.40 X
	Add GST on "X" (multiplying factor 0.1405)				456.12
	TOTAL				3702.52 Y
	Add 15% CPOH on "Y"				555.38
	TOTAL				4257.89 Z
	Add Cess @ 1% on "Z"				42.58
	Cost for 7.00 kg				4300.47
	Cost for 1 kg				614.35
	Say				614.35

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	100.00	8.70
8654	Masking tape	metre	2.00	1.95	3.90
9999	Sundries & profile	L.S.	2.60	2.00	5.20
9999	LABOUR	L.S.	20.80	2.00	41.60
	TOTAL				59.40 W
	Add 1 % Water charges on "W"				0.59
	TOTAL				59.99 X
	Add GST on "X" (multiplying factor 0.1405)				8.43
	TOTAL				68.42 Y
	Add 15% CPOH on "Y"				10.26
	TOTAL				78.69 Z
	Add Cess @ 1% on "Z"				0.79
	Cost for 1 metre				79.47
	Say				79.45

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				
7391	Difference in cost of 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 ₹
7391	Details of cost for 21.65 kg Difference in cost of 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 sealed 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	2150.00	2365.00
9977	Carriage of glass	L.S.	6.66	2.00	13.32
7390	Neoprene/EPDM rubber gasket	metre	6.00	19.00	114.00
	LABOUR				
	Glazier /				
0112	Carpenter 2nd class	day	0.23	679.00	156.17
0114	Beldar	day	0.46	558.00	256.68
9988	Sundries and carriage of gasket	L.S.	6.89	2.00	13.78
	TOTAL				2918.95 W
	Add 1 % Water charges on "W"				29.19
	TOTAL				2948.14 X
	Add GST on "X" (multiplying factor 0.1405)				414.21
	TOTAL				3362.35 Y
	Add 15% CPOH on "Y"				504.35
	TOTAL				3866.71 Z
	Add Cess @ 1% on "Z"				38.67
	Cost for 1 sqm				3905.37
	Say				3905.35

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	172.00	1720.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	32.00	12.80
9977	CARRIAGE	L.S.	2.73	2.00	5.46
	LABOUR				
0112	Carpenter 2nd class	day	0.14	679.00	95.06
0114	Beldar	day	0.14	558.00	78.12
	TOTAL				1911.44 W
	Add 1 % Water charges on "W"				19.11
	TOTAL				1930.55 X
	Add GST on "X" (multiplying factor 0.1405)				271.24
	TOTAL				2201.80 Y
	Add 15% CPOH on "Y"				330.27
	TOTAL				2532.07 Z
	Add Cess @ 1% on "Z"				25.32
	Cost for 10 nos				2557.39
	Cost for each				255.74
	Say				255.75

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	222.00	2220.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	32.00	12.80
9977	CARRIAGE	L.S.	2.73	2.00	5.46
	LABOUR				
0112	Carpenter 2nd class	day	0.14	679.00	95.06
0114	Beldar	day	0.14	558.00	78.12
	TOTAL				2411.44 W
	Add 1 % Water charges on "W"				24.11
	TOTAL				2435.55 X
	Add GST on "X" (multiplying factor 0.1405)				342.20
	TOTAL				2777.75 Y
	Add 15% CPOH on "Y"				416.66
	TOTAL				3194.41 Z
	Add Cess @ 1% on "Z"				31.94
	Cost for 10 nos				3226.36
	Cost for each				322.64
	Say				322.65

21.11.3 355 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8651	Details of cost for 10 nos. MATERIAL 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	32.00	12.80
9977	CARRIAGE LABOUR	L.S.	2.73	2.00	5.46
0112	Carpenter 2nd class	day	0.14	679.00	95.06
0114	Beldar	day	0.14	558.00	78.12
	TOTAL				2141.44 W
	Add 1 % Water charges on "W"				21.41
	TOTAL				2162.85 X
	Add GST on "X" (multiplying factor 0.1405)				303.88
	TOTAL				2466.74 Y
	Add 15% CPOH on "Y"				370.01
	TOTAL				2836.75 Z
	Add Cess @ 1% on "Z"				28.37
	Cost for 10 nos				2865.11
	Cost for each				286.51
	Say				286.50

21.11.4 510 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8652	Details of cost for 10 nos. MATERIAL Stainless steel (SS 304 grade) adjustable friction window stay 510 x 19 mm	each	10.00	525.00	5250.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	32.00	12.80
9977	CARRIAGE LABOUR	L.S.	2.73	2.00	5.46
0112	Carpenter 2nd class	day	0.14	679.00	95.06
0114	Beldar	day	0.14	558.00	78.12
	TOTAL				5441.44 W
	Add 1 % Water charges on "W"				54.41
	TOTAL				5495.85 X
	Add GST on "X" (multiplying factor 0.1405)				772.17
	TOTAL				6268.02 Y
	Add 15% CPOH on "Y"				940.20
	TOTAL				7208.23 Z
	Add Cess @ 1% on "Z"				72.08
	Cost for 10 nos				7280.31
	Cost for each				728.03
	Say				728.05

21.11.5 710 X 19 mm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8653	Details of cost for 10 nos. MATERIAL Stainless steel (SS 304 grade) adjustable friction window stay 710 x 19 mm	each	10.00	900.00	9000.00
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.40	32.00	12.80
9977	CARRIAGE	L.S.	2.73	2.00	5.46
	LABOUR				
0112	Carpenter 2nd class	day	0.14	679.00	95.06
0114	Beldar	day	0.14	558.00	78.12
	TOTAL				9191.44 W
	Add 1 % Water charges on "W"				91.91
	TOTAL				9283.35 X
	Add GST on "X" (multiplying factor 0.1405)				1304.31
	TOTAL				10587.67 Y
	Add 15% CPOH on "Y"				1588.15
	TOTAL				12175.82 Z
	Add Cess @ 1% on "Z"				121.76
	Cost for 10 nos				12297.57
	Cost for each				1229.76
	Say				1229.75

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	2.00	8.84
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	32.00	2.56
	LABOUR				
0111	Carpenter 1st class	day	0.125	738.00	92.25
	TOTAL				3829.17 W
	Add 1 % Water charges on "W"				38.29
	TOTAL				3867.46 X
	Add GST on "X" (multiplying factor 0.1405)				543.38
	TOTAL				4410.84 Y
	Add 15% CPOH on "Y"				661.63
	TOTAL				5072.47 Z
	Add Cess @ 1% on "Z"				50.72
	Cost of 10 nos				5123.19
	Cost of 1 no				512.32
	Say				512.30

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	2.00	8.84
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	32.00	2.56
	LABOUR				
0111	Carpenter 1st class	day	0.125	738.00	92.25
	TOTAL				4204.99 W
	Add 1 % Water charges on "W"				42.05
	TOTAL				4247.04 X
	Add GST on "X" (multiplying factor 0.1405)				596.71
	TOTAL				4843.75 Y
	Add 15% CPOH on "Y"				726.56
	TOTAL				5570.31 Z
	Add Cess @ 1% on "Z"				55.70
	Cost of 10 nos				5626.01
	Cost of 1 no				562.60
	Say				562.60

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	2.00	8.84
8647	Stainless steel screws 30 mm x4 mm	100 nos	0.08	32.00	2.56

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR Carpenter 1st class	day	0.125	738.00	92.25
	TOTAL				4303.03 W
	Add 1 % Water charges on "W"				43.03
	TOTAL				4346.06 X
	Add GST on "X" (multiplying factor 0.1405)				610.62
	TOTAL				4956.68 Y
	Add 15% CPOH on "Y"				743.50
	TOTAL				5700.18 Z
	Add Cess @ 1% on "Z"				57.00
	Cost of 10 nos				5757.19
	Cost of 1 no				575.72
	Say				575.70

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 ₹
7001	Detail of cost for 1 nos. MATERIAL Brass 100mm mortice latch and lock with 6 levers without pair of handles	each	1.00	210.00	210.00
0111	LABOUR Carpenter 1st class	day	0.17	738.00	125.46
9999	Sundry and screws	L.S.	3.64	2.00	7.28
	TOTAL				342.74 W
	Add 1 % Water charges on "W"				3.43
	TOTAL				346.17 X
	Add GST on "X" (multiplying factor 0.1405)				48.64
	TOTAL				394.80 Y
	Add 15% CPOH on "Y"				59.22
	TOTAL				454.02 Z
	Add Cess @ 1% on "Z"				4.54
	Cost of 1 no				458.56
	Say				458.55

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 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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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 LABOUR	L.S.	5.20	2.00	10.40
	For fabrication of frame				
0116	Fitter (grade 1)	day	0.04	738.00	29.52
0139	Skilled Beldar (for floor rubbing etc.)	day	0.04	617.00	24.68
0114	Beldar	day	0.02	558.00	11.16
0100	Bandhani	day	0.01	617.00	6.17
9999	Labour for drilling holes, hire charges of drill, electricity charges, carriage of dash hold fastners & sundries	L.S.	5.20	2.00	10.40
	TOTAL				1082.34 W
	Add 1 % Water charges on "W"				10.82
	TOTAL				1093.16 X
	Add GST on "X" (multiplying factor 0.1405)				153.59
	TOTAL				1246.75 Y
	Add 15% CPOH on "Y"				187.01
	TOTAL				1433.76 Z
	Add Cess @ 1% on "Z"				14.34
	Cost for 4.082 kg				1448.10
	Cost for 1 kg				354.75
	Say				354.75

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	44.00	440.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	38.00	15.20
	LABOUR				
0111	Carpenter 1st class	day	0.06	738.00	44.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	TOTAL				504.94 W
	Add 1 % Water charges on "W"				5.05
	TOTAL				509.99 X
	Add GST on "X" (multiplying factor 0.1405)				71.65
	TOTAL				581.64 Y
	Add 15% CPOH on "Y"				87.25
	TOTAL				668.89 Z
	Add Cess @ 1% on "Z"				6.69
	Cost of 10 nos				675.58
	Cost of 1 nos				67.56
	Say				67.55

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	47.00	470.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	38.00	15.20
	LABOUR				
0111	Carpenter 1st class	day	0.06	738.00	44.28
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	TOTAL				534.94 W
	Add 1 % Water charges on "W"				5.35
	TOTAL				540.29 X
	Add GST on "X" (multiplying factor 0.1405)				75.91
	TOTAL				616.20 Y
	Add 15% CPOH on "Y"				92.43
	TOTAL				708.63 Z
	Add Cess @ 1% on "Z"				7.09
	Cost of 10 nos				715.72
	Cost of 1 nos				71.57
	Say				71.55

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	46.00	460.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	38.00	15.20
	LABOUR				
0111	Carpenter 1st class	day	0.06	738.00	44.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	TOTAL				524.94 W
	Add 1 % Water charges on "W"				5.25
	TOTAL				530.19 X
	Add GST on "X" (multiplying factor 0.1405)				74.49
	TOTAL				604.68 Y
	Add 15% CPOH on "Y"				90.70
	TOTAL				695.38 Z
	Add Cess @ 1% on "Z"				6.95
	Cost of 10 nos				702.34
	Cost of 1 nos				70.23
	Say				70.25

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	53.00	530.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	38.00	15.20
	LABOUR				
0111	Carpenter 1st class	day	0.06	738.00	44.28
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	TOTAL				594.94 W
	Add 1 % Water charges on "W"				5.95
	TOTAL				600.89 X
	Add GST on "X" (multiplying factor 0.1405)				84.42
	TOTAL				685.31 Y
	Add 15% CPOH on "Y"				102.80
	TOTAL				788.11 Z
	Add Cess @ 1% on "Z"				7.88
	Cost of 10 nos				795.99
	Cost of 1 nos				79.60
	Say				79.60

21.16.2 Powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 10 nos.				
	MATERIAL				
8664	Aluminium round shape handle (powder coated) outer dia 100 mm	each	10.00	56.00	560.00
8666	Stainless steel screws 25 mm x4 mm	100 Nos	0.40	38.00	15.20
	LABOUR				
0111	Carpenter 1st class	day	0.06	738.00	44.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	TOTAL				624.94 W
	Add 1 % Water charges on "W"				6.25
	TOTAL				631.19 X
	Add GST on "X" (multiplying factor 0.1405)				88.68
	TOTAL				719.87 Y
	Add 15% CPOH on "Y"				107.98
	TOTAL				827.85 Z
	Add Cess @ 1% on "Z"				8.28
	Cost of 10 nos				836.13
	Cost of 1 nos				83.61
	Say				83.60

21.16.3 Polyester powder coated minimum thickness 50 micron aluminium

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8665	Detail of cost for 10 nos. MATERIAL Aluminium round shape handle (polyester 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	38.00	15.20
	LABOUR				
0111	Carpenter 1st class	day	0.06	738.00	44.28
9977	Carriage of materials	L.S.	2.73	2.00	5.46
	TOTAL				664.94 W
	Add 1 % Water charges on "W"				6.65
	TOTAL				671.59 X
	Add GST on "X" (multiplying factor 0.1405)				94.36
	TOTAL				765.95 Y
	Add 15% CPOH on "Y"				114.89
	TOTAL				880.84 Z
	Add Cess @ 1% on "Z"				8.81
	Cost of 10 nos				889.65
	Cost of 1 nos				88.96
	Say				88.95

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 Anodised aluminium grill = 10.00 kg Add 20% wastage = 2 kg = 12 kg				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8774	Aluminium Grill	kg	12.00	260.00	3120.00
9977	Carriage of materials	L.S.	11.00	2.00	22.00
	LABOUR				
	for fixing				
0116	Fitter (grade 1)	day	0.50	738.00	369.00
0139	Skilled Beldar (for floor rubbing etc.)	day	0.25	617.00	154.25
0114	Beldar	day	0.25	558.00	139.50
0100	Bandhani	day	0.05	617.00	30.85
9999	Sundries	L.S.	25.00	2.00	50.00
	TOTAL				3885.60 W
	Add 1 % Water charges on "W"				38.86
	TOTAL				3924.46 X
	Add GST on "X" (multiplying factor 0.1405)				551.39
	TOTAL				4475.84 Y
	Add 15% CPOH on "Y"				671.38
	TOTAL				5147.22 Z
	Add Cess @ 1% on "Z"				51.47
	Cost for 10.00 kg				5198.69
	Cost for 1 kg				519.87
	Say				519.85

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	1747.00	4035.57
9977	Carriage of glass panes and other materials	L.S.	8.19	2.00	16.38
9999	Methylated spirit	L.S.	5.33	2.00	10.66
	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	2412.50	2412.50 A
	LABOUR				
0119	Glazier	day	0.90	679.00	611.10
0114	Beldar	day	0.90	558.00	502.20
9999	Sundries,sush rog cotton etc.	L.S.	1.13	2.00	2.26
	TOTAL				7590.67 W
	Add 1 % Water charges on "W-A"				51.78
	TOTAL				7642.45 X
	Add GST on "X-A" (multiplying factor 0.1405)				734.81
	TOTAL				8377.26 Y
	Add 15% CPOH on "Y-A"				894.71
	TOTAL				9271.97 Z
	Add Cess @ 1% on "Z-A"				68.59
	Cost for 2.10 sqm				9340.57
	Cost for 1 sqm				4447.89
	Say				4447.90

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 ₹
2604	Details of cost for 10m length width 5mm & depth 5mm MATERIAL 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	532.00	532.00
8654	Masking tape	metre	20.00	1.95	39.00
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.00	52.00
9977	Carriage of material	L.S.	8.40	2.00	16.80
0123	LABOUR Mason (brick layer) 1st class	day	0.40	738.00	295.20
	TOTAL				935.00 W
	Add 1 % Water charges on "W"				9.35
	TOTAL				944.35 X
	Add GST on "X" (multiplying factor 0.1405)				132.68
	TOTAL				1077.03 Y
	Add 15% CPOH on "Y"				161.55
	TOTAL				1238.59 Z
	Add Cess @ 1% on "Z"				12.39
	Cost of 10 metre				1250.97
	Cost per metre				125.10
	Say				125.10

21.19.2 Upto 10 mm depth and 10 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2604	Details of cost for 10m length, width 10mm & depth 10mm MATERIAL 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	532.00	798.00
8654	Masking tape	metre	20.00	1.95	39.00
9999	Sundries, including charges of Sealant gun machine, dhoti etc	L.S.	26.00	2.00	52.00
9977	Carriage of material	L.S.	8.40	2.00	16.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0123	LABOUR Mason (brick layer) 1st class	day	0.50	738.00	369.00
	TOTAL				1274.80 W
	Add 1 % Water charges on "W"				12.75
	TOTAL				1287.55 X
	Add GST on "X" (multiplying factor 0.1405)				180.90
	TOTAL				1468.45 Y
	Add 15% CPOH on "Y"				220.27
	TOTAL				1688.72 Z
	Add Cess @ 1% on "Z"				16.89
	Cost of 10 metre				1705.60
	Cost per metre				170.56
	Say				170.55

21.19.3 Upto 20 mm depth and 20 mm width

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2604	Details of cost for 10m length, width 20mm & depth 20mm MATERIAL 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	532.00	1596.00
8654	Masking tape	metre	20.00	1.95	39.00
2630	Baker rod	metre	10.00	5.00	50.00
9999	Sundries, including charges of Sealant gun machine, dhori etc	L.S.	26.00	2.00	52.00
9977	Carriage of material	L.S.	8.40	2.00	16.80
0123	LABOUR Mason (brick layer) 1st class	day	0.75	738.00	553.50
	TOTAL				2307.30 W
	Add 1 % Water charges on "W"				23.07
	TOTAL				2330.37 X
	Add GST on "X" (multiplying factor 0.1405)				327.42
	TOTAL				2657.79 Y
	Add 15% CPOH on "Y"				398.67
	TOTAL				3056.46 Z
	Add Cess @ 1% on "Z"				30.56
	Cost of 10 metre				3087.02
	Cost per metre				308.70
	Say				308.70

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) 1st 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 cum/sqm thoroughly embedded in the 2nd layer.
- 22.1.1 Using rough kota stone.**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.8	Details of cost for 10.00 sqm MATERIAL 1st layer Cement mortar 1:3 for fixing of stone 10x0.025 = 0.25 cum Rate as per Item Number 3.8 of SH: MORTARS Kota stone slab = 10 sqm Wastage @ 10% = 1 sqm Total = 11 sqm	cum	0.25	4664.55	1166.14
1169	Kotastone slab 25mm thick (rough cheseled) Cartage 11x0.025 @ 2330 kg/ m3 = 0.64 t	sqm	11.00	301.00	3311.00
2216	Carriage of Stone blocks white & red sand stone & kota stone slab Cement mortar 1:3 10x0.025 = 0.25 cum Wastage @ 12% = 0.03 cum Total = 0.28 cum	tonne	0.64	92.24	59.03
3.8	Rate as per Item No.3.8 of SH: MORTARS 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	cum	0.28	4664.55	1306.07
0367	Portland Cement (OPC-43 grade)	tonne	0.072	4940.00	355.68
2209	Carriage of Cement 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	tonne	0.072	92.24	6.64
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 cum/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	103.77	8.30
	Labour for base mortar & kota stone laying i/c slurry job				
0125	Mason (for plain stone work) 2nd class	day	1.20	679.00	814.80
0114	Beldar	day	1.00	558.00	558.00
0115	Coolie	day	1.00	558.00	558.00
	LABOUR				
	Labour for top layer & spreading stone grit				
0125	Mason (for plain stone work) 2nd class	day	1.08	679.00	733.32
0114	Beldar	day	1.08	558.00	602.64
0101	Bhisti	day	0.45	617.00	277.65
9999	Sundries	L.S.	6.24	2.00	12.48
	TOTAL				10117.86 W
	Add 1 % Water charges on "W"				101.18
	TOTAL				10219.04 X
	Add GST on "X" (multiplying factor 0.1405)				1435.77
	TOTAL				11654.81 Y
	Add 15% CPOH on "Y"				1748.22
	TOTAL				13403.03 Z
	Add Cess @ 1% on "Z"				134.03
	Cost for 10.00 sqm				13537.06
	Cost for 1 sqm				1353.71
	Say				1353.70

- 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 ₹
1169	Details of cost for 10.00 sqm MATERIAL 1st layer Kota stone slab = 10 sqm Wastage @ 10% = 1 sqm Total = 11 sqm Kotastone slab 25mm thick (rough cheseled) Cartage 11x0.025 @ 2330 kg/m3 = 0.64t	sqm	11.00	301.00	3311.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	92.24	59.03
0367	Portland Cement (OPC-43 grade)	tonne	0.31	4940.00	1531.40
2209	Carriage of Cement	tonne	0.31	92.24	28.59
13.9.2	Cement plaster 1:3 with neat cement punning 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	460.70	4607.00 A
1213	Water proofing materials LABOUR Fixing of Kota stone and applying cement slurry.	kilogram	8.90	35.00	311.50
0125	Mason (for plain stone work) 2nd class	day	3.00	679.00	2037.00
0114	Beldar	day	3.00	558.00	1674.00
0115	Coolie	day	1.00	558.00	558.00
9999	Sundries and scaffolding	L.S.	18.20	2.00	36.40
	TOTAL				14153.93 W
	Add 1 % Water charges on "W-A"				95.47
	TOTAL				14249.40 X
	Add GST on "X-A" (multiplying factor 0.1405)				1354.76
	TOTAL				15604.15 Y
	Add 15% CPOH on "Y-A"				1649.57
	TOTAL				17253.73 Z
	Add Cess @ 1% on "Z-A"				126.47
	Cost for 10.00sqm				17380.19
	Cost for 1 sqm				1738.02
	Say				1738.00

- 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	4940.00	217.36
2209	Carriage of Cement	tonne	0.044	92.24	4.06
	MATERIAL				
	Cement plaster 1:3 (20 mm thick)				
3.8	Rate as per Item No.3.8 of SH: MORTARS	cum	0.224	4664.55	1044.86
	LABOUR				
0155	Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.10	617.00	678.70
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality = 10x1.70= 17 kg = 0.017 t	tonne	0.017	34000.00	578.00
2211	Carriage of Tar bitumen	tonne	0.017	103.77	1.76
3002	Polyvinyle chloride sheet 400 micron thick	sqm	10.00	40.00	400.00
9977	CARRIAGE	L.S.	13.00	2.00	26.00
1213	Water proofing materials @ 1 kg per 50 kg of cement used Cement slurry = 44 kg Cement plaster 1:3 10x(13.62x100)/100= 136.2 kg Total = 180.2 kg/50 = 3.60 kg	kilogram	3.60	35.00	126.00
	LABOUR				
0131	Painter	day	0.20	679.00	135.80
0114	Beldar	day	1.33	558.00	742.14
0130	Mistry	day	0.06	738.00	44.28
9999	Sundries	L.S.	7.28	2.00	14.56
	TOTAL				5274.36 W
	Add 1 % Water charges on "W"				52.74
	TOTAL				5327.11 X
	Add GST on "X" (multiplying factor 0.1405)				748.46
	TOTAL				6075.56 Y
	Add 15% CPOH on "Y"				911.33
	TOTAL				6986.90 Z
	Add Cess @ 1% on "Z"				69.87
	Cost for 10 sqm				7056.77
	Cost for 1 sqm				705.68
	Say				705.70

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 ₹
7427	Details of cost for 100 metres MATERIAL Water stops Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	100.00	200.00	20000.00
0114	LABOUR Beldar	day	2.00	558.00	1116.00
9999	Sundries & wire etc.	L.S.	26.00	2.00	52.00
	TOTAL				21168.00 W
	Add 1 % Water charges on "W"				211.68
	TOTAL				21379.68 X
	Add GST on "X" (multiplying factor 0.1405)				3003.85
	TOTAL				24383.53 Y
	Add 15% CPOH on "Y"				3657.53
	TOTAL				28041.05 Z
	Add Cess @ 1% on "Z"				280.41
	Cost for 100 metres				28321.46
	Cost for 1 metre				283.21
	Say				283.20

22.4.2 Dumb bell with central bulb (180 mm wide, 8 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7428	Details of cost for 100 metres MATERIAL Water stops Dumb bell with central bulb	metre	100.00	160.00	16000.00
0114	LABOUR Beldar	day	2.00	558.00	1116.00
9999	Sundries & wire etc.	L.S.	26.00	2.00	52.00
	TOTAL				17168.00 W
	Add 1 % Water charges on "W"				171.68
	TOTAL				17339.68 X
	Add GST on "X" (multiplying factor 0.1405)				2436.23
	TOTAL				19775.91 Y
	Add 15% CPOH on "Y"				2966.39
	TOTAL				22742.29 Z
	Add Cess @ 1% on "Z"				227.42
	Cost for 100 metres				22969.71
	Cost for 1 metre				229.70
	Say				229.70

22.4.3 Kickers (320 mm wide, 5 mm thick)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7429	Details of cost for 100 metres MATERIAL Kickers	metre	100.00	185.00	18500.00
0114	LABOUR Beldar	day	2.00	558.00	1116.00
9999	Sundries & wire etc.	L.S.	26.00	2.00	52.00
	TOTAL				19668.00 W
	Add 1 % Water charges on "W"				196.68
	TOTAL				19864.68 X
	Add GST on "X" (multiplying factor 0.1405)				2790.99
	TOTAL				22655.67 Y
	Add 15% CPOH on "Y"				3398.35
	TOTAL				26054.02 Z
	Add Cess @ 1% on "Z"				260.54
	Cost for 100 metres				26314.56
	Cost for 1 metre				263.15
	Say				263.15

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 ₹
0367	Details of cost for 10 sqm Cement $10 \times (0.488 + 0.242) = 7.30$ kg				
2209	Sealing fillets 10×0.5 kg / sqm = 5.00 kg Total = 12.30 kg = 0.012 tonne Portland Cement (OPC-43 grade)	tonne	0.012	4940.00	59.28
	Carriage of Cement	tonne	0.012	92.24	1.11
	Bonding material $1.6 \text{ kg} \times 30 \times 2 = 96$ kg Bitumen (blown/residual type) $10 \times (0.25 + 0.126) = 3.79$ kg				
	Sealing fillets 10×0.10 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	140.00	700.00
	LABOUR				
0155	Mason (average)	day	2.00	709.00	1418.00
0114	Beldar	day	2.00	558.00	1116.00
0101	Bhisti	day	0.25	617.00	154.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, brushes etc	L.S.	15.60	2.00	31.20
	TOTAL				3479.84 W
	Add 1 % Water charges on "W"				34.80
	TOTAL				3514.64 X
	Add GST on "X" (multiplying factor 0.1405)				493.81
	TOTAL				4008.44 Y
	Add 15% CPOH on "Y"				601.27
	TOTAL				4609.71 Z
	Add Cess @ 1% on "Z"				46.10
	Cost for 10 sqm				4655.80
	Cost for 1 sqm				465.58
	Say				465.60

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 $10 \times (1.289 + 0.488) = 17.77$ kg				
	Sealing fillets @ 10% = 1.77 kg				
	Total = 19.54kg = 0.020 tonne				
0367	Portland Cement (OPC-43 grade)	tonne	0.02	4940.00	98.80
2209	Carriage of Cement	tonne	0.02	92.24	1.84
	Bonding material $1.6 \text{ kg} \times 30 \times 2 = 96$ kg				
	Bitumen (blown/residual type)				
	$10 \times (0.253 + 0.67) = 9.23$ kg				
	Wastage @ 5% = 0.46 kg				
	Total = 9.69 kg				
8501	Polymer modified cementation coating	kilogram	9.69	140.00	1356.60
	Fibre Glass cloth = 10.00 sqm				
	Wastage @ 10 % = 1.00 sqm				
	Total = 11.00 sqm				
8502	Fibre glass cloth	sqm	11.00	25.00	275.00
	LABOUR				
0155	Mason (average)	day	2.00	709.00	1418.00
0114	Beldar	day	1.00	558.00	558.00
0101	Bhisti	day	0.25	617.00	154.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, brushes etc	L.S.	23.40	2.00	46.80
	TOTAL				3909.29 W
	Add 1 % Water charges on "W"				39.09
	TOTAL				3948.39 X
	Add GST on "X" (multiplying factor 0.1405)				554.75
	TOTAL				4503.14 Y
	Add 15% CPOH on "Y"				675.47
	TOTAL				5178.61 Z
	Add Cess @ 1% on "Z"				51.79
	Cost for 10 sqm				5230.39
	Cost for 1 sqm				523.04
	Say				523.05

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 ₹
0367	Detail of cost for 10 sqm i) Cement slury Portland Cement (OPC-43 grade) ii) Cement mortar 1:5 (1 cement: 5 coarsesand)	tonne	0.0275	4940.00	135.85

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.10	Rate as per Item No.3.10 of SH:Mortars iii) Roof treatment with brick bat and cement mortar	cum	0.224	3658.10	819.41
	MATERIAL				
0285	Brick Aggregate (Single size) : 63 mm	cum	0.94	650.00	611.00
2260	Carriage of Brick aggregate	cum	0.94	112.79	106.02
	Cement mortar 1:5				
3.10	Rate as per Item No.3.10 of SH:Mortars	cum	0.50	3658.10	1829.05
	LABOUR				
0114	Beldar	day	1.75	558.00	976.50
0101	Bhisti	day	0.28	617.00	172.76
0123	Mason (brick layer) 1st class	day	0.05	738.00	36.90
0124	Mason (brick layer) 2nd class	day	0.05	679.00	33.95
0128	Mate	day	0.04	617.00	24.68
	Extra labour for ramming				
0114	Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	13.65	2.00	27.30
	iv) Cement slury				
0367	Portland Cement (OPC-43 grade)	tonne	0.0275	4940.00	135.85
0114	Beldar	day	0.20	558.00	111.60
	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	379.70	3797.00 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	82.00	861.00
0124	Mason (brick layer) 2nd class	day	0.36	679.00	244.44
0114	Beldar	day	0.36	558.00	200.88
9999	Chequer plate	L.S.	13.65	2.00	27.30
	Add labour for laying 20 mm bed mortar				
0124	Mason (brick layer) 2nd class	day	0.54	679.00	366.66
0114	Beldar	day	0.54	558.00	301.32
0101	Bhisti	day	0.45	617.00	277.65
	TOTAL				11411.63 W
	Add 1 % Water charges on "W-A"				76.15
	TOTAL				11487.77 X
	Add GST on "X-A" (multiplying factor 0.1405)				1080.55
	TOTAL				12568.33 Y
	Add 15% CPOH on "Y-A"				1315.70
	TOTAL				13884.03 Z
	Add Cess @ 1% on "Z-A"				100.87
	Cost for 10 sqm				13984.90
	Cost for one sqm				1398.49
	Say				1398.50

