

SCHEDULE OF QUANTITY

NAME OF WORK : -SETTING UP OF EDUTAINMENT COMPONENTS FOR SCIENCE CITY AT KOTTAYAM

PART I - ENTRANCE PLAZA					
PART I A - CIVIL WORKS					
Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
	SUB HEAD : - I EARTH WORK EXCAVATION.				
1.a	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	750.00	SQM		
b	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	750.00	SQM		
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed.	900.00	CUM		
3	Earth work excavation in all classes of soil except hard rock and depositing on bank with initial lead up to 50m and lift up to 1.5m including breaking of clods, sectioning of spoil bank,filling in the sides of trenches, basement watering, ramming, consolidating etc complete	255.00	CUM		
	Earth work excavation in all classes of soil except hard rock and depositing on bank with initial lead up to 50m and lift from 1.5m to 3m including breaking of clods, sectioning of spoil bank,filling in the sides of trenches,basement watering,ramming,consolidating etc complete	22.00	CUM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
4.a	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering etc complete, with all leads and lifts as per the direction of Engineer in charge.	124.00	CUM		
b	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	315.00	LTRS		
c	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor. With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	570.00	SQM		
	SUB HEAD - II : - PLAIN CEMENT CONCRETE				
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) Foundation P.C.C & Floor concrete	123.00	CUM		
	SUB HEAD III: STONE WORK				
6	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand).	380.00	CUM		
	SUB HEAD IV: REINFORCED CEMENT CONCRETE.				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
7	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, 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				
	(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).				
a	All works up to plinth level	11.15	CUM		
b	All works above plinth level & up to floor V level	61.00	CUM		
8	Add for using extra cement in the items of design mix over and above the specified cement content therein	49.00	QNT		
9	Centering and shuttering including strutting, propping etc. and removal of form for				
a	Foundations, footings, bases of columns, etc. for mass concrete.	35.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
b	Columns, Pillars, Piers, Abutments, Posts and Struts.	15.00	SQM		
c	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	165.00	SQM		
d	Suspended floors, roofs, landings, balconies and access platform	270.00	SQM		
e	Weather shade, Chajjas, corbels etc., including edges	15.00	SQM		
10	Reinforcement for RCC work using Thermo-Mechanically Treated (TMT) bars including straightening , cutting,bending, placing in position and binding all complete	12500.00	kg		
	SUB HEAD V: BRICK WORK				
11	Brick work in cement mortar 1:6 (1 cement : 6 coarse sand) using first class Wire cut bricks (22.9 x 11.20 x 7.0 cm) outer exposed and inside with country burnt bricks for superstructure including scaffolding, raking out the joints, curing, cost and conveyance of all materials,labour,lead, lift etc.complete, as directed by the Engineer in Charge.	136.50	CUM		
12	Brick masonry in c.m 1:6 using common burnt clay F.P.S. (non modular) bricks of class designation 7.5 above plinth level up to floor V level in for super structure walls all shapes and sizes in :Cement mortar 1:6 (1 cement : 6 coarse sand)	67.30	CUM		
	SUB HEAD VII: ALUMINIUM WORK.				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
13	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) :				
14	a) For fixed portion . Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as per the direction of Engineer in charge.	126.10	kg		
15	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) Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as directed by the engineer in charge. Doors, Fixed glass, Super sliding windows & Ventilators	152.66	kg		
16	Providing and fixing 12 mm thick pre-laminated 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. Pre-laminated particle board with decorative lamination on both sides	10.43	sqm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
17	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):				
	With float glass panes of 5.50 mm thickness	21.00	sqm		
	With float glass panes of 8 mm thickness	30.00	sqm		
18	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 to the existing floor finishing and cover plates with brass pivot and embedding in floors as required and making good the same matching doors, including cost of cutting floors, single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. With stainless steel cover plate minimum 1.25 mm thickness	8.00	Each		
19	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-				
	125 mm	2.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
	100mm	7.00	each		
20	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-				
	250 X 10 mm	30.00	each		
	150x10mm	30.00	each		
21	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete	9.00	each		
22	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	24.00	each		
23	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. 255 X 19 mm	30.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
