

PROJECT: RENOVATION WORKS AT RAJKUMARI AMRIT KAUR COLLEGE OF NURSING, DELHI

Bill of Quantities

CIVIL WORKS AND SERVICES

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
1.00	EARTH WORK					
1.01	Earth work in excavation over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 Sq.m. on plan) including disposal of excavated earth lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.					
a)	All kinds of soil	285.00	CUM			
1.02	Extra for disposal of excavated earth for every additional lead of 50m or part thereof upto 500m					
a)	All kinds of soil	10.00	CUM			
1.03	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc., in layers not exceeding 20 cm in depth : consolidating each deposited layer by ramming and watering lead upto 50 m and lift upto 1.5m.					
		185.00	Cum			
1.04	Extra for every additional lift of 1.5 m or part thereof in:.					
	All kinds of soil					
a)	1.5m to 3.0m	50.00	Cum			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
1.05	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm. in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50m					
a)	All kind of soil.					
	i) Pipes, cables, etc. exceeding 80mm dia but not exceeding 300mm dia.	125.00	Metre			
	ii) Pipes, cables etc. exceeding 300 mm dia.	10.00	Metre			
SUB TOTAL						

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

2.00 CONCRETE WORK

2.01 Providing and laying cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.

a) 1:4:8 (1 cement : 4 coarse sand :8 graded stone aggregate 40 mm nominal size).

25.00 CUM

b) 1:5:10 (1 cement : 5 coarse sand :10 graded stone aggregate 40 mm nominal size).

5.00 CUM

Sub Total

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
3.00	REINFORCED CEMENT CONCRETE					
3.01	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering, finishing and reinforcement including Admixtures in recommended proportions. (as per IS 9103) to accelerate, retard setting of concrete improve workability without impairing strength and durability as per direction of Engineer - in Charge · M-25 grade reinforced cement concrete					
	i) All works upto plinth level.	80.00	Cum			
	ii) All works from plinth level upto floor V level					
	a) Beams, plinth beams, girders, bressumers, cantilevers, Suspended floors lintels roofs and staircases including spiral staircases, shelves etc.	60.00	CUM			
	b) Walls, columns, pillars, posts and struts.	50.00	CUM			
3.02	Centering and shuttering including strutting, propping etc.with steel tubes and extension piers or built up section of roll steel and steel shuttering up to 3.9 m height and removal of form for :					
	a) Foundations, footings, bases of columns, etc., for mass concrete.	200.00	SQM			
	b) Lintels, beams, plinth beams, girders, bressumers and cantilevers.	245.00	SQM			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
c)	Suspended floors, roofs, landing and balconies.	40.00	SQM			
d)	Columns, Pillars,mullions, Piers, Abutments, Post and struts	480.00	SQM			
3.03	Reinforcement for RCC work including straightening, cutting, bending, binding and placing in position complete.					
a)	Cold twisted bars/ Thermo mechanically treated bars as mentioned in the drawing.	38.00	Tonne			
SUB-TOTAL						

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
4.00	BRICK WORK					
4.01	Brick work with bricks of class designation 75 in Cement mortar 1:6 (1cement : 6 fine sand)					
a)	all work upto Plinth	30.00	CUM			
b)	In Superstructure					
i)	From plinth level to floor V level.	140.00	CUM			
4.02	Half brick masonry with bricks of class designation 75 in Cement mortar 1:3 (1 cement : 3 coarse sand)					
a)	In Superstructure					
i)	From plinth level to floor V level.	1275.00	SQM			
4.03	Extra for providing and placing in position 2 Nos. 6 mm dia M.S. bars at every third course of half brick masonry.					
		1275.00	SQM			
	SUB-TOTAL					

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

5.00 DOORS & WINDOWS

5.01 Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make conforming to IS:733 and IS: 1285, colour anodised to required shade according to IS: 1868. (Minimum anodic coating of grade 15), fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium `U'/snap beading for glazing/ panelling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and as directed. (Glazing and panelling to be paid for separately.)

(i) For fixed portions

1810.00 Kg

(ii) For shutters of doors, & windows including providing and fixing Stainless Steel friction hinges/ pivots and making provisions for fixing of fittings wherever required including the cost of PVC/ neoprene gasket required as per drawing and as directed. (Fittings shall be paid for separately.)