- 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 ₹
0313	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot = $2 \times 1.45 \times 30 = 87$ kg Blown type petroleum bitumen of penetration 85/25 of approved quality Hession felt type 3 Grade I (hessian base self finished bitumen felt) = 30sqm + Add for over lapping @ 10% = 3 sqm. Total = 33 Sqm	tonne	0.087	34000.00	2958.00
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	cum	0.18	800.00	144.00
	30x6=180 cudm				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	103.77	18.68
2211	Carriage of Tar bitumen $0.087 \times 2.7 \times 0.01 \times 33 = 0.162$ t	tonne	0.162	103.77	16.81
0370	Coal (steam) = 2 quintals/t of bitumen i.e. $2 \times 0.087 = 0.174$ q	quintal	0.174	440.00	76.56
2200	Carriage of steam coal	tonne	0.0174	120.00	2.09
9999	Praparing roof surface, sutting groove and making good etc. LABOUR	L.S.	134.55	2.00	269.10
0131	Painter	day	2.16	679.00	1466.64
0114	Beldar	day	3.24	558.00	1807.92
0130	Mistry	day	0.18	738.00	132.84
9999	Sundries, brushes etc.	L.S.	6.76	2.00	13.52
	TOTAL				9216.16 W
	Add 1 % Water charges on "W"				92.16
	TOTAL				9308.32 X
	Add GST on "X" (multiplying factor 0.1405)				1307.82
	TOTAL				10616.14 Y
	Add 15% CPOH on "Y"				1592.42
	TOTAL				12208.56 Z
	Add Cess @ 1% on "Z"				122.09
	Cost of 30.00 Sqm.				12330.64
	Cost of 1.00 Sqm.				411.02
	Say				411.00

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 ₹
0313	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot (1.45+1.20+1.45)x30=123kg Blown type petroleum bitumen of penetration 85/25 of approved quality Bitumen felt Type 3 grade 1 (hessian base self finished bitumen felt) = 60 sqm.+ Add for over lapping @ 10% = 6 sqm. Total =66 Sqm	tonne	0.123	34000.00	4182.00
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	103.77	28.33
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	103.77	18.68
0370	Coal (steam) = 2 quintals/t of bitumen i.e. 2x 0.123=0.246q	quintal	0.246	440.00	108.24
2200	Carriage of steam coal	tonne	0.0246	120.00	2.95
9999	Praparing roof surface, sutting groove and making good etc. LABOUR	L.S.	134.55	2.00	269.10
0131	Painter	day	3.24	679.00	2199.96
0114	Beldar	day	4.86	558.00	2711.88
0130	Mistry	day	0.2	738.00	147.60
9999	Sundries, brushes etc.	L.S.	6.76	2.00	13.52
	TOTAL				14446.26 W
	Add 1 % Water charges on "W"				144.46
	TOTAL				14590.72 X
	Add GST on "X" (multiplying factor 0.1405)				2050.00
	TOTAL				16640.72 Y
	Add 15% CPOH on "Y"				2496.11
	TOTAL				19136.83 Z
	Add Cess @ 1% on "Z"				191.37
	Cost of 30.00 Sqm.				19328.20
	Cost of 1.00 Sqm.				644.27
	Say				644.25

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 ₹
0313	Details of cost for 30 sqm Blown bitumen applied hot (1.45+1.20+1.70)x30 = 130.5 kg. Blown type petroleum bitumen of penetration 85/25 of approved quality Bitumen felt type B grade I (fibre base self finished bitumen felt) = 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 Sqm	tonne	0.1305	34000.00	4437.00
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	103.77	28.54
1177	Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm CARRIAGE:	cum	0.18	800.00	144.00
2202	Carriage of Stone aggregate below 40 mm nominal size Fuel (Steam coal) = 2 quintals/t of bitumen i.e. 0.1305=0.261q	cum	0.18	103.77	18.68
0370	Coal (steam)	quintal	0.261	440.00	114.84
2200	Carriage of steam coal	tonne	0.0261	120.00	3.13
9999	Praparing roof surface, sutting groove and making good etc. LABOUR	L.S.	134.55	2.00	269.10
0131	Painter	day	4.32	679.00	2933.28
0114	Beldar	day	6.48	558.00	3615.84
0130	Mistry	day	0.36	738.00	265.68
9999	Sundries, brushes etc.	L.S.	6.76	2.00	13.52
	TOTAL				16463.61 W
	Add 1 % Water charges on "W"				164.64
	TOTAL				16628.24 X
	Add GST on "X" (multiplying factor 0.1405)				2336.27
	TOTAL				18964.51 Y
	Add 15% CPOH on "Y"				2844.68
	TOTAL				21809.19 Z
	Add Cess @ 1% on "Z"				218.09
	Cost of 30.00 Sqm.				22027.28
	Cost of 1.00 Sqm.				734.24
	Say				734.25

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 ₹
0313	Detail of cost for 30 sqm Blown or / and residual bitumen applied hot (1.45+1.20+1.70)x30 =130.5 kg. Blown type petroleum bitumen of penetration 85/25 of approved quality 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	tonne	0.1305	34000.00	4437.00
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	103.77	34.66
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 Fuel (Steam coal) = 2 quintals/t of bitumen i.e. 2x0.1305=0.261q	cum	0.18	103.77	18.68
0370	Coal (steam)	quintal	0.261	440.00	114.84
2200	Carriage of steam coal	tonne	0.0261	120.00	3.13
9999	Praparing roof surface, sutting groove and making good etc. LABOUR	L.S.	134.55	2.00	269.10
0131	Painter	day	4.32	679.00	2933.28
0114	Beldar	day	6.48	558.00	3615.84
0130	Mistry	day	0.36	738.00	265.68
9999	Sundries, brushes etc.	L.S.	6.76	2.00	13.52
	TOTAL				16469.73 W
	Add 1 % Water charges on "W"				164.70
	TOTAL				16634.43 X
	Add GST on "X" (multiplying factor 0.1405)				2337.14
	TOTAL				18971.56 Y
	Add 15% CPOH on "Y"				2845.73
	TOTAL				21817.30 Z
	Add Cess @ 1% on "Z"				218.17
	Cost of 30.00 Sqm.				22035.47
	Cost of 1.00 Sqm.				734.52
	Say				734.50

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				
0316	MATERIAL				
	Bitumen solution primer of approved quality	litre	2.40	45.00	108.00
9977	CARRIAGE	L.S.	1.43	2.00	2.86
	LABOUR				
0131	Painter	day	0.17	679.00	115.43
0114	Beldar	day	0.17	558.00	94.86
9999	Sundries brushes etc.	L.S.	13.52	2.00	27.04
	TOTAL				348.19 W
	Add 1 % Water charges on "W"				3.48
	TOTAL				351.67 X
	Add GST on "X" (multiplying factor 0.1405)				49.41
	TOTAL				401.08 Y
	Add 15% CPOH on "Y"				60.16
	TOTAL				461.24 Z
	Add Cess @ 1% on "Z"				4.61
	Cost of 10.00 Sqm.				465.86
	Cost of 1.00 Sqm.				46.59
	Say				46.60

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.				
1177	MATERIAL				
	Stone grit 6 mm and down size or pea sized gravel	cum	0.06	800.00	48.00
	6x10 = 60 cudm				
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.06	103.77	6.23
9999	Labour for screening and spreading grit	L.S.	21.58	2.00	43.16
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				110.91 W
	Add 1 % Water charges on "W"				1.11
	TOTAL				112.02 X
	Add GST on "X" (multiplying factor 0.1405)				15.74
	TOTAL				127.75 Y
	Add 15% CPOH on "Y"				19.16
	TOTAL				146.92 Z
	Add Cess @ 1% on "Z"				1.47
	Cost of 10.00 Sqm.				148.39
	Cost of 1.00 Sqm.				14.84
	Say				14.85

22.13.2 at 8 cu dm per sqm

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1177	Details of cost for 10 sqm. MATERIAL Stone grit 6 mm and down size or pea sized gravel 6x10 = 60 cu dm	cum	0.08	800.00	64.00
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0.08	103.77	8.30
9999	Labour for screening and spreading grit	L.S.	26.91	2.00	53.82
9999	Sundries	L.S.	6.76	2.00	13.52
	TOTAL				139.64 W
	Add 1 % Water charges on "W"				1.40
	TOTAL				141.04 X
	Add GST on "X" (multiplying factor 0.1405)				19.82
	TOTAL				160.85 Y
	Add 15% CPOH on "Y"				24.13
	TOTAL				184.98 Z
	Add Cess @ 1% on "Z"				1.85
	Cost of 10.00 Sqm.				186.83
	Cost of 1.00 Sqm.				18.68
	Say				18.70

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 ₹
0295	Details of cost for one cum. Stone Aggregate (Single size) : 20 mm nominal size	cum	0.67	1350.00	904.50
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	103.77	92.36
0982	Coarse sand (zone III)	cum	0.45	1350.00	607.50
2203	Carriage of Coarse sand	cum	0.45	103.77	46.70
0367	Portland Cement (OPC-43 grade)	tonne	0.32	4940.00	1580.80
2209	Carriage of Cement	tonne	0.32	92.24	29.52
	LABOUR				
0114	Beldar	day	1.63	558.00	909.54
0101	Bhisti	day	0.70	617.00	431.90
0123	Mason (brick layer) 1st class	day	0.10	738.00	73.80
9999	Sundries, brushes etc.	L.S.	14.30	2.00	28.60
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	370.00	25.90

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries for laying in terrace	L.S.	45.76	2.00	91.52
	TOTAL				5175.63 W
	Add 1 % Water charges on "W"				51.76
	TOTAL				5227.38 X
	Add GST on "X" (multiplying factor 0.1405)				734.45
	TOTAL				5961.83 Y
	Add 15% CPOH on "Y"				894.27
	TOTAL				6856.11 Z
	Add Cess @ 1% on "Z"				68.56
	Cost of one cum				6924.67
	Say				6924.65

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	4664.55	4664.55
	LABOUR				
0155	Mason (average)	day	1.00	709.00	709.00
0114	Beldar	day	2.00	558.00	1116.00
0101	Bhisti	day	0.50	617.00	308.50
0115	Coolie	day	5.00	558.00	2790.00
9999	Sundries	L.S.	11.70	2.00	23.40
	TOTAL				9611.45 W
	Add 1 % Water charges on "W"				96.11
	TOTAL				9707.56 X
	Add GST on "X" (multiplying factor 0.1405)				1363.91
	TOTAL				11071.48 Y
	Add 15% CPOH on "Y"				1660.72
	TOTAL				12732.20 Z
	Add Cess @ 1% on "Z"				127.32
	Cost of one cum				12859.52
	Say				12859.50

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	4010.35	4010.35
	LABOUR				
0155	Mason (average)	day	1.00	709.00	709.00
0114	Beldar	day	2.00	558.00	1116.00
0101	Bhisti	day	0.50	617.00	308.50
0115	Coolie	day	5.00	558.00	2790.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	10.79	2.00	21.58
	TOTAL				8955.43 W
	Add 1 % Water charges on "W"				89.55
	TOTAL				9044.98 X
	Add GST on "X" (multiplying factor 0.1405)				1270.82
	TOTAL				10315.80 Y
	Add 15% CPOH on "Y"				1547.37
	TOTAL				11863.18 Z
	Add Cess @ 1% on "Z"				118.63
	Cost of one cum				11981.81
	Say				11981.80

22.22 Providing and mixing integral crystalline admixture for water proofing treatment to RCC structures like basement raft, retaining walls, reservoir, 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 ₹
0352	Details of cost for 1 kg MATERIAL :				
	Integral crystalline admixture	kg	1.00	272.00	272.00
	LABOUR :				
9999	For measuring, making and mixing etc..	L.S.	5.80	2.00	11.60
9999	Sundries	L.S.	1.15	2.00	2.30
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.00	3.50
	TOTAL				289.40 W
	Add 1 % Water charges on "W"				2.89
	TOTAL				292.29 X
	Add GST on "X" (multiplying factor 0.1405)				41.07
	TOTAL				333.36 Y
	Add 15% CPOH on "Y"				50.00
	TOTAL				383.37 Z
	Add Cess @ 1% on "Z"				3.83
	Cost for 1.00 Kg				387.20
	Say				387.20

- 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 ₹
8511	Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre	litre	11.30	198.69	2245.20
9977	Carriage of materials LABOUR	L.S.	1.43	2.00	2.86
0115	Coolie	day	0.67	558.00	373.86
0131	Painter	day	0.67	679.00	454.93
9999	Wire brush brushes, rollers etc.	L.S.	6.76	2.00	13.52
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				3106.49 W
	Add 1 % Water charges on "W"				31.06
	TOTAL				3137.55 X
	Add GST on "X" (multiplying factor 0.1405)				440.83
	TOTAL				3578.38 Y
	Add 15% CPOH on "Y"				536.76
	TOTAL				4115.13 Z
	Add Cess @ 1% on "Z"				41.15
	Cost of 10 sqm				4156.29
	Cost of 1 sqm				415.63
	Say				415.65

- 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, reservoir, 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 ₹
0351	Details of cost for 1 sqm MATERIAL : Integral crystalline slurry (2 x .70kg / sq.mtr. = 1.40kg)	kg	1.40	238.00	333.20
	LABOUR				
9999	For application of waterproofing material	L.S.	11.55	2.00	23.10
9999	Sundries	L.S.	1.15	2.00	2.30
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.00	3.50
	TOTAL				362.10 W
	Add 1 % Water charges on "W"				3.62
	TOTAL				365.72 X
	Add GST on "X" (multiplying factor 0.1405)				51.38
	TOTAL				417.10 Y
	Add 15% CPOH on "Y"				62.57
	TOTAL				479.67 Z
	Add Cess @ 1% on "Z"				4.80
	Cost for 1.00 sqm				484.47
	Say				484.45

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0351	Details of cost for 1 sqm MATERIAL : Integral crystalline slurry (1 x 1.10kg / sq.mtr. = 1.10kg)	kilogram	1.10	238.00	261.80
	LABOUR :				
9999	For application of waterproofing material	L.S.	5.75	2.00	11.50
9999	Sundries	L.S.	1.15	2.00	2.30
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.00	3.50
	TOTAL				279.10 W
	Add 1 % Water charges on "W"				2.79
	TOTAL				281.89 X
	Add GST on "X" (multiplying factor 0.1405)				39.61
	TOTAL				321.50 Y
	Add 15% CPOH on "Y"				48.22
	TOTAL				369.72 Z
	Add Cess @ 1% on "Z"				3.70
	Cost for 1.00 sqm				373.42
	Say				373.40

- 22.23A Providing & Applying polymer modified, flexible cementitious 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 cementitious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementitious 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 ₹
8512	Details of cost for 10 Sqm MATERIAL Cementitious water proofing coating with elastic polymers 14.35 kg + 0.72 (Add wastage 5%) = 15.07 litre	kg	15.07	189.13	2850.19
9977	Carriage of materials LABOUR	L.S.	1.56	2.00	3.12
0115	Coolie	day	0.23	558.00	128.34
0131	Painter	day	0.46	679.00	312.34
9999	Wire brush brushes, rollers etc.	L.S.	7.15	2.00	14.30
9999	Sundries	L.S.	8.06	2.00	16.12
	TOTAL				3324.41 W
	Add 1 % Water charges on "W"				33.24
	TOTAL				3357.65 X
	Add GST on "X" (multiplying factor 0.1405)				471.75
	TOTAL				3829.40 Y
	Add 15% CPOH on "Y"				574.41
	TOTAL				4403.81 Z
	Add Cess @ 1% on "Z"				44.04
	Cost of 10 sqm				4447.85
	Cost of 1 sqm				444.79
	Say				444.80

- 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 ₹
0354	Details of cost for 1 sqm MATERIAL : Integral crystalline dry shake	kilogram	0.60	360.00	216.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	LABOUR For measuring and sprinkling of waterproofing material	L.S.	11.55	2.00	23.10
9999	Sundries	L.S.	1.15	2.00	2.30
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.00	3.50
	TOTAL				244.90 W
	Add 1 % Water charges on "W"				2.45
	TOTAL				247.35 X
	Add GST on "X" (multiplying factor 0.1405)				34.75
	TOTAL				282.10 Y
	Add 15% CPOH on "Y"				42.32
	TOTAL				324.42 Z
	Add Cess @ 1% on "Z"				3.24
	Cost for 1.00 sqm				327.66
	Say				327.65

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 ₹
8513	Details of cost for 10 Sqm MATERIAL Acrylic modified resin based texture 43.04 kg + 2.15 (Add wastage 5%) = 45.19 kg Quantity taken for cost using once = 10 sqm Top coat with premium acrylic exterior paint (two or more coats)	kg	45.19	36.00	1626.84
13.112.1	Rate as per Item No.13.112.1 of SH: Finishing	sqm	10.00	97.75	977.50 A
9977	Carriage of materials	L.S.	3.90	2.00	7.80
	LABOUR				
0115	Coolie	day	0.56	558.00	312.48
0123	Mason (brick layer) 1st class	day	0.56	738.00	413.28
9999	Sundries and scaffolding	L.S.	40.00	2.00	80.00
	TOTAL				3417.90 W
	Add 1 % Water charges on "W-A"				24.40
	TOTAL				3442.30 X
	Add GST on "X-A" (multiplying factor 0.1405)				346.30
	TOTAL				3788.61 Y
	Add 15% CPOH on "Y-A"				421.67
	TOTAL				4210.28 Z
	Add Cess @ 1% on "Z-A"				32.33
	Cost of 10 sqm				4242.60
	Cost of 1 sqm				424.26
	Say				424.25

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 crystalline mortar shall conform to the EN 1504-3 having compressive strength Class R4 \geq 45 MPa and adhesive bond strength Class R3 \geq 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 ₹
0353	Details of cost for 1.00 meter				
	MATERIAL :				
	Crystalline Mortar @1.50 kg per meter	kilogram	1.50	215.00	322.50
0351	Integral crystalline slurry for priming and finishing	kilogram	0.150	238.00	35.70
	(3 x 0.05kg / meter) = 0.15kg				
	LABOUR				
9999	For making crystalline mortar and repair work etc..	L.S.	14.450	2.00	28.90
9999	Sundries	L.S.	1.150	2.00	2.30
9999	Carriage of material and tools cost etc..	L.S.	1.750	2.00	3.50
	TOTAL				392.90 W
	Add 1 % Water charges on "W"				3.93
	TOTAL				396.83 X
	Add GST on "X" (multiplying factor 0.1405)				55.75
	TOTAL				452.58 Y
	Add 15% CPOH on "Y"				67.89
	TOTAL				520.47 Z
	Add Cess @ 1% on "Z"				5.20
	Cost for 1.00 meter				525.68
	Say				525.70

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 ₹
0353	Details of cost for 1 no. hole				
	MATERIAL :				
	Crystalline mortar@0.040 kg per hole	kilogram	0.04	215.00	8.60
	LABOUR				
9999	For making crystalline mortar and repair work etc..	L.S.	2.90	2.00	5.80

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	0.30	2.00	0.60
9999	Carriage of material and tools cost etc..	L.S.	0.25	2.00	0.50
	TOTAL				15.50 W
	Add 1 % Water charges on "W"				0.16
	TOTAL				15.66 X
	Add GST on "X" (multiplying factor 0.1405)				2.20
	TOTAL				17.85 Y
	Add 15% CPOH on "Y"				2.68
	TOTAL				20.53 Z
	Add Cess @ 1% on "Z"				0.21
	Cost for each hole				20.74
	Say				20.75

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	365.00	365.00
0356	Swellable type water stop primer (@3.78 litre per 240 running meter)	Litre	0.016	1540.00	24.64
	LABOUR				
9999	For application of primer and swellable water stop	L.S.	8.65	2.00	17.30
9999	Sundries	L.S.	1.15	2.00	2.30
9999	Carriage of material and tools cost etc..	L.S.	1.75	2.00	3.50
	TOTAL				412.74 W
	Add 1 % Water charges on "W"				4.13
	TOTAL				416.87 X
	Add GST on "X" (multiplying factor 0.1405)				58.57
	TOTAL				475.44 Y
	Add 15% CPOH on "Y"				71.32
	TOTAL				546.75 Z
	Add Cess @ 1% on "Z"				5.47
	Cost for 1.00 metre				552.22
	Say				552.20

SUB HEAD : 23.0

**RAIN WATER HARVESTING &
TUBEWELLS**

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 ₹
0020	Details of cost for 35 metre MACHINERY :				
	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	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	558.00	1116.00
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				13401.20 W
	Add 1 % Water charges on "W"				134.01
	TOTAL				13535.21 X
	Add GST on "X" (multiplying factor 0.1405)				1901.70
	TOTAL				15436.91 Y
	Add 15% CPOH on "Y"				2315.54
	TOTAL				17752.45 Z
	Add Cess @ 1% on "Z"				177.52
	Cost for 35 metre				17929.97
	Cost of 1 metre				512.28
	Say				512.30

23.1.1.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 32 metre MACHINERY :				
	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	2000.00	857.20
	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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	LABOUR				
0130	Beldar	day	4.00	558.00	2232.00
7763	Mistry	day	1.00	738.00	738.00
	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	558.00	1116.00
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				13401.20 W
	Add 1 % Water charges on "W"				134.01
	TOTAL				13535.21 X
	Add GST on "X" (multiplying factor 0.1405)				1901.70
	TOTAL				15436.91 Y
	Add 15% CPOH on "Y"				2315.54
	TOTAL				17752.45 Z
	Add Cess @ 1% on "Z"				177.52
	Cost for 32 metre				17929.97
	Cost of 1 metre				560.31
	Say				560.30

23.1.1.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 25 metre MACHINERY :				
0005	Hydraulic Excavator (3D) with driver and fuel.	day	1.00	7000.00	7000.00
	Hire charges of Diesel Truck - 9 tonne	day	0.4286	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	558.00	1116.00
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				13401.20 W
	Add 1 % Water charges on "W"				134.01
	TOTAL				13535.21 X
	Add GST on "X" (multiplying factor 0.1405)				1901.70
	TOTAL				15436.91 Y
	Add 15% CPOH on "Y"				2315.54
	TOTAL				17752.45 Z
	Add Cess @ 1% on "Z"				177.52
	Cost for 25 metre				17929.97
	Cost of 1 metre				717.20
	Say				717.20

23.1.2 Rocky strata including Boulders**23.1.2.1 300 mm dia**

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 16 metre MACHINERY :				
	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	6.00	73.50	441.00
	Extra diesel required for boring in rocky strata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	0.75	558.00	418.50
0114	Beldar	day	3.00	558.00	1674.00
0103	Blacksmith 2nd class	day	0.75	679.00	509.25
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				14627.95 W
	Add 1 % Water charges on "W"				146.28
	TOTAL				14774.23 X
	Add GST on "X" (multiplying factor 0.1405)				2075.78
	TOTAL				16850.01 Y
	Add 15% CPOH on "Y"				2527.50
	TOTAL				19377.51 Z
	Add Cess @ 1% on "Z"				193.78
	Cost for 16 metre				19571.29
	Cost of 1 metre				1223.21
	Say				1223.20

23.1.2.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 16 metre MACHINERY :				
	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	8.00	73.50	588.00
	Extra diesel required for boring in rockystrata				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0005	Hire charges of Diesel Truck - 9 tonne 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	day	0.4286	2000.00	857.20
0114	Beldar	day	4.00	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity Extra labour to assist M/C operator & security	each	1.00	900.00	900.00
0134	Rock Hole Driller	day	1.00	558.00	558.00
0114	Beldar	day	4.00	558.00	2232.00
0103	Blacksmith 2nd class	day	0.75	679.00	509.25
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				15472.45 W
	Add 1 % Water charges on "W"				154.72
	TOTAL				15627.17 X
	Add GST on "X" (multiplying factor 0.1405)				2195.62
	TOTAL				17822.79 Y
	Add 15% CPOH on "Y"				2673.42
	TOTAL				20496.21 Z
	Add Cess @ 1% on "Z"				204.96
	Cost for 16 metre				20701.17
	Cost of 1 metre				1293.82
	Say				1293.80

23.1.2.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 16 metre MACHINERY : Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	16.00	73.50	1176.00
	Extra diesel required for boring in rockystrata				
0005	Hire charges of Diesel Truck - 9 tonne 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	day	0.4286	2000.00	857.20
0114	Beldar	day	4.00	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	1.20	558.00	669.60
0114	Beldar	day	8.00	558.00	4464.00
0103	Blacksmith 2nd class	day	0.75	679.00	509.25
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				18404.05 W
	Add 1 % Water charges on "W"				184.04
	TOTAL				18588.09 X
	Add GST on "X" (multiplying factor 0.1405)				2611.63
	TOTAL				21199.72 Y
	Add 15% CPOH on "Y"				3179.96
	TOTAL				24379.67 Z
	Add Cess @ 1% on "Z"				243.80
	Cost for 16 metre				24623.47
	Cost of 1 metre				1538.97
	Say				1538.95

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 ₹
0020	Details of cost for 30 metre MACHINERY :				
	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	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	558.00	1116.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				13401.20 W
	Add 1 % Water charges on "W"				134.01
	TOTAL				13535.21 X
	Add GST on "X" (multiplying factor 0.1405)				1901.70
	TOTAL				15436.91 Y
	Add 15% CPOH on "Y"				2315.54
	TOTAL				17752.45 Z
	Add Cess @ 1% on "Z"				177.52
	Cost for 30 metre				17929.97
	Cost of 1 metre				597.67
	Say				597.65

23.2.1.2 350 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 27 metre MACHINERY :				
	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	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	558.00	1116.00
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				13401.20 W
	Add 1 % Water charges on "W"				134.01
	TOTAL				13535.21 X
	Add GST on "X" (multiplying factor 0.1405)				1901.70
	TOTAL				15436.91 Y
	Add 15% CPOH on "Y"				2315.54
	TOTAL				17752.45 Z
	Add Cess @ 1% on "Z"				177.52
	Cost for 27 metre				17929.97
	Cost of 1 metre				664.07
	Say				664.05

23.2.1.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 20 metre MACHINERY :				
	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	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0114	Beldar	day	2.00	558.00	1116.00
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				13401.20 W
	Add 1 % Water charges on "W"				134.01
	TOTAL				13535.21 X
	Add GST on "X" (multiplying factor 0.1405)				1901.70
	TOTAL				15436.91 Y
	Add 15% CPOH on "Y"				2315.54
	TOTAL				17752.45 Z
	Add Cess @ 1% on "Z"				177.52
	Cost for 20 metre				17929.97
	Cost of 1 metre				896.50
	Say				896.50

23.2.2 Rocky strata including Boulders

23.2.2.1 300 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 16 metre MACHINERY :				
	Hydraulic Excavator (3D) with driver and fuel.	day	0.90	7000.00	6300.00
1235	Diesel oil	litre	10.00	73.50	735.00
	Extra diesel required for boring in rockystrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7763	Water supply tanker of 5000 litre capacity Extra labour to assist M/C operator & security	each	1.00	900.00	900.00
0134	Rock Hole Driller	day	1.00	558.00	558.00
0114	Beldar	day	5.00	558.00	2790.00
0103	Blacksmith 2nd class	day	0.70	679.00	475.30
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				16143.50 W
	Add 1 % Water charges on "W"				161.44
	TOTAL				16304.94 X
	Add GST on "X" (multiplying factor 0.1405)				2290.84
	TOTAL				18595.78 Y
	Add 15% CPOH on "Y"				2789.37
	TOTAL				21385.15 Z
	Add Cess @ 1% on "Z"				213.85
	Cost for 16 metre				21599.00
	Cost of 1 metre				1349.94
	Say				1349.95

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	73.50	882.00
	Extra diesel required for boring in rockstrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity Extra labour to assist M/C operator & security	each	1.00	900.00	900.00
0134	Rock Hole Driller	day	1.00	558.00	558.00
0114	Beldar	day	6.00	558.00	3348.00
0103	Blacksmith 2nd class	day	0.75	679.00	509.25

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				16882.45 W
	Add 1 % Water charges on "W"				168.82
	TOTAL				17051.27 X
	Add GST on "X" (multiplying factor 0.1405)				2395.70
	TOTAL				19446.98 Y
	Add 15% CPOH on "Y"				2917.05
	TOTAL				22364.03 Z
	Add Cess @ 1% on "Z"				223.64
	Cost for 16 metre				22587.67
	Cost of 1 metre				1411.73
	Say				1411.75

23.2.2.3 400 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0020	Details of cost for 14 metre MACHINERY :				
	Hydraulic Excavator (3D) with driver and fuel.	day	0.95	7000.00	6650.00
1235	Diesel oil	litre	16.00	73.50	1176.00
	Extra diesel required for boring in rockstrata				
0005	Hire charges of Diesel Truck - 9 tonne	day	0.4286	2000.00	857.20
	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	558.00	2232.00
0130	Mistry	day	1.00	738.00	738.00
7763	Water supply tanker of 5000 litre capacity	each	1.00	900.00	900.00
	Extra labour to assist M/C operator & security				
0134	Rock Hole Driller	day	1.20	558.00	669.60
0114	Beldar	day	8.00	558.00	4464.00
0103	Blacksmith 2nd class	day	1.00	679.00	679.00
0113	Chowkidar	day	1.00	558.00	558.00
	TOTAL				18923.80 W
	Add 1 % Water charges on "W"				189.24
	TOTAL				19113.04 X
	Add GST on "X" (multiplying factor 0.1405)				2685.38
	TOTAL				21798.42 Y
	Add 15% CPOH on "Y"				3269.76
	TOTAL				25068.18 Z
	Add Cess @ 1% on "Z"				250.68
	Cost for 14 metre				25318.86
	Cost of 1 metre				1808.49
	Say				1808.50