24	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) Transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	9.00	each		
SUB HEAD VIII :STEEL WORK					
25	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings/ wooden frames with rawl plugs screws etc	420.00	Kg		
26	Steel work in built up tubular trusses including cutting, hoisting fixing in position and applying a primer coat of approved steel primer, welded and bolted including special shaped washers etc, complete, as directed by the Engineer in Charge.Hot finished welded type tubes	17500.00	Kg		
27	Supplying and fixing of handrails with 2"x1" M.S Rectangular square tube at top with 1.50" M.S square square tube Vertically fixed and 1/2" M.S square tube 5nos for connecting horizontally and diagonally as per the approved design and drawing and as per the instructions of Engineer-in-Charge including cost and conveyance of all materials welding charges hire and labour charges for fixing etc complete	572.00	Kg		
SUB HEAD IX : PVC WORK					

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
28	Providing and fixing factory made PVC door frame manufactured by M/s Rajshri or equivalent of size 50x47 mm with a wall thickness of 5 mm. made out of extruded 5 rigid PVC foam 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 19x19 mm 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 65/100 mm size complete as per manufactures specification and direction of Engineer in-charge	40.00	Rm		
29	Providing and fixing to existing door frames 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer in-charge. (For W.C. and bathroom door shutter)	13.44	sqm		
	SUB HEAD XI : ROOFING.				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
30	Supply and laying of PABCO -premier-30 Shingles an US make or any make with equivalent quality Roofing system as per the directions of the Engineer in charge of the project of any approved colour, shade and a minimum thickness of 4 mm also satisfying ASTM D3462 standards, above 12 mm thick cement based board of best quality fitted on the already fabricated and erected steel truss using best quality adhesives and the shingles should have Scotchgard characteristics, Algae Resistant Fiber glass shingle standard, wind resistance, Fire resistance, Life time warranty including cost and conveyance of all materials, cost of cement based board hire and labour charges etc. complete but excluding cost of truss fabrication and erection, as directed by the Engineer in Charge.	607.00	m2		
31	Supplying and fixing pre-laminated ridge and valley with Fireglass shingles of 6 mm thick fixed using adhesive over the truss already fabricated and erected as per the design including cost and conveyance of all materials hire and labour charges etc complete.	100.00	Rm		
32	Supplying and fixing Lexan Polycarbonate sheet roofing multiwall opal white 6mm thick (Manufactured by GE Plastics India Private Ltd) over the framework using special MS extrusions of size 50x22.5mm with rubber gasket applying silicon sealant wherever necessary (Rate is inclusive of framework including support, painting etc). Nothing etc shall be paid on pattern of framework, as directed by the Engineer in Charge.	72.00	m2		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
33	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I.				
	wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I	360.00	SQM		
	SUB HEAD XIII : FLOORING				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
34	Providing and fixing 18 mm thick gang saw cut, mirror polished Granite of any colour ,premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement,mixed with matching pigment, epoxy touch ups, including rubbing, curing,moulding and polishing to edges to give high gloss finish etc. complete at all levels. (Lowest retail price not less than Rs. 2000/m2)	30.00	SQM		
35	Providing and laying vitrified floor tiles in different sizes thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, 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. Size of Tile 600x600 mm (Lowest retail price not less than Rs. 900/m2)	357.00	SQM		
36	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White,Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), including grouting the joints with white cement and matching pigments etc., complete. (Lowest retail price not less than Rs. 550/m2)	79.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
37	Providing and fixing 1st quality ceramic glazed wall tiles of size 300x450 mm conforming to IS:15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. (Lowest retail price not less than Rs. 450/m2)	61.50	SQM		
38	Providing and laying pre-polished decorative designer cement concrete tiles of thickness (+/-2mm) of M/s Eurocon tiles of equivalent conforming to IS 1237-1980 of approved tiles over a bed of 25mm thick cement mortar 1:6 with cement slurry at 3.3 kg/sqm jointed and pointed with matching grey/white cement slurry mixed with matching pigment and finishing to required level, curing etc complete all as per manufacturers specifications, design and direction of engineer in charge.	520.00	SQM		
39	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 fine sand etc. all complete as per the direction of Engineer-in-charge	100.00	SQM		
	SUB HEAD XIV : FINISHING.				