885.00 Kg

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.02	Providing and fixing flush door shutters non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters					
a)	35mm thick including anodised aluminium butt hinges with necessary screws.	110.00	SqM			
5.03	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions, curtain walls etc. with neoprene gasket etc. complete as per the architectural drawings and as directed. (Cost of aluminium snap beading shall be paid in basic item).					
a)	With glass panes of 5.50mm thickness (weight not less than 13.75 kg./sqm.)	115.00	SQM			
b)	With glass panes of 4.0 mm thickness (weight not less than 10.0kg/ sqm)	1485.00	SQM			
5.04	Extra for providing frostings on glass panes of 10.00 kg/sqm. (4mm thick) instead of ordinary glass panes 10.0 kg/sqm. (4mm thick) respectively in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured)					
		115.00	SQM			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.05	Extra for providing vision panel not exceeding 0.1 sqm. In all type of flush doors (Cost of glass excluded) (over all area of door shutter to be measured).					
	i) Rectangular or square	50.00	SQM			
5.06	Providing glass panes, with wooden fillets wherever necessary.					
	a) 3mm thick Glass panes weighing 7.5 kg./sqm.	10.00	Sqm			
5.07	Providing and fixing aluminium handles colour anodised (anodic coating not less than grade AC10 as per IS: 1868) to required colour or shade with necessary screws etc. complete.					
	a) 100 mm	30.00	Each			
	125 mm	195.00	Each			
5.08	Providing and fixing aluminium tower bolt colour anodised (anodic coating not less than grade AC10 as per IS: 1868) to required colour or shade with necessary screws etc.					
	a) 150 x 10 mm	55.00	Each			
	b) 250 x 10 mm	165.00	Each			
5.09	Providing and fixing aluminium sliding door bolts colour anodised (anodic coating not less than grade AC 10 as per IS : 1868) to required colour or shade with necessary nuts, screws etc. complete :					
	a) 250 x 16 mm	40.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.10	Providing and fixing aluminium pull bolt lock colour anodised (anodic coating not less than grade AC 10 as per IS : 1868) to required colour or shade with necessary nuts, screws etc. complete :	105.00	Each			
5.11	Providing and fixing bright finished brass 100 mm mortice latch and lock with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS :1868) aluminum lever handles with necessary accessories and screws etc. complete . (Best make of approved quality)	35.00	Each			
5.12	Providing and fixing bright finished brass hydraulic door closer of approved quality with accessories and screws etc. complete.					
a)	Sleek Design type	50.00	Each			
5.13	Providing and fixing aluminium hanging floor door stopper colour anodised to required colour & shade with necessary screws etc. complete					
a)	Twin rubber stopper	110.00	Each			
5.14	Providing and fixing 35mmx12mm wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete					
a)	Approved quality 1st class sal wood	50.00	Metre			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.15	Providing and fixing double action hydraulic floor spring of approved brand and manufacture (conforming to IS : 6315) for aluminium doors including cost of cutting floors as required, embedding in floors and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as directed. with stainless steel cover plate	75.00	Nos.			
5.16	Providing and fixing wooden spacer frames of required size for fixing the aluminium windows including nails, screws etc. complete as per drawing and as directed. a) Approved quality hollock wood - (kiln seasoned and chemically treated)	25.00	Cum			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.17	Providing and fixing 30mm thick factory made P.V.C rigid foam panelled door shutters of approved makes made from M.S. tube of 19x19 mm, 19 gauge for styles and 15x15 mm for top and bottom rails, covered with heat moulded PVC "C" channel of 5mm thick sheet and 30x50mm wide to form styles and 5 mm thick and 75 mm wide prelaminiated PVC sheets for top rail, lock rail and bottom rail on either side and 5 mm thick, 20 mm wide cross PVC sheet as gap insert for top rail and bottom rail, panelling of 5 mm thick PVC sheet prelaminiated on both sides fitted in the M.S. frame welded/sealed to the styles and rails with 5x30mm PVC sheet beading on either side and joined together with solvent cement adhesive etc., complete as per manufactrers specificalton and direction of Engineer-in Charge fixed to frames wiht 4 Nos. M.S. powder coated butt hinges (For internal shutters)					
		200.00	Sqm			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.18	Providing and fixing factory made P.V.C door frame manufacutered by M/s Rajshri or equivalent of size 50x47 mm with a wall thickness of 5mm, made out of extruded 5 mm rigid PVC foram sheet mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15mm M.S. Square tube, the vertical door profiles to be reinforced with 19x19mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100mm size complete as per manufacturers specificaiton and direction of Engineer-in-charge					
		720.00	Metre			
5.19	Providing and fixing flat pressed 3 layer particle board (medium density) exterior grade (Grade-I) fonforming to IS:3087 to frame, backing or studding with screws etc, complete (Frames, backing or studding to be paid separately).					
a)	18 mm thick	40.00	Sqm			
5.20	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers including necessary screws etc. complete (best make of approved quality):					
a)	50 mm	20.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
5.21	Providing and fixing 12 mm thick prelaminated three layer medium density(exterior grade) particle board Grade I. Type II conforming to IS:12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in panelling fixed in aluminium 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.					
a)	Prelaminated particle board with decorative lamination on both sides.	20.00	Sqm			