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 ₹
7758	Details of cost for 100 metres MATERIAL uPVC blind pipe 100 mm dia as per IS: 12818	metre	100.00	442.00	44200.00
2319	Carriage of Spun iron S & S pipes 100 mm dia Qty = 50 to consider 50% of carriage as per 2321	100 metre	0.50	226.82	113.41
	LABOUR for lowering				
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.50	558.00	279.00
	TOTAL				44871.41 W
	Add 1 % Water charges on "W"				448.71
	TOTAL				45320.12 X
	Add GST on "X" (multiplying factor 0.1405)				6367.48
	TOTAL				51687.60 Y
	Add 15% CPOH on "Y"				7753.14
	TOTAL				59440.74 Z
	Add Cess @ 1% on "Z"				594.41
	Cost of 100 metres				60035.15
	Cost of 1 metre				600.35
	Say				600.35

23.3.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7745	Details of cost for 100 metres MATERIAL uPVC blind pipe 150 mm dia as per IS: 12818	metre	100.00	508.62	50862.00
2321	Carriage of Spun iron S & S pipes 150 mm dia Qty = 50 to consider 50% of carriage as per 2321	100 metre	0.50	378.03	189.02
	LABOUR for lowering				
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.50	558.00	279.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.00	20.14
	TOTAL				51629.16 W
	Add 1 % Water charges on "W"				516.29
	TOTAL				52145.45 X
	Add GST on "X" (multiplying factor 0.1405)				7326.44
	TOTAL				59471.88 Y
	Add 15% CPOH on "Y"				8920.78
	TOTAL				68392.66 Z
	Add Cess @ 1% on "Z"				683.93
	Cost of 100 metres				69076.59
	Cost of 1 metre				690.77
	Say				690.75

23.3.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7746	Details of cost for 100 metres MATERIAL uPVC blind pipe 200 mm dia as per IS: 12818	metre	100.00	788.12	78812.00
2322	Carriage of Spun iron S & S pipes 200 mm dia Qty = 50 to consider 50% of carriage as per 2321	100 metre	0.50	614.93	307.47
	LABOUR for lowering				
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.50	558.00	279.00
	TOTAL				79677.47 W
	Add 1 % Water charges on "W"				796.77
	TOTAL				80474.24 X
	Add GST on "X" (multiplying factor 0.1405)				11306.63
	TOTAL				91780.87 Y
	Add 15% CPOH on "Y"				13767.13
	TOTAL				105548.00 Z
	Add Cess @ 1% on "Z"				1055.48
	Cost of 100 metres				106603.48
	Cost of 1 metre				1066.03
	Say				1066.05

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 ₹
7759	Details of cost for 100 metres MATERIAL uPVC slotted pipe 100 mm dia as per IS: 12818	metre	100.00	480.00	48000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2319	Carriage of Spun iron S & S pipes 100 mm dia Qty = 50 to consider 50% of carriage as per 2321 LABOUR for lowering	100 metre	0.50	226.82	113.41
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.50	558.00	279.00
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.00	20.14
	TOTAL				48691.55 W
	Add 1 % Water charges on "W"				486.92
	TOTAL				49178.47 X
	Add GST on "X" (multiplying factor 0.1405)				6909.57
	TOTAL				56088.04 Y
	Add 15% CPOH on "Y"				8413.21
	TOTAL				64501.25 Z
	Add Cess @ 1% on "Z"				645.01
	Cost of 100 metres				65146.26
	Cost of 1 metre				651.46
	Say				651.45

23.4.2 150 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7751	Details of cost for 100 metres MATERIAL uPVC slotted pipe 150 mm dia as per IS: 12818	metre	100.00	550.00	55000.00
2321	Carriage of Spun iron S & S pipes 150 mm dia Qty = 50 to consider 50% of carriage as per 2321 LABOUR for lowering	100 metre	0.50	378.03	189.02
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.50	558.00	279.00
9999	Sundries (Adhesive etc.)	L.S.	10.07	2.00	20.14
	TOTAL				55767.16 W
	Add 1 % Water charges on "W"				557.67
	TOTAL				56324.83 X
	Add GST on "X" (multiplying factor 0.1405)				7913.64
	TOTAL				64238.46 Y
	Add 15% CPOH on "Y"				9635.77
	TOTAL				73874.23 Z
	Add Cess @ 1% on "Z"				738.74
	Cost of 100 metres				74612.98
	Cost of 1 metre				746.13
	Say				746.15

23.4.3 200 mm nominal size dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7752	Details of cost for 100 metres MATERIAL uPVC slotted pipe 200 mm dia as per IS: 12818	metre	100.00	840.00	84000.00
2322	Carriage of Spun iron S & S pipes 200 mm dia Qty = 50 to consider 50% of carriage as per 2321	100 metre	0.50	614.93	307.47
	LABOUR for lowering				
0114	Beldar	day	0.50	558.00	279.00
0115	Coolie	day	0.50	558.00	279.00
9999	Sundries (Adhesive etc.)	L.S.	13.42	2.00	26.84
	TOTAL				84892.31 W
	Add 1 % Water charges on "W"				848.92
	TOTAL				85741.23 X
	Add GST on "X" (multiplying factor 0.1405)				12046.64
	TOTAL				97787.87 Y
	Add 15% CPOH on "Y"				14668.18
	TOTAL				112456.05 Z
	Add Cess @ 1% on "Z"				1124.56
	Cost of 100 metres				113580.61
	Cost of 1 metre				1135.81
	Say				1135.80

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 ₹
7753	Details of cost for 1 cum. MATERIAL Boulder 50 mm to 200 mm including carriage	cum	1.00	850.00	850.00
	LABOUR				
0114	Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	1.00	2.00	2.00
	TOTAL				991.50 W
	Add 1 % Water charges on "W"				9.92
	TOTAL				1001.42 X
	Add GST on "X" (multiplying factor 0.1405)				140.70
	TOTAL				1142.11 Y
	Add 15% CPOH on "Y"				171.32
	TOTAL				1313.43 Z
	Add Cess @ 1% on "Z"				13.13
	Cost of 1 Cum.				1326.57
	Say				1326.55

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 ₹
7754	Details of cost for 1 cum. MATERIAL Gravel 5 mm to 10 mm including carriage	cum	1.00	850.00	850.00
0114	LABOUR Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	1.00	2.00	2.00
	TOTAL				991.50 W
	Add 1 % Water charges on "W"				9.92
	TOTAL				1001.42 X
	Add GST on "X" (multiplying factor 0.1405)				140.70
	TOTAL				1142.11 Y
	Add 15% CPOH on "Y"				171.32
	TOTAL				1313.43 Z
	Add Cess @ 1% on "Z"				13.13
	Cost of 1 Cum.				1326.57
	Say				1326.55

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 ₹
7755	Details of cost for 1 cum. MATERIAL Gravel 1.5 mm to 2 mm including carriage	cum	1.00	850.00	850.00
0114	LABOUR Beldar	day	0.25	558.00	139.50
9999	Sundries	L.S.	1.00	2.00	2.00
	TOTAL				991.50 W
	Add 1 % Water charges on "W"				9.92
	TOTAL				1001.42 X
	Add GST on "X" (multiplying factor 0.1405)				140.70
	TOTAL				1142.11 Y
	Add 15% CPOH on "Y"				171.32
	TOTAL				1313.43 Z
	Add Cess @ 1% on "Z"				13.13
	Cost of 1 Cum.				1326.57
	Say				1326.55

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 ₹
7772	Details of cost for 1 cum. MATERIAL Pea Gravel including carriage	cum	1.00	950.00	950.00
0114	LABOUR Beldar	day	0.30	558.00	167.40
9999	Sundries	L.S.	1.00	2.00	2.00
	TOTAL				1119.40 W
	Add 1 % Water charges on "W"				11.19
	TOTAL				1130.59 X
	Add GST on "X" (multiplying factor 0.1405)				158.85
	TOTAL				1289.44 Y
	Add 15% CPOH on "Y"				193.42
	TOTAL				1482.86 Z
	Add Cess @ 1% on "Z"				14.83
	Cost of 1 Cum.				1497.69
	Say				1497.70

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 ₹
7762	Details of cost for 1 No. RCC drain cover MATERIAL Precast R.C.C. perforated slab	each	1.00	875.00	875.00
9988	LABOUR Carriage and fixing charges	L.S.	15.00	2.00	30.00
	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

- 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	800.00	24000.00
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 Painting with anticorrosive Paint 3.14 x.0110 x30.00=10.36 sqm.	100 metre	0.30	226.82	68.05
13.65.1	Rate as per Item No.13.65.1 of SH: Finishing LABOUR	sqm	10.36	106.05	1098.68 A
0114	Beldar	day	1.35	558.00	753.30
0130	Mistry	day	0.50	738.00	369.00
	TOTAL				26914.02 W
	Add 1 % Water charges on "W-A"				258.15
	TOTAL				27172.18 X
	Add GST on "X-A" (multiplying factor 0.1405)				3663.33
	TOTAL				30835.50 Y
	Add 15% CPOH on "Y-A"				4460.52
	TOTAL				35296.03 Z
	Add Cess @ 1% on "Z-A"				341.97
	Cost for 30 metre				35638.00
	Cost of 1 metre				1187.93
	Say				1187.95

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 Painting with Anticorrosive Paint 3.14 x0.160x 30.00=15.07 sqm.	100 metre	0.30	378.03	113.41
13.65.1	Rate as per Item No.13.65.1 of SH: Finishing LABOUR	sqm	15.07	106.05	1598.17 A
0114	Beldar	day	1.40	558.00	781.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0130	Mistry	day	0.50	738.00	369.00
	TOTAL				37666.78 W
	Add 1 % Water charges on "W-A"				360.69
	TOTAL				38027.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				5118.32
	TOTAL				43145.78 Y
	Add 15% CPOH on "Y-A"				6232.14
	TOTAL				49377.93 Z
	Add Cess @ 1% on "Z-A"				477.80
	Cost for 30 metre				49855.72
	Cost of 1 metre				1661.86
	Say				1661.85

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 Painting with anticorrosive Paint 3.14 x0.210x 30.00=20.25 sqm.	100 metre	0.30	614.93	184.48
13.65.1	Rate as per Item No.13.65.1 of SH: Finishing LABOUR	sqm	20.25	106.05	2147.51 A
0114	Beldar	day	1.35	558.00	753.30
0130	Mistry	day	0.50	738.00	369.00
	TOTAL				46779.29 W
	Add 1 % Water charges on "W-A"				446.32
	TOTAL				47225.61 X
	Add GST on "X-A" (multiplying factor 0.1405)				6333.47
	TOTAL				53559.08 Y
	Add 15% CPOH on "Y-A"				7711.74
	TOTAL				61270.82 Z
	Add Cess @ 1% on "Z-A"				591.23
	Cost for 30 metre				61862.05
	Cost of 1 metre				2062.07
	Say				2062.05

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	800.00	24000.00
7764	M.S. socket 100 mm dia	each	5.00	125.00	625.00
9999	Sundries	L.S.	906.04	2.00	1812.08
2343	Carriage of ductile iron pipes (k7) 100 mm dia	100 metre	0.30	226.82	68.05
	including loading and unloading Painting with anticorrosive Paint 3.14 x.11x 30.00=10.36 sqm				
13.65.1	Rate as per Item No.13.65.1 of SH:Finishing LABOUR	sqm	10.36	106.05	1098.68 A
0114	Beldar	day	1.35	558.00	753.30
0130	Mistry	day	0.50	738.00	369.00
	TOTAL				28726.10 W
	Add 1 % Water charges on "W-A"				276.27
	TOTAL				29002.38 X
	Add GST on "X-A" (multiplying factor 0.1405)				3920.47
	TOTAL				32922.85 Y
	Add 15% CPOH on "Y-A"				4773.63
	TOTAL				37696.47 Z
	Add Cess @ 1% on "Z-A"				365.98
	Cost for 30 metre				38062.45
	Cost of 1 metre				1268.75
	Say				1268.75

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	2.00	2416.10
2344	Carriage of cast iron pipes 150 mm dia	100 metre	0.30	378.03	113.41
	including loading and unloading Painting with anticorrosive Paint 3.14 x.160x 30.00=15.07 sqm.				
13.65.1	Rate as per Item No.13.65.1 of SH: Finishing LABOUR	sqm	15.07	106.05	1598.17 A
0114	Beldar	day	1.40	558.00	781.20
0130	Mistry	day	0.50	738.00	369.00
	TOTAL				40082.88 W
	Add 1 % Water charges on "W-A"				384.85
	TOTAL				40467.73 X
	Add GST on "X-A" (multiplying factor 0.1405)				5461.17
	TOTAL				45928.90 Y
	Add 15% CPOH on "Y-A"				6649.61
	TOTAL				52578.51 Z
	Add Cess @ 1% on "Z-A"				509.80
	Cost for 30 metre				53088.31
	Cost of 1 metre				1769.61
	Say				1769.60

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	2.00	2416.10
2345	Carriage of cast iron pipes 200 mm dia including loading and unloading Painting with anticorrosive Paint 3.14 x 0.210x 30.00=20.25 sqm.	100 metre	0.30	614.93	184.48
13.65.1	Rate as per Item No.13.65.1 of SH: Finishing LABOUR	sqm	20.25	106.05	2147.51 A
0114	Beldar	day	1.40	558.00	781.20
0130	Mistry	day	0.50	738.00	369.00
	TOTAL				49223.29 W
	Add 1 % Water charges on "W-A"				470.76
	TOTAL				49694.05 X
	Add GST on "X-A" (multiplying factor 0.1405)				6680.29
	TOTAL				56374.34 Y
	Add 15% CPOH on "Y-A"				8134.02
	TOTAL				64508.36 Z
	Add Cess @ 1% on "Z-A"				623.61
	Cost for 30 metre				65131.97
	Cost of 1 metre				2171.07
	Say				2171.05

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	73.50	3528.00
	TOTAL				5128.00 W
	Add 1 % Water charges on "W"				51.28
	TOTAL				5179.28 X
	Add GST on "X" (multiplying factor 0.1405)				727.69
	TOTAL				5906.97 Y
	Add 15% CPOH on "Y"				886.05
	TOTAL				6793.01 Z
	Add Cess @ 1% on "Z"				67.93
	Cost of 8 Hours				6860.94
	Cost of 1 Hour				857.62
	Say				857.60

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 ₹
7760	Details of cost for 1 No MATERIAL 100mm dia MS screwed cap with locking arrangement M.S. cap 100 mm dia Add 5% labour factor on P 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	135.00	135.00 P 6.75 141.75 W 1.42 143.17 X 20.12 163.28 Y 24.49 187.77 Z 1.88 189.65 189.65

23.13.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7747	Details of cost for 1 No MATERIAL 100mm dia MS screwed cap with locking arrangement M.S. cap 150 mm dia Add 5% labour facor on X 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	150.00	150.00 7.50 157.50 W 1.58 159.08 X 22.35 181.43 Y 27.21 208.64 Z 2.09 210.73 210.75

23.13.3 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 1 No MATERIAL 100mm dia MS screwed cap with locking arrangement				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7748	M.S. cap 200 mm dia Add 5% labour facor on X 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	200.00	200.00 10.00 210.00 W 2.10 212.10 X 29.80 241.90 Y 36.29 278.19 Z 2.78 280.97 280.95

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 ₹
10.1	Details of cost for 1 No MATERIAL Clamps made of MS flat of size 100x10mm thick1x2mt.x7.80 kg per mt.=15.60 kg. Rate as per Item No.10.1 of SH: Steel Work	kg	15.60	86.05	1342.38 A
9999	Sundries, nuts and bolts etc. 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 1 No Say	L.S.	25.00	2.00	50.00 1392.38 W 0.50 1392.88 X 7.10 1399.98 Y 8.64 1408.61 Z 0.66 1409.28 1409.30

23.14.2 150 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
10.1	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. Rate as per Item No.10.1 of SH: Steel Work	kg	16.38	86.05	1409.50 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries, nuts and bolts etc.	L.S.	30.00	2.00	60.00
	TOTAL				1469.50 W
	Add 1 % Water charges on "W-A"				0.60
	TOTAL				1470.10 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.51
	TOTAL				1478.61 Y
	Add 15% CPOH on "Y-A"				10.37
	TOTAL				1488.98 Z
	Add Cess @ 1% on "Z-A"				0.79
	Cost of 1 No				1489.78
	Say				1489.80

23.14.3 200 mm clamp

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
10.1	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. Rate as per Item No.10.1 of SH: Steel Work	kg	18.72	86.05	1610.86 A
9999	Sundries, nuts and bolts etc.	L.S.	30.00	2.00	60.00
	TOTAL				1670.86 W
	Add 1 % Water charges on "W-A"				0.60
	TOTAL				1671.46 X
	Add GST on "X-A" (multiplying factor 0.1405)				8.51
	TOTAL				1679.97 Y
	Add 15% CPOH on "Y-A"				10.37
	TOTAL				1690.34 Z
	Add Cess @ 1% on "Z-A"				0.79
	Cost of 1 No				1691.13
	Say				1691.15

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 ₹
7761	Details of cost for 1 No MATERIAL M.S. bail plug 100 mm dia	each	1.00	160.00	160.00
9999	Sundries	L.S.	5.00	2.00	10.00
	TOTAL				170.00 W
	Add 1 % Water charges on "W"				1.70
	TOTAL				171.70 X
	Add GST on "X" (multiplying factor 0.1405)				24.12
	TOTAL				195.82 Y
	Add 15% CPOH on "Y"				29.37
	TOTAL				225.20 Z
	Add Cess @ 1% on "Z"				2.25
	Cost of 1 No				227.45
	Say				227.45

23.15.2 150 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7749	Details of cost for 1 No MATERIAL	each	1.00	200.00	200.00
9999	M.S bail plug 150 mm dia	L.S.	5.00	2.00	10.00
	Sundries				210.00 W
	TOTAL				2.10
	Add 1 % Water charges on "W"				212.10 X
	TOTAL				
	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

23.15.3 200 mm dia

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7750	Details of cost for 1 No MATERIAL	each	1.00	220.00	220.00
9999	M.S bail plug 200 mm dia	L.S.	5.00	2.00	10.00
	Sundries				230.00 W
	TOTAL				2.30
	Add 1 % Water charges on "W"				232.30 X
	TOTAL				
	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

SUB HEAD : 24.0

**CONSERVATION
OF
HERITAGE BUILDINGS**

- 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	558.00	295.74
0115	Coolie	day	0.08	558.00	44.64
0101	Bhisti	day	0.07	617.00	43.19
9999	Sundries	L.S.	1.43	2.00	2.86
	TOTAL				386.43 W
	Add 1 % Water charges on "W"				3.86
	TOTAL				390.29 X
	Add GST on "X" (multiplying factor 0.1405)				54.84
	TOTAL				445.13 Y
	Add 15% CPOH on "Y"				66.77
	TOTAL				511.90 Z
	Add Cess @ 1% on "Z"				5.12
	Cost of 10.00 sqm				517.02
	Cost of 1.00 sqm				51.70
	Say				51.70

- 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 chalis, 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	each	0.30	145.00	43.50
4009	Qty taken for cost of using once = 14x0.85/40=0.2975 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= 3765.42x 0.85/40=80.02kg	kilogram	80.02	57.00	4561.14
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	43.00	113.09
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	4800.00	38.40
7346	Double coupler Clamp coupler for fixing MS tube with scaffolding 2x3x2+2x18x3=120 nosQty taken for cost of using once= 120x0.85/ 40=2.55 nos	each	2.555	46.00	117.53
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 LABOUR	tonne	6.054	92.24	558.42
0116	Fitter (grade 1)	day	15.50	738.00	11439.00
0114	Beldar	day	31.00	558.00	17298.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	1035.00	2.00	2070.00
	TOTAL				39040.39 W
	Add 1 % Water charges on "W"				390.40
	TOTAL				39430.79 X
	Add GST on "X" (multiplying factor 0.1405)				5540.03
	TOTAL				44970.82 Y
	Add 15% CPOH on "Y"				6745.62
	TOTAL				51716.44 Z
	Add Cess @ 1% on "Z"				517.16
	Cost of 202.50 sqm				52233.61
	Cost of 1.00 sqm				257.94
	Say				257.95

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 ₹
7767	Detail of cost for 10 sqm MATERIAL Stone cleaning chemical approved by ASI 1 kg teepal of 3% solution for 10 sqm area for 10sqm = 0.10 liter	litre	0.10	295.00	29.50
7771	Liquid Amonia 5% LABOUR (for applying the camical Salution)	litre	0.17	160.00	27.20
0103	Blacksmith 2nd class	day	0.20	679.00	135.80
0114	Beldar	day	0.20	558.00	111.60
0128	Mate	day	0.10	617.00	61.70
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	2.00	2.00
6501	Sand zone V (Jamuna) LABOUR (for pressure cleaning)	cum	0.0283	1225.00	34.67
0103	Blacksmith 2nd class	day	0.40	679.00	271.60
0114	Beldar	day	0.80	558.00	446.40

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0128	Mate	day	0.10	617.00	61.70
	TOTAL				1182.17 W
	Add 1 % Water charges on "W"				11.82
	TOTAL				1193.99 X
	Add GST on "X" (multiplying factor 0.1405)				167.76
	TOTAL				1361.74 Y
	Add 15% CPOH on "Y"				204.26
	TOTAL				1566.01 Z
	Add Cess @ 1% on "Z"				15.66
	Cost of 10.00 sqm				1581.67
	Cost of 1.00 sqm				158.17
	Say				158.15

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 ₹
7775	Detail of cost for 10 sqm MATERIAL Sodium pentachlorophenate	Kg	0.10	550.00	55.00
0103	LABOUR Blacksmith 2nd class	day	0.25	679.00	169.75
0114	Beldar	day	0.25	558.00	139.50
0128	Mate	day	0.125	617.00	77.13
	TOTAL				441.38 W
	Add 1 % Water charges on "W"				4.41
	TOTAL				445.79 X
	Add GST on "X" (multiplying factor 0.1405)				62.63
	TOTAL				508.42 Y
	Add 15% CPOH on "Y"				76.26
	TOTAL				584.69 Z
	Add Cess @ 1% on "Z"				5.85
	Cost of 10.00 sqm				590.53
	Cost of 1.00 sqm				59.05
	Say				59.05

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 ₹
3.19	Detail of cost for 10 sqm MATERIAL Rate as per Item No.3.19 of SH:Mortars	cum	0.023	2821.15	64.89
0155	LABOUR Mason (average)	day	0.92	709.00	652.28
0115	Coolie	day	1.37	558.00	764.46
0101	Bhisti	day	0.93	617.00	573.81

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	4.03	2.00	8.06
	TOTAL				2063.50 W
	Add 1 % Water charges on "W"				20.63
	TOTAL				2084.13 X
	Add GST on "X" (multiplying factor 0.1405)				292.82
	TOTAL				2376.95 Y
	Add 15% CPOH on "Y"				356.54
	TOTAL				2733.49 Z
	Add Cess @ 1% on "Z"				27.33
	Cost of 10.00 sqm				2760.83
	Cost of 1.00 sqm				276.08
	Say				276.10

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 ₹
3.19	Detail of cost for 10 sqm				
	MATERIAL				
	Rate as per Item No.3.19 of SH:Mortars	cum	0.023	2821.15	64.89
	LABOUR				
0155	Mason (average)	day	0.92	709.00	652.28
0115	Coolie	day	1.37	558.00	764.46
0101	Bhisti	day	0.93	617.00	573.81
9999	Sundries	L.S.	4.03	2.00	8.06
	TOTAL				2063.50 W
	Add 1 % Water charges on "W"				20.63
	TOTAL				2084.13 X
	Add GST on "X" (multiplying factor 0.1405)				292.82
	TOTAL				2376.95 Y
	Add 15% CPOH on "Y"				356.54
	TOTAL				2733.49 Z
	Add Cess @ 1% on "Z"				27.33
	Cost of 10.00 sqm				2760.83
	Cost of 1.00 sqm				276.08
	Say				276.10

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	900.00	900.00
	LABOUR				
0131	Painter	day	0.15	679.00	101.85
0114	Beldar	day	0.15	558.00	83.70
9999	Sundries	L.S.	6.00	2.00	12.00
	TOTAL				1097.55 W
	Add 1 % Water charges on "W"				10.98
	TOTAL				1108.53 X
	Add GST on "X" (multiplying factor 0.1405)				155.75
	TOTAL				1264.27 Y
	Add 15% CPOH on "Y"				189.64
	TOTAL				1453.91 Z
	Add Cess @ 1% on "Z"				14.54
	Cost of 5.00 sqm				1468.45
	Cost of 1.00 sqm				293.69
	Say				293.70

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 repellant chemical approved by ASI	litre	1.00	1200.00	1200.00
7770	Turpentine oil	litre	12.00	55.00	660.00
	LABOUR				
0131	Painter	day	1.00	679.00	679.00
0114	Beldar	day	1.00	558.00	558.00
9999	Handling / Transportation charges	L.S.	6.00	2.00	12.00
	TOTAL				3109.00 W
	Add 1 % Water charges on "W"				31.09
	TOTAL				3140.09 X
	Add GST on "X" (multiplying factor 0.1405)				441.18
	TOTAL				3581.27 Y
	Add 15% CPOH on "Y"				537.19
	TOTAL				4118.46 Z
	Add Cess @ 1% on "Z"				41.18
	Cost of 45.00 sqm				4159.65
	Cost of 1.00 sqm				92.44
	Say				92.45

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				
7306	MATERIALS				
	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 Dimensional 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 separator 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, duly 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 accredited 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 by 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 ASTM E- 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 ASTM E-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	30.00	510.60
2606	Spacer tape 6.4 mm thick x 6 mm wide	metre	20.11	20.00	402.20
2607	Weather Sealant - Non Staining (600 ml)	each	1.96	325.00	637.00
2608	Weather Sealant - Normal (300 ml)	each	2.55	98.00	249.90
2609	MS Brackets/Aluminium Alloy Brackets	kg	9.78	100.00	978.00
2610	Silicon Gasket in Kg (Above 50 g / m)	kg	0.78	465.00	362.70
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	0.70	150.00	105.00
2612	Anchor Fastner - M10	each	2.00	10.00	20.00
2613	SS Bolt with washer of sizes for structural glazing / ACP Cladding	each	2.00	35.00	70.00
2630	Baker rod	metre	5.04	5.00	25.20
2614	SS Screws of sizes for structural glazing /ACP Cladding	each	52.00	3.00	156.00
2632	Fire Stop	metre	1.60	480.00	768.00
2615	Protective Tape	metre	6.72	20.00	134.40
2616	GI flashing - 1.2 mm Thick	kg	3.96	59.00	233.64
8654	Masking tape	metre	6.72	1.95	13.10
9999	Sundries	L.S.	225.50	2.00	451.00
9999	Sundries (For Fabrication)	L.S.	1804.03	2.00	3608.06
9999	Sundries (For Installation)	L.S.	1804.03	2.00	3608.06
9999	Sundries (Transporation)	L.S.	451.00	2.00	902.00
9999	Sundries (Scaffolding / Loading / Unloading)	L.S.	573.00	2.00	1146.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (Designing charges etc.)	L.S.	216.18	2.00	432.36
	TOTAL				14813.22 W
	Add 1 % Water charges on "W"				148.13
	TOTAL				14961.36 X
	Add GST on "X" (multiplying factor 0.1405)				2102.07
	TOTAL				17063.43 Y
	Add 15% CPOH on "Y"				2559.51
	TOTAL				19622.94 Z
	Add Cess @ 1% on "Z"				196.23
	Cost for 6.72 sqm				19819.17
	Cost for 1 sqm				2949.28
	Say				2949.30

- 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 strengthened 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 Wastage 10% = 0.638 sqm say 0.7 sqm Net = 7.02 sqm Details of cost for 6.72 sqm				

SUB HEAD : 25- STRUCTURAL GLAZING ALUMINIUM COMPOSITE PANEL

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2617	MATERIALS				
2618	6 mm thick High performance glass	sqm	7.02	1000.00	7020.00
9999	6 mm thick clear heat strengthened glass	sqm	7.02	650.00	4563.00
9999	Sundries (for insurance Charges)	L.S.	126.27	2.00	252.54
9999	Sundries (Fabrication charges including silicon sealant, baker rod, desecant etc.	L.S.	2120.13	2.00	4240.26
9999	Transporation including loading and unloading	L.S.	126.27	2.00	252.54
	TOTAL				16328.34 W
	Add 1 % Water charges on "W"				163.28
	TOTAL				16491.62 X
	Add GST on "X" (multiplying factor 0.1405)				2317.07
	TOTAL				18808.70 Y
	Add 15% CPOH on "Y"				2821.30
	TOTAL				21630.00 Z
	Add Cess @ 1% on "Z"				216.30
	Cost for 6.72 sqm				21846.30
	Cost for 1 sqm				3250.94
	Say				3250.95

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				
2619	MATERIALS				
2619	6 mm thick clear heat strengthened glass	each	3.00	128.00	384.00
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	0.80	150.00	120.00
2614	SS Screws of sizes for structural glazing / ACP Cladding	each	49.00	3.00	147.00
2615	Protective Tape	metre	1.76	20.00	35.20

SUB HEAD : 25- STRUCTURAL GLAZING ALUMINIUM COMPOSITE PANEL

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2620	ARMS GS HD -TOP HUNG -20"- TYPE P-COUPLE	pair	1.00	1350.00	1350.00
2621	Connection Block	each	2.00	35.00	70.00
2622	Curtain wall striker	each	4.00	85.00	340.00
2623	Adjustable Fastening Pawl	each	4.00	35.00	140.00
2624	Corner drive	each	2.00	255.00	510.00
2625	Top wedge Block	each	1.00	120.00	120.00
9999	Sundries	L.S.	118.00	2.00	236.00
9999	Sundries (For Fabrication)	L.S.	354.36	2.00	708.72
	TOTAL				4160.92 W
	Add 1 % Water charges on "W"				41.61
	TOTAL				4202.53 X
	Add GST on "X" (multiplying factor 0.1405)				590.46
	TOTAL				4792.98 Y
	Add 15% CPOH on "Y"				718.95
	TOTAL				5511.93 Z
	Add Cess @ 1% on "Z"				55.12
	Cost for 1.76 sqm				5567.05
	Cost for 1 sqm				3163.10
	Say				3163.10