40	Ceiling plastering with c.m 1:3, 6mm thick including all cost and labour charges etc complete.	600.00	SQM		
41	Plastering with cm 1:4 ,12 mm thick floated hard and trowelled smooth for inside walls including watering ,curing cost and conveyance of all materials and labour charges etc complete.	1230.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
42	Providing bordering / watercutting to bottom of sunshades and roof projection including all cost and conveyance of all materials hire and labour charges etc complete	138.00	Rm		
43	Pointing the brick work in cm 1:3 including brick washing and cost and conveyance of all materials and labour charges etc. complete.Flush / Ruled/ Struck or weathered pointing	600.00	SQM		
44	Providing and laying roof insulation with 40 mm thick impervious sprayed, closed cell free Rigid Polyurethane foam over deck insulation conforming to IS - 12432 Pt. III (density of foam being 40-45 kg/ cum), over a coat of polyurethane primer applied @ 6-8 sqm per litre, laying 400 G polythene sheet over PUF spray and providing a wearing course of 40 mm thick cement screed 1: 2 : 4 (1 cement 2 coarse sand : 4 stone aggregate 20 mm nominal size) in chequered rough finish, in panels of 2.5 m x 2.5 m and embedding with 24 G wire netting and sealing the joints with polymerized mastic, all complete as per direction of Engineer-in-Charge.	310.00	SQM		
45	Roof plastering with CM 1:3, 15 mm thick floated hard and trowelled smooth including watering ,curing cost and conveyance of all materials and labour charges etc complete with waterproof compound.	310.00	SQM		
46	Distempering Ceiling with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.Two or more coats on new work	600.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
47	Painting plastered surfaces with two coats of ready mixed plastic emulsion paint of approved colour, shade to give an even shade with matt finish over a coat of cement primer and after rubbing and cleaning the surface and levelling with a coat of wall putty including including cost and conveyance of all materials hire and labour charges etc. complete	1230.00	SQM		
48	Painting plastered external surfaces with two coats of Anti fungal exterior emulsion of superior quality of any branded make and colour over a coat of cement primer and including filling the crevices with approved filler materials including cost and conveyance of all materials hire and labour charges etc complete	372.00	SQM		
49	Painting M.S Grills , Handrails , with readymixed synthetic enamel paint two coats over one coat of iron primer after screapping the surface to remove the rust and all including cost and conveyance of all materials hire and labour charges etc complete	66.50	SQM		
50	Painting bottom of Cement based board in roof with readymixed synthetic enamel paint two coats over one coat of wood primer after screapping the surface to remove the rust and all including cost and conveyance of all materials hire and labour charges etc complete	600.00	SQM		
51	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	96.00	SQM		
	SUB HEAD XV: SANITARY WORK				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
52	Supplying and fixing European type white glazed earthen ware W.C Pan with ' S' trap as required (Indian make best quality) and Duroplastic seat and lid with C.P brass hinges and rubber buffers etc., low level PVC flushing cistern with float valve and all internal fittings and 2 no C.P brass bracket, 1 no. 15mm CP Brass angle valve, 1no 15mm PVC connection, 40mm PVC flush pipe, over flow pipe with mosquito proof arrangement etc. complete including cutting and making good the walls and floors.	8.00	Each		
53	Supplying and fixing 550x400mm or nearest size Wash hand basin of white glazed earthenware (Indian make best quality) with CI brackets fitted to 150x150x80mm plugs with screws, embedded in CM 1:4, 15mm CP brass pillar tap – 1no, 15mm heavy duty PVC connection – 1no, 32mm CP waste with chain and Plug – 1no, 32mm PVC waste – 1no, 1 no 15mm CP Brass angle valve including cutting and making good the walls, painting the bracket with suitable paint 2 coats etc. complete.	1.00	Each		
54	Supplying and fixing 490mm dia. or nearest size circular wash hand basin of white glazed earthenware (Indian make best quality) counter sunk already built with necessary chipping and chamfering and finishing including supplying and fixing 32mm CP brass waste with plug and chain – 1no., 15mm CP brass pillar tap (Heavy, best quality) 1 no., 32mm PVC waste pipe and 15mm heavy duty PVC connection 1 no 15mm CP Brass angle valve including cutting and making good the walls etc. complete.	7.00	Each		