SUB-TOTAL

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
6.00	STEEL WORK					
6.01	Steel work welded in built up sections/frame work including cutting, hoisting, fixing in position,making holes,repairing and applying a priming coat of approved steel primer using structural steel etc. as required.					
a)	In gratings, frames, guard bar, ladders, railings, brackets, gates in similar works.	5000.00	kg			
6.02	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. all complete as directed.	8320.00	Kg			
6.03	Providing and fixing oxidised M.S. handles conforming to IS: 4992 with necessary screws etc. complete:					
i)	125 mm	845.00	Each			
6.04	Providing and fixing M.S. tower bolts (barrel type) with necessary screws, etc. complete:					
a)	Bright satin finished black stove enamelled					
i)	150 x 10 mm	1690.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
6.05	1.8 m high fencing with 2.4 m angle iron 50 x 50 x 6 mm posts placed every 3 m centre to centre embedded in cement concrete block, every 15th post last but one end post and corner post shall be struted on both sides and end post on one side only and provided with 12 horizontal and 2 diagonals interwoven with horizontal wires of barbed wires 9.38kg/100m between the two posts and fixed with GI staples, turn buckles etc complete.(Costs of posts , earthwork and concrete to be paid separately)					
	With G.I. barbed wire	990.00	metre			
6.06	Providing and fixing powder coated M.S steel windows and ventilators (minimum wt 15 Kg/sqm) of standard sections (as per Arch. dwgs) , joints mitred and welded with 15 x 3 mm lugs, 10 cm long, with steel lugs, embedded in cement concrete blocks 15x10x10cm of 1:3:6(1 cement:3 coarse sand:6 graded stone aggregate 20 mm nominal size) including applying a priming coat of approved steel primer, and metal beading and other fitting except necessary hinges or pivots as required all complete as per Architectural dwgs and as directed.					
		825.00	SqM			
6.07	Providing and fixing fly proof galvanized M.S. wire gauze to windows and clerestory windows using galvanised M.S.wire gauge with averagewidth of aperture1.4 mm in both directions with wire of dia.o.63 mm .					
a)	With 12 mm mild steel U beading.	1000.00	SqM			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
6.08	Steel work in built up tubular trusses including cutting, hoisting fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete: Hot finished seamless type tubes	600.00	Kg			
6.09	Structural steel work in single section fixed without connecting plate including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	12000.00	Kg			
SUB-TOTAL						

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
7.00	FLOORING					
7.01	Providing and fixing 1st quality ceramic glazed tiles conforming to IS : 13753 of minimum thickness 5mm of approved make in all colours , shades except begundy, bottle green, black of any size as approved by Engineer-In-Charge in skirting, risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqM including pointing in white cement mixed with pigment of matching shade complete. Size upto 300x300mm.					
		1960.00	SqM			
7.02	Providing and laying in ceramic glazed floor tiles (thickness to be specified by manufacturer) of 1st quality conforming to IS:13755, in all colours and shades except White,Ivory,grey, Fume red Brown, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coase sand) including grouting and pointing the joints with white cement and matching pigment etc. complete.					
a)	Sizes upto 395mm x 395mm.	465.00	SqM			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
7.03	Providing and fixing mirror polished, machine cut for Flooring, kitchen platforms, vanity counters facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1cement: 4coarse sand) with joints treated with white cement , mixed with matching pigment, epoxy touch ups, including rubbing, curing etc. complete at all levels.					
a)	18mm thick Granite Black					
i)	Area of slab 0.50sqm to 1.0sqm	35.00	SqM			
ii)	Area of slab 1.0sqm to 2.0sqm	360.00	Sqm			
7.04	Extra for providing edge moulding to 20mm thick marble stone counters, Vanities etc.over item no.7.03including machine polishing to edge to give high gloss finish etc.complete as per design approved by engineer-in-charge.					
a)	Granite work.	60.00	metre			
7.05	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with:					
a)	25 mm thick	530.00	SqM			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
7.06	Providing and fixing stone slab table rubbed & polished of size 105x60cm deep & 2.5 cm thick fixed in urinal partitions with cement concrete 1:2:4(1 cement:2 coarse sand:4 stone aggregate 6 mm nominal size) and finished smooth.					
	White Agaria Marble Stone	40.00	SqM			
7.07	Providing and fixing vitrified polished porcelain floor tiles in different sizes(thickness to be specified by the manufacturer) with water absorption less than 1 % and flexural strength Not less than 30N/mm ² , in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement ; 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete					
a)	Size of the Tile 60x60 CM	1840.00	Sqm			
7.08	Kota stone slabs 25mm thick in risers of steps, skirting, dado and pillars laid on 12mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.					
		50.00	Sqm			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
7.09	Providing and fixing 1st quality vitrified polished porcelain tiles of minimum thickness 5mm of approved make in all colours , shades except begundy, bottle green, black of any size as approved by Engineer-In-Charge in skirting, risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqM including pointing in white cement mixed with pigment of matching shade complete. Size upto 300x300mm.					
		50.00	Sqm			

SUB- TOTAL

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
8.00	CEILING & ROOFING					
8.01	<p>Providing and Laying APP (Atactic Poly Propylene) 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 ltr/sq. mt. by the same membrane manufacture of density at 25° C, 0.87-0.89 kg/ltr 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 650/450 N/ 5 cm. 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 manufacture of membrane.</p> <p>3 mm Thick</p>	2550.00	Sqm			
8.02	<p>Grading roof for water proofing treatment with Cement concrete 1:2:4 (1 cement concrete : 2 coarse sand: 4 graded stone aggregate 12.5 mm nominal size)</p>	205.00	Cum			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
8.03	20 mm cement plaster finished with a floating coat of neat cement of mix with water proofing compound of approved quality in porportion recommended by the manufacturer including the cost of providing and fixing chicken wire mesh : 1:3 (1 cement : 3 fine sand)	2550.00	Sqm			
8.04	Providing and fixing 8mm thick clear compact polycarbonate sheets of approved quality and shade in roofing complete including the cost of all necessary, accessories complete as per drawing and as directed. (Framing to be paid separately)	40.00	Sqm			
8.05	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 confirming to IS 2645 in recommended proportions.					
ii)	IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion.					
iii)	IIIrd course of applying blown or/ residual bitumen applied hot at 1.7 Kg. per sqm of area.					

