Sl.No	Description	Unit	Rate (Rs p)
19.01	Providing, laying and jointing glazed stoneware pipes grade ' A ' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :		
	(a) 100 mm diameter	m	185.30
	(b) 150 mm diameter	m	262.40
	(c) 200 mm diameter	m	348.40
	(d) 230 mm diameter	m	388.40
	(e) 250 mm diameter	m	500.20
	(f) 300 mm diameter	m	626.40
	(g) 400 mm diameter	m	1510.30
	(h) 500 mm diameter	m	2747.10
	(i) 600 mm diameter	m	3808.30
19.02	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) alround S.W. pipes including bed concrete as per standard design:		
	(a) - 100 mm diameter S.W. pipe	m	695.10
	(b) - 150 mm diameter S.W. pipe	m	850.10
	(c) - 200 mm diameter S.W. pipe	m	991.10
	(d) - 230 mm diameter S.W. pipe	m	1085.00
	(e) - 250 mm diameter S.W. pipe	m	1146.00
19.03	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W. pipes including bed concrete as per standard design :		
	(a) - 100 mm diameter S.W. pipe	m	330.40
	(b) - 150 mm diameter S.W. pipe	m	535.50

Sl.No	Description	Unit	Rate (Rs p)
	(c) - 200 mm diameter S.W. pipe	m	629.40
	(d) - 230 mm diameter S.W. pipe	m	690.40
	(e) - 250 mm diameter S.W. pipe	m	732.70
	(f) - 300 mm diameter S.W. pipe	m	845.40
	(g) 400 mm diameter S.W. pipe	m	962.90
	(h) - 500 mm diameter S.W. pipe	m	1315.10
	(i) - 600 mm diameter S.W. pipe	m	1545.30
19.04	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 :		
	(a) 100 mm diameter .	m	24.70
	(b) 150 mm diameter	m	27.30
	(c) 200 mm diameter	m	29.00
	(d) 230 mm diameter	m	29.90
	(e) 250 mm diameter	m	30.80
	(f) 300 mm diameter	m	32.50
	(g) 350 mm diameter	m	37.50
	(h) 400 mm diameter	m	40.90
	(i) 450 mm diameter	m	42.70

Sl.No	Description	Unit	Rate (Rs p)
19.05	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm 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 20mm nominal size) finished with a floating coat of neat cement complete as per standard design :		
(A)	**- 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) :**		
(a)	With 1st class brick	No	10005.60
(B)	**21.11.2 - Inside size 90x80 cm and 60 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) :** **19.08 (B) MPWD 2007**		
(a)	With 1st Class bricks	No	11365.00
(C)	Inside size 120x90 cm and 90 cm deep including S.I. cover with frame (medium duty)500mm internal diameter ,total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of		
(a)	With 1st Class bricks	No	18391.40
(D)	**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) :**		
(a)	- With 1st Class bricks	No	17451.30

Sl.No	Description	Unit	Rate (Rs p)
19.06	Extra for depth for manholes .		
	(A) Size 90x80 cm		
(a)	- With 1st Class bricks	m	8980.10
	(B) Size 120x90 cm		
(a)	- With 1st Class bricks	m	10738.70
	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at in cement mortar 1:4 (1 cement :4 coarse sand), in side 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 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design :		
19.07			
	0.91 m 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 12 mm thick)		
(a)	1 - With 1st Class bricks	No	11253.79
	(C) Extra depth for circular type manhole 0.91m internal dia (at bottom) with beyond 0.91m to 1.67m		
(a)	- With 1st Class bricks	m	7664.80

Sl.No	Description	Unit	Rate (Rs p)
	Constructing brick masonry circular manhole 1.22m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12mm 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 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design :		
19.08			
	- 1.68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete.		
(A)	**(Excavation, foot rests and 12 mm thick**		
(a)	With First class Bricks	No	22295.04
19.09	Extra depth for circular type manhole 1.22m internal dia (at bottom) beyond 1.68 m to 2.29 m :		
	With 1st Class bricks	m	9928.92
	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 12mm 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 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design :		
19.10			