55	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430mmx260mm x350mm or nearest size 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. One urinal basin with 5 litre white P.V.C. automatic flushing cistern.	3.00	Each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
56	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. Circular shape 450 mm dia.	8.00	Each		
57	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.	4.00	Each		
58	Supplying and fixing PVC Floor Trap 100mmx75mm size with Jali including cutting open, boring through walls, RCC slabs etc. and making good the damages.	11.00	Each		
59	Supply , jointing and fixing 110mm OD 6 Kgf UPVC (Sanitary - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum of 4.5kg/cm2 static head for at least half an hour, finishing complete.	9.00	Rm		
60	Supply , jointing and fixing 75mm OD 6 Kgf UPVC (Sanitary - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum of 4.5kg/cm2 static head for at least half an hour, finishing complete.	12.00	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
61	Supplying 110mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	37.00	Rm		
62	Supplying 75 mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	6.00	Rm		
63	Supplying 50 mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	17.00	Rm		
64	Supplying and fixing 110mm PVC Ventilation Cowl in position.	3.00	Each		
65	Supplying and fixing 75mm PVC Ventilation Cowl in position.	4.00	Each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
66	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	8.00	Each		
67	Supplying and fixing 700mmx340mmX120mm or nearest size Division plate of porcelain material including making good the wall etc. complete.	4.00	Each		
PART I C - PLUMBING & SANITARY WORKS					
SUB HEAD XVI: WATER SUPPLY WORK					
68	Supply, jointing and fixing 32mm OD 15 Kgf uPVC (Water supply-concealed) pipes and uPVC specials/end fitting with brass inserts conforming to IS standards with good quality solvent cement using teflon tape chasing the walls and floors, making the holes, clamping to walls using pipe hooks and restoring the same to the original conditions, necessary excavation, testing the pipe line using a manually operated test pump to a pressure of 10 Kg/cm ² or twice the working pressure or static head whichever is greater, maintaining the test pressure at least for half an hour complete as specified and directed .	40.00	Rm		
69	Supply, jointing and fixing 25mm OD 15 Kgf uPVC (Water supply-concealed) pipes and uPVC specials/end fitting with brass inserts conforming to IS standards with good quality solvent cement using teflon tape chasing the walls and floors, making the holes, clamping to walls using pipe hooks and restoring the same to the original conditions, necessary excavation, testing the pipe line using a manually operated test pump to a pressure of 10 Kg/cm ² or twice the working pressure or static head whichever is greater, maintaining the test pressure at least for half an hour complete as specified and directed .	46.00	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
70	Supply , jointing and fixing 63mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to	40.00	Rm		
71	Supply , jointing and fixing 40mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	40.00	Rm		
72	Supplying and fixing good quality concealed type (20mm) CP Brass Stop Cock (best quality, heavy) long body with flange in position.	4.00	Each		
73	Supplying and fixing 15mm CP douche tap (health faucet with angle valve) in position.	8.00	Each		
74	Supplying and fixing CP Brass (best quality, heavy) long body tap in position.	10.00	Each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
75	Supplying and fixing 25mm or nearest size full way GM wheel valve (superior quality) in position.	2.00	Each		
76	Supplying and fixing 20mm or nearest size full way GM wheel valve (superior quality) in position.	2.00	Each		
	SUB HEAD XVII: SEWERLINES				
77	Supplying, laying 110mm dia. uPVC pipe, 4 kgf (pasted type) lowering into trenches , placing in position, aligning to line and levels and jointing with solvent cement and testing to specified head including earth work excavation in all classes of soil and hire for tools and equipments etc. complete.	85.00	Rm		
78	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with 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 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 (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finishedwith a floating coat of neat cement complete as per standard design.				