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1	2	3	4	5	6	7
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 @ 1.7kg/sqm.)	670.00	Sqm			
8.06	Providing and filling cement concrete 1:5:10 (1 Cement : 5 Coarse sand : 10 broken brick bats 40 to 80 mm Nominal size) including watering, ramming etc. complete as directed.	160.00	Cum			
8.07	Making khurras 45 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x 1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement :3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete.	42.00	Each			

SUB-TOTAL

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
9.00	FINISHING					
9.01	12 mm cement plaster of mix;					
a)	1:6 (1 cement: 6 fine sand)	1800.00	SQM			
b)	1:4(1cement:4 fine sand)	1060.00	SQM			
9.02	15 mm cement plaster on the rough side of single or half brick wall of mix:					
b)	1:4 (1 cement: 4 fine sand)	3260.00	SQM			
9.03	6 mm cement plaster of mix.1:3 (1 cement : 3 fine sand)	1740.00	SQM			
9.04	Neat cement punning	500.00	SQM			
9.05	Providing and applying plaster of paris putty of 3mm thickness (average) over plastered surface to prepare the surface even and smooth complete	1100.00	SQM			
9.06	Painting with synthetic enamel paint of approved brand and manufacture of required color to give an even shade:					
a)	Two or more coats on new work over an under coat of suitable shade with ordinary paint including priming coat of ready mixed red oxide zinc chromate primer of approved brand and manufacture.	750.00	SQM			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
9.07	Distemping with dry distemper of approved brand and manufacture (two or more coats) and of required shade on old work, over and including priming coat of whitening to give an even shade.	5160.00	SQM			
9.08	Supplying and applying oil bound washable distemper of approved brand and manufacture to give an even shade.					
a)	New work (two or more coats) over and including a primer coat with cement primer.	1280.00	SQM			
9.09	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade.					
a)	Two or more coats on old work	7460.00	SQM			
9.10	Finishing Walls with Premium Acrylic Smooth Exterior paint with Silicone additives "Snowcyl-XT" or equivalent of required shade.					
a)	Old Work (Two or more coats applied @1.43ltr/10 sqm over and including base coat of water proofing cement paint Snowcem Plus or equivalent applied @2.20 kg/10sqm)	11125.00	SQM			
9.11	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.	900.00	SQM			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
9.12	Polishing onwood work with ready made wax polish of approved brand and manufacture Old work	500.00	SQM			
9.13	Providing and fixing 20SWG stainless steel (Grade-304) sheet cladding over columns (including circular ones) , walls etc including all cutting, buffing, grinding ,accessories etc all complete as per drawing and as directed.	35.00	SQM			

SUB-TOTAL

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

10.00 MISCELLANEOUS

10.01	Making plinth protection 50mm thick of 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 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	30.00	SQM			
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SUB-TOTAL

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
11.00	DISMANTLING WORKS					
11.01	Demolishing R.C.C. work including stacking of steel bars and disposal of unserviceable material within 50 metres lead:	20.00	Cum			
11.02	Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 50 metres lead:					
a)	In cement mortar	250.00	Cum			
11.03	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead:					
a)	Of area 3 sq. metres and below	750.00	Each			
b)	Of area beyond 3 sq. metres	65.00	Each			
11.04	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.	6185.00	Sqm			
11.05	Dismantling flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	3200.00	Sqm			
11.06	Dismantling existing toilet including flusing cistern, wash basin etc including all fixtures & fitting & tiles all complete including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead	66.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
11.07	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.	1500.00	Sqm			
11.08	Demolishing mud phaska in terracing and disposal of material within 50 metres lead	2550.00	Sqm			
11.09	Demolishing brick tile covering in terracing including stacking of serviceable and disposal of unserviceable material within 50 metres lead.	2550.00	Sqm			
11.10	Dismantling existing Staff hostel building including all RCC works ,cement concrete work ,brick work,all electrical & services fittings and fixtures all complete including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead	1210.00	Sqm			
11.11	Transportation and disposal of all trash/rubbish/material by trucks of 5 ton capacity from the site of work to the nearest dumping ground of the local authority, including loading, unloading and stacking etc. complete as directed by the Engineer.	30.00	per trip			