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	250.00	847.50
2634	GI/Aluminium Sheet (0.8 mm thick)	kg	21.30	55.00	1171.50
2627	SS Screws - # 8 x 19	each	32.00	6.00	192.00
2628	Weather Sealant - DC 789	cartridge	2.00	120.00	240.00
2629	Cement Board	sqm	3.39	235.00	796.65
9999	Sundries with clips & adhesives	L.S.	308.50	2.00	617.00
9999	Sundries (For Fabrication)	L.S.	170.64	2.00	341.28

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (For Installation)	L.S.	170.64	2.00	341.28
	TOTAL				4547.21 W
	Add 1 % Water charges on "W"				45.47
	TOTAL				4592.68 X
	Add GST on "X" (multiplying factor 0.1405)				645.27
	TOTAL				5237.95 Y
	Add 15% CPOH on "Y"				785.69
	TOTAL				6023.65 Z
	Add Cess @ 1% on "Z"				60.24
	Cost for 3.23 sqm				6083.88
	Cost for 1 sqm				1883.56
	Say				1883.55

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	1000.00	3390.00
9999	Sundries (Insurance charges)	L.S.	43.46	2.00	86.92
9999	Sundries (Fabrication charges including silicon sealant, baker rod, desecant etc.)	L.S.	682.55	2.00	1365.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (transporation including loading & unloading)	L.S.	147.59	2.00	295.18
	TOTAL				5137.20 W
	Add 1 % Water charges on "W"				51.37
	TOTAL				5188.57 X
	Add GST on "X" (multiplying factor 0.1405)				728.99
	TOTAL				5917.57 Y
	Add 15% CPOH on "Y"				887.63
	TOTAL				6805.20 Z
	Add Cess @ 1% on "Z"				68.05
	Cost for 3.23 sqm				6873.25
	Cost for 1 sqm				2127.94
	Say				2127.95

- 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 (B) Local Hardware	pair	5.00	5931.00	29655.00
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 nosTotal=58 nos	each	58.00	10.00	580.00
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	65.00	3203.20
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	2.00	2000.00
9999	Labour	L.S.	10000.00	2.00	20000.00
9999	Scaffolding	L.S.	2600.00	2.00	5200.00
8778	(C) Glass Area 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	1747.00	64708.88
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 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 35.28 sqm Cost of 1 sqm Say	sqm	4.83	6000.00	28980.00
					214391.08 W
					2143.91
					216534.99 X
					30423.17
					246958.16 Y
					37043.72
					284001.88 Z
					2840.02
					286841.90
					8130.44
					8130.45

SUB HEAD : 26.0

**NEW TECHNOLOGIES AND
MATERIALS**

- 26.1 Providing & fixing in position Phenol bonded Bamboowood flooring with planks of sizes 14mm thick, 1800mm length (minimum) and 130 mm wide(minimum), 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 ₹
8021	Details of cost for 10m x 10m = 100 sqm MATERIAL Bamboo wood Tile Flooring 14mm thick of minimum size 1800mm x 130mm 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	112.00	4468.80
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	18.00	1890.00
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	738.00	2214.00
0114	Beldar	day	3.00	558.00	1674.00
9999	Sundries	L.S.	100.00	2.00	200.00
	TOTAL				394571.80 W
	Add 1 % Water charges on "W"				3945.72
	TOTAL				398517.52 X
	Add GST on "X" (multiplying factor 0.1405)				55991.71
	TOTAL				454509.23 Y
	Add 15% CPOH on "Y"				68176.38
	TOTAL				522685.61 Z
	Add Cess @ 1% on "Z"				5226.86
	Cost of 100 sqm				527912.47
	Cost of 1 sqm				5279.12
	Say				5279.10

- 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 ₹
8024	Detail of cost for 10 sqm skirting MATERIAL 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	18.00	189.00
8210	Stainless steel screws 50 mm (62x3=186 nos)	100 Nos	1.86	270.00	502.20
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	738.00	738.00
0114	Beldar	day	1.00	558.00	558.00
9999	Sundries	L.S.	20.00	2.00	40.00
	TOTAL				38587.20 W
	Add 1 % Water charges on "W"				385.87
	TOTAL				38973.07 X
	Add GST on "X" (multiplying factor 0.1405)				5475.72
	TOTAL				44448.79 Y
	Add 15% CPOH on "Y"				6667.32
	TOTAL				51116.11 Z
	Add Cess @ 1% on "Z"				511.16
	Cost of 10 sqm				51627.27
	Cost of 1 sqm				5162.73
	Say				5162.75

- 26.3 Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, 1800mm length (minimum) and 130 mm wide (minimum), 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 ₹
8025	Details of cost for 10m x 9.5m = 95 sqm MATERIAL Bamboo wood Tile Wall Cladding 10mm thick of size 1900mm x 135mm 10 x 9.5 = 95 + 9.5 (Add for wastage @10%) = 104.5 sqm	sqm	104.50	3385.00	353732.50
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	8.50	1695.75
8210	Stainless steel screws 50 mm @500mm c/c at teak wood frame	100 Nos	2.58	270.00	696.60
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	190.00	3515.00
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
0111	LABOUR Carpenter 1st class	day	5.00	738.00	3690.00
0112	Carpenter 2nd class	day	5.00	679.00	3395.00
0114	Beldar	day	5.00	558.00	2790.00
9999	Sundries	L.S.	100.00	2.00	200.00
	TOTAL				394743.80 W
	Add 1 % Water charges on "W"				3947.44
	TOTAL				398691.24 X
	Add GST on "X" (multiplying factor 0.1405)				56016.12
	TOTAL				454707.36 Y
	Add 15% CPOH on "Y"				68206.10
	TOTAL				522913.46 Z
	Add Cess @ 1% on "Z"				5229.13
	Cost of 95 sqm				528142.60
	Cost of 1 sqm				5559.40
	Say				5559.40

- 26.4 Providing & fixing in position Phenol bonded Bamboowood panelled or panelled and glazed shutters for doors windows, clerestorey windows with pre-molded 30mm thick planks, in approved colours, texture & finishe. It shall have 10mm wide, 25mm deep groove 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 ₹
8028	Details of cost for shutters of Bamboowood 200 x 108cm = 2.16 sqm MATERIAL 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	265.00	106.00
8211	Stainless steel screws 40 mm	100 Nos	0.32	215.00	68.80
	LABOUR				
0156	Carpenter (average)	day	0.33	709.00	233.97
0114	Beldar	day	0.33	558.00	184.14
9999	Sundries T&P etc.	L.S.	5.62	2.00	11.24
	TOTAL				8815.15 W
	Add 1 % Water charges on "W"				88.15
	TOTAL				8903.30 X
	Add GST on "X" (multiplying factor 0.1405)				1250.91
	TOTAL				10154.22 Y
	Add 15% CPOH on "Y"				1523.13
	TOTAL				11677.35 Z
	Add Cess @ 1% on "Z"				116.77
	Cost of 2.16 sqm				11794.12
	Cost of 1 sqm				5460.24
	Say				5460.25

- 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 ₹
8029	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 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
0156	LABOUR Carpenter (average)	day	0.57	709.00	404.13
9999	Sundries	L.S.	4.42	2.00	8.84
	TOTAL				1756.97 W
	Add 1 % Water charges on "W"				17.57
	TOTAL				1774.54 X
	Add GST on "X" (multiplying factor 0.1405)				249.32
	TOTAL				2023.86 Y
	Add 15% CPOH on "Y"				303.58
	TOTAL				2327.44 Z
	Add Cess @ 1% on "Z"				23.27
	Cost of 0.66 sqm				2350.72
	Cost of 1 sqm				3561.69
	Say				3561.70

- 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 ₹
8030	Detail of cost for 33 cudm MATERIAL 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	10 cudm	3.40	1675.00	5695.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	+ 0.001 cum (Add for wastage @ 5%) Grand total = 0.034 cum = 34 Cudm				
	LABOUR				
0111	Carpenter 1st class	day	0.72	738.00	531.36
0114	Beldar	day	0.07	558.00	39.06
	TOTAL				6265.42 W
	Add 1 % Water charges on "W"				62.65
	TOTAL				6328.07 X
	Add GST on "X" (multiplying factor 0.1405)				889.09
	TOTAL				7217.17 Y
	Add 15% CPOH on "Y"				1082.58
	TOTAL				8299.74 Z
	Add Cess @ 1% on "Z"				83.00
	Cost of 33 cudm				8382.74
	Cost of 1 cudm				254.02
	Say				254.00

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)+(4x19 x1.83x1.05) = 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	sqm	250.69	2648.00	663827.12
	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				
2358	Carriage of Bamboo Mat corrugated sheets and accessories	tonne	1.14	11500.00	13110.00
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	2.00	23.16
9999	Sundries	L.S.	56.78	2.00	113.56

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0130	LABOUR:				
0112	Mistry	day	3.00	738.00	2214.00
0114	Carpenter 2nd class	day	3.00	679.00	2037.00
	Beldar	day	9.00	558.00	5022.00
	TOTAL				694999.44 W
	Add 1 % Water charges on "W"				6949.99
	TOTAL				701949.43 X
	Add GST on "X" (multiplying factor 0.1405)				98623.90
	TOTAL				800573.33 Y
	Add 15% CPOH on "Y"				120086.00
	TOTAL				920659.33 Z
	Add Cess @ 1% on "Z"				9206.59
	Cost of 181.30 sqm				929865.92
	Cost of 1sqm				5128.88
	Say				5128.90

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	2.00	38.86
9999	Sundries	L.S.	9.71	2.00	19.42
	LABOUR:				
0130	Mistry	day	0.20	738.00	147.60
0112	Carpenter 2nd class	day	0.20	679.00	135.80
0114	Beldar	day	0.60	558.00	334.80
	TOTAL				57344.98 W
	Add 1 % Water charges on "W"				573.45
	TOTAL				57918.43 X
	Add GST on "X" (multiplying factor 0.1405)				8137.54
	TOTAL				66055.97 Y
	Add 15% CPOH on "Y"				9908.40
	TOTAL				75964.36 Z
	Add Cess @ 1% on "Z"				759.64
	Cost of 18.50 metre				76724.01
	Cost of 1 metre				4147.24
	Say				4147.25

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 ₹
8147	Details of cost for 100 sqm. Ceiling area = 100sqm, Add wastage @ 5% = 5sqm, Total area = 105 sqm MATERIAL: 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	11500.00	4485.00
8570	GI Main T ceiling section 30x25x 0.3 mm (3 metre long) including of wastage of 10%	each	29.50	187.00	5516.50
8571	GI Perimeter wall angle 25x25x0.4 mm (3 metre long) including of wastage of 10%	each	13.50	157.00	2119.50
8572	GI Intermediate cross T section 25x25x0.3 mm (1.2 metre long) including of wastage of 10% on grid cutouts.	each	147.00	72.00	10584.00
8573	GI Intermediate cross T section 25x25x0.3 mm (0.6 metre long) including of wastage of 10% on grid cutouts.	each	147.00	34.00	4998.00
8615	Hanger rod 4mm thick	each	72.00	8.00	576.00
8616	Adjustment clip 85x30x0.8mm	each	72.00	5.00	360.00
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	11.00	792.00
9977	Carriage of grid materials	L.S.	89.28	2.00	178.56
9999	Sundries	L.S.	187.95	2.00	375.90
0112	LABOUR: Carpenter 2nd class	day	28.00	679.00	19012.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				244537.46 W
	Add 1 % Water charges on "W"				2445.37
	TOTAL				246982.83 X
	Add GST on "X" (multiplying factor 0.1405)				34701.09
	TOTAL				281683.92 Y
	Add 15% CPOH on "Y"				42252.59
	TOTAL				323936.51 Z
	Add Cess @ 1% on "Z"				3239.37
	Cost of 100 sqm				327175.88
	Cost of 1sqm				3271.76
	Say				3271.75

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 ₹
8146	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm MATERIAL: 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	11500.00	230.00
9999	Sundries and screws	L.S.	26.91	2.00	53.82
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	679.00	611.10
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				12536.72 W
	Add 1 % Water charges on "W"				125.37
	TOTAL				12662.09 X
	Add GST on "X" (multiplying factor 0.1405)				1779.02
	TOTAL				14441.11 Y
	Add 15% CPOH on "Y"				2166.17
	TOTAL				16607.28 Z
	Add Cess @ 1% on "Z"				166.07
	Cost of 7 sqm				16773.35
	Cost of 1sqm				2396.19
	Say				2396.20

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8147	MATERIAL: 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	11500.00	345.00
9999	Sundries and screws	L.S.	26.91	2.00	53.82
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	679.00	611.10
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				14342.22 W
	Add 1 % Water charges on "W"				143.42
	TOTAL				14485.64 X
	Add GST on "X" (multiplying factor 0.1405)				2035.23
	TOTAL				16520.87 Y
	Add 15% CPOH on "Y"				2478.13
	TOTAL				18999.01 Z
	Add Cess @ 1% on "Z"				189.99
	Cost of 7 sqm				19189.00
	Cost of 1sqm				2741.29
	Say				2741.30

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				
8148	MATERIAL: 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	11500.00	460.00
9999	Sundries and screws	L.S.	26.91	2.00	53.82
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	679.00	611.10
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				17103.22 W
	Add 1 % Water charges on "W"				171.03
	TOTAL				17274.25 X
	Add GST on "X" (multiplying factor 0.1405)				2427.03
	TOTAL				19701.28 Y
	Add 15% CPOH on "Y"				2955.19
	TOTAL				22656.48 Z
	Add Cess @ 1% on "Z"				226.56
	Cost of 7 sqm				22883.04
	Cost of 1sqm				3269.01
	Say				3269.00

26.6D.4 9mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8149	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm MATERIAL: 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	11500.00	690.00
9999	Sundries and screws	L.S.	26.91	2.00	53.82
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	679.00	611.10
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				21669.72 W
	Add 1 % Water charges on "W"				216.70
	TOTAL				21886.42 X
	Add GST on "X" (multiplying factor 0.1405)				3075.04
	TOTAL				24961.46 Y
	Add 15% CPOH on "Y"				3744.22
	TOTAL				28705.68 Z
	Add Cess @ 1% on "Z"				287.06
	Cost of 7 sqm				28992.73
	Cost of 1sqm				4141.82
	Say				4141.80

26.6D.5 12mm thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8150	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm MATERIAL: 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	11500.00	805.00
9999	Sundries and screws	L.S.	26.91	2.00	53.82
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	679.00	611.10
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				24923.17 W
	Add 1 % Water charges on "W"				249.23
	TOTAL				25172.40 X
	Add GST on "X" (multiplying factor 0.1405)				3536.72
	TOTAL				28709.12 Y
	Add 15% CPOH on "Y"				4306.37
	TOTAL				33015.49 Z
	Add Cess @ 1% on "Z"				330.15
	Cost of 7 sqm				33345.65
	Cost of 1sqm				4763.66
	Say				4763.65

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	11500.00	2070.00
1316	50mmx50mm hardwood plug	each	45.00	75.00	3375.00
1190	Second class teak wood in planks	10 cudm	2.477	791.00	1959.31
2204	Carriage of timber	cum	0.02477	118.59	2.94
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.70	60.00	42.00
9999	Sundries	L.S.	26.91	2.00	53.82
	LABOUR:				
0112	Carpenter 2nd class	day	2.00	679.00	1358.00
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				66425.06 W
	Add 1 % Water charges on "W"				664.25
	TOTAL				67089.32 X
	Add GST on "X" (multiplying factor 0.1405)				9426.05
	TOTAL				76515.36 Y
	Add 15% CPOH on "Y"				11477.30
	TOTAL				87992.67 Z
	Add Cess @ 1% on "Z"				879.93
	Cost of 20 sqm				88872.60
	Cost of 1sqm				4443.63
	Say				4443.65

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 ₹
8150	MATERIAL: 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	11500.00	2415.00
1316	50mmx50mm hardwood plug	each	45.00	75.00	3375.00
1190	Second class teak wood in planks	10 cudm	2.477	791.00	1959.31
2204	Carriage of timber	cum	0.02477	118.59	2.94
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.70	60.00	42.00
9999	Sundries	L.S.	26.91	2.00	53.82
	LABOUR:				
0112	Carpenter 2nd class	day	2.00	679.00	1358.00
0114	Beldar	day	2.00	558.00	1116.00
	TOTAL				75737.06 W
	Add 1 % Water charges on "W"				757.37
	TOTAL				76494.44 X
	Add GST on "X" (multiplying factor 0.1405)				10747.47
	TOTAL				87241.90 Y
	Add 15% CPOH on "Y"				13086.29
	TOTAL				100328.19 Z
	Add Cess @ 1% on "Z"				1003.28
	Cost of 20 sqm				101331.47
	Cost of 1sqm				5066.57
	Say				5066.55

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 ₹
8561	Details of cost for 10 Sqm MATERIAL Extruded polystyrene rigid insulation board 50 mm thick including 2% wastage	sqm	10.20	525.00	5355.00
	LABOUR				
0111	Carpenter 1st class	day	0.25	738.00	184.50
0128	Mate	day	0.25	617.00	154.25
0114	Beldar	day	0.25	558.00	139.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries (Water based adhesive, fasteners, scaffolding etc.)	L.S.	100.00	2.00	200.00
	TOTAL				6033.25 W
	Add 1 % Water charges on "W"				60.33
	TOTAL				6093.58 X
	Add GST on "X" (multiplying factor 0.1405)				856.15
	TOTAL				6949.73 Y
	Add 15% CPOH on "Y"				1042.46
	TOTAL				7992.19 Z
	Add Cess @ 1% on "Z"				79.92
	Cost of 10 sqm				8072.11
	Cost of 1 sqm				807.21
	Say				807.20

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 \leq 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 ₹
8561	Details of cost for 10 Sqm MATERIAL Extruded polystyrene rigid insulation board 50 mm thick including 2% wastage	sqm	10.20	525.00	5355.00
	LABOUR				
0111	Carpenter 1st class	day	0.50	738.00	369.00
0128	Mate	day	0.50	617.00	308.50
0114	Beldar	day	0.50	558.00	279.00
9999	Sundries (Water based adhesive, fasteners, scaffolding etc.)	L.S.	100.00	2.00	200.00
	TOTAL				6511.50 W
	Add 1 % Water charges on "W"				65.12
	TOTAL				6576.62 X
	Add GST on "X" (multiplying factor 0.1405)				924.01
	TOTAL				7500.63 Y
	Add 15% CPOH on "Y"				1125.09
	TOTAL				8625.72 Z
	Add Cess @ 1% on "Z"				86.26
	Cost of 10 sqm				8711.98
	Cost of 1 sqm				871.20
	Say				871.20

- 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 necessary 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	130.00	276.90
2493	PVC edge beading	metre	4.26	31.00	132.06
2494	Expandable fastner with plastic sleeve	each	8.00	5.00	40.00
8210	Stainless steel screws 50 mm	100 Nos	0.08	270.00	21.60
	LABOUR				
0111	Carpenter 1st class	day	0.10	738.00	73.80
0114	Beldar	day	0.10	558.00	55.80
	TOTAL				600.16 W
	Add 1 % Water charges on "W"				6.00
	TOTAL				606.16 X
	Add GST on "X" (multiplying factor 0.1405)				85.17
	TOTAL				691.33 Y
	Add 15% CPOH on "Y"				103.70
	TOTAL				795.03 Z
	Add Cess @ 1% on "Z"				7.95
	Cost for 2.13 metre				802.98
	Cost for 1 metre				376.98
	Say				377.00

- 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	2090.00	587.29
2493	PVC edge beading	metre	2.13	31.00	66.03
9999	Sundries	L.S.	20.00	2.00	40.00
	LABOUR				
0111	Carpenter 1st class	day	0.20	738.00	147.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.20	558.00	111.60
	TOTAL				952.52 W
	Add 1 % Water charges on "W"				9.53
	TOTAL				962.05 X
	Add GST on "X" (multiplying factor 0.1405)				135.17
	TOTAL				1097.21 Y
	Add 15% CPOH on "Y"				164.58
	TOTAL				1261.79 Z
	Add Cess @ 1% on "Z"				12.62
	Cost for 0.281 sqm				1274.41
	Cost for 1 sqm				4535.28
	Say				4535.30

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	10 Nos	1.00	420.00	420.00
8210	19-20 mm thick with mounting plate	100 Nos	0.80	270.00	216.00
9977	Stainless steel screws 50 mm	L.S.	2.73	2.00	5.46
	Carriage of material				
	LABOUR				
0112	Carpenter 2nd class	day	0.14	679.00	95.06
0114	Beldar	day	0.09	558.00	50.22
	TOTAL				786.74 W
	Add 1 % Water charges on "W"				7.87
	TOTAL				794.61 X
	Add GST on "X" (multiplying factor 0.1405)				111.64
	TOTAL				906.25 Y
	Add 15% CPOH on "Y"				135.94
	TOTAL				1042.19 Z
	Add Cess @ 1% on "Z"				10.42
	Cost of 10 nos				1052.61
	Cost of 1 no				105.26
	Say				105.25

26.12 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid conforming 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				
8956	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 15 kN/m in the longitudinal and transverse direction	Sqm	300.00	100.00	30000.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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"				3000.00
	LABOUR				
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				38421.12 W
	Add 1 % Water charges on "W"				384.21
	TOTAL				38805.33 X
	Add GST on "X" (multiplying factor 0.1405)				5452.15
	TOTAL				44257.48 Y
	Add 15% CPOH on "Y"				6638.62
	TOTAL				50896.10 Z
	Add Cess @ 1% on "Z"				508.96
	Cost for 300 Sqm				51405.06
	Cost per Sqm				171.35
	Say				171.35

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 ₹
8957	Details of Cost for 300 Sqm MATERIAL Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 20kN/m in the longitudinal and transverse direction 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"	sqm	300.00	115.00	34500.00 P
	LABOUR				3450.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				43371.12 W
	Add 1 % Water charges on "W"				433.71
	TOTAL				43804.83 X
	Add GST on "X" (multiplying factor 0.1405)				6154.58
	TOTAL				49959.41 Y
	Add 15% CPOH on "Y"				7493.91
	TOTAL				57453.32 Z
	Add Cess @ 1% on "Z"				574.53
	Cost for 300 Sqm				58027.85
	Cost per Sqm				193.43
	Say				193.45

26.14 Supplying & laying of bi-axial extruded high modulus polypropylene geogrid conforming 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 ₹
8958	Details of Cost for 300 Sqm MATERIAL Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 30kN/m in the longitudinal and transverse direction 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 fascia 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"	sqm	300.00	185.00	55500.00 P
	LABOUR				5550.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				66471.12 W
	Add 1 % Water charges on "W"				664.71
	TOTAL				67135.83 X
	Add GST on "X" (multiplying factor 0.1405)				9432.58
	TOTAL				76568.42 Y
	Add 15% CPOH on "Y"				11485.26
	TOTAL				88053.68 Z
	Add Cess @ 1% on "Z"				880.54
	Cost for 300 Sqm				88934.21
	Cost per Sqm				296.45
	Say				296.45

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 ₹
8959	Details of Cost for 300 Sqm MATERIAL Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 40kN/m in the longitudinal and transverse direction 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"	Sqm	300.00	275.00	82500.00 P
	LABOUR				8250.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				96171.12 W
	Add 1 % Water charges on "W"				961.71
	TOTAL				97132.83 X
	Add GST on "X" (multiplying factor 0.1405)				13647.16
	TOTAL				110779.99 Y
	Add 15% CPOH on "Y"				16617.00
	TOTAL				127396.99 Z
	Add Cess @ 1% on "Z"				1273.97
	Cost for 300 Sqm				128670.96
	Cost per Sqm				428.90
	Say				428.90

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 ₹
8960	Material Details of Cost for 300 Sqm Geosynthetic Drainage Composite Add 10 per cent of the cost of synthetic Composites for wastage and accessories for joining sheets with the facia pannels, overlaps and other protective elements for synthetic Composites and other miscelleneus activities required to complete the item in all respect including transpotarion & takes. 10% of "P"	sqm	300.00	530.00	159000.00 P
0128	Mate	day	0.36	617.00	15900.00
0114	Beldar	day	6.00	558.00	222.12
0139	Skilled Beldar	day	3.00	617.00	3348.00
	TOTAL				1851.00
	Add 1 % Water charges on "W"				180321.12 W
	TOTAL				1803.21
	Add GST on "X" (multiplying factor 0.1405)				182124.33 X
	TOTAL				25588.47
	Add 15% CPOH on "Y"				207712.80 Y
	TOTAL				31156.92
	Add Cess @ 1% on "Z"				238869.72 Z
	Cost for 300 Sqm				2388.70
	Cost per Sqm				241258.42
	Say				804.19
					804.20

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 ₹
8961	Material Details of Cost for 300 Sqm Geosynthetic Drainage Composite Add 10 per cent of the cost of synthetic Composites for wastage and accessories for joining sheets with the facia pannels, overlaps and other protective elements for synthetic Composites and other miscelleneus activities required to	sqm	300.00	630.00	189000.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	complete the item in all respect including transportation & takes. 10% of "P"				18900.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				213321.12 W
	Add 1 % Water charges on "W"				2133.21
	TOTAL				215454.33 X
	Add GST on "X" (multiplying factor 0.1405)				30271.33
	TOTAL				245725.66 Y
	Add 15% CPOH on "Y"				36858.85
	TOTAL				282584.51 Z
	Add Cess @ 1% on "Z"				2825.85
	Cost for 300 Sqm				285410.36
	Cost per Sqm				951.37
	Say				951.35

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 ₹
8962	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid having ultimate tensile strength - 100 kN/m 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 fascia 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"	Sqm	300.00	220.00	66000.00 P
	LABOUR				6600.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				78021.12 W
	Add 1 % Water charges on "W"				780.21
	TOTAL				78801.33 X
	Add GST on "X" (multiplying factor 0.1405)				11071.59
	TOTAL				89872.92 Y
	Add 15% CPOH on "Y"				13480.94
	TOTAL				103353.86 Z
	Add Cess @ 1% on "Z"				1033.54
	Cost for 300 Sqm				104387.39
	Cost per Sqm				347.96
	Say				347.95

26.18.2 Ultimate tensile strength- 150 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8963	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 150 kN/m 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"	sqm	300.00	230.00	69000.00 P
	LABOUR				6900.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				81321.12 W
	Add 1 % Water charges on "W"				813.21
	TOTAL				82134.33 X
	Add GST on "X" (multiplying factor 0.1405)				11539.87
	TOTAL				93674.20 Y
	Add 15% CPOH on "Y"				14051.13
	TOTAL				107725.34 Z
	Add Cess @ 1% on "Z"				1077.25
	Cost for 300 Sqm				108802.59
	Cost per Sqm				362.68
	say				362.70

26.18.3 Ultimate tensile strength- 200 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8964	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 200 kN/m 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"	sqm	300.00	320.00	96000.00 P
	LABOUR				9600.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				111021.12 W
	Add 1 % Water charges on "W"				1110.21
	TOTAL				112131.33 X
	Add GST on "X" (multiplying factor 0.1405)				15754.45
	TOTAL				127885.78 Y
	Add 15% CPOH on "Y"				19182.87
	TOTAL				147068.65 Z
	Add Cess @ 1% on "Z"				1470.69
	Cost for 300 Sqm				148539.34
	Cost per Sqm				495.13
	say				495.15

26.18.4 Ultimate tensile strength- 250 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8965	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 250 kN/m	sqm	300.00	355.00	106500.00 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"				10650.00
0128	LABOUR Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				122571.12 W
	Add 1 % Water charges on "W"				1225.71
	TOTAL				123796.83 X
	Add GST on "X" (multiplying factor 0.1405)				17393.45
	TOTAL				141190.29 Y
	Add 15% CPOH on "Y"				21178.54
	TOTAL				162368.83 Z
	Add Cess @ 1% on "Z"				1623.69
	Cost for 300 Sqm				163992.52
	Cost per Sqm				546.64
	say				546.65

26.18.5 Ultimate tensile strength- 300 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8966	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 300 kN/m	sqm	300.00	365.00	109500.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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"				10950.00
0128	LABOUR				
	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				125871.12 W
	Add 1 % Water charges on "W"				1258.71
	TOTAL				127129.83 X
	Add GST on "X" (multiplying factor 0.1405)				17861.74
	TOTAL				144991.57 Y
	Add 15% CPOH on "Y"				21748.74
	TOTAL				166740.31 Z
	Add Cess @ 1% on "Z"				1667.40
	Cost for 300 Sqm				168407.71
	Cost per Sqm				561.36
	say				561.35

26.18.6 Ultimate tensile strength- 350 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8967	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate 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	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				127521.12 W
	Add 1 % Water charges on "W"				1275.21
	TOTAL				128796.33 X
	Add GST on "X" (multiplying factor 0.1405)				18095.88
	TOTAL				146892.22 Y
	Add 15% CPOH on "Y"				22033.83
	TOTAL				168926.05 Z
	Add Cess @ 1% on "Z"				1689.26
	Cost for 300 Sqm				170615.31
	Cost per Sqm				568.72
	say				568.70

26.18.7 Ultimate tensile strength- 400 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8968	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 400 kN/m 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"	sqm	300.00	475.00	142500.00 P
	LABOUR				14250.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				162171.12 W
	Add 1 % Water charges on "W"				1621.71
	TOTAL				163792.83 X
	Add GST on "X" (multiplying factor 0.1405)				23012.89
	TOTAL				186805.72 Y
	Add 15% CPOH on "Y"				28020.86
	TOTAL				214826.58 Z
	Add Cess @ 1% on "Z"				2148.27
	Cost for 300 Sqm				216974.85
	Cost per Sqm				723.25
	say				723.25