	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).With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	3.00	Each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
79	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).With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	4.00	Each		
80	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 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 design100x100 mm size P typeWith common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	4.00	Each		
81	Septic tank 100 users Supply, fixing, testing and commisioning of septic tank of readymade type of 100 user capacity including transportation, earth work excavation and back filling as required by engineer at site.	1.00	Each		
82	Soak pit Supply fixing, testing and commisioning of soak pit 100 users capacity including transportation, earth work excavation and back filling as required by engineer at site	1.00	Each		
	SUB HEAD XVIII: ROOF WATER DRAINAGE				
83	Providing and fixing on wall face unplasticised Rigid 110 PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.	60.00	Rm		
(i)	110mm PVC Coupler	5.00	Each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
(ii)	110mm PVC Bend 87.5°	10.00	Each		
(ii)	110mm PVC Pipe clip	40.00	Each		
84	Supplying and fixing 125mm PVC circular gratings including cutting, chasing wall, floors and making good the same etc. complete.	8.00	Each		
85	Constructing masonry shoe to the bottom of the rain water pipes with brick in cement mortar 1:6 over CC 1:4:8 using 40mm metal concrete, plastering the exposed surfaces using CM 1:5 one coat, forming the circular spout outlet, finishing etc. complete.	8.00	Each		
PART II - AMPHI THEATRE					
PART II A - CIVIL WORKS					
SUB HEAD : - I EARTH WORK EXCAVATION.					
1.a	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	600.00	SQM		
b	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	600.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
2.a	Earth work excavation in all classes of soil except hard rock and depositing on bank with initial lead up to 50m and lift up to 1.5m including breaking of clods, sectioning of spoil bank, filling in the sides of trenches, basement watering, ramming, consolidating etc complete	350.00	CUM		
b	Earth work excavation in all classes of soil except hard rock and depositing on bank with initial lead up to 50m and lift from 1.5m to 3m including breaking of clods, sectioning of spoil bank, filling in the sides of trenches, basement watering, ramming, consolidating etc complete	50.00	CUM		
3.a	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering etc complete, with all leads and lifts as per the direction of Engineer in charge.	400.00	CUM		
b	Supplying chemical emulsion in sealed containers including delivery as specified Chlorpyrifos/ Lindane emulsifiable concentrate of 20%	16.00	LTRS		
c	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion). Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor. With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	30.00	SQM		
	SUB HEAD - II : - PLAIN CEMENT CONCRETE				
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size). Foundation P.C.C & Floor concrete	81.00	CUM		
	SUB HEAD III: STONE WORK				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
5	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand).				
	Foundation & Basement	20.00	CUM		
	Retaining wall	210.00	CUM		
	SUB HEAD IV: REINFORCED CEMENT CONCRETE.				
6.a	Providing and laying in position machine batched and machine mixed / Ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying , cost of 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 the Engineer - in - charge excluding the cost of centering, shuttering, finishing,. All works upto plinth level				
	Retaining wall Base	7.20	CUM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
6.b	Providing and laying in position machine batched and machine mixed / Ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying , cost of 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 the Engineer - in - charge excluding the cost of centering, shuttering, finishing,. All works above plinth level				
	Retaining wall	29.00	CUM		
7	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, 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 All works above plinth level & up to floor V level for beam, slab etc	5.50	CUM		
8	Add for using extra cement in the items of design mix over and above the specified cement content therein.	24.72	QTL		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
9	Centering and shuttering including strutting, propping etc. and removal of form for				
	Foundations, footings, bases of columns, etc. for mass concrete	12.00	SQM		
	Walls (any thickness) including attached pilasters, buttermesses, retaining wall etc.	180.00	SQM		
	Lintels, beams, plinth beams, girders, bressumers and cantilevers	10.00	SQM		
	Suspended floors, roofs, landings, balconies and access platform	45.00	SQM		
	Weather shade, Chajjas, corbels etc., including edges	5.00	SQM		
10	Supplying and fabrication of reinforcement grills Fe 500 grade for R.C.C work including all cost and labour charges etc complete.	5850.00	Kg		
	SUB HEAD V: BRICK WORK				
11	Brick work in cement mortar 1:6 (1 cement : 6 coarse sand) using first class Wire cut bricks (22.9 x 11.20 x 7.0 cm) outer exposed and inside with country burnt bricks for superstructure including scaffolding, raking out the joints, curing, cost and conveyance of all materials,labour,lead, lift etc.complete, as directed by the Engineer in Charge.	12.00	CUM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
12	Brick masonry in c.m 1:6 using common burnt clay F.P.S. (non modular) bricks of class designation 7.5 above plinth level up to floor V level in for super structure walls all shapes and sizes in :Cement mortar 1:6 (1 cement : 6 coarse sand)	53.00	CUM		
	SUB HEAD VII: ALUMINIUM WORK.				