SUB-TOTAL

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.00	INTERNAL PLUMBING , WATER SUPPLY & SANITARY FIXTURES					
A)	SANITARY FIXTURES & INTERNAL PLUMBING					
12.01	Providing and fixing white vitreous china wall mounted type water closet (European type) with seat and lid, with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fittings & C.I./ M.S. brackets, 40mm 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:					
a)	W.C. pan with black solid plastic seat & lid, with white vitreous china flushing cistern and C.P. flush bend.	38.00	Each			
b)	Extra for using coloured pedestal type W.C pan (European type)	2.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.02	Providing and fixing white vitreous china water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (of approved make) with fittings, C.I./M.S. brackets, 32mm diameter flush pipe with fittings and clamps, overflow arrangement with specials and mosquito proof coupling of approved municipal design including painting of fittings and brackets, cutting and making good the walls and floors wherever required.					
a)	Orissa pattern W.C. pan of size 580x440mm with integral type foot rests flush pipe and overflow arrangement.	34.00	Each			
12.03	Providing and fixing white vitreous china wash basin with C.I./M.S. brackets, 15mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required:					
a)	Flat back wash basin size 550 x 400 mm with a single 15mm C.P. brass pillar tap.	60.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.04	<p>Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430 x 260 x 350 mm and 340 x 410 x 265 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 where required.</p> <p>Range of two urinal basins with 7.5 litres P.V.C. automatic flushing cistern.</p>	2.00	Each			
12.05	<p>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 40 mm 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.</p> <p>Size 450 x 300 x 150 mm</p> <p>Size 600 x 450 x 200 mm</p>	4.00	Each			
12.06	<p>Providing and fixing bottle trap for wash basins and sinks.</p> <p>a) 32mm dia</p> <p>b) 40mm dia</p>	60.00	Each			
		16.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.07	Providing and fixing single bowl, single drain board stainless steel kitchen sink with 40mm CP brass waste and CP casted brass bottle trap with necessary union, C.I brackets, wall flange, extension piece, complete including painting the brackets and cutting and making good the walls, floors wherever required.					
		3.00	Each			
12.08	Providing and fixing towel rail complete with brackets fixed to wooden cleats with C.P. brass screws.					
a)	C.P. brass towel rail with two C.P. brass brackets 600 x 20 mm size.	73.00	Each			
12.09	Providing and fixing unplasticised PVC connection pipe with brass unions, 45 cm length.					
a)	15 mm dia nominal bore	70.00	Each			
12.10	Providing and fixing C.P. brass liquid soap container with C.P. brass lid and brackets fixed to wall with wooden cleats and C.P. brass screws, including cutting and making good the walls wherever required.					
		62.00	Each			
12.11	Providing and fixing toilet paper holder .					
a)	Vitreous china	47.00	Each			
12.12	Providing and fixing CP brass twin coat hooks fixed on toilet door/wall with CP brass screws.					
		73.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.13	Providing and fixing 6mm thick beveled edge mirror with teak wood beading with 6mm thick asbestos plain sheet ground fixed with C.P. brass screws and washers. Size 600 x 450mm	85.00	Each			
12.14	Supplying, fixing, testing and commissioning of storage type water heater (Geyser) etc. with Stainless steel body , copper container , automatic thermostatic control electric element, pressure release valve, M.S. nuts and bolts etc. conforming to IS: 2082 20 Litre Capacity	6.00	Each			
12.15	Providing & fixing 9 mm thick thermal insulation tubing of elastomeric flexible material having hermetic blistered closed cell structure of expanded synthetic rubber over pipes/ fitting as per manufacturer's specifications etc.complete.					
a)	15 mm dia nominal bore with wrapping of two layer of PVC heavy gauge sheet over insulation.	70.00	Metre			
b)	20 mm dia nominal bore with wrapping of two layer of PVC heavy gauge sheet over insulation	108.00	Metre			
c)	25 mm dia nominal bore with wrapping of two layer of PVC heavy gauge sheet over insulation	72.00	Metre			
d)	32 mm dia nominal bore with wrapping of two layer of PVC heavy gauge sheet over insulation	20.00	Metre			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
e)	40 mm dia nominal bore with wrapping of two layer of PVC heavy gauge sheet over insulation	10.00	Metre			
12.16	Providing and fixing P.T.M.T swivelling shower, 15 mm nominal size 95 mm long, 65 mm dia. of approved quality colour and make weighing not less than 40 gms. approximate 80 holes of 1.2 mm dia (prayag or equivalent)	52.00	Each			
12.17	Providing and fixing C.P brass stop cock(concealed) of standard design and of approved make conforming to IS:8931 a) 15 mm nominal bore	52.00	Each			
12.18	Providing & fixing solid state fully hygienic no touch hand drier of approved make rated for continuous repeat usage with solid state time delay LSF protection, with independent ambient light level & seasonal control temperatures including providing necessary C.I./M.S. brackets painted with two or three coats of enamel paint of approved shade over a coat of primer, wiring cables from drier to plug, plug tops etc. complete including cutting and making good the walls wherever required.	2.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.19	Supply, installation, testing and commissioning of drinking water cooler having a stainless steel water storage tank of capacity 80 litres. The water cooler shall be complete with a suitable capacity refrigeration unit with hermetically sealed compressor, refrigerant piping, necessary wiring, controls, full charge of refrigerant and all other accessories required complete in all respects. The water cooler shall be capable of delivering 40 Litres/ hour of cooled water. The water cooler shall have the facility to adjust the temperature of water and shall be complete with drinking faucets, drip tray, mounting frames, required piping for inlet and outlet connections with valves and complete as per specifications					
		20.00	Each			
12.20	Providing and fixing stainless steel grab bar 20mm dia of required length with PVC cleats, C.P. brass screws etc. complete.					
		5.00	Metre			
12.21	Providing and fixing C.P. brass sprayer (health faucet) for E.W.C. with PVC flexible tube 15mm dia, 1.5m long including all accessories, complete in all respects, including cutting and making good the walls wherever required .					
		38.00	Each			
B)	SOIL, WASTE, RAIN WATER AND VENT PIPES					