26.18.8 Ultimate tensile strength- 500 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8969	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 500 kN/m 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"	sqm	300.00	535.00	160500.00 P
	LABOUR				16050.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				181971.12 W
	Add 1 % Water charges on "W"				1819.71
	TOTAL				183790.83 X
	Add GST on "X" (multiplying factor 0.1405)				25822.61
	TOTAL				209613.44 Y
	Add 15% CPOH on "Y"				31442.02
	TOTAL				241055.46 Z
	Add Cess @ 1% on "Z"				2410.55
	Cost for 300 Sqm				243466.01
	Cost per Sqm				811.55
	say				811.55

26.18.9 Ultimate tensile strength- 600 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8970	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate 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 fascia 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	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				186921.12 W
	Add 1 % Water charges on "W"				1869.21
	TOTAL				188790.33 X
	Add GST on "X" (multiplying factor 0.1405)				26525.04
	TOTAL				215315.37 Y
	Add 15% CPOH on "Y"				32297.31
	TOTAL				247612.68 Z
	Add Cess @ 1% on "Z"				2476.13
	Cost for 300 Sqm				250088.81
	Cost per Sqm				833.63
	say				833.65

26.18.10 Ultimate tensile strength- 700 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8971	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 700 kN/m	sqm	300.00	685.00	205500.00 P

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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"				20550.00
	LABOUR				
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				231471.12 W
	Add 1 % Water charges on "W"				2314.71
	TOTAL				233785.83 X
	Add GST on "X" (multiplying factor 0.1405)				32846.91
	TOTAL				266632.74 Y
	Add 15% CPOH on "Y"				39994.91
	TOTAL				306627.65 Z
	Add Cess @ 1% on "Z"				3066.28
	Cost for 300 Sqm				309693.93
	Cost per Sqm				1032.31
	say				1032.30

26.18.11 Ultimate tensile strength- 800 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8972	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 800 kN/m	sqm	300.00	750.00	225000.00 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"				22500.00
	LABOUR				
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				252921.12 W
	Add 1 % Water charges on "W"				2529.21
	TOTAL				255450.33 X
	Add GST on "X" (multiplying factor 0.1405)				35890.77
	TOTAL				291341.10 Y
	Add 15% CPOH on "Y"				43701.17
	TOTAL				335042.27 Z
	Add Cess @ 1% on "Z"				3350.42
	Cost for 300 Sqm				338392.69
	Cost per Sqm				1127.98
	say				1128.00

26.18.12 Ultimate tensile strength- 900 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8973	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 900 kN/m	sqm	300.00	900.00	270000.00 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 fascia 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"				27000.00
	LABOUR				
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				302421.12 W
	Add 1 % Water charges on "W"				3024.21
	TOTAL				305445.33 X
	Add GST on "X" (multiplying factor 0.1405)				42915.07
	TOTAL				348360.40 Y
	Add 15% CPOH on "Y"				52254.06
	TOTAL				400614.46 Z
	Add Cess @ 1% on "Z"				4006.14
	Cost for 300 Sqm				404620.60
	Cost per Sqm				1348.74
	say				1348.75

26.18.13 Ultimate tensile strength- 1000 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8974	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 1000 kN/m 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"	sqm	300.00	1025.00	307500.00 P
	LABOUR				30750.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				343671.12 W
	Add 1 % Water charges on "W"				3436.71
	TOTAL				347107.83 X
	Add GST on "X" (multiplying factor 0.1405)				48768.65
	TOTAL				395876.48 Y
	Add 15% CPOH on "Y"				59381.47
	TOTAL				455257.95 Z
	Add Cess @ 1% on "Z"				4552.58
	Cost for 300 Sqm				459810.53
	Cost per Sqm				1532.70
	say				1532.70

26.18.14 Ultimate tensile strength- 1100 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8975	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 1100 kN/m 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"	sqm	300.00	1000.00	300000.00 P
	LABOUR				30000.00
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				335421.12 W
	Add 1 % Water charges on "W"				3354.21
	TOTAL				338775.33 X
	Add GST on "X" (multiplying factor 0.1405)				47597.93
	TOTAL				386373.27 Y
	Add 15% CPOH on "Y"				57955.99
	TOTAL				444329.26 Z
	Add Cess @ 1% on "Z"				4443.29
	Cost for 300 Sqm				448772.55
	Cost per Sqm				1495.91
	say				1495.90

26.18.15 Ultimate tensile strength- 1200 kN/m

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8976	MATERIAL Details of Cost for 300 Sqm Synthetic Geogrid Ultimate tensile strength- 1200 kN/m	sqm	300.00	1088.00	326400.00 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 fascia 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"				32640.00
	LABOUR				
0128	Mate	day	0.36	617.00	222.12
0114	Beldar	day	6.00	558.00	3348.00
0139	Skilled Beldar	day	3.00	617.00	1851.00
	TOTAL				364461.12 W
	Add 1 % Water charges on "W"				3644.61
	TOTAL				368105.73 X
	Add GST on "X" (multiplying factor 0.1405)				51718.86
	TOTAL				419824.59 Y
	Add 15% CPOH on "Y"				62973.69
	TOTAL				482798.27 Z
	Add Cess @ 1% on "Z"				4827.98
	Cost for 300 Sqm				487626.26
	Cost per Sqm				1625.42
	say				1625.40

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 sealant 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	2.00	208.00
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	2.00	16.12
9999	Sundries	L.S.	39.52	2.00	79.04
	LABOUR:				
0130	Mistry	day	2.34	738.00	1726.92
0112	Carpenter 2nd class	day	9.34	679.00	6341.86
0114	Beldar	day	9.34	558.00	5211.72
	TOTAL				157677.06 W
	Add 1 % Water charges on "W"				1576.77
	TOTAL				159253.83 X
	Add GST on "X" (multiplying factor 0.1405)				22375.16
	TOTAL				181628.99 Y
	Add 15% CPOH on "Y"				27244.35
	TOTAL				208873.34 Z
	Add Cess @ 1% on "Z"				2088.73
	Cost of 216.14 sqm				210962.08
	Cost of 1 sqm				976.04
	Say				976.05

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	2.00	208.00
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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	2.00	16.12
9999	Sundries	L.S.	39.52	2.00	79.04
	LABOUR:				
0130	Mistry	day	2.34	738.00	1726.92
0112	Carpenter 2nd class	day	9.34	679.00	6341.86
0114	Beldar	day	9.34	558.00	5211.72
	TOTAL				200249.26 W
	Add 1 % Water charges on "W"				2002.49
	TOTAL				202251.75 X
	Add GST on "X" (multiplying factor 0.1405)				28416.37
	TOTAL				230668.12 Y
	Add 15% CPOH on "Y"				34600.22
	TOTAL				265268.34 Z
	Add Cess @ 1% on "Z"				2652.68
	Cost of 216.14 sqm				267921.03
	Cost of 1 sqm				1239.57
	Say				1239.55

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 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 interlocking 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 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 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 85x25x25x2 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 S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.

26.22.1 With 15 mm thick tegular edged light weight calcium silicate false ceiling tiles.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8589	Details of cost for 100 sqm MATERIAL Calcium Silicate tegular edged 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8590	Galvanised iron main Tee ceiling section Size 24x38x0.33 mm (3 metre long)	each	29.50	120.00	3540.00
	including wastage @10%				
8591	Galvanised iron perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long)	each	13.50	65.00	877.50
	including wastage @10%				
8592	Galvanised iron intermediate cross T section Size 24 x 32 x 0.33 mm (1.2 metre long)	each	147.00	40.00	5880.00
	including wastage @10%				
8593	Galvanised iron intermediate cross T section Size 24 x 32 x 0.33 mm (0.6 metre long)	each	147.00	20.00	2940.00
	including wastage @10%				
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm 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	32.00	2304.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	215.00	215.00
9999	Scaffolding etc.	L.S.	498.65	2.00	997.30
9977	Carriage of materials etc.	L.S.	237.48	2.00	474.96
9999	Sundries	L.S.	310.70	2.00	621.40
	LABOUR				
0111	Carpenter 1st class	day	28.00	738.00	20664.00
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				126225.16 W
	Add 1 % Water charges on "W"				1262.25
	TOTAL				127487.41 X
	Add GST on "X" (multiplying factor 0.1405)				17911.98
	TOTAL				145399.39 Y
	Add 15% CPOH on "Y"				21809.91
	TOTAL				167209.30 Z
	Add Cess @ 1% on "Z"				1672.09
	Cost of 100 sqm.				168881.39
	Cost of 1 sqm.				1688.81
	Say				1688.80

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 interlocking 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	sqm	105.00	720.00	75600.00
8567	SILHOUETTE Profile grid frame : Galvanized mild steel perimeter wall angle 22x19x0.40 mm (3000 mm long) including wastage @10%	each	13.50	115.00	1552.50
8566	Powder coated steel section main-T ceiling sections 15x42x0.40 mm (3000 mm long) including wastage @10%	each	29.50	235.00	6932.50
8568	Powder coated Galvanised Iron intermediate cross-T section 15x42x0.40 mm (1200 mm long) including wastage @10%	each	147.00	95.00	13965.00
8569	Powder coated Galvanized Iron intermediate cross-T section 15x42x0.40mm (600 mm long) including wastage @10%	each	147.00	47.00	6909.00
8588	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm 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	31.00	2232.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	215.00	215.00
9999	Scaffolding etc.	L.S.	498.65	2.00	997.30
9977	Carriage of materials etc.	L.S.	237.48	2.00	474.96
9999	Sundries	L.S.	310.70	2.00	621.40
0111	LABOUR Carpenter 1st class	day	28.00	738.00	20664.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				145949.66 W
	Add 1 % Water charges on "W"				1459.50
	TOTAL				147409.16 X
	Add GST on "X" (multiplying factor 0.1405)				20710.99
	TOTAL				168120.14 Y
	Add 15% CPOH on "Y"				25218.02
	TOTAL				193338.16 Z
	Add Cess @ 1% on "Z"				1933.38
	Cost of 100 sqm.				195271.55
	Cost of 1 sqm.				1952.72
	Say				1952.70

- 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 32mm 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 horizontal 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 ₹
8564	Details of cost for 6.00 x 3.65=21.90 sqm MATERIAL 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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7367	Galvanised M.S. sheet 0.5 mm thick pressed channel section of size 50x32 mm 2 x 6.00 m=12m +0.60 (Add 5% wastage) = 12.60 m	metre	12.60	57.00	718.20
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	71.00	5229.86
7025	Self tapping pan head nickle coated mild steel screws of size 13 x 3.2 mm	1000 Nos	0.392	525.00	205.80
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	238.00	5474.00
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	165.00	44.55
9999	Sundries such as scaffolding, tools, bits, etc.	L.S.	130.00	2.00	260.00
9977	Carriage of materials etc. LABOUR	L.S.	52.00	2.00	104.00
0111	Carpenter 1st class 0.30x21.90=6.57 days	day	6.57	738.00	4848.66
0112	Carpenter 2nd class 0.13x21.90=2.847 days	day	2.847	679.00	1933.11
0114	Beldar 0.35x21.90=7.665 days	day	7.665	558.00	4277.07
0131	Painter	day	1.095	679.00	743.51
	TOTAL				44797.08 W
	Add 1 % Water charges on "W"				447.97
	TOTAL				45245.05 X
	Add GST on "X" (multiplying factor 0.1405)				6356.93
	TOTAL				51601.98 Y
	Add 15% CPOH on "Y"				7740.30
	TOTAL				59342.27 Z
	Add Cess @ 1% on "Z"				593.42
	Cost of 21.90 sqm.				59935.70
	Cost of 1 sqm.				2736.79
	Say				2736.80

- 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				
8589	MATERIAL Calcium Silicate tegular edged ceiling tiles 595x595 mm and 15 mm thick	sqm	10.50	685.00	7192.50
9977	10 + 0.5 (Add wastage @5%) = 10.5 sqm Carriage	L.S.	14.95	2.00	29.90
0111	LABOUR Carpenter 1st class	day	2.50	738.00	1845.00
0114	Beldar	day	2.00	558.00	1116.00
9999	Scaffolding	L.S.	31.07	2.00	62.14
9999	Sundries	L.S.	31.07	2.00	62.14
	TOTAL				10307.68 W
	Add 1 % Water charges on "W"				103.08
	TOTAL				10410.76 X
	Add GST on "X" (multiplying factor 0.1405)				1462.71
	TOTAL				11873.47 Y
	Add 15% CPOH on "Y"				1781.02
	TOTAL				13654.49 Z
	Add Cess @ 1% on "Z"				136.54
	Cost of 10 sqm				13791.03
	Cost of 1 sqm				1379.10
	Say				1379.10

- 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	510.00	53550.00
8555	Galvanized iron main-T ceiling sections 15x32x0.33 mm (3000 mm long) Including wastage @ 10%	each	29.50	185.00	5457.50
8591	Galvanized iron perimeter wall angle 24x24x0.40 mm (3000 mm long) Including wastage @ 10%	each	13.50	65.00	877.50
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	35.00	5145.00
8588	Galavanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm 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	Galvanised MS 8mm outer diameter M-6 dash fastener 25mm long	each	72.00	32.00	2304.00
8211	40mm SS with plastic rawl plugs	100 nos	1.00	215.00	215.00
9999	Scaffolding etc.	L.S.	498.65	2.00	997.30
9977	Carriage of materials etc.	L.S.	237.48	2.00	474.96
9999	Sundries	L.S.	310.70	2.00	621.40
	LABOUR				
0111	Carpenter 1st class	day	28.00	738.00	20664.00
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				117558.66 W
	Add 1 % Water charges on "W"				1175.59
	TOTAL				118734.25 X
	Add GST on "X" (multiplying factor 0.1405)				16682.16
	TOTAL				135416.41 Y
	Add 15% CPOH on "Y"				20312.46
	TOTAL				155728.87 Z
	Add Cess @ 1% on "Z"				1557.29
	Cost of 100 sqm				157286.16
	Cost of 1 sqm				1572.86
	Say				1572.85

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 ceiling 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	185.00	5457.50
8591	Galvanized iron perimeter wall angle 24x24x0.40 mm (3000 mm long) Including wastage @ 10%	each	13.50	65.00	877.50
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	35.00	5145.00
8588	Galvanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm length	each	72.00	26.00	1872.00
8619	Galvanised 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	32.00	2304.00
8211	40mm long SS screws with plastic rawl plugs	100 nos	1.00	215.00	215.00
9999	Scaffolding etc.	L.S.	498.65	2.00	997.30
9977	Carriage of materials etc.	L.S.	237.48	2.00	474.96
9999	Sundries	L.S.	310.70	2.00	621.40
	LABOUR				
0111	Carpenter 1st class	day	28.00	738.00	20664.00
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				127008.66 W
	Add 1 % Water charges on "W"				1270.09
	TOTAL				128278.75 X
	Add GST on "X" (multiplying factor 0.1405)				18023.16
	TOTAL				146301.91 Y
	Add 15% CPOH on "Y"				21945.29
	TOTAL				168247.20 Z
	Add Cess @ 1% on "Z"				1682.47
	Cost of 100 sqm				169929.67
	Cost of 1 sqm				1699.30
	Say				1699.30

- 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 Reflection $\geq 85\%$, 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 size 24x24X3000 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 ₹
8552	Details of cost for 100 Sqm MATERIAL 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	830.00	87150.00
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick including 10 % wastage	each	29.50	185.00	5457.50
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	65.00	877.50
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	31.00	2232.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	215.00	215.00
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.00	375.90
9977	Carriage of material etc.	L.S.	89.35	2.00	178.70

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0111	LABOUR				
	Carpenter 1st class	day	28.00	738.00	20664.00
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				149547.60 W
	Add 1 % Water charges on "W"				1495.48
	TOTAL				151043.08 X
	Add GST on "X" (multiplying factor 0.1405)				21221.55
	TOTAL				172264.63 Y
	Add 15% CPOH on "Y"				25839.69
	TOTAL				198104.32 Z
	Add Cess @ 1% on "Z"				1981.04
	Cost of 100 sqm				200085.37
	Cost of 1 sqm				2000.85
	Say				2000.85

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	sqm	105.00	1040.00	109200.00
	Area = 100 sqm + 5 sqm (Add for wastage @5%) Total = 105 sqm				
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick	each	29.50	185.00	5457.50
	including 10 % wastage				
8556	G.I. cross Tee 15X32mm of 1200mm length 0.33mm thick	each	147.00	78.00	11466.00
	including 10 % wastage				
8587	G.I. cross Tee 15X32mm of 600mm length, 0.33 mm thick	each	147.00	35.00	5145.00
	including 10 % wastage				
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long)	each	13.50	65.00	877.50
	including 10 % wastage				
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	32.00	2304.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	215.00	215.00
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.00	375.90
9977	Carriage of material etc.	L.S.	89.35	2.00	178.70
	LABOUR				
0111	Carpenter 1st class	day	28.00	738.00	20664.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				171669.60 W
	Add 1 % Water charges on "W"				1716.70
	TOTAL				173386.30 X
	Add GST on "X" (multiplying factor 0.1405)				24360.77
	TOTAL				197747.07 Y
	Add 15% CPOH on "Y"				29662.06
	TOTAL				227409.13 Z
	Add Cess @ 1% on "Z"				2274.09
	Cost of 100 sqm				229683.22
	Cost of 1 sqm				2296.83
	Say				2296.85

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 ₹
8553	Details of cost for 100 Sqm MATERIAL 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	920.00	96600.00
8555	G.I. main runner 15X32mm of 3000 mm length, 0.33mm thick including 10 % wastage	each	29.50	185.00	5457.50
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	65.00	877.50
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	32.00	2304.00
8211	40 mm long S.S screws with plastic rawl plugs	100 nos	1.00	215.00	215.00
9999	Sundries i.e. scaffolding etc	L.S.	187.95	2.00	375.90
9977	Carriage of material etc.	L.S.	89.35	2.00	178.70
	LABOUR				
0111	Carpenter 1st class	day	28.00	738.00	20664.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	23.00	558.00	12834.00
	TOTAL				159069.60 W
	Add 1 % Water charges on "W"				1590.70
	TOTAL				160660.30 X
	Add GST on "X" (multiplying factor 0.1405)				22572.77
	TOTAL				183233.07 Y
	Add 15% CPOH on "Y"				27484.96
	TOTAL				210718.03 Z
	Add Cess @ 1% on "Z"				2107.18
	Cost of 100 sqm				212825.21
	Cost of 1 sqm				2128.25
	Say				2128.25

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 ₹
9999	Details of cost for One Sqm 75mm average thickness for beams MACHINERY Hire charges for HILTY-TE 504 Pneumatic Chisel LABOUR	L.S.	5.60	2.00	11.20
0157	Machine Operator	day	0.20	738.00	147.60
0114	Beldar	day	0.10	558.00	55.80
	TOTAL				214.60 W
	Add 1 % Water charges on "W"				2.15
	TOTAL				216.75 X
	Add GST on "X" (multiplying factor 0.1405)				30.45
	TOTAL				247.20 Y
	Add 15% CPOH on "Y"				37.08
	TOTAL				284.28 Z
	Add Cess @ 1% on "Z"				2.84
	Cost of 1.0 sqm				287.12
	Say				287.10

26.28.2 50mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Details of cost for One Sqm 50mm average thickness for beams MACHINERY Hire charges for HILTY-TE 504 Pneumatic Chisel LABOUR	L.S.	3.74	2.00	7.48
0157	Machine Operator	day	0.134	738.00	98.89

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	0.07	558.00	39.06
	TOTAL				145.43 W
	Add 1 % Water charges on "W"				1.45
	TOTAL				146.89 X
	Add GST on "X" (multiplying factor 0.1405)				20.64
	TOTAL				167.52 Y
	Add 15% CPOH on "Y"				25.13
	TOTAL				192.65 Z
	Add Cess @ 1% on "Z"				1.93
	Cost of 1.0 sqm				194.58
	Say				194.60

26.28.3 25 mm average thickness

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Details of cost for One Sqm 25mm average thickness for beams MACHINERY Hire charges for HILTY-TE 504 Pneumatic Chisel LABOUR	L.S.	1.87	2.00	3.74
0157	Machine Operator	day	0.07	738.00	51.66
0114	Beldar	day	0.03	558.00	16.74
	TOTAL				72.14 W
	Add 1 % Water charges on "W"				0.72
	TOTAL				72.86 X
	Add GST on "X" (multiplying factor 0.1405)				10.24
	TOTAL				83.10 Y
	Add 15% CPOH on "Y"				12.46
	TOTAL				95.56 Z
	Add Cess @ 1% on "Z"				0.96
	Cost of 1.0 sqm				96.52
	Say				96.50

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 ₹
7911	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 Chemical Rust Remover	litre	1.00	210.00	210.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	LABOUR (Application charges for 3.0 sqm)				
0131	Painter	day	0.162	679.00	110.00
0115	Coolie	day	0.162	558.00	90.40
9999	Putty, brush, sand paper	L.S.	3.162	2.00	6.32
9999	Sundries	L.S.	1.98	2.00	3.96
	TOTAL				420.68 W
	Add 1 % Water charges on "W"				4.21
	TOTAL				424.88 X
	Add GST on "X" (multiplying factor 0.1405)				59.70
	TOTAL				484.58 Y
	Add 15% CPOH on "Y"				72.69
	TOTAL				557.27 Z
	Add Cess @ 1% on "Z"				5.57
	Cost of 3 sqm (95.54 m length of 10 mm dia bar)				562.84
	Rate per meter length of bar				5.89
	Say				5.90

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)				
7911	MATERIALS Chemical Rust Remover	litre	1.00	210.00	210.00
	LABOUR (Application charges for 3.0 sqm)				
0131	Painter	day	0.162	679.00	110.00
0115	Coolie	day	0.162	558.00	90.40
9999	Putty, brush, sand paper	L.S.	3.162	2.00	6.32
9999	Sundries	L.S.	1.98	2.00	3.96
	TOTAL				420.68 W
	Add 1 % Water charges on "W"				4.21
	TOTAL				424.88 X
	Add GST on "X" (multiplying factor 0.1405)				59.70
	TOTAL				484.58 Y
	Add 15% CPOH on "Y"				72.69
	TOTAL				557.27 Z
	Add Cess @ 1% on "Z"				5.57
	Cost of 3.00 sqm (47.78m length of 20 mm dia bar)				562.84
	Rate per meter length of bar				11.78
	Say				11.80

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 ₹
7913	Details of cost for 10 holes MATERIAL Epoxy 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	kg	0.20	585.00	117.00
0088	MACHINERY Hire charges of Drill machine upto 30 mm dia	day	0.50	160.00	80.00
0116	LABOUR Fitter (grade 1)	day	0.50	738.00	369.00
0114	Beldar	day	0.50	558.00	279.00
	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
	Rate for 10 holes				1130.56
	Rate for one hole				113.06
	Say				113.05

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 ₹
0367	Details of Cost for 10.00 Sqm bonding coat MATERIAL				
7914	Portland Cement (OPC-43 grade)	tonne	0.022	4940.00	108.68
	SBR Polymer	kg	2.20	190.00	418.00
	@ 10% of cement weight= 22.00kgx 10% =2.2 kg				
0155	LABOUR Mason (average)	day	0.27	709.00	191.43
0115	Coolie	day	0.27	558.00	150.66
9999	Scaffolding and sundries (8.06/2=4.03)	L.S.	4.03	2.00	8.06
	TOTAL				876.83 W
	Add 1 % Water charges on "W"				8.77
	TOTAL				885.60 X
	Add GST on "X" (multiplying factor 0.1405)				124.43
	TOTAL				1010.02 Y
	Add 15% CPOH on "Y"				151.50
	TOTAL				1161.53 Z
	Add Cess @ 1% on "Z"				11.62
	Cost for 10.00 sqm				1173.14
	Rate per sqm				117.31
	Say				117.30

26.31.2 Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7913	Details of Cost for 2.20 Sqm Epoxy	kg	1.00	585.00	585.00
9999	Application charge for applying bonding coat of Epoxy	L.S.	18.50	2.00	37.00
9999	Cost of brushes etc.	L.S.	8.40	2.00	16.80
	TOTAL				638.80 W
	Add 1 % Water charges on "W"				6.39
	TOTAL				645.19 X
	Add GST on "X" (multiplying factor 0.1405)				90.65
	TOTAL				735.84 Y
	Add 15% CPOH on "Y"				110.38
	TOTAL				846.21 Z
	Add Cess @ 1% on "Z"				8.46
	Cost for 2.20 sqm				854.67
	Rate per sqm				388.49
	Say				388.50

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				
3.9	Cement mortar 1:4 (1 cement : sand) = 0.144 Cum				
	Rate as per Item No.3.9 of SH: MORTARS	cum	0.144	4010.35	577.49
7914	SBR Polymer	kg	1.10	190.00	209.00
	Qty of cement in mortar= 0.144x0.38= 0.055 MT or 55kg				
	@ 2% of weight of cement 55kgx 2%=1.10 kg				
	LABOUR				
0155	Mason (average)	day	0.67	709.00	475.03
0115	Coolie	day	0.75	558.00	418.50
0101	Bhisti	day	0.92	617.00	567.64
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				2272.88 W
	Add 1 % Water charges on "W"				22.73
	TOTAL				2295.61 X
	Add GST on "X" (multiplying factor 0.1405)				322.53
	TOTAL				2618.14 Y
	Add 15% CPOH on "Y"				392.72
	TOTAL				3010.86 Z
	Add Cess @ 1% on "Z"				30.11
	Cost for 10 sqm				3040.97
	Rate per sqm				304.10
	Say				304.10

26.32.2 25 mm average thickness in 2 layers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.9	Details of Cost for 10 Sqm MATERIAL Cement mortar 1:4 (1 cement : 4 coarse sand) $= (0.144/12) \times 25 =$ 0.30 Cum Rate as per Item No.3.9 of SH: MORTARS	cum	0.30	4010.35	1203.11
7914	SBR Polymer Cement $0.30 \times 0.38 = 0.114$ MT OR 114 kg @ 2% of weight of cement 114kgx 2% =2.28kg	kg	2.28	190.00	433.20
0155	LABOUR Mason (average)	day	0.94	709.00	666.46
0115	Coolie	day	1.02	558.00	569.16
0101	Bhisti	day	1.01	617.00	623.17
9999	Scaffolding and sundries	L.S.	12.61	2.00	25.22
	TOTAL				3520.32 W
	Add 1 % Water charges on "W"				35.20
	TOTAL				3555.52 X
	Add GST on "X" (multiplying factor 0.1405)				499.55
	TOTAL				4055.07 Y
	Add 15% CPOH on "Y"				608.26
	TOTAL				4663.33 Z
	Add Cess @ 1% on "Z"				46.63
	Cost for 10 sqm				4709.96
	Rate per sqm				471.00
	Say				471.00

26.32.3 50 mm average thickness in 3 layers.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.9	Details of Cost for 10 Sqm MATERIAL Cement mortar 1:4 (1 cement : 4 coarse sand) $0.144/12 \times 50 =$ 0.60 Cum Rate as per Item No.3.9 of SH: MORTARS	cum	0.60	4010.35	2406.21
7914	SBR Polymer Cement $0.60 \times 0.38 = 0.228$ MT OR 228 kg @ 2% of weight of cement 228kgx 2% =4.56 kg	kg	4.56	190.00	866.40
0155	LABOUR Mason (average)	day	1.88	709.00	1332.92
0115	Coolie	day	2.04	558.00	1138.32
0101	Bhisti	day	2.02	617.00	1246.34

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Scaffolding and sundries	L.S.	25.22	2.00	50.44
	TOTAL				7040.63 W
	Add 1 % Water charges on "W"				70.41
	TOTAL				7111.04 X
	Add GST on "X" (multiplying factor 0.1405)				999.10
	TOTAL				8110.14 Y
	Add 15% CPOH on "Y"				1216.52
	TOTAL				9326.66 Z
	Add Cess @ 1% on "Z"				93.27
	Cost for 10 sqm				9419.92
	Rate per sqm				941.99
	Say				942.00

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 ₹
5.33.2	Detail of cost for 10 sqm area (0.5cum) M25 concrete 0.5 cum of concrete@ 330 kg/cum				
	Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete	cum	0.50	9400.85	4700.43 A
0009	Deduction of pumping charges				
	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.50	210.00	-105.00
7914	SBR Polymer	kg	3.30	190.00	627.00
	@2% of cement 165 kg = 165X2% = 3.3 kg				
	TOTAL				5222.43 W
	Add 1 % Water charges on "W-A"				5.22
	TOTAL				5227.65 X
	Add GST on "X-A" (multiplying factor 0.1405)				74.07
	TOTAL				5301.72 Y
	Add 15% CPOH on "Y-A"				90.19
	TOTAL				5391.91 Z
	Add Cess @ 1% on "Z-A"				6.91
	Cost of 10 sqm				5398.83
	Cost of 1 sqm				539.88
	Say				539.90

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 ₹
5.33.2	Detail of cost for 10 sqm area (0.75cum) M25 concrete 0.75 cum of concrete@ 330 kg/cum				
	Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete	cum	0.75	9400.85	7050.64 A
0009	Deduction of pumping charges				
	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.75	210.00	-157.50
7914	SBR Polymer	kg	4.95	190.00	940.50
	@2% of cement 247.50 kg = 247.50X2% = 4.95 kg				
	TOTAL				7833.64 W
	Add 1 % Water charges on "W-A"				7.83
	TOTAL				7841.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				111.11
	TOTAL				7952.58 Y
	Add 15% CPOH on "Y-A"				135.29
	TOTAL				8087.87 Z
	Add Cess @ 1% on "Z-A"				10.37
	Cost of 10 sqm				8098.24
	Cost of 1 sqm				809.82
	Say				809.80

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 ₹
5.33.2	Detail of cost for 10 sqm area M25 concrete 0.5 cum of concrete with cement content 330 kg/cum				
	Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete	cum	0.50	9400.85	4700.43 A
0009	Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	-0.50	210.00	-105.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7914	SBR Polymer @2% of cement 165 kg = 165X2% = 3.3 kg 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 10 sqm Cost of 1 sqm Say	kg	3.30	190.00	627.00 5222.43 W 5.22 5227.65 X 74.07 5301.72 Y 90.19 5391.91 Z 6.91 5398.83 539.88 539.90