13	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				
a	a) For fixed portion . Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as per the direction of Engineer in charge.	16.44	kg		
b	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) Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as directed by the engineer in charge. Doors, Super sliding windows & Ventilators	48.21	kg		
14	Providing and fixing 12 mm thick pre-laminated 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. Pre-laminated particle board with decorative lamination on both sides	4.60	sqm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
15	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): With float glass panes of 5.50 mm thickness	7.60	sqm		
16	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 to the existing floor finishing and cover plates with brass pivot and embedding in floors as required and making good the same matching doors, including cost of cutting floors, single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. With stainless steel cover plate minimum 1.25 mm thickness	3.00	each		
17	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-125 mm	6.00	each		
18	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-250 X 10 mm	6.00	each		
19	Providing and fixing IS: 3564 marked aluminium extruded section body tubular type universal hydraulic door closer with double speed adjustment with necessary accessories and screws etc. complete.	3.00	each		
20	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	3.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
21	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. 255 X 19 mm	14.00	each		
22	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) Transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	3.00	each		
	SUB HEAD VIII :STEEL WORK				
23	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings/ wooden frames with rawl plugs screws etc	110.00	Kg		
24	Steel work in built up tubular trusses including cutting, hoisting fixing in position and applying a primer coat of approved steel primer, welded and bolted including special shaped washers etc, complete, as directed by the Engineer in Charge.Hot finished welded type tubes	19500.00	Kg		
	SUB HEAD IX : PVC WORK				
25	Providing and fixing factory made PVC door frame manufactured by M/s Rajshri or equivalent of size 50x47 mm with a wall thickness of 5 mm. made out of extruded 5 rigid PVC foam 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 19x19 mm M.S. square tube of 19 guage, 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 65/100 mm size complete as per manufactures specification and direction of Engineer in-charge	20.00	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
26	Providing and fixing to existing door frames 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (\pm 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (\pm 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (\pm 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (\pm 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer in-charge. (For W.C. and bathroom door shutter)	7.00	sqm		
SUB HEAD XI : ROOFING.					
27	Supplying and fixing Tensile sheet roof using Fabric SIOEN Make Type or equivalent clamping over the already fabricated and erected steel truss using suitable size sections applying silicon sealant wherever necessary as directed by the Engineer in Charge. as per design including all cost ,cost for plate & fittings, Cost of painting etc complete	640.00	m2		
SUB HEAD XIII : FLOORING					
28	Providing and laying vitrified floor tiles in different sizes thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, 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. Size of Tile 600x600 mm (Lowest retail price not less than Rs. 900/m2)	9.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
29	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White,Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), including grouting the joints with white cement and matching pigments etc., complete. (Lowest retail price not less than Rs. 550/m2)	22.00	SQM		
30	Providing and fixing 1st quality ceramic glazed wall tiles of size 300x450 mm conforming to IS:15622 (thickness to be specified by the manufacturer), of approved make,in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados,over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. (Lowest retail price not less than Rs. 450/m2)	30.00	SQM		
31	Providing and laying pre-polished decorative designer cement concrete tiles of thickness (+/-2mm) of M/s Eurocon tiles of equivalent conforming to IS 1237-1980 of approved tiles over a bed of 25mm thick cement mortar 1:6 with cement slurry at 3.3 kg/sqm jointed and pointed with matching grey/white cement slurry mixed with matching pigment and finishing to required level, curing etc complete all as per manufacturers specifications, design and direction of engineer in charge. Step Tiles	630.00	SQM		
SUB HEAD XIV : FINISHING.					