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.22	Providing and fixing soil, waste and vent pipes.					
a)	100 mm dia.centrifugally cast (spun) iron S & S pipe	711.00	Metre			
12.23	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 20mm nominal size) including cost of cutting holes and making good the walls etc.					
a)	for 100 mm dia. pipe	323.00	Each			
12.24	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.					
a)	100 mm Centrifugally cast (spun) iron S&S.	40.00	Each			
12.25	Providing and fixing plain bend of required degree.					
a)	100 mm Centrifugally cast (spun) iron S&S	46.00	Each			
12.26	Providing and fixing heel rest sanitary bend.					
a)	100 mm Centrifugally cast (spun) iron S&S	28.00	Each			
12.27	Providing and fixing terminal guard.					
a)	100 mm Centrifugally cast (spun) iron S&S	28.00	Each			
12.28	Providing and fixing collar:					

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
a)	100 mm dia Centrifugally cast (spun) iron S&S	690.00	Each			
12.29	Providing and fixing single equal plain invert branch of required degree					
a)	100x100x100mm Centrifugally cast (spun) iron S & S	101.00	Each			
12.30	Providing lead caulked joints to sand cast iron /centrifugally cast (spun) iron pipes and fittings of diameter:					
a)	100mm	2197.00	Each			
12.31	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. 100 x 100 x 100 mm Sand cast iron S&S	30.00	Each			
12.32	Providing and fixing single equal plain junction of required degree. 100 x 100 x 100 mm Sand cast iron S&S	28.00	Each			
12.33	Providing and fixing single unequal plain junction of required degree. 100 x 100 x 75 mm Sand cast iron S&S	109.00	Each			
12.34	Providing and fixing double equal junction of required degree with access door insertion rubber washer 3 mm thick, bolts and nuts complete:					

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
	100x100x100x100mm Sand cast iron S&S	6.00	Each			
12.35	Providing and fixing M.S. stays and clamps for sand cast iron / centrifugally cast (spun) iron pipes of diameter :					
a)	100 mm	690.00	Each			
12.36	Providing and fixing sand cast iron/centrifugally cast(spun) iron trap of self cleansing design with sand cast iron screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors:					
a)	100 mm inlet and 100 mm outlet	96.00	Each			
12.37	Extra for providing and fixing stainless steel jali (grating) in place of C.I. grating with or without hole for waste pipe for floor/ Nahani trap.					
a)	100 mm dia weight not less than 100 gms.	96.00	Each			
12.38	Painting sand cast iron / centrifugally cast (spun) iron soil, waste vent pipes and fittings with paint of any colour such as chocolate, grey, or buff etc. over a coat of primer (of approved quality) for new work:					
a)	100 mm diameter pipe	828.00	Metre			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.39	Providing and laying 50mm thick cement concrete 1:2:4 (1 cement :2 coarse sand: 4 hard stone aggregate 20mm and down gauge) around C.I. pipes as per design and as directed.					
a)	100m dia	89.00	Metre			
12.40	Providing and fixing unplasticised-PVC pipe clips of approved design to unplasticised-PVC rain water pipes by means of 50x50x50 mm hard wood plugs,screwed with M.S screws of required length including cutting brick work and fixing in cement mortar 1:4(1 cement:4 coarse sand) and making good the wall etc. complete.					
i)	110mm	82.00	Each			
ii)	160mm	146.00	Each			
12.41	Providing and fixing on wall face unplasticised-PVC (working pressure 4kg per sqm cm) rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion. (I) Single socketed pipes					
a)	110 mm diameter	145.00	Metre			
b)	160 mm diameter	260.00	Metre			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.42	Providing and fixing on wall face unplasticised-PVC moulded fittings/ accessories for unplasticised-PVC rain water pipes conforming to IS: 4985 including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion.					
a)	Coupler					
i)	110mm	82.00	Each			
ii)	160mm	146.00	Each			
b)	Bend 87.5o					
i)	110mm bend	32.00	Each			
ii)	160mm	50.00	Each			
c)	Shoe (plain)					
i)	110mm	5.00	Each			
ii)	160mm	18.00	Each			
12.43	Providing & fixing to the inlet mouth of rain water pipe cast iron grating 15cm diameter and weighing not less than 440 grams.	47.00	Each			
12.44	Providing and fixing cast brass clean out plug with suitable insert keys for opening male threaded joint fixed to G.I.socket complete (cleanout to be flushed with floor finish)					
a)	100 mm dia	20.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.45	Providing and fixing floor drain points formed out of 65 mm dia GI elbow, including with 75mm dia Stainless Steel grating with frame, embedded in floor, all complete as directed.	25.00	Each			
12.46	Providing and fixing G.I.(heavy class) pipes and fittings conforming to IS: 1239 clamps and hinges including cutting chases and holes and making good the walls and ceiling for waste pipes from wash basins, urinals kitchen sink and equipment waste connections pump deliveries & suction & condensate drainage as directed.					
a)	32 mm nominal bore	58.00	Metre			
b)	40 mm nominal bore	36.00	Metre			
12.47	Providing & fixing 125mm dia stainless steel cockroach trap with all accessories complete as per drawing.	7.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

C WATER SUPPLY

12.48 Providing and fixing Polyethelene-Aluminium - Polythelene (PE-AL-PE) Composite Pressure Pipes U.V. Stablised with carbon black conforming to ASTM F- 1282-1995 for water supply including Cutting and making good the walls.