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 ₹
5.33.2 0009	Detail of cost for 10 sqm area (0.75cum) M25 concrete 0.75 cum of concrete with cement content 330 kg/cum Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	0.75	9400.85	7050.64 A
7914	SBR Polymer @2% of cement 247.50 kg = 247.50X2% = 4.95 kg 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 10 sqm Cost of 1 sqm Say	cum kg	-0.75 4.95	210.00 190.00	-157.50 940.50 7833.64 W 7.83 7841.47 X 111.11 7952.58 Y 135.29 8087.87 Z 10.37 8098.24 809.82 809.80

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 ₹
5.33.2 0009	Detail of cost for 10 sqm area (1.00 cum) M25 concrete 1.00 cum of concrete with cement content 330 kg/cum Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete Pumping charges of concrete including Hire charges of pump, piping work & accessories etc.	cum	1.00	9400.85	9400.85 A
		cum	-1.00	210.00	-210.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7914	SBR Polymer @2% of cement 330 kg = 330X2% = 6.6 kg 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 10 sqm Cost of 1 sqm Say	kg	6.60	190.00	1254.00 10444.85 W 10.44 10455.29 X 148.15 10603.44 Y 180.39 10783.83 Z 13.83 10797.66 1079.77 1079.75

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 ₹
7927	Detail of cost for 100 kg Acrylic polymer mixed cement grout MATERIAL 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	4940.00	494.00
9977	Carriage of materials	L.S.	1.00	2.00	2.00
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	2.00	4500.00
0122	LABOUR Foreman	day	1.00	738.00	738.00
0157	Nozzleman	day	1.00	738.00	738.00
0157	Pump Operator	day	1.00	738.00	738.00
	TOTAL				7272.00 W
	Add 1 % Water charges on "W"				72.72
	TOTAL				7344.72 X
	Add GST on "X" (multiplying factor 0.1405)				1031.93
	TOTAL				8376.65 Y
	Add 15% CPOH on "Y"				1256.50
	TOTAL				9633.15 Z
	Add Cess @ 1% on "Z"				96.33
	Cost of 100 kg				9729.48
	Cost of 1 kg				97.29
	Say				97.30

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				
7914	MATERIAL				
	SBR Polymer for crack	kg	2.00	190.00	380.00
0367	Portland Cement (OPC-43 grade)	tonne	0.10	4940.00	494.00
9977	Carriage of materials	L.S.	1.00	2.00	2.00
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	2.00	4500.00
	LABOUR				
0122	Foreman	day	1.00	738.00	738.00
0157	Nozzle Operator	day	1.00	738.00	738.00
0157	Pump Operator	day	1.00	738.00	738.00
	TOTAL				7590.00 W
	Add 1 % Water charges on "W"				75.90
	TOTAL				7665.90 X
	Add GST on "X" (multiplying factor 0.1405)				1077.06
	TOTAL				8742.96 Y
	Add 15% CPOH on "Y"				1311.44
	TOTAL				10054.40 Z
	Add Cess @ 1% on "Z"				100.54
	Cost of 100 kg				10154.95
	Cost of 1 kg				101.55
	Say				101.55

26.35.3 Epoxy injection grout in concrete/RCC work of approved make

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 10kg Epoxy grout				
7913	MATERIAL				
	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	558.00	33.48
0157	Nozzle Operator	day	0.03	738.00	22.14
9999	Sundries (gloves goggles etc.)	L.S.	5.00	2.00	10.00
	TOTAL				5921.62 W
	Add 1 % Water charges on "W"				59.22
	TOTAL				5980.84 X
	Add GST on "X" (multiplying factor 0.1405)				840.31
	TOTAL				6821.14 Y
	Add 15% CPOH on "Y"				1023.17
	TOTAL				7844.32 Z
	Add Cess @ 1% on "Z"				78.44
	Cost of 10 kg				7922.76
	Cost of 1 kg				792.28
	Say				792.30

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 ₹
7915	Details of cost for 10 sqm MATERIAL				
	Wooven PVC cloth	sqm	10.00	25.00	250.00
9999	Fixing double scaffolding outside	L.S.	11.00	2.00	22.00
	Total Material				272.00
	LABOUR				
	For fixing and removal after complete of work @25%				68.00
	TOTAL				340.00 W
	Add 1 % Water charges on "W"				3.40
	TOTAL				343.40 X
	Add GST on "X" (multiplying factor 0.1405)				48.25
	TOTAL				391.65 Y
	Add 15% CPOH on "Y"				58.75
	TOTAL				450.39 Z
	Add Cess @ 1% on "Z"				4.50
	Rate for 10 sqm				454.90
	Rate for 1 sqm				45.49
	Say				45.50

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	160.00	112.00
0090	Hire charges of compressor	day	0.70	420.00	294.00
	Material				
0982	Coarse sand (zone III)	cum	1.00	1350.00	1350.00
	LABOUR				
0114	Beldar	day	0.70	558.00	390.60
9999	Sundries	L.S.	10.00	2.00	20.00
	TOTAL				2166.60 W
	Add 1 % Water charges on "W"				21.67
	TOTAL				2188.27 X
	Add GST on "X" (multiplying factor 0.1405)				307.45
	TOTAL				2495.72 Y
	Add 15% CPOH on "Y"				374.36
	TOTAL				2870.07 Z
	Add Cess @ 1% on "Z"				28.70
	Cost of 10 sqm				2898.78
	Cost of 1 sqm				289.88
	Say				289.90

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 ₹
5.33.2	Detail of cost for 10 sqm M25 concrete 0.5 cum of concrete@ 330 kg/cum Cubical qty of concrete for 10 sqm = 10x1.00x0.025 = 0.25 cum + Wastage 25%, = 0.25x25/100=0.0625 cum. Total=0.3125 cum Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete	cum	0.3125	9400.85	2937.77 A
0086	Machinery 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
0157	Labour Operator (Pile/ Special machine)	day	0.40	738.00	295.20
0154	Nozzel man/ gun man	day	0.40	738.00	295.20
0124	Mason (brick layer) 2nd class	day	0.40	679.00	271.60
0161	Helper (Technician)	day	0.80	558.00	446.40
0101	Bhisti	day	0.40	617.00	246.80
	TOTAL				5492.97 W
	Add 1 % Water charges on "W-A"				25.55
	TOTAL				5518.52 X
	Add GST on "X-A" (multiplying factor 0.1405)				362.60
	TOTAL				5881.11 Y
	Add 15% CPOH on "Y-A"				441.50
	TOTAL				6322.62 Z
	Add Cess @ 1% on "Z-A"				33.85
	Cost of 10 sqm				6356.46
	Cost of 1 sqm				635.65
	Say				635.65

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	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 Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete	cum	0.625	9400.85	5875.53 A
0086	Machinery 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
0157	Labour Operator (Pile/ Special machine)	day	0.40	738.00	295.20
0154	Nozzel man/ gun man	day	0.40	738.00	295.20
0124	Mason (brick layer) 2nd class	day	0.40	679.00	271.60
0161	Helper (Technician)	day	0.80	558.00	446.40
0101	Bhisti	day	0.40	617.00	246.80
	TOTAL				9030.73 W
	Add 1 % Water charges on "W-A"				31.55
	TOTAL				9062.28 X
	Add GST on "X-A" (multiplying factor 0.1405)				447.74
	TOTAL				9510.02 Y
	Add 15% CPOH on "Y-A"				545.17
	TOTAL				10055.20 Z
	Add Cess @ 1% on "Z-A"				41.80
	Cost of 10 sqm				10096.99
	Cost of 1 sqm				1009.70
	Say				1009.70

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 ₹
5.33.2	Detail of cost for 10 sqm M25 concrete 0.5 cum of concrete@ 330 kg/cum Cubical qty of concrete for 10 sqm = 10x1.00x0.025 = 0.25 cum Wastage 25%, = 0.25x25/100= 0.0625 cum Total=0.3125 cum Rate as per Item No.5.33.2 of SH: Reinforced Cement Concrete	cum	0.9375	9400.85	8813.30 A
0086	Machinery 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
0157	Labour Operator (Pile/ Special machine)	day	0.40	738.00	295.20
0154	Nozzel man/ gun man	day	0.40	738.00	295.20
0124	Mason (brick layer) 2nd class	day	0.40	679.00	271.60

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0161	Helper (Technician)	day	0.80	558.00	446.40
0101	Bhisti	day	0.40	617.00	246.80
	TOTAL				13028.50 W
	Add 1 % Water charges on "W-A"				42.15
	TOTAL				13070.65 X
	Add GST on "X-A" (multiplying factor 0.1405)				598.16
	TOTAL				13668.81 Y
	Add 15% CPOH on "Y-A"				728.33
	TOTAL				14397.13 Z
	Add Cess @ 1% on "Z-A"				55.84
	Cost of 10 sqm				14452.97
	Cost of 1 sqm				1445.30
	Say				1445.30

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 diameter (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 ₹
7921	Details of cost for 20.00 Nos Hole MATERIAL Adhesive chemical (750 mm deep & 20 mm Dia Hole) Volume of hole = $20 \times (3.14/4) \times 2.00 \times 2.00 \times 7.5 = 471$ 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	42.00	840.00
7924	Blowing compressed air for cleaning holes upto 30mm dia	each	20.00	10.00	200.00
0155	LABOUR Mason (average)	day	0.50	709.00	354.50
0115	Coolie	day	0.50	558.00	279.00
0101	Bhisti	day	0.50	617.00	308.50
	TOTAL				2858.00 W
	Add 1 % Water charges on "W"				28.58
	TOTAL				2886.58 X
	Add GST on "X" (multiplying factor 0.1405)				405.56
	TOTAL				3292.14 Y
	Add 15% CPOH on "Y"				493.82
	TOTAL				3785.97 Z
	Add Cess @ 1% on "Z"				37.86
	Cost of 20 Nos hole				3823.83
	Cost of 1 hole				191.19
	Say				191.20

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 ₹
7925	Details of cost for 10.00 sqm (i.e 77.50 kg.) MATERIAL 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	67.00	103.85
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 LABOUR	L.S.	5.61	2.00	11.22
0103	Blacksmith 2nd class	day	1.00	679.00	679.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				5992.07 W
	Add 1 % Water charges on "W"				59.92
	TOTAL				6051.99 X
	Add GST on "X" (multiplying factor 0.1405)				850.30
	TOTAL				6902.30 Y
	Add 15% CPOH on "Y"				1035.34
	TOTAL				7937.64 Z
	Add Cess @ 1% on "Z"				79.38
	Cost of 10 sqm				8017.02
	Cost of 1 sqm				801.70
	Say				801.70

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 ₹
8579	Details of cost for 1.00 Kg MATERIAL Cold form light gauge Steel C-section of thickness 0.75mm i/c zink coating/ slitting etc. = 1.00 + 0.05 (Add for wastage @5%) = 1.05 kg	kg	1.05	130.00	136.50
9977	Carriage	L.S.	1.685	2.00	3.37
8580	Deduct for Scrap value wastage of cold form light gauge steel	kg	-0.05	17.00	-0.85
0103	Labour for assembling/ fixing etc Blacksmith 2nd class	day	0.01	679.00	6.79
0114	Beldar	day	0.03	558.00	16.74
	TOTAL				162.55 W
	Add 1 % Water charges on "W"				1.63
	TOTAL				164.18 X
	Add GST on "X" (multiplying factor 0.1405)				23.07
	TOTAL				187.24 Y
	Add 15% CPOH on "Y"				28.09
	TOTAL				215.33 Z
	Add Cess @ 1% on "Z"				2.15
	Cost for 1.00 kg				217.48
	Say				217.50

26.42 Providing and fixing of external wall system on Light gauge steel frame work with . Outer face having 6mm thick heavy duty fiber cement board fixed on 9mm thick heavy duty fiber cement board confirming to IS 14862:2000, category IV type A (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping 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 of 8 to 10 gauge of length varying from 25 to 45 mm and internal face 12.5mm thick gypsum plaster board fixed on 8mm thick fiber cement board confirming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping screws / fasteners @ 60cm c/c of approved make, proper tapping 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).

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0238	Details of cost for 10.00 Sqm MATERIALS 6 mm thick heavy duty 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	3.00	120.00
0240	9 mm thick heavy duty fiber cement board 1x10 = 10 sqm +1.00 (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	each	40.00	3.00	120.00
Sub A/R- 1	Taping and finishing cement board joints Filling the groove of 2.3 mm between 6mm and 9mm thick fiber cement boards	sqm	10.00	91.25	912.50
0239	8mm thick heavy duty 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 Screws of gauge 10, length 45 mm for fixing cement fibre board to C section	each	40.00	3.00	120.00
7009	12.5 mm thick tapered edge gypsum plain borad 1x10 = 10 sqm +1.00 (Add for wastage @10%)Total = 11.00 sqm	sqm	11.00	155.00	1705.00
2635	GI Screws of gauge 10, length 25 mm for fixing cement fibre board to C section	each	40.00	3.00	120.00
Sub A/R- 2	Taping and finishing cement board joints Filling the groove of 2.3 mm between 8mm thick fiber cement board and 12.5 mm thick gypsum plastic board	sqm	10.00	240.55	2405.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0112	LABOUR				
	For cutting and fixing of cement and gypsum board				
0114	Carpenter 2nd class	day	2.00	679.00	1358.00
	Beldar	day	6.00	558.00	3348.00
	TOTAL				25554.00 W
	Add 1 % Water charges on "W"				255.54
	TOTAL				25809.54 X
	Add GST on "X" (multiplying factor 0.1405)				3626.24
	TOTAL				29435.78 Y
	Add 15% CPOH on "Y"				4415.37
	TOTAL				33851.15 Z
	Add Cess @ 1% on "Z"				338.51
	Cost of 10.00 sqm				34189.66
	Cost of 1.00 sqm				3418.97
	Say				3418.95

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 ₹
1248	Details of cost for 1 Sqm				
	MATERIAL				
	Epoxy based sealing Compound	kg	0.14	535.00	74.90
	LABOUR				
0112	Carpenter 2nd class	day	0.0132	679.00	8.96
0114	Beldar	day	0.0132	558.00	7.37
	Cost of 1 sqm				91.23
	Say				91.25

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

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1250	Non woven reinforcement Tape	metre	25.00	0.14	3.50
0112	LABOUR				
0112	Carpenter 2nd class	day	0.026	679.00	17.65
0114	Beldar	day	0.026	558.00	14.51
	Cost of 1 sqm				240.56
	Say				240.55

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 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / tapping screws / fasteners @ 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 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)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0239	Details of cost for 10.00 Sqm MATERIAL 8mm thick heavy duty fiber cement board	sqm	22.00	300.00	6600.00
	2x10 = 20 sqm + 2.00 (Add for wastage @10%)= 22.00 sqm				
2635	GI Screws of gauge 10, length 25 mm for fixing cement fibre board to C section	each	80.00	3.00	240.00
0241	12.5 mm thick Gypsum plaster board	sqm	22.00	170.00	3740.00
	2x10 = 20 sqm + 2.00 (Add for wastage @10%)= 22.00 sqm				
2635	GI Screws of gauge 10, length 25 mm for fixing cement fibre board to C section	each	80.00	3.00	240.00
	Taping and finishing cement board joints				
Sub A/R- 2	Rate as per Item No.Sub A/R- 2 of SH: Light Gauge Steel Framed Structure (LGSFS)	sqm	10.00	240.55	2405.50
	LABOUR				
	For cutting and fixing of cement and gypsum board				
0112	Carpenter 2nd class	day	1.11	679.00	753.69
0114	Beldar	day	3.33	558.00	1858.14
	TOTAL				15837.33 W
	Add 1 % Water charges on "W"				158.37
	TOTAL				15995.70 X
	Add GST on "X" (multiplying factor 0.1405)				2247.40
	TOTAL				18243.10 Y
	Add 15% CPOH on "Y"				2736.46
	TOTAL				20979.56 Z
	Add Cess @ 1% on "Z"				209.80
	Cost of 10.00 sqm				21189.36
	Cost of 1.00 sqm				2118.94
	Say				2118.95

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 ₹
2637	Details of cost for 10.00 Sqm MATERIAL Vapour barrier 10.00 sqm + 1.00 sqm (Add for wastage @10%) = 11.00 sqm	sqm	11.00	175.00	1925.00
0112	LABOUR For fixing fixing 45 sqm vapour barrier	day	0.22	679.00	149.38
0114	Carpenter 2nd class	day	0.22	558.00	122.76
	Beldar				2197.14 W
	TOTAL				21.97
	Add 1 % Water charges on "W"				2219.11 X
	TOTAL				
	Add GST on "X" (multiplying factor 0.1405)				311.79
	TOTAL				2530.90 Y
	Add 15% CPOH on "Y"				379.63
	TOTAL				2910.53 Z
	Add Cess @ 1% on "Z"				29.11
	Cost of 10 sqm				2939.64
	Cost of 1.00 sqm				293.96
	Say				293.95

26.45 Supplying and installation of moisture resistant/fire resistant 6 mm thick Heavy duty fiber cement board (High pressure steam cured) conforming to IS 14862:2000 of category III type B 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 of 8 to 10 gauge of length varying from 25 to 45 mm.

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0238	Details of cost for 10.00 Sqm MATERIAL 6 mm thick heavy duty fiber cement board 10.00 sqm + 1.00 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	each	40.00	3.00	120.00
Sub	Taping and finishing cement board joints				
A/R- 1	Rate as per Item No.Sub A/R- 1 of SH:Light				
	Gauge Steel Framed Structure (LGSFS)	sqm	10.00	91.25	912.50
	LABOUR				
	For cutting and fixing of cement and gypsum board 18.00 sqm				
0112	Carpenter 2nd class	day	1.11	679.00	753.69

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	3.33	558.00	1858.14
	TOTAL				8814.33 W
	Add 1 % Water charges on "W"				88.14
	TOTAL				8902.47 X
	Add GST on "X" (multiplying factor 0.1405)				1250.80
	TOTAL				10153.27 Y
	Add 15% CPOH on "Y"				1522.99
	TOTAL				11676.26 Z
	Add Cess @ 1% on "Z"				116.76
	Cost of 10 sqm				11793.02
	Cost of 1.00 sqm				1179.30
	Say				1179.30

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 shotcrete 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)} 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 ₹
8013	Details of cost for 1.20x3.00m= 3.60 sqm MATERIAL 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	1650.00	6237.00
9999	3.60 sqm + 0.18 sqm (Add for wastage @5%)Total = 3.78 sqm Add for L-shape,U-shape & straight lap mesh	L.S.	208.00	2.00	416.00
3.8	Cement mortar 1:3 (1cement:3 coarse sand) 2x1.20x3.00x0.05= 0.36 cum Rate as per Item No.3.8 of SH: Mortar	cum	0.36	4664.55	1679.24
9999	10 mm TMT bars (2 nos.75 mm long) Aluminium C-channels (100mmx 150mm long) For fixing wall with foundation	L.S.	312.15	2.00	624.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	LABOUR For carrying out shotcreting, shoring, leveling, and finishing the surface with trowel. 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 3.60 sqm Cost of 1 sqm Say	L.S.	707.50	2.00	1415.00 10371.54 W 103.72 10475.25 X 1471.77 11947.03 Y 1792.05 13739.08 Z 137.39 13876.47 3854.58 3854.60

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)} 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 ₹
8013	Details of cost for 1.20x3.00m= 3.60 sqm MATERIAL 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 Cement mortar 1:3 (1cement: 3 coarse sand) 60mm thick on the bottom of roof slab =1x1.2x3.00x0.060= 0.216cum	sqm	3.78	1650.00	6237.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
3.8	Rate as per Item No.3.8 of SH: Mortar Cement concrete 1:1.5:3 70mm thick on the top of roof slab = 1x1.20x3.00x0.07= 0.252 cum	cum	0.216	4664.55	1007.54
5.3	Rate as per Item No.5.3 of SH: Reinforced Cement Concrete	cum	0.252	9763.80	2460.48 A
9999	Add for L-shape, U-shape & straight lap mesh	L.S.	202.32	2.00	404.64
9999	LABOUR				
9999	For providing concreting, shotcreting, shoring, leveling, plastering and finishing the surface with trowel.	L.S.	832.36	2.00	1664.72
	TOTAL				11774.38 W
	Add 1 % Water charges on "W-A"				93.14
	TOTAL				11867.52 X
	Add GST on "X-A" (multiplying factor 0.1405)				1321.69
	TOTAL				13189.21 Y
	Add 15% CPOH on "Y-A"				1609.31
	TOTAL				14798.52 Z
	Add Cess @ 1% on "Z-A"				123.38
	Cost of 3.60 sqm				14921.90
	Cost of 1 sqm				4144.97
	Say				4144.95

26.48 Providing and fixing of customized Aluminium formwork for monolithic construction RCC members with a repetitive usage of 100 times using grade 5052 aluminium for panel sheets of minimum 4 mm thick and grade 6061 (Type-6) aluminium for extruded sections. The form work includes of beam components i.e.beam side panel,prop head for soffit beam,beams soffit panel,beam soffit bulk head and deck componets i.e. deck panel, deck prop, prop length, deck mid, soffit length, deck beam bar and wall components i.e. wall panel, rocker, kiker and internal soffit corner, external soffit corner,external corner,internal corner etc.,The panels are held in position by a simple pin and wedge system that passes through holes in the out side rib of each panel.The tolerance of finished panels to be (-1 mm), and shall conform to IS 14687-1999. Pins and wedges to be made of high grade mild steel, all complete as per direction of Engineer-incharge.(Cost of RCC work shall be paid seperately)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Details of cost for 75.998 sqm say 76 sqm 2.7mx2.7mx1.00m Contact area = 10.8 sqm. MATERIAL Assuming shuttering material will become unserviceable after use of 100 times Adding for maintenance @ 10% of cost Taking salvage value after full use of material @ 35% of cost I Aluminium Formwork System 1 Wall (W) Panels				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	a.) 2050X600mm, Qty. = 2 Nos = 2.460 sqm b.) 2050X300mm, Qty. = 2 Nos = 1.230 sqm c.) 2050X250mm, Qty. = 2 Nos = 1.025 sqm d.) 300X1150mm, Qty. = 1 Nos = 0.345 sqm Total = 5.06 sqm 2 WRB Panels a.) 2325x350mm, Qty. = 1 Nos = 0.814 sqm b.) 2325X250mm, Qty. = 2 Nos = 1.163 sqm c.) 2100X600 mm,Qty. = 24 Nos = 30.240 sqm d.) 2100X450mm, Qty. = 4 Nos = 3.780 sqm e.) 2100X300mm, Qty. = 2 Nos = 1.260 sqm f.) 2100X250 mm,Qty. = 2 Nos = 1.050 sqm g.) 350X1150mm, Qty. = 1 Nos = 0.403 sqm Total = 38.71 sqm 3 Panels a.) 825X600mm, Qty. = 2 Nos = 0.990 sqm b.) 825X300 mm,Qty. = 2 Nos = 0.495 sqm c.) 825X250 mm,Qty. = 2 Nos = 0.413 sqm d.) 650X600 mm,Qty. = 24 Nos = 9.360 sqm e.) 650X450 mm,Qty. = 4 Nos = 1.170 sqm f.) 650X300 mm,Qty. = 2 Nos = 0.390 sqm g.) 650X250 mm,Qty. = 2 Nos = 0.325 sqm Total = 13.143 sqm 4 Deck Panels a.) 1100x450mm, Qty. = 14 Nos = 6.930 sqm b.) 1100x250mm,Qty. =2 Nos = 0.550 sqm c.) 750x450mm,Qty. = 1 Nos = 0.338 sqm Total = 7.818 sqm 5 Kicker Panels a.) 125 x 2300mm, Qty. = 2 Nos = 0.576 sqm b.) 125 x 1150 mm, Qty. = 2 Nos = 0.288 sqm Total = 0.864 sqm 6 Door Closing Panel (DCRB)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8031	a.) 1975 x 150mm, Qty. = 2 Nos = 0.593 sqm b.) 2325x150 mm, Qty. = 1 Nos = 0.349 sqm Total = 0.942 sqm G. Total = 66.537 sqm Qty taken for cost of using once = $66.537 \times 0.75 / 100 = 0.499$ sqm Aluminium sheets Grade 5052, 4 mm thick for wall panel/deck panel/WRB panel/Kicker Panels/door closing panels 7 Internal Corner a.) 2350 mm Qty. = 3 Nos = 1.586 sqm b.) 2250 mm Qty. = 4 Nos. = 2.025 sqm c.) ICI 400x400 mm, Qty. = 10 Nos = 1.800 sqm Total = 5.411 sqm 8 Column Corners a.) 2100 mm Qty. = 6 Nos = 2.52 sqm b.) 650 mm Qty. = 6 Nos = 0.78 sqm c.) 300 mm Qty. = 4 Nos = 0.24 sqm Total = 3.54 sqm G. Total = 8.951 sqm Qty taken for cost of using once = $8.951 \times 0.75 / 100 = 0.0671325 = 0.0672$ Aluminium sheets Grade 5052, 4 mm thick for Internal Corner/Column Corners/9 Mid Soldier a.) 1000 mm Qty. = 2 Nos = 0.2 sqm 10 End soldier a.) 800 mm Qty. = 2 Nos = 0.16 sqm b.) 750 mm Qty. = 2 Nos = 0.15 sqm Total = 0.31 sqm G.Total = 0.51 sqm Qty taken for cost of using once = $0.51 \times 0.75 / 100 = 0.003825 = 0.0038$ Aluminium sheets Grade 5052, 4 mm thick for Mid Soldier/End soldier II Accessories Assuming 35% as salvage value, 10% maintenance cost and 100 times use before becoming unserviceable Qty taken for cost of using once = $Qty \times 0.75 / 100$	sqm	0.499	8500.00	4241.50
8032	Aluminium sheets Grade 5052, 4 mm thick for Internal Corner/Column Corners/9 Mid Soldier a.) 1000 mm Qty. = 2 Nos = 0.2 sqm 10 End soldier a.) 800 mm Qty. = 2 Nos = 0.16 sqm b.) 750 mm Qty. = 2 Nos = 0.15 sqm Total = 0.31 sqm G.Total = 0.51 sqm Qty taken for cost of using once = $0.51 \times 0.75 / 100 = 0.003825 = 0.0038$ Aluminium sheets Grade 5052, 4 mm thick for Mid Soldier/End soldier II Accessories Assuming 35% as salvage value, 10% maintenance cost and 100 times use before becoming unserviceable Qty taken for cost of using once = $Qty \times 0.75 / 100$	sqm	0.0672	11500.00	772.80
8033	Aluminium sheets Grade 5052, 4 mm thick for Mid Soldier/End soldier II Accessories Assuming 35% as salvage value, 10% maintenance cost and 100 times use before becoming unserviceable Qty taken for cost of using once = $Qty \times 0.75 / 100$	sqm	0.0038	32000.00	121.60
8034	External Corner 2050 mm = $2 \times 0.75 / 100 = 0.015$	each	0.015	1400.00	21.00
8035	External Corner 825 mm = $2 \times 0.75 / 100 = 0.015$	each	0.015	590.00	8.85
8036	Soldier Tie 370 mm = $8 \times 0.75 / 100 = 0.06$	each	0.06	290.00	17.40
8037	Adjustable Prop - 2.00 x 2.00m = $8 \times 0.75 / 100 = 0.06$	each	0.06	1080.00	64.80
8038	Pin-50 = $936 \times 0.75 / 100 = 7.02$	each	7.02	15.00	105.30
8039	Pin-127 = $8 \times 0.75 / 100 = 0.06$	each	0.06	55.00	3.30

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8040	Wedge = $944 \times 0.75/100 = 7.08$	each	7.08	14.00	99.12
8041	Wall Tie - 150 (355)mm = $168 \times 0.75/100 = 1.26$	each	1.26	45.00	56.70
8042	Polythene Sleeve 90 x 150mm = $168 \times 0.75/100 = 1.26$	each	1.26	3.00	3.78
8043	Polythene Roll - 150mm Long. = $168 \times 0.75/100 = 1.26$	each	1.26	6.00	7.56
8044	Vertical Soldier -1100mm = $4 \times 0.75/100 = 0.03$	each	0.03	365.00	10.95
8045	Wall Attached Bracket 600x1000mm = $8 \times 0.75/100 = 0.06$	each	0.06	985.00	59.10
8046	Alignment Pipe - 3.00 Mtr. = $2 \times 0.75/100 = 0.015$	each	0.015	995.00	14.93
8047	Alignment Bracket = $6 \times 0.75/100 = 0.045$	each	0.045	475.00	21.38
8048	Tie Rod for Bracket - 500mm = $12 \times 0.75/100 = 0.09$	each	0.09	115.00	10.35
8049	Anchor Wing Nut Ø100 mm = $17 \times 0.75/100 = 0.1275$	each	0.1275	64.00	8.16
8050	Debit Pin - 250mm = $5 \times 0.75/100 = 0.0375$	each	0.0375	60.00	2.25
8051	PVC Pipe Ø20mm - 150mm long = $12 \times 0.75/100 = 0.09$	each	0.09	5.00	0.45
8052	PVC Cone = $10 \times 0.75/100 = 0.075$	each	0.075	5.00	0.38
8053	Bolt+Nut - 16 x 80 mm = $10 \times 0.75/100 = 0.075$	each	0.075	30.00	2.25
8054	Flat Washer Ø16, 3mm thik = $16 \times 0.75/100 = 0.12$	each	0.12	5.00	0.60
8055	Bolt+Nut - 16 x 30 mm = $50 \times 0.75/100 = 0.375$	each	0.375	18.00	6.75
8056	Door Spacer 45x45x5 -1135mm Long = $2 \times 0.75/100 = 0.015$	each	0.015	360.00	5.40
8057	Door Spacer 45x45x5 - 985mm long = $2 \times 0.75/100 = 0.015$	each	0.015	315.00	4.73
	LABOUR				
0116	Fitter (grade 1)	day	2.00	738.00	1476.00
0117	Assistant Fitter or 2nd class Fitter	day	2.00	679.00	1358.00
0114	Beldar	day	3.00	558.00	1674.00
9999	Shuttering oil	L.S.	220.00	2.00	440.00
9999	Cleaning of shuttering	L.S.	440.00	2.00	880.00
	TOTAL				11499.37 W
	Add 1 % Water charges on "W"				114.99
	TOTAL				11614.36 X
	Add GST on "X" (multiplying factor 0.1405)				1631.82
	TOTAL				13246.18 Y
	Add 15% CPOH on "Y"				1986.93
	TOTAL				15233.11 Z
	Add Cess @ 1% on "Z"				152.33
	Cost for 76 sqm.				15385.44
	Cost per sqm.				202.44
	Say				202.45