32	Ceiling plastering with c.m 1:3, 6mm thick including all cost and labour charges etc complete.	40.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
33	Plastering with cm 1:4 ,12 mm thick floated hard and trowelled smooth for inside walls including watering ,curing cost and conveyance of all materials and labour charges etc complete.	1300.00	SQM		
34	Providing bordering / watercutting to bottom of sunshades and roof projection including all cost and conveyance of all materials hire and labour charges etc complete	20.00	Rm		
35	Pointing the brick work in cm 1:3 including brick washing and cost and conveyance of all materials and labour charges etc. complete.Flush / Ruled/ Struck or weathered pointing	115.00	SQM		
36	Providing and laying roof insulation with 40 mm thick impervious sprayed, closed cell free Rigid Polyurethane foam over deck insulation conforming to IS - 12432 Pt. III (density of foam being 40-45 kg/ cum), over a coat of polyurethane primer applied @ 6-8 sqm per litre, laying 400 G polythene sheet over PUF spray and providing a wearing course of 40 mm thick cement screed 1: 2 : 4 (1 cement 2 coarse sand : 4 stone aggregate 20 mm nominal size) in chequered rough finish, in panels of 2.5 m x 2.5 m and embedding with 24 G wire netting and sealing the joints with polymerized mastic, all complete as per direction of Engineer-in-Charge.	30.00	SQM		
37	Roof plastering with CM 1:3, 15 mm thick floated hard and trowelled smooth including watering ,curing cost and conveyance of all materials and labour charges etc complete with waterproof compound.	28.00	SQM		
38	15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement and adding water proofing compound for retaining wall	108.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
39	Distempering Ceiling with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification. Two or more coats on new work	480.00	SQM		
40	Painting plastered surfaces with two coats of ready mixed plastic emulsion paint of approved colour, shade to give an even shade with matt finish over a coat of cement primer and after rubbing and cleaning the surface and levelling with a coat of wall putty including including cost and conveyance of all materials hire and labour charges etc. complete	450.00	SQM		
41	Painting plastered external surfaces with two coats of Anti fungal exterior emulsion of superior quality of any branded make and colour over a coat of cement primer and including filling the crevices with approved filler materials including cost and conveyance of all materials hire and labour charges etc complete	450.00	SQM		
42	Painting M.S Grills , , with readymixed synthetic enamel paint two coats over one coat of iron primer after screapping the surface to remove the rust and all including cost and conveyance of all materials hire and labour charges etc complete	12.00	SQM		
	PART II C - PLUMBING & SANITARY WORKS				
	SUB HEAD XV: SANITARY WORK				
43	Supplying and fixing European type white glazed earthen ware W.C Pan with ' S' trap as required (Indian make best quality) and Duroplastic seat and lid with C.P brass hinges and rubber buffers etc., low level PVC flushing cistern with float valve and all internal fittings and 2 no C.P brass bracket,1 no. 15mm CP Brass angle valve,1no 15mm PVC connection, 40mm PVC flush pipe, over flow pipe with mosquito proof arrangement etc. complete including cutting and making good the walls and floors.	4.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
44	Supplying and fixing 550x400mm or nearest size Wash hand basin of white glazed earthenware (Indian make best quality) with CI brackets fitted to 150x150x80mm plugs with screws, embedded in CM 1:4, 15mm CP brass pillar tap – 1no, 15mm heavy duty PVC connection – 1no, 32mm CP waste with chain and Plug – 1no, 32mm PVC waste – 1no, 1 no 15mm CP Brass angle valve including cutting and making good the walls, painting the bracket with suitable paint 2 coats etc. complete.	4.00	each		
45	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. Circular shape 450 mm dia.	4.00	each		
46	Supplying and fixing PVC Floor Trap 100mmx75mm size with Jali including cutting open, boring through walls, RCC slabs etc. and making good the damages.	4.00	each		
47	Supply , jointing and fixing 110mm OD 6 Kgf UPVC (Sanitary - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum of 4.5kg/cm2 static head for at least half an hour, finishing complete.	12.00	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
48	Supply , jointing and fixing 75mm OD 6 Kgf UPVC (Sanitary - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum of 4.5kg/cm2 static head for at least half an hour, finishing complete.	12.00	Rm		
49	Supplying 110mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	8.00	Rm		
50	Supplying 75mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	4.00	Rm		
51	Supplying 50mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	8.00	Rm		
52	Supplying and fixing 110mm PVC Ventilation Cowl in position.	4.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
53	Supplying and fixing 75mm PVC Ventilation Cowl in position.	4.00	each		
54	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	4.00	each		
	SUB HEAD XVI: WATER SUPPLY WORK				
55	Supply, jointing and fixing 25mm OD 15 Kgf uPVC (Water supply-concealed) pipes and uPVC specials/end fitting with brass inserts conforming to IS standards with good quality solvent cement using teflon tape chasing the walls and floors, making the holes, clamping to walls using pipe hooks and restoring the same to the original conditions, necessary excavation, testing the pipe line using a manually operated test pump to a pressure of 10 Kg/cm ² or twice