Concealed instyallation including cuttingchases and making good the walls etc., complete

i)	1216 (16mm OD) Pipe	165.00	Metre
ii)	1620 (20mm OD) Pipe	220.00	Metre
iii)	2025 (25mm OD) Pipe	190.00	Metre
iv)	2532 (32mm OD) Pipe	35.00	Metre
v)	3240 (40mm OD) Pipe	15.00	Metre

12.49 Providing and fixing Composite and seal compression fittings as per ASTM F- 1282-1995 annexure for cold water suply e.g. tees, elbows, reducers, connectors, couplers and clamps with jointing, testing complete including cutting and making good etc.,

Note: The pipes are denoted by ID.OD eg., 1216=12 mm inner Dia x 16 mm Outer Dia.

Equal Tee

i)	1216	10.00	each
ii)	1620	10.00	each
iii)	2025	10.00	each
iv)	2532	5.00	each
v)	3240	2.00	each

Reducing Tee

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
i)	1620x with all branches	10.00	each			
ii)	2025x with all branches	10.00	each			
iii)	2532x with all branches	10.00	each			
iv)	3240x with all branches	5.00	each			
Female Branche Tee						
i)	1216x1216x15mm thread	10.00	each			
ii)	1620x1620x15mm thread	10.00	each			
iii)	2025x2025x25mm thread	10.00	each			
iv)	2532x2532x32mm thread	5.00	each			
v)	3240x3240x40mm thread		each			
Equal Eibow						
i)	2532	10.00	each			
ii)	3240	10.00	each			
Female Eibow						
i)	1216x15mm thread	10.00	each			
ii)	1620x15mm thread	10.00	each			
iii)	1620x20mm thread	10.00	each			
iv)	2025x25mm thread	5.00	each			
v)	2532x32mm thread	5.00	each			
vi)	3240x40mm thread	5.00	each			
Male Thread Connector						
i)	1216x15mm thread	10.00	each			
ii)	1620x15mm thread	10.00	each			
iii)	1620x20mm thread	10.00	each			
iv)	2025x25mm thread	5.00	each			
v)	2532x32mm thread	5.00	each			
vi)	3240x40mm thread	5.00	each			
Female Thread Connector						

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
i)	1216x15mm thread	10.00	each			
ii)	1620x15mm thread	10.00	each			
iii)	1620x20mm thread	10.00	each			
iv)	2025x25mm thread	10.00	each			
v)	2532x32mm thread	5.00	each			
vi)	3240x40mm thread	5.00	each			
Couplers						
i)	1216	10.00	each			
ii)	1620	10.00	each			
iii)	2025	10.00	each			
iv)	2532	10.00	each			
v)	3240	10.00	each			
Reducers						
i)	1620x1216	10.00	each			
ii)	2025x1216	10.00	each			
iii)	2025x1620	10.00	each			
iv)	2532x Reduced end	10.00	each			
v)	3240x Reduced end	10.00	each			
12.50	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (Internal work):					
a)	Exposed on Wall					
i)	15 mm dia nominal bore	60.00	Metre			
ii)	20 mm dia nominal bore	105.00	Metre			
iii)	25 mm dia nominal bore	270.00	Metre			
iv)	32 mm dia nominal bore	145.00	Metre			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
v)	40 mm dia nominal bore	65.00	Metre			
vi)	50mm dia nominal bore	45.00	Metre			
vii)	65 mm dia nominal bore	25.00	Metre			
viii)	80 mm dia nominal bore	34.00	Metre			
ix)	80 mm dia nominal bore	15.00	Metre			
12.51	Providing and fixing brass gate valve with C.I. wheel of approved quality (screwed end).					
i)	15 mm dia nominal bore	6.00	Each			
ii)	20 mm dia nominal bore	11.00	Each			
iii)	25 mm dia nominal bore	11.00	Each			
iv)	32 mm dia nominal bore	11.00	Each			
v)	40 mm dia nominal bore	2.00	Each			
vi)	50mm dia nominal bore	2.00	Each			
vii)	65 mm dia nominal bore	1.00	Each			
viii)	80 mm dia nominal bore	1.00	Each			
12.52	Painting G.I. pipes and fittings with white paint over a ready mixed priming coat, both of approved quality for new work..					
i)	15 mm dia nominal bore	60.00	Metre			
ii)	20 mm dia nominal bore	105.00	Metre			
iii)	25 mm dia nominal bore	270.00	Metre			
iv)	32 mm dia nominal bore	145.00	Metre			
v)	40 mm dia nominal bore	65.00	Metre			
vi)	50mm dia nominal bore	45.00	Metre			
vii)	65 mm dia nominal bore	25.00	Metre			
viii)	80 mm dia nominal bore	34.00	Metre			
ix)	100 mm dia nominal bore	15.00	Metre			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
12.53	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work)					
i)	15 mm nominal bore	10.00	Each			
ii)	20 mm nominal bore	20.00	Each			
iii)	25 mm nominal bore	55.00	Each			
iv)	32 mm nominal	29.00	Each			
v)	40 mm nominal bore	13.00	Each			
vi)	50mm nominal bore	9.00	Each			
vii)	65mm nominal bore	5.00	Each			
viii)	80mm nominal bore	7.00	Each			
ix)	100mm nominal bore	3.00	Each			
12.54	Providing and fixing C.P brass bib cock of approved quality.					
a)	15mm nominal bore.	150.00	Each			
12.55	Providing and fixing C.P brass long body bib cock of aproved quality conforming to IS standards and weighing not less than 690 gms a) 15 mm nominal bore					
		80.00	Each			
12.56	Providing and fixing C.P. brass angle valve of approved quality conforming to IS:8931.					
a)	15mm nominal bore.	142.00	Each			
12.57	Providing and fixing ball valve (brass) of approved quality complete:- High or low pressure with plastic floats					
a)	15mm nominal bore	2.00	Each			
b)	20mm nominal bore	12.00	Each			
c)	25mm nominal bore	10.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
d)	32mm nominal bore	2.00	Each			
12.58	Providing and placing on terrace (at all floors) polyethylene water storage tank ISI : 12701 MARKED indicating the BIS license No 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.	135000.00	Litre			