- 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/fastened 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 ₹
7996	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 Factory made EPS light weight composite sandwiched 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) LABOUR For fixing, aligning, locking the panels	L.S.	37.00	2.00	74.00
0123	Mason Grade -1	day	0.50	738.00	369.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				8721.13 W
	Add 1 % Water charges on "W"				87.21
	TOTAL				8808.34 X
	Add GST on "X" (multiplying factor 0.1405)				1237.57
	TOTAL				10045.91 Y
	Add 15% CPOH on "Y"				1506.89
	TOTAL				11552.79 Z
	Add Cess @ 1% on "Z"				115.53
	Cost of 10 sqm				11668.32
	Cost of 1sqm				1166.83
	Say				1166.85

26.49.2 Non load bearing panels 60mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7997	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 Factory made EPS light weight composite sandwiched 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
9999	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.00	74.00
0123	LABOUR For fixing, aligning, locking the panels	day	0.50	738.00	369.00
0114	Mason Grade -1	day	1.00	558.00	558.00
	TOTAL				9873.50 W
	Add 1 % Water charges on "W"				98.74
	TOTAL				9972.24 X
	Add GST on "X" (multiplying factor 0.1405)				1401.10
	TOTAL				11373.33 Y
	Add 15% CPOH on "Y"				1706.00
	TOTAL				13079.33 Z
	Add Cess @ 1% on "Z"				130.79
	Cost of 10 sqm				13210.13
	Cost of 1sqm				1321.01
	Say				1321.00

26.49.3 Non load bearing panels 75mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7998	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 Factory made EPS light weight composite sandwiched 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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	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	1047.46	10998.33
	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.00	74.00
	LABOUR				
0123	For fixing, aligning, locking the panels	day	0.50	738.00	369.00
0114	Mason Grade -1	day	1.00	558.00	558.00
	Beldar				
	TOTAL				11999.33 W
	Add 1 % Water charges on "W"				119.99
	TOTAL				12119.32 X
	Add GST on "X" (multiplying factor 0.1405)				1702.76
	TOTAL				13822.09 Y
	Add 15% CPOH on "Y"				2073.31
	TOTAL				15895.40 Z
	Add Cess @ 1% on "Z"				158.95
	Cost of 10 sqm				16054.36
	Cost of 1sqm				1605.44
	Say				1605.45

26.49.4 Non load bearing panels 90mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7999	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				
9999	Factory made EPS light weight composite sandwiched 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
	Sundries, wooden wedge for levelling, cement mortar, Chemical adhesive & dowel bar (6mm dia)	L.S.	37.00	2.00	74.00
	LABOUR				
0123	For fixing, aligning, locking the panels	day	0.50	738.00	369.00
	Mason Grade -1				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				14315.00 W
	Add 1 % Water charges on "W"				143.15
	TOTAL				14458.15 X
	Add GST on "X" (multiplying factor 0.1405)				2031.37
	TOTAL				16489.52 Y
	Add 15% CPOH on "Y"				2473.43
	TOTAL				18962.95 Z
	Add Cess @ 1% on "Z"				189.63
	Cost of 10 sqm				19152.58
	Cost of 1sqm				1915.26
	Say				1915.25

26.49.5 Non load bearing panels 100mm thick of required size

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8000	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 Factory made EPS light weight composite sandwiched 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	2.00	74.00
	LABOUR For fixing, aligning, locking the panels				
0123	Mason Grade -1	day	0.50	738.00	369.00
0114	Beldar	day	1.00	558.00	558.00
	TOTAL				16880.89 W
	Add 1 % Water charges on "W"				168.81
	TOTAL				17049.69 X
	Add GST on "X" (multiplying factor 0.1405)				2395.48
	TOTAL				19445.18 Y
	Add 15% CPOH on "Y"				2916.78
	TOTAL				22361.95 Z
	Add Cess @ 1% on "Z"				223.62
	Cost of 10 sqm				22585.57
	Cost of 1sqm				2258.56
	Say				2258.55

- 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 ₹
0244	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 Factory made light weight composite non asbestos fibre reinforced aerated cement sandwiched 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. LABOUR For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.	L.S.	500.00	2.00	1000.00
0123	Mason Grade -1	day	1.00	738.00	738.00
0114	Beldar	day	2.00	558.00	1116.00
0131	Painter	day	0.50	679.00	339.50
	TOTAL				9850.50 W
	Add 1 % Water charges on "W"				98.51
	TOTAL				9949.01 X
	Add GST on "X" (multiplying factor 0.1405)				1397.84
	TOTAL				11346.84 Y
	Add 15% CPOH on "Y"				1702.03
	TOTAL				13048.87 Z
	Add Cess @ 1% on "Z"				130.49
	Cost of 10 sqm				13179.35
	Cost of 1sqm				1317.94
	Say				1317.95

26.50.2 Non load bearing panels 75mm thick of required size (minimum 5mm thick fibre cement board)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0245	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 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. LABOUR For fixing, aligning, locking the panels, glass fibre tape/fibre mesh with a jointing compound.	L.S.	500.00	2.00	1000.00
0123	Mason Grade -1	day	1.00	738.00	738.00
0114	Beldar	day	2.00	558.00	1116.00
0131	Painter	day	0.50	679.00	339.50
	TOTAL				11478.00 W
	Add 1 % Water charges on "W"				114.78
	TOTAL				11592.78 X
	Add GST on "X" (multiplying factor 0.1405)				1628.79
	TOTAL				13221.57 Y
	Add 15% CPOH on "Y"				1983.23
	TOTAL				15204.80 Z
	Add Cess @ 1% on "Z"				152.05
	Cost of 10 sqm				15356.85
	Cost of 1sqm				1535.68
	Say				1535.70

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 Panel area = 1.00sqm, Add wastage				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7368	@ 5% = 0.050sqm, Total area = 1.05 sqm				
9999	GFRG panel of 124mm thick	sqm	1.05	847.46	889.83
9999	"Transportation of panel in suitable truck"(Rs 0.15/sqm/km) upto 300 Km"	L.S.	26.00	2.00	52.00
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	2.00	34.00
	TOTAL				975.83 W
	Add 1% water charges				9.76
	TOTAL				985.59 X
	Add GST on "X" (multiplying factor 0.1405)				138.48
	TOTAL				1124.07 Y
	Add 15% CPOH on "Y"				168.61
	TOTAL				1292.68 Z
	Add Cess @1% on "Z"				12.93
	Cost of 1 sqm				1305.60
	Say				1305.60

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 & tying 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)				
	LABOUR				
	Skilled trained crew erection team				
	4 persons for 4 hour				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0123	Mason (Brick layer) 1st class For 2 Lintels works, 4 skilled men for 2 hrs	day	2.00	738.00	1476.00
0123	Mason (Brick layer) 1st class "Web cutting for horizontal tie beam, 2 skilled men" for 4 hrs"	day	1.00	738.00	738.00
0123	Mason (Brick layer) 1st class "Placing horizontal tie beam reinforcement 4 men for" 2 hrs"	day	1.00	738.00	738.00
0123	Mason (Brick layer) 1st class Cost for technical supervisor for 4 hrs (Technical supervisor = Skilled labour)	day	1.00	738.00	738.00
0116	Fitter (Grade 1)	day	0.50	738.00	369.00
0037	Mobile crane	day	0.375	7500.00	2812.50
9999	Hire charge for lateral support & Lifting jaws	L.S.	150.00	2.00	300.00
	TOTAL				7171.50 W
	Add 1% water charges				71.72
	TOTAL				7243.22 X
	Add GST on "X" (multiplying factor 0.1405)				1017.67
	TOTAL				8260.89 Y
	Add 15% CPOH on "Y"				1239.13
	TOTAL				9500.02 Z
	Add Cess @1% on "Z"				95.00
	Cost of 36 sqm				9595.02
	Cost of 1 sqm				266.53
	Say				266.55

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 ₹
1159	Detail of cost for filling one panel size 9 sqm (3mx3m Wall) MATERIAL Stone dust/Quarry dust filling in cavities of size 230x94 mm	cum	0.85	1100.00	935.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	OPC Cement @ 5% volume of quarry dust	tonne	0.06091	4940.00	300.90
0002	Tools and plants hire charges	day	0.125	800.00	100.00
0124	Mixer hire charges	day	0.125	679.00	84.88
0114	LABOUR	day	0.125	558.00	69.75
	Mason (brick layer) 2nd class				1490.52 W
	Beldar				14.91
	TOTAL				1505.43 X
	Add 1% water charges				14.91
	TOTAL				1505.43 X
	Add GST on "X" (multiplying factor 0.1405)				211.51
	TOTAL				1716.94 Y
	Add 15% CPOH on "Y"				257.54
	TOTAL				1974.48 Z
	Add Cess @1% on "Z"				19.74
	Cost of 0.85 cum				1994.22
	Cost of 1 cum				2346.15
	Say				2346.15

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

- 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.
- Reinforcement for micro beams and tie beams to be provided in position with proper anchorage as per structural drawings.
- Provision for Electrical cabling, fan hooks and laying of pipes for plumbing work.
- 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 ₹
0123	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)	day	0.25	738.00	184.50
0123	Mason (Brick layer) 1st class Lifting panel from stack by crane and placing in position with 40 mm bearing on walls 4 skilled labour for 1 hrs	day	0.50	738.00	369.00
	Cutting & removal of top flange to protruding 25mm on either sides for keying panel into RCC micro beams in position (every 3rd cavities runner/span in place beneath) and providing concealed beam reinforcement in				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0123	position, side shuttering for slab for external side(with 6mm groove) 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				
9999	Mason (Brick layer) 1st class	day	0.50	738.00	369.00
0037	Hire charges for runner and support system and side shuttering for external side of slab for 5 days	L.S.	29.00	2.00	58.00
	Mobile crane	day	0.125	7500.00	937.50
	TOTAL				1918.00 W
	Add 1% water charges				19.18
	TOTAL				1937.18 X
	Add GST on "X" (multiplying factor 0.1405)				272.17
	TOTAL				2209.35 Y
	Add 15% CPOH on "Y"				331.40
	TOTAL				2540.76 Z
	Add Cess @1% on "Z"				25.41
	Cost of 9 sqm				2566.16
	Cost of 1 sqm				285.13
	Say				285.15

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 ₹
1223	Detail of cost for 9sqm (3mx3m)				
	MATERIAL				
	Mesh area = 9.00sqm, Add wastage @ 5% = 0.45sqm, Total area = 9.45 sqm				
	Steel weld mesh	sqm	9.45	150.00	1417.50
0103	Labour for filling the quarry dust	day	0.125	679.00	84.88
0114	Blacksmith 2nd class	day	0.125	558.00	69.75
	Beldar				
	TOTAL				1572.13 W
	Add 1% water charges				15.72
	TOTAL				1587.85 X
	Add GST on "X" (multiplying factor 0.1405)				223.09
	TOTAL				1810.94 Y
	Add 15% CPOH on "Y"				271.64
	TOTAL				2082.58 Z
	Add Cess @1% on "Z"				20.83
	Cost of 9 sqm				2103.41
	Cost of 1 sqm				233.71
	Say				233.70

- 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	105.00	10500.00
8517	ZMB Thinner	litre	1.00	205.00	205.00
8518	Zycoprime / equivalent	litre	1.00	210.00	210.00
9999	Water, brush, technical supervision etc.	L.S.	78.00	2.00	156.00
	LABOUR				
0123	Mason (Brick layer) 1st class	day	20.333	738.00	15005.75
	TOTAL				26076.75 W
	Add 1% water charges				260.77
	TOTAL				26337.52 X
	Add GST on "X" (multiplying factor 0.1405)				3700.42
	TOTAL				30037.94 Y
	Add 15% CPOH on "Y"				4505.69
	TOTAL				34543.63 Z
	Add Cess @1% on "Z"				345.44
	Cost of 122 sqm				34889.07
	Cost of 1 sqm				285.98
	Say				286.00

- 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	210.00	10.96
9999	water, syringe, etc.	L.S.	16.00	2.00	32.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0123	LABOUR Mason (Brick layer) 1st class TOTAL Add 1% water charges TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @1% on "Z" Cost of 3 metre Cost of 1 metre Say	day	0.125	738.00	92.25 182.17 W 1.82 183.99 X 25.85 209.84 Y 31.48 241.32 Z 2.41 243.73 81.24 81.25

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 ₹
8520	Detail of cost for 48 metre MATERIAL				
0367	Elastobar / equivalent	kg	1.00	300.00	300.00
9999	OPC Cement	tonne	0.0015	4940.00	7.41
	100 mesh silica, water, technical supervision, etc.	L.S.	3.00	2.00	6.00
0123	LABOUR Mason (Brick layer) 1st class TOTAL Add 1% water charges TOTAL Add GST on "X" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @1% on "Z" Cost of 48 metre Cost of 1 metre Say	day	1.500	738.00	1107.00 1420.41 W 14.20 1434.61 X 201.56 1636.18 Y 245.43 1881.60 Z 18.82 1900.42 39.59 39.60

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
8519	MATERIAL Zycosil / equivalent	litre	1.00	1800.00	1800.00
8518	Zycopriime / equivalent	litre	2.00	210.00	420.00
9999	Water, technical supervision, etc.	L.S.	6.00	2.00	12.00
0123	LABOUR Mason (Brick layer) 1st class	day	0.28571	738.00	210.85
	Cost of 40 sqm				2442.85
	Cost of 1 metre (10mm thick)				0.61 A1
	Detail of cost for 48 metre				
8520	MATERIAL Elastobar / equivalent	kg	1.00	300.00	300.00
0367	OPC Cement	tonne	0.0015	4940.00	7.41
9999	100 mesh silica, water, technical supervision, etc.	L.S.	3.00	2.00	6.00
0123	LABOUR Mason (Brick layer) 1st class	day	1.50	738.00	1107.00
	Cost of 48 metre				1420.41
	Cost of 1 metre				29.59 A2
	TOTAL (A1+A2)				30.20 W
	Add 1% water charges				0.30
	TOTAL				30.50 X
	Add GST on "X" (multiplying factor 0.1405)				4.29
	TOTAL				34.79 Y
	Add 15% CPOH on "Y"				5.22
	TOTAL				40.01 Z
	Add Cess @1% on "Z"				0.40
	Cost of 1 metre				40.41
	Say				40.40

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 Zycopriime/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				
8519	MATERIAL Zycosil / equivalent	litre	1.00	1800.00	1800.00
8518	Zycopriime /equivalent	litre	2.00	210.00	420.00
9999	Water, technical supervision, etc.	L.S.	7.00	2.00	14.00
0131	LABOUR Painter	day	2.50	679.00	1697.50
	TOTAL				3931.50 W
	Add 1% water charges				39.32
	TOTAL				3970.82 X
	Add GST on "X" (multiplying factor 0.1405)				557.90
	TOTAL				4528.71 Y
	Add 15% CPOH on "Y"				679.31
	TOTAL				5208.02 Z
	Add Cess @1% on "Z"				52.08
	Cost of 40 sqm				5260.10
	Cost of 1 sqm				131.50
	Say				131.50

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	210.00	420.00
9999	Water, technical supervision, etc.	L.S.	6.00	2.00	12.00
	LABOUR				
0123	Mason (Brick layer) 1st class	day	0.28571	738.00	210.85
	Cost of 40 sqm				2442.85
	Cost of 1 metre (10mm thick)				
	Detail of cost for 48 metre MATERIAL				
8520	Elastobar / equivalent	kg	1.00	300.00	300.00
0367	OPC Cement	tonne	0.0015	4940.00	7.41
9999	100 mesh silica, water, technical supervision, etc.	L.S.	3.00	2.00	6.00
	LABOUR				
0123	Mason (Brick layer) 1st class	day	1.50	738.00	1107.00
	Cost of 48 metre				1420.41
	Cost of 1 metre				29.59 A2
	TOTAL (A1+A2)				30.20 W
	Add 1% water charges				0.30
	TOTAL				30.50 X
	Add GST on "X" (multiplying factor 0.1405)				4.29
	TOTAL				34.79 Y
	Add 15% CPOH on "Y"				5.22
	TOTAL				40.01 Z
	Add Cess @1% on "Z"				0.40
	Cost of 1 metre				40.41
	Say				40.40

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
1012	(c) Bolts (M16 - Gr 8.8s), (Galvanised) (16 ϕ 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	kg	212.816	90.00	19153.44
0116	Pregalvanized high tensile steel LABOUR (Reference item no 10.1)	day	1.064	738.00	785.23
0103	Fitter (grade 1)	day	1.596	679.00	1083.68
0114	Blacksmith 2nd class	day	2.128	558.00	1187.42
	Beldar				22209.78 W
	Total				222.10
	Add 1 % Water charges on "W"				22431.88 X
	TOTAL				3151.68
	Add GST on "X" (multiplying factor 0.1405)				25583.56 Y
	TOTAL				3837.53
	Add 15% CPOH on "Y"				29421.09 Z
	TOTAL				294.21
	Add Cess @ 1% on "Z"				29715.30
	Cost of 212.816 kgs				139.63
	Cost of 1 kg				139.65
	Say				

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 ₹
7336	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	kgs	3.88	76.00	294.88
0116	Lock Bar (E 250) - 10 thick MS Plate LABOUR (Reference item no 10.1)	day	1.49	738.00	1099.62
	Fitter (grade 1)				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0103	Blacksmith 2nd class	day	2.24	679.00	1520.96
0114	Beldar	day	2.99	558.00	1668.42
	Total				4583.88 W
	Add 1 % Water charges on "W"				45.84
	TOTAL				4629.72 X
	Add GST on "X" (multiplying factor 0.1405)				650.48
	TOTAL				5280.19 Y
	Add 15% CPOH on "Y"				792.03
	TOTAL				6072.22 Z
	Add Cess @ 1% on "Z"				60.72
	Cost of 298.75 kgs				6132.95
	Cost of 1 kg				20.53
	Say				20.55

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 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	517.00	732.85
	LABOUR (Reference item no 5.9.20)				
0112	Carpenter 2nd class	day	0.125	679.00	84.88
0114	Beldar	day	0.125	558.00	69.75
	Total				887.47 W
	Add 1 % Water charges on "W"				8.87
	TOTAL				896.35 X
	Add GST on "X" (multiplying factor 0.1405)				125.94
	TOTAL				1022.28 Y
	Add 15% CPOH on "Y"				153.34
	TOTAL				1175.63 Z
	Add Cess @ 1% on "Z"				11.76
	Cost of 13.50 sqm				1187.38
	Cost of 1 sqm				87.95
	Say				87.95

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 ₹
8019	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 GI sheet 0.8 mm thick confirming to IS 277:1992 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	kg	79.00	75.00	5925.00
1217	GI Wire mesh 100x100 mm	kg	12.60	75.00	945.00
2314	Carriage of sheet & wire	tonne	0.0916	92.24	8.45
1218	Shear stud	each	40.00	50.00	2000.00
9999	Nails/Tagged screws	L.S.	138.70	2.00	277.40
9999	Labour for fixing shear stud	L.S.	462.40	2.00	924.80
	Labour for sheeting (Ref item no 26.19.1)				
0130	Mistry	day	0.108	738.00	79.70
0112	Carpenter 2nd class	day	0.432	679.00	293.33
0114	Beldar	day	0.432	558.00	241.06
	Labour for laying wire mesh (Ref item no 5.22.2)				
0102	Blacksmith 1st class	day	0.12	738.00	88.56
0114	Beldar	day	0.120	558.00	66.96
	Total				10850.26 W
	Add 1 % Water charges on "W"				108.50
	TOTAL				10958.76 X
	Add GST on "X" (multiplying factor 0.1405)				1539.71
	TOTAL				12498.47 Y
	Add 15% CPOH on "Y"				1874.77
	TOTAL				14373.24 Z
	Add Cess @ 1% on "Z"				143.73
	Cost of 10 sqm				14516.97
	Cost of 1 sqm				1451.70
	Say				1451.70

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 ₹
8020	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 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 Cement mortar 1:3 (1cement:3 coarse sand) 2x1.20x3.00x0.05= 0.36 cum	L.S.	208	2.00	416.00
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	4664.55	1175.47
5.22.6	Rate as per 5.22.6 (SH:5 Reinforced Cement Concrete)	kg	2.9600	83.50	247.16 A
9999	Tag screw with washers for wire mesh fixing	L.S.	78	2.00	156.00
9999	For fixing wall with foundation	L.S.	312.15	2.00	624.30
9999	LABOUR For carrying out shotcreting, shoring, leveling, and finishing the surface with trowel.	L.S.	707.5	2.00	1415.00
	Total				6301.93 W
	Add 1 % Water charges on "W-A"				60.55
	TOTAL				6362.47 X
	Add GST on "X-A" (multiplying factor 0.1405)				859.20
	TOTAL				7221.68 Y
	Add 15% CPOH on "Y-A"				1046.18
	TOTAL				8267.85 Z
	Add Cess @ 1% on "Z-A"				80.21
	Cost of 3.6 sqm				8348.06
	Cost of 1 sqm				2318.91
	Say				2318.90

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 $\pm 10\%$ 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 ₹
8562	Details of cost for 10 sqm Material Area of insulation board = 10 sqm + Add wastage @ 10% = 1 sqm. Total = 11.00 sqm 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	800.00	8800.00
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/m ² , mesh size: 3.9x4.0 mm $\pm 10\%$	sqm	10.00	75.00	750.00
0131	Labour				
0114	Painter	day	4.00	679.00	2716.00
9999	Beldar	day	4.00	558.00	2232.00
	Trowel, Angle Float, Brushes, sand paper etc.	L.S.	72.25	2.00	144.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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 sealant, scaffolding etc.) Total Add 1 % Water charges on "W" TOTAL Add GST on "X" TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost of 10 sqm Cost of 1 sqm Say	L.S.	1445.09	2.00	2890.18 25162.68 W 251.63 25414.31 X 3570.71 28985.02 Y 4347.75 33332.77 Z 333.33 33666.10 3366.61 3366.60

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	276.72	30.69
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per item No 3.11 of SH: Mortar	cum	0.113	3356.15	379.24
9999	Sundries LABOUR	L.S.	2.73	2.00	5.46
0123	Mason (brick layer) 1st class	day	0.33	738.00	243.54
0124	Mason (brick layer) 2nd class	day	0.33	679.00	224.07
0115	Coolie	day	1.00	558.00	558.00
0101	Bhisti	day	0.18	617.00	111.06
	Total				4341.20 W
	Add 1 % Water charges on "W"				43.41
	TOTAL				4384.61 X
	Add GST on "X" (multiplying factor 0.1405)				616.04
	TOTAL				5000.65 Y
	Add 15% CPOH on "Y"				750.10
	TOTAL				5750.75 Z
	Add Cess @ 1% on "Z"				57.51
	Cost of 1 cum				5808.25
	Say				5808.25

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	276.72	30.69
	Cement mortar 1 : 6 (1 cement : 6 coarse sand)				
3.11	Rate as per item No 3.11 of SH: Mortar	cum	0.113	3356.15	379.24
9999	Sundries	L.S.	2.73	2.00	5.46
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.47	738.00	346.86
0124	Mason (brick layer) 2nd class	day	0.47	679.00	319.13
0115	Coolie	day	1.80	558.00	1004.40
0101	Bhisti	day	0.20	617.00	123.40
9999	Scaffolding	L.S.	22.36	2.00	44.72
	Extra labour element required for lifting of materials (above floor two level upto floor five level)				
0115	Coolie	day	1.13	558.00	630.54
	Total				5673.58 W
	Add 1 % Water charges on "W"				56.74
	TOTAL				5730.31 X
	Add GST on "X" (multiplying factor 0.1405)				805.11
	TOTAL				6535.42 Y
	Add 15% CPOH on "Y"				980.31
	TOTAL				7515.74 Z
	Add Cess @ 1% on "Z"				75.16
	Cost of 1 cum				7590.89
	Say				7590.90

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	276.72	32.13
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per item No 3.9 of SH: Mortar	cum	0.0708	4010.35	283.93
9999	Sundries	L.S.	13.52	2.00	27.04
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.45	738.00	332.10

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0124	Mason (brick layer) 2nd class	day	0.45	679.00	305.55
0115	Coolie	day	1.55	558.00	864.90
0101	Bhisti	day	0.70	617.00	431.90
	Total				5197.46 W
	Add 1 % Water charges on "W"				51.97
	TOTAL				5249.44 X
	Add GST on "X" (multiplying factor 0.1405)				737.55
	TOTAL				5986.99 Y
	Add 15% CPOH on "Y"				898.05
	TOTAL				6885.03 Z
	Add Cess @ 1% on "Z"				68.85
	Cost of 10 sqm				6953.88
	Cost of 1 sqm				695.39
	Say				695.40

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	276.72	32.13
	Cement mortar 1 : 4 (1 cement : 4 coarse sand)				
3.9	Rate as per item No 3.9 of SH: Mortar	cum	0.0708	4010.35	283.93
9999	Sundries	L.S.	13.52	2.00	27.04
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.60	738.00	442.80
0124	Mason (brick layer) 2nd class	day	0.60	679.00	407.40
0115	Coolie	day	2.00	558.00	1116.00
0101	Bhisti	day	0.70	617.00	431.90
	Extra labour for lifting materials:				
0115	Coolie	day	1.29	558.00	719.82
	Total				6380.93 W
	Add 1 % Water charges on "W"				63.81
	TOTAL				6444.74 X
	Add GST on "X" (multiplying factor 0.1405)				905.49
	TOTAL				7350.23 Y
	Add 15% CPOH on "Y"				1102.53
	TOTAL				8452.77 Z
	Add Cess @ 1% on "Z"				84.53
	Cost of 10 sqm				8537.29
	Cost of 1 sqm				853.73
	Say				853.75

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 ₹
7776	Details of cost for 10 sqm MATERIAL: Concrete paver block of grade M-30 made of C&D waste (60mm thickness)	sqm	10.00	317.22	3172.20
	Bedding layer - 50mm thick 10x0.050=0.50 cum				
0982	Coarse sand (zone III)	cum	0.50	1350.00	675.00
2203	Carriage of Coarse sand	cum	0.50	103.77	51.89
0983	Fine sand (zone IV)	cum	0.15	900.00	135.00
2261	Carriage of fine sand	cum	0.15	103.77	15.57
	Laying charges (Based on actual observation)				
	LABOUR				
0123	Mason (brick layer) 1st class	day	0.50	738.00	369.00
0124	Mason (brick layer) 2nd class	day	0.50	679.00	339.50
0114	Beldar	day	1.00	558.00	558.00
0115	Coolie	day	0.50	558.00	279.00
	Total				5595.15 W
	Add 1 % Water charges on "W"				55.95
	TOTAL				5651.10 X
	Add GST on "X" (multiplying factor 0.1405)				793.98
	TOTAL				6445.08 Y
	Add 15% CPOH on "Y"				966.76
	TOTAL				7411.84 Z
	Add Cess @ 1% on "Z"				74.12
	Cost of 10 sqm				7485.96
	Cost of 1 sqm				748.60
	Say				748.60

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 ₹
5.33.2	Detail cost of 10.80 cum (120 Rmt) 120 Rmt X 1.20 m X .10 (25 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	10.80	9400.85	101529.18 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	10.80	139.45	1506.06 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	5.40	673.30	3635.82 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	1872.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.10)=312)	sqm	312.00	53.90	16816.80 A
	TOTAL				134543.86 W
	Add 1 % Water charges on "W-A"				110.56
	TOTAL				134654.42 X
	Add GST on "X-A" (multiplying factor 0.1405)				1568.90
	TOTAL				136223.32 Y
	Add 15% CPOH on "Y-A"				1910.32
	TOTAL				138133.64 Z
	Add Cess @ 1% on "Z-A"				146.46
	Cost of 120 metre				138280.10
	Cost of 1 metre				1152.33
	Say				1152.35

26.73.1.2 120 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	Detail cost of 12.96 cum (120 Rmt) 120 Rmt X 1.20 m X .12 (25 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	12.96	9400.85	121835.02 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	12.96	139.45	1807.27 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	6.48	673.30	4362.98 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	2248.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.12)=316.80) 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 120 metre Cost of 1 metre Say	sqm	316.80	53.90	17075.52 A 157592.79 W 125.12 157717.91 X 1775.52 159493.43 Y 2161.90 161655.32 Z 165.75 161821.07 1348.51 1348.50

26.73.1.3 150 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	Detail cost of 16.20 cum (120 Rmt) 120 Rmt X 1.20 m X 0.15 (25 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	16.20	9400.85	152293.77 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	16.20	139.45	2259.09 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	8.10	673.30	5453.73 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	2810.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.15)=324.00) 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 120 metre Cost of 1 metre Say	sqm	324.00	53.90	17463.60 A 192164.19 W 146.94 192311.13 X 2085.15 194396.28 Y 2538.91 196935.20 Z 194.65 197129.85 1642.75 1642.75

26.73.1.4 200 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	Detail cost of 20.160 cum (120 Rmt) 120 Rmt X 1.20 m X 0.20 (30 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	20.16	9400.85	189521.14 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	20.16	139.45	2811.31 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	10.08	673.30	6786.86 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	3496.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.20)=336.00) TOTAL	sqm	336.00	53.90	18110.40 A
	Add 1 % Water charges on "W-A"				173.60
	TOTAL				234763.31 X
	Add GST on "X-A" (multiplying factor 0.1405) TOTAL				2463.47
	Add 15% CPOH on "Y-A"				2999.56
	TOTAL				240226.34 Z
	Add Cess @ 1% on "Z-A"				229.97
	Cost of 120 metre				240456.31
	Cost of 1 metre				2003.80
	Say				2003.80