Sl.No	Description	Unit	Rate (Rs p)
	2.30m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560mm 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 20mm nominal size) including centering shuttering all complete.		
(A)			
(a)	With 1st Class bricks	No	50257.90
	4.18 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560mm 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 20mm nominal size) including centering shuttering all complete (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :		
(B)			
(a)	With 1st Class bricks	NO	95808.50
19.11	Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m		
	With 1st Class bricks	m	24229.02
	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 :		
19.12			
(a)	With 20x20 mm square bar	No	338.10
(b)	2 With 20 mm diameter round bar	No	226.60

Sl.No	Description	Unit	Rate (Rs p)
19.12	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) :		
	(a) With 20x20 mm square bar	No	379.50
	(b) With 20 mm diameter round bar	No	268.00
19.13	Providing and fixing in position precast R.C.C. manhole cover and frame of required shape and approved quality .		
	(B) - M D - 10		
	(a) - Square shape 450mm internal dimension	No	3644.80
	(C) - H D - 20		
	(a) - Circular shape 560 mm internal diameter	No	1388.00
19.14	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 :		
	(a) - For pipes 100 to 230 mm diameter	NO	644.80
	(b) For pipes 250 to 300 mm diameter	No	586.00
	(c) - For pipes 350 to 450 mm diameter	No	838.60
19.15	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 into municipal dumps within 50 m lead :		
	(a) - Rectangular manhole 90x80 cm and 45 cm	No	908.00
	(b) Rectangular manhole 120x90 cm and 90 cm	No	1551.60

Sl.No	Description	Unit	Rate (Rs p)
	(c) Rectangular arch type manhole 140x90cm and 2.45m deep	NO	2910.60
	(d) Circular manhole 122 cm diameter and 1.68 m deep .	No	2292.20
19.16	Extra for depth of manholes dismantled :		
	(a) Rectangular manhole 90x80 cm and 45 cm deep	No	691.00
	(b) Rectangular manhole 120x90 cm and 90 cm deep .	No	820.40
	(c) Rectangular arch type manhole 140x90 cm and 2.45m deep (upto 4.25 m depth).	m	569.60
	(d) Circular manhole 122 cm diameter and 1.68 m deep (upto 2.29 m depth) .	m	181.20
19.17	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) :		
	(a) - Rectangular manhole 90x80 cm with rectangular cover 600x450 mm of grade LD - 2.5	No	1840.30
	(b) Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD- 20	No	2952.30
	(c) Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20	NO	2986.10
	(d) Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	No	482.30

Sl.No	Description	Unit	Rate (Rs p)
	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with 2nd class bricks in cement mortar 1:5 (1 cement : 5 fine 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 1:2:4 mix (1 cement :2 coarse sand : 4 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 :		
19.18			
	(A) - Inside dimensions 455x610 mm and 45 cm deep for single pipe line .		
	(a) With 1st Class bricks	No	6023.90
	(B) Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :		
	(a) 21.33.2.2 - With 1st Class bricks	No	7010.90
	(C) Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets .		
	(a) With 1st Class bricks	No	8314.30
19.19	Extra for depth beyond 45 cm of brick masonry chamber		
	(a) For 455x610 mm size with 1st Class Bricks	m	6045.50
	(b) For 500x700 mm size with 1st Class bricks	m	6584.50
	(c) For 600x850 mm size with 2nd Class bricks	m	7653.10

Sl.No	Description	Unit	Rate (Rs p)
	Constructing grease trap 80x40x46cm (inside) with one brick thick brick masonry wall with inlet and outlet drain with 2nd Class bricks in cement mortar 1:4 (1 cement : 4 fine sand) plastered 12 mm thick with 1:4 (1 cement : 4 coarse sand) finished with a floating coat of neat cement on inside and exposed surfaces having two stone baffled walls 34.5 cm deep and third one 19 cm deep, each 40 mm thick and 45 cm long embedded 2.5 cm on either side in brick masonry, 40 mm thick 100 x 60 cm stone cover and 7.5 cm thick bed concrete 1:5:10 (1cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) with 40 mm flooring in cement concrete 1:2:4 (1cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) with a floating coat of neat cement including all earth excavation, refilling and disposal of surplus earth complete as per standard design :		
19.20			
	(a) 21.38.2 - With1st Class Bricks	No	6120.20
	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with 2nd Class Bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.		
19.22			
	(a) With 1st Class Bricks	No	37839.90
	Constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.		
19.23		No	2167.10