SUB TOTAL

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
13.00	SEWERAGE AND DRAINAGE					
13.01	Providing laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the pro-portion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete.					
a)	150 mm diameter	60.00	Metre			
13.02	Providing and laying cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) around S.W./RCC pipes including bed concrete as per standard design:					
a)	150 mm diameter	115.00	Metre			
b)	250 mm diameter	10.00	Metre			
c)	450 mm diameter	10.00	Metre			
13.03	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating, brick masonry chamber with bricks of class designation 50 and water tight C.I. cover with frame of 300x300 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.					
a)	100x100mm size P type	16.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
13.04	Constructing brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand), R.C.C. top slab with 1:2:4 mix (1cement : 2 coarse sand : 4graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 (1cement : 4 coarse sand : 8graded stone aggregate 40 mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, and making necessary 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 all complete as per standard design.					
a)	Inside size 90x80 cm and 60 cm deep including C.I. cover and frame (light duty), 455x610 mm internal diameter total weight of cover and frame to be not less than 38 kg.. (Weight of cover 23 Kg and weight of frame 15 Kg.)	14.00	Each			
b)	Inside size 120 x 90 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)-	2.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
13.05	Providing and laying non-pressure NP2 class (light duty) S & S R.C.C. pipes jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete.					
a)	150 mm dia R.C.C pipe	55.00	Metre			
b)	250 mm dia R.C.C pipe	10.00	Metre			
13.06	Providing and laying non-pressure NP3 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.					
	450 mm dia. R.C.C. pipe.	10.00	Metre			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
13.07	<p>Providing and fixing 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 mm x 25 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 specification 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.</p>	70.00	Each			

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
13.08	<p>Constructing brick masonry open surface drain with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 fine sand) including earth excavation, 10cm thick bed concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and 25mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size) for filling haunches including 12mm plaster 1:4 (1 cement : 4 coarse sand) with a floating coat of neat cement inside the drain, its top and exposed side including disposal of surplus earth complete as per standard design :</p> <p>With F.P.S. bricks 30 cm drain 37.5 cm average depth-</p>	70.00	Metre			
SUBTOTAL						

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
14.00	FIRE FIGHTING WORKS					
14.01	Providing and fixing portable fire extinguisher water type (gas cartridge) with cylinder fully charged of 9 litres capacity complete with standard discharge valve with tube Cast Iron bracket for wall mounting etc. conforming to IS:940.					
		18.00	Each			
14.02	Providing and fixing portable fire extinguisher (gas cartridge) with cylinder initially fully charged with dry powder (ABC type) of 5 Kg. complete with standard discharge valve with tube, Cast Iron bracket for wall mounting etc. conforming to IS: 2171					
		26.00	Each			
14.03	Providing and fixing portable fire extinguisher carbon dioxide type with cylinder initially fully charged with CO2 gas of 4.5 Kg. Capacity, complete with squeeze lever discharge valve, pressure gauge, discharge tube/horn, CI bracket for wall mounting IS 2878					
		8.00	Each			
14.04	Providing and fixing portable fire extinguisher mechanical foam type with cylinder initially fully charged with foam compound of 9 litres capacity, complete with standard discharge valve with tube Cast Iron bracket for wall mounting etc. conforming to IS:1020					
		20.00	Each			
	SUBTOTAL					

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7

15.00 SUB-HEAD : XVIII : - SOLAR WATER HEATING SYSTEM

15.01 Supply, installation, testing and commissioning of solar water heating system comprising of but not limited to the following:

- a. Requisite number of solar collectors
- b. Heat exchanger –
- c. Drain back tank 50 litres
- d. Primary recirculation pump (2 Nos: 1 working+ 1 stand by)
- e. Secondary recirculation pump (2 Nos : 1working + 1 stand by)
- f. Insulated M.S. tank for hot water electrical heating elements for back-up, temperature measuring device, temperature comparator, thermostats, inlet, outlet and drain connections as required.
- g. Interconnecting insulated copper pipes and valves .
- h. Electrical control panel, cabling from panel to pumps and electrical heaters.

Item No	Description of Item	Qty.	Unit	Rate in Rs. (in Figures)	Rate in Rs. (in Words)	Amount In Rs.
1	2	3	4	5	6	7
(i)	ETC based Solar System with output of 5000 lpd of hot water at 60 ⁰ C, capacity of hot water holding tank 5 KL, having requisite no.'s of heating elements each controlled by thermostats (Daily hot water requirement of Block = 4,000.00 lpd) with requisite Nos. solar collectors.					
		1.00	Set			

SUBTOTAL