26.73.1.5 250 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	Detail cost of 25.20 cum (120 Rmt) 120 Rmt X 1.20 m X 0.25 (30 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	25.20	9400.85	236901.42 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	25.20	139.45	3514.14 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	12.60	673.30	8483.58 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	4370.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.25)=348.00) 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 120 metre Cost of 1 metre Say	sqm	348.00	53.90	18757.20 A 288410.34 W 207.54 288617.88 X 2945.10 291562.98 Y 3586.00 295148.97 Z 274.93 295423.90 2461.87 2461.85

26.73.1.6 300 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	Detail cost of 30.24 cum (120 Rmt) 120 Rmt X 1.20 m X 0.30 (30 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	30.24	9400.85	284281.70 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	30.24	139.45	4216.97 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	15.12	673.30	10180.30 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	5244.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.30)=360.00) 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 120 metre Cost of 1 metre Say	sqm	360.00	53.90	19404.00 A 342230.97 W 241.48 342472.45 X 3426.72 345899.17 Y 4172.43 350071.60 Z 319.89 350391.49 2919.93 2919.95

26.73.1.7 350 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	Detail cost of 35.28 cum (120 Rmt) 120 Rmt X 1.20 m X 0.35 (30 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	35.28	9400.85	331661.99 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	35.28	139.45	4919.80 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	17.64	673.30	11877.01 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	6118.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.35)=372.00) TOTAL	sqm	372.00	53.90	20050.80 A
	Add 1 % Water charges on "W-A"				275.42
	TOTAL				396327.02 X
	Add GST on "X-A" (multiplying factor 0.1405)				3908.35
	TOTAL				400235.36 Y
	Add 15% CPOH on "Y-A"				4758.87
	TOTAL				404994.23 Z
	Add Cess @ 1% on "Z-A"				364.85
	Cost of 120 metre				405359.07
	Cost of 1 metre				3377.99
	Say				3378.00

26.73.1.8 400 mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.33.2	Detail cost of 40.32 cum (120 Rmt) 120 Rmt X 1.20 m X 0.40 (30 % hollow) Rate as per item no 5.33.2 of SH RCC (M-25)	cum	40.32	9400.85	379042.27 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	40.32	139.45	5622.62 A
5.35	Rate as per item no 5.35 of SH RCC	quintal	20.16	673.30	13573.73 A
9999	Hollow core bed cost	L.S.	1301.00	2.00	2602.00
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	2.00	6992.00
9999	Cutting, marking, lifting & transportation	L.S.	578.00	2.00	1156.00
9999	Sundries	L.S.	13.00	2.00	26.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.41.1	Rate as per item no 5.41.1 of SH RCC (120x2x(1.20+0.40)=384.00) 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 120 metre Cost of 1 metre Say	sqm	384.00	53.90	20697.60 A 449872.22 W 309.36 450181.58 X 4389.97 454571.56 Y 5345.30 459916.86 Z 409.81 460326.66 3836.06 3836.05

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 ₹
0367	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	tonne	0.270	4940.00	1333.80
2209	Portland Cement Carriage of cement	tonne	0.270	92.24	24.90
7318	Plasticizer for M-50 Mix = 91.800 Kgs Plasticizer for M-40 Mix = 86.400 Kgs Difference 5.400 Kgs Plasticizer or Super Plasticizer 2% of cement content TOTAL Add 1 % Water charges on "W" TOTAL Add GST on "X-A" (multiplying factor 0.1405) TOTAL Add 15% CPOH on "Y" TOTAL Add Cess @ 1% on "Z" Cost for 120 metre Cost of 1 metre Say	kg	5.400	36.00	194.40 1553.10 W 15.53 1568.64 X 220.39 1789.03 Y 268.35 2057.38 Z 20.57 2077.96 17.32 17.30

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				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	Cement for M-40 Mix = 5.184 T	tonne			
	Difference 0.324 T				
2209	Portland Cement	tonne	0.324	4940.00	1600.56
	Carriage of cement	tonne	0.324	92.24	29.89
	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	36.00	233.28
	TOTAL				1863.73 W
	Add 1 % Water charges on "W"				18.64
	TOTAL				1882.36 X
	Add GST on "X" (multiplying factor 0.1405)				264.47
	TOTAL				2146.84 Y
	Add 15% CPOH on "Y"				322.03
	TOTAL				2468.86 Z
	Add Cess @ 1% on "Z"				24.69
	Cost for 120 metre				2493.55
	Cost of 1 metre				20.78
	Say				20.80

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	4940.00	2000.70
2209	Carriage of cement	tonne	0.405	92.24	37.36
	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	36.00	291.60
	TOTAL				2329.66 W
	Add 1 % Water charges on "W"				23.30
	TOTAL				2352.95 X
	Add GST on "X" (multiplying factor 0.1405)				330.59
	TOTAL				2683.54 Y
	Add 15% CPOH on "Y"				402.53
	TOTAL				3086.08 Z
	Add Cess @ 1% on "Z"				30.86
	Cost for 120 metre				3116.94
	Cost of 1 metre				25.97
	Say				25.95

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 X 0.20 (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	4940.00	2489.76
2209	Carriage of cement	tonne	0.504	92.24	46.49
	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	36.00	362.88
	TOTAL				2899.13 W
	Add 1 % Water charges on "W"				28.99
	TOTAL				2928.12 X
	Add GST on "X" (multiplying factor 0.1405)				411.40
	TOTAL				3339.52 Y
	Add 15% CPOH on "Y"				500.93
	TOTAL				3840.45 Z
	Add Cess @ 1% on "Z"				38.40
	Cost for 120 metre				3878.85
	Cost of 1 metre				32.32
	Say				32.30

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	4940.00	3112.20
2209	Carriage of cement	tonne	0.63	92.24	58.11
	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	36.00	453.60
	TOTAL				3623.91 W
	Add 1 % Water charges on "W"				36.24
	TOTAL				3660.15 X
	Add GST on "X" (multiplying factor 0.1405)				514.25
	TOTAL				4174.40 Y
	Add 15% CPOH on "Y"				626.16
	TOTAL				4800.56 Z
	Add Cess @ 1% on "Z"				48.01
	Cost for 120 metre				4848.57
	Cost of 1 metre				40.40
	Say				40.40

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	4940.00	3734.64
2209	Carriage of cement	tonne	0.756	92.24	69.73
	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	36.00	544.32
	TOTAL				4348.69 W
	Add 1 % Water charges on "W"				43.49
	TOTAL				4392.18 X
	Add GST on "X" (multiplying factor 0.1405)				617.10
	TOTAL				5009.28 Y
	Add 15% CPOH on "Y"				751.39
	TOTAL				5760.67 Z
	Add Cess @ 1% on "Z"				57.61
	Cost for 120 metre				5818.28
	Cost of 1 metre				48.49
	Say				48.50

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	4940.00	4357.08
2209	Carriage of cement	tonne	0.882	92.24	81.36
	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	36.00	635.04
	TOTAL				5073.48 W
	Add 1 % Water charges on "W"				50.73
	TOTAL				5124.21 X
	Add GST on "X" (multiplying factor 0.1405)				719.95
	TOTAL				5844.16 Y
	Add 15% CPOH on "Y"				876.62
	TOTAL				6720.79 Z
	Add Cess @ 1% on "Z"				67.21
	Cost for 120 metre				6787.99
	Cost of 1 metre				56.57
	Say				56.55

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	4940.00	4979.52
2209	Carriage of cement	tonne	1.008	92.24	92.98
	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	36.00	725.76
	TOTAL				5798.26 W
	Add 1 % Water charges on "W"				57.98
	TOTAL				5856.24 X
	Add GST on "X" (multiplying factor 0.1405)				822.80
	TOTAL				6679.04 Y
	Add 15% CPOH on "Y"				1001.86
	TOTAL				7680.90 Z
	Add Cess @ 1% on "Z"				76.81
	Cost for 120 metre				7757.71
	Cost of 1 metre				64.65
	Say				64.65

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	4940.00	2134.08
2209	Carriage of cement	tonne	0.432	92.24	39.85
	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	36.00	311.04
	TOTAL				2484.97 W
	Add 1 % Water charges on "W"				24.85
	TOTAL				2509.82 X
	Add GST on "X" (multiplying factor 0.1405)				352.63
	TOTAL				2862.45 Y
	Add 15% CPOH on "Y"				429.37
	TOTAL				3291.81 Z
	Add Cess @ 1% on "Z"				32.92
	Cost for 120 metre				3324.73
	Cost of 1 metre				27.71
	Say				27.70

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	4940.00	2558.92
2209	Carriage of cement	tonne	0.518	92.24	47.78
	Plasticizer for M-60 Mix = 114.048 Kgs Plasticizer for M-40 Mix = 103.680 Kgs Difference 10.368 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	10.368	36.00	373.25
	TOTAL				2979.95 W
	Add 1 % Water charges on "W"				29.80
	TOTAL				3009.75 X
	Add GST on "X" (multiplying factor 0.1405)				422.87
	TOTAL				3432.62 Y
	Add 15% CPOH on "Y"				514.89
	TOTAL				3947.51 Z
	Add Cess @ 1% on "Z"				39.48
	Cost for 120 metre				3986.99
	Cost of 1 metre				33.22
	Say				33.20

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	4940.00	3201.12
2209	Carriage of cement	tonne	0.648	92.24	59.77
	Plasticizer for M-60 Mix = 114.048 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	36.00	466.56
	TOTAL				3727.45 W
	Add 1 % Water charges on "W"				37.27
	TOTAL				3764.73 X
	Add GST on "X" (multiplying factor 0.1405)				528.94
	TOTAL				4293.67 Y
	Add 15% CPOH on "Y"				644.05
	TOTAL				4937.72 Z
	Add Cess @ 1% on "Z"				49.38
	Cost for 120 metre				4987.10
	Cost of 1 metre				41.56
	Say				41.55

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 X 0.20 (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	4940.00	3981.64
2209	Carriage of cement	tonne	0.806	92.24	74.35
	Plasticizer for M-60 Mix = 177.408 Kgs Plasticizer for M-40 Mix = 161.280 Kgs Difference 16.128 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	16.128	36.00	580.61
	TOTAL				4636.59 W
	Add 1 % Water charges on "W"				46.37
	TOTAL				4682.96 X
	Add GST on "X" (multiplying factor 0.1405)				657.96
	TOTAL				5340.92 Y
	Add 15% CPOH on "Y"				801.14
	TOTAL				6142.05 Z
	Add Cess @ 1% on "Z"				61.42
	Cost for 120 metre				6203.47
	Cost of 1 metre				51.70
	Say				51.70

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	4940.00	4979.52
2209	Carriage of cement	tonne	1.008	92.24	92.98
	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	36.00	725.76
	TOTAL				5798.26 W
	Add 1 % Water charges on "W"				57.98
	TOTAL				5856.24 X
	Add GST on "X" (multiplying factor 0.1405)				822.80
	TOTAL				6679.04 Y
	Add 15% CPOH on "Y"				1001.86
	TOTAL				7680.90 Z
	Add Cess @ 1% on "Z"				76.81
	Cost for 120 metre				7757.71
	Cost of 1 metre				64.65
	Say				64.65

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	4940.00	5977.40
2209	Carriage of cement	tonne	1.21	92.24	111.61
	Plasticizer for M-60 Mix = 266.112 Kgs Plasticizer for M-40 Mix = 241.920 Kgs Difference 24.192 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	24.192	36.00	870.91
	TOTAL				6959.92 W
	Add 1 % Water charges on "W"				69.60
	TOTAL				7029.52 X
	Add GST on "X" (multiplying factor 0.1405)				987.65
	TOTAL				8017.17 Y
	Add 15% CPOH on "Y"				1202.58
	TOTAL				9219.74 Z
	Add Cess @ 1% on "Z"				92.20
	Cost for 120 metre				9311.94
	Cost of 1 metre				77.60
	Say				77.60

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	4940.00	6970.34
2209	Carriage of cement	tonne	1.411	92.24	130.15
	Plasticizer for M-60 Mix = 310.464 Kgs Plasticizer for M-40 Mix = 282.240 Kgs Difference 28.224 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	28.224	36.00	1016.06
	TOTAL				8116.55 W
	Add 1 % Water charges on "W"				81.17
	TOTAL				8197.72 X
	Add GST on "X" (multiplying factor 0.1405)				1151.78
	TOTAL				9349.50 Y
	Add 15% CPOH on "Y"				1402.42
	TOTAL				10751.92 Z
	Add Cess @ 1% on "Z"				107.52
	Cost for 120 metre				10859.44
	Cost of 1 metre				90.50
	Say				90.50

26.73.3.8 400mm thick hollow core slab

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	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				
2209	Portland Cement	tonne	1.613	4940.00	7968.22
	Carriage of cement	tonne	1.613	92.24	148.78
	Plasticizer for M-60 Mix = 354.816 Kgs				
	Plasticizer for M-40 Mix = 322.560 Kgs				
	Difference 32.256 Kgs				
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	32.256	36.00	1161.22
	TOTAL				9278.22 W
	Add 1 % Water charges on "W"				92.78
	TOTAL				9371.00 X
	Add GST on "X" (multiplying factor 0.1405)				1316.63
	TOTAL				10687.63 Y
	Add 15% CPOH on "Y"				1603.14
	TOTAL				12290.77 Z
	Add Cess @ 1% on "Z"				122.91
	Cost for 120 metre				12413.68
	Cost of 1 metre				103.45
	Say				103.45

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 ₹
5.33.2	Detail of cost for 1.26 Cum Considers a wall 2.80 X 3.00 X 0.15 = 1.260 Cum				
	Rate as per item no 5.33.2 of SH RCC (M-25)	cum	1.26	9400.85	11845.07 A
5.34.2	Rate as per item no 5.34.2 of SH RCC (M-35 instead of M-25) (Note : Cement content considered in M-35 is @ 350 kg/ cum)	cum	1.26	139.45	175.71 A

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
5.35	Rate as per item no 5.35 of SH RCC (M-35 (370 kgs))	quintal	0.252	673.30	169.67 A
9999	Cost of hosting and fixing moulds	L.S	372.00	2.00	744.00
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	284.85	495.64 A
9999	Table buffing & oiling	L.S	174.00	2.00	348.00
9999	Sundries (Extra labour for Lifting, transportation, stacking of finished precast elements)	L.S	230.00	2.00	460.00
5.41.1	Rate as per item no 5.41.1 of SH RCC (Curing using curing compound)	sqm	18.54	53.90	999.31 A
7929	Shear loops (6mm dia GI wire rope) (For vertical joints) 6 nos on each side	each	12.00	192.00	2304.00
7930	dowel tubes (Corrugated GI pipes 50 to 80mm dia) (For horizontal joints)	metre	3.00	120.00	360.00
9999	Shear key (6mm thick mechanically folded MS plate)	L.S	115.00	2.00	230.00
7931	Hooks for lifting (Alloy steel) having 2.5 tonne capacity	each	2.00	250.00	500.00
	Labour for fixing accessories & inserts such as shear loops, shear keys, dowel tubes, lifting hooks				
0155	Mason (Average)	day	0.50	709.00	354.50
0115	Coolie	day	0.50	558.00	279.00
	Labour for operating of hoisting & fixing moulds				
0157	Operator	day	0.50	738.00	369.00
0116	Fitter (Grade 1)	day	0.30	738.00	221.40
0115	Coolie	day	0.30	558.00	167.40
9999	Sundries (Labour cost such as crane, trailer(flat bed & a frames) & panel racks for stacking of precast concrete panel wall)	L.S	173.41	2.00	346.82
	TOTAL				20369.51 W
	Add 1 % Water charges on "W-A"				66.84
	TOTAL				20436.36 X
	Add GST on "X-A" (multiplying factor 0.1405)				948.51
	TOTAL				21384.87 Y
	Add 15% CPOH on "Y-A"				1154.92
	TOTAL				22539.79 Z
	Add Cess @ 1% on "Z-A"				88.54
	Cost for 1.26 Cum				22628.33
	Cost of 1 Cum				14554.65
	Say				14554.65

26.74.2 Extra for using M-40 (Cement content 400 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	Cement for M-35 Mix = 0.370 T Cement for M-40 Mix = 0.400 T Difference 0.030 T Portland Cement	tonne	0.03	4940.00	148.20

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
2209	Carriage of cement	tonne	0.03	92.24	2.77
7318	Plasticizer for M-35 Mix =7.400 Kgs Plasticizer for M-40 Mix = 8.000 Kgs Difference 0.600Kgs Plasticizer or Super Plasticizer 2% of cement content	kg	0.60	36.00	21.60
	TOTAL				172.57 W
	Add 1 % Water charges on "W"				1.73
	TOTAL				174.29 X
	Add GST on "X" (multiplying factor 0.1405)				24.49
	TOTAL				198.78 Y
	Add 15% CPOH on "Y"				29.82
	TOTAL				228.60 Z
	Add Cess @ 1% on "Z"				2.29
	Cost of 1.00 Cum				230.88
	Say				230.90

26.74.3 Extra for using M-50 (Cement content 425 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	Cement for M-35 Mix = 0.370 T Cement for M-50 Mix = 0.425 T Difference 0.055 T	tonne	0.055	4940.00	271.70
2209	Portland Cement	tonne	0.055	92.24	5.07
7318	Carriage of cement				
	Plasticizer for M-35 Mix =7.400 Kgs Plasticizer for M-50 Mix = 8.500 Kgs Difference 1.100Kgs Plasticizer or Super Plasticizer 2% of cement content	kg	1.10	36.00	39.60
	TOTAL				316.37 W
	Add 1 % Water charges on "W"				3.16
	TOTAL				319.54 X
	Add GST on "X" (multiplying factor 0.1405)				44.89
	TOTAL				364.43 Y
	Add 15% CPOH on "Y"				54.66
	TOTAL				419.10 Z
	Add Cess @ 1% on "Z"				4.19
	Cost of 1.00 Cum				423.29
	Say				423.30

26.74.4 Extra for using M-60 (Cement content 440 kg) instead of M-35

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0367	Cement for M-35 Mix = 0.370 T Cement for M-60 Mix = 0.440 T Difference 0.070 T	tonne	0.07	4940.00	345.80
2209	Portland Cement	tonne	0.07	92.24	6.46
	Carriage of cement				
	Plasticizer for M-35 Mix =7.400 Kgs Plasticizer for M-60 Mix = 8.800 Kgs Difference 1.400Kgs				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7318	Plasticizer or Super Plasticizer 2% of cement content	kg	1.40	36.00	50.40
	TOTAL				402.66 W
	Add 1 % Water charges on "W"				4.03
	TOTAL				406.68 X
	Add GST on "X" (multiplying factor 0.1405)				57.14
	TOTAL				463.82 Y
	Add 15% CPOH on "Y"				69.57
	TOTAL				533.40 Z
	Add Cess @ 1% on "Z"				5.33
	Cost of 1.00 Cum				538.73
	Say				538.75

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	Kgs	1.914	92.24	176.55
9999	Cutting baldes required for strand cutting Strand cutting by cutting saw machine	L.S.	555.00	2.00	1110.00
9999	Wedges Cost of wedge	L.S.	617.00	2.00	1234.00
	Resources - For laying and fixing cables, anchorages				
0128	Mate	day	1.00	617.00	617.00
0102	Blacksmith 1st class	day	4.00	738.00	2952.00
0115	Coolie	day	3.00	558.00	1674.00
	Labour- For prestressing				
0128	Mate	day	2.00	617.00	1234.00
0116	Fitter (Grade-1)	day	3.00	738.00	2214.00
0157	Operators	day	2.00	738.00	1476.00
0115	Coolie	day	2.00	558.00	1116.00
	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 (average weight 3Ton each) required to lay one bed of 8 strands as				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	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	2500.00	3750.00
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 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	73.50	11319.00
	TOTAL				187995.55 W
	Add 1 % Water charges on "W"				1879.96
	TOTAL				189875.50 X
	Add GST on "X" (multiplying factor 0.1405)				26677.51
	TOTAL				216553.01 Y
	Add 15% CPOH on "Y"				32482.95
	TOTAL				249035.96 Z
	Add Cess @ 1% on "Z"				2490.36
	Cost for 1740 kgs				251526.32
	Cost of 1 Kg				144.56
	Say				144.55

26.76 Transportation of Precast Elements by flat bed Tractor (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 ₹
9999	Trailors having capacity 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 Charges of Trailors having capacity 22MT including cost of fuel & driver cost and maintenance	L.S.	1738.00	2.00	3,476.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	617.00	308.50
0114	Beldar	day	0.50	558.00	279.00
9999	wooden battens for tranporatation	L.S.	57.80	2.00	115.60
9999	Chain for packing & binding precast elements	L.S.	57.80	2.00	115.60
9999	sundries	L.S.	220.00	2.00	440.00
	TOTAL				7301.60 W
	Add 1 % Water charges on "W"				73.02
	TOTAL				7374.62 X
	Add GST on "X" (multiplying factor 0.1405)				1036.13
	TOTAL				8410.75 Y
	Add 15% CPOH on "Y"				1261.61
	TOTAL				9672.36 Z
	Add Cess @ 1% on "Z"				96.72
	Cost for 22 MT				9769.09
	Cost of 1 MT				444.05
	Say				444.05

26.76.2 Add/Deduct over item 26.76.1 for every additional lead of 5 km

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Extra for lead 5 km				
9999	Charges of Trailors having capcity 22MT including cost of fuel & driver and maintenance	L.S.	579.00	2.00	1158.00
9999	sundries	L.S.	220.00	2.00	440.00
	TOTAL				1598.00 W
	Add 1 % Water charges on "W"				15.98
	TOTAL				1613.98 X
	Add GST on "X" (multiplying factor 0.1405)				226.76
	TOTAL				1840.74 Y
	Add 15% CPOH on "Y"				276.11
	TOTAL				2116.86 Z
	Add Cess @ 1% on "Z"				21.17
	Cost for 22 MT				2138.02
	Cost of 1 MT				97.18
	Say				97.20

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
9999	Hire charges of props & Misc	L.S.	434.00	2.00	868.00
0070	Genrator hiring 100kva	hour	8.00	250.00	2000.00
	Labour cost for erection				
0111	Carpenter 1st class	day	1.00	738.00	738.00
0112	Carpenter 2nd class	day	2.00	679.00	1358.00
0116	Fitter (grade 1)	day	2.00	738.00	1476.00
0130	Mistry	day	2.00	738.00	1476.00
0114	Beldar	day	2.00	558.00	1116.00
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.00	1000.00
	TOTAL				18032.00 W
	Add 1 % Water charges on "W"				180.32
	TOTAL				18212.32 X
	Add GST on "X" (multiplying factor 0.1405)				2558.83
	TOTAL				20771.15 Y
	Add 15% CPOH on "Y"				3115.67
	TOTAL				23886.82 Z
	Add Cess @ 1% on "Z"				238.87
	Cost for 150 Sqm				24125.69
	Cost of 1 Sqm				160.84
	Say				160.85

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	2.00	694.00
0070	Genrator hiring 100kva	hour	8.00	250.00	2000.00
	Labour cost for erection				
0111	Carpenter 1st class	day	1.00	738.00	738.00
0112	Carpenter 2nd class	day	2.00	679.00	1358.00
0116	Fitter (grade 1)	day	2.00	738.00	1476.00
0130	Mistry	day	2.00	738.00	1476.00
0114	Beldar	day	2.00	558.00	1116.00
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.00	1000.00
	TOTAL				24858.00 W
	Add 1 % Water charges on "W"				248.58
	TOTAL				25106.58 X
	Add GST on "X" (multiplying factor 0.1405)				3527.47
	TOTAL				28634.05 Y
	Add 15% CPOH on "Y"				4295.11
	TOTAL				32929.16 Z
	Add Cess @ 1% on "Z"				329.29
	Cost for 120 Sqm				33258.45
	Cost of 1 Sqm				277.15
	Say				277.15

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	2.00	868.00
9999	Hire charges of props & Misc for 3 days (3x3 = 9 / pc)	L.S.	780.00	2.00	1560.00
1027	Erection Bolts (Minimum 04 nos for each element)	each	60.00	25.00	1500.00
0070	Genrator hiring 100kva Labour cost	hour	8.00	250.00	2000.00
0111	Forman	day	2.00	738.00	1476
0112	Carpenter 2nd class	day	2.00	679.00	1358
0116	Fitter (grade 1)	day	2.00	738.00	1476
0130	Mistry	day	3.00	738.00	2214
0116	rigger	day	2.00	738.00	1476
0114	Beldar	day	8.00	558.00	4464
9999	Scaffolding, hire charge of drill machine etc.	L.S.	500.00	2.00	1000
9999	Sundries (Miscellaneous tools and lifting slings)	L.S.	500.00	2.00	1000
	TOTAL				28892.00 W
	Add 1 % Water charges on "W"				288.92
	TOTAL				29180.92 X
	Add GST on "X" (multiplying factor 0.1405)				4099.92
	TOTAL				33280.84 Y
	Add 15% CPOH on "Y"				4992.13
	TOTAL				38272.97 Z
	Add Cess @ 1% on "Z"				382.73
	Cost for 18 cum				38655.69
	Cost of 1 cum				2147.54
	Say				2147.55

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	100.00	87.00
8654	Masking tape	metre	2.00	1.95	3.90
9999	Scaffolding, hire charge etc.	L.S.	2.87	2.00	5.74

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	2.87	2.00	5.74
	TOTAL				102.38 W
	Add 1 % Water charges on "W"				1.02
	TOTAL				103.40 X
	Add GST on "X" (multiplying factor 0.1405)				14.53
	TOTAL				117.93 Y
	Add 15% CPOH on "Y"				17.69
	TOTAL				135.62 Z
	Add Cess @ 1% on "Z"				1.36
	Cost of 1 metre				136.98
	Say				137.00

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	2.00	10.00
	LABOUR				
0116	Fitter (Grade-1)	day	1.00	738.00	738.00
9999	Sundries	L.S.	10.00	2.00	20.00
	TOTAL				1768.00 W
	Add 1 % Water charges on "W"				17.68
	TOTAL				1785.68 X
	Add GST on "X" (multiplying factor 0.1405)				250.89
	TOTAL				2036.57 Y
	Add 15% CPOH on "Y"				305.49
	TOTAL				2342.05 Z
	Add Cess @ 1% on "Z"				23.42
	Cost for100 Nos				2365.47
	Cost of each				23.65
	Say				23.65

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	2.00	10.00
	LABOUR				
0116	Fitter (Grade-1)	day	1.00	738.00	738.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
9999	Sundries	L.S.	10.00	2.00	20.00
	TOTAL				2268.00 W
	Add 1 % Water charges on "W"				22.68
	TOTAL				2290.68 X
	Add GST on "X" (multiplying factor 0.1405)				321.84
	TOTAL				2612.52 Y
	Add 15% CPOH on "Y"				391.88
	TOTAL				3004.40 Z
	Add Cess @ 1% on "Z"				30.04
	Cost for 100 Nos				3034.44
	Cost of each				30.34
	Say				30.35

26.79.3 10 mm thick

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Detail of cost for 100 nos				
0248	MATERIAL				
	10 mm thick sim pad	each	100.00	25.00	2500.00
9977	Carriage of material	L.S	5.00	2.00	10.00
	LABOUR				
0116	Fitter (Grade-1)	day	1.00	738.00	738.00
9999	Sundries	LS	10.00	2.00	20.00
	TOTAL				3268.00 W
	Add 1 % Water charges on "W"				32.68
	TOTAL				3300.68 X
	Add GST on "X" (multiplying factor 0.1405)				463.75
	TOTAL				3764.43 Y
	Add 15% CPOH on "Y"				564.66
	TOTAL				4329.09 Z
	Add Cess @ 1% on "Z"				43.29
	Cost for 100 Nos				4372.38
	Cost of each				43.72
	Say				43.70

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 cementitious grout (Non Shrink)	kg	262.50	28.00	7350.00
2209	Carriage of cementitious material	tonne	0.25	92.24	23.06

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
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	2.00	4500.00
0122	LABOUR Mason (for plaster of paris work) 1st class	day	1.00	738.00	738.00
0155	Masson (Average)	day	1.00	709.00	709.00
0161	Helper (Technician)	day	1.00	558.00	558.00
	TOTAL				13878.06 W
	Add 1 % Water charges on "W"				138.78
	TOTAL				14016.84 X
	Add GST on "X" (multiplying factor 0.1405)				1969.37
	TOTAL				15986.21 Y
	Add 15% CPOH on "Y"				2397.93
	TOTAL				18384.14 Z
	Add Cess @ 1% on "Z"				183.84
	Cost for 200 Kgs				18567.98
	Cost of 1 Kg				74.27
	Say				74.25

26.81 Providing and fixing Scaffolding net of required width made of high density Polyethylene UV stabilized knitted on warp knitting machines having density 100gm/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 ₹
8761	Detail of cost for 300 sqm. MATERIALS: Scaffolding net made of high density Polyethylene UV stabilized having density 100gm/sqm	sqm	300.00	21.50	6450.00 (P)
9999	Carriage	L.S.	3.00	2.00	6.00
	Less Salvage value taken 25% on (P)				-1612.50
	LABOUR:				
0114	Beldar	day	1.00	558.00	558.00
9999	Sundries for tying the net	L.S.	10.00	2.00	20.00
	Total				5421.50 (W)
	Add 1% for water charges				54.22
	Total				5475.72 (X)
	Add GST @ 12% on "X" (multiplying factor 0.1405)				769.34
	Total				6245.05 (Y)
	Add CPOH @ 15% on "Y"				936.76
	Total				7181.81 (Z)
	Add Cess @ 1% on "Z"				71.82
	Cost of 300 Sqm.				7253.63
	Cost of 1 Sqm.				24.18
	Say				24.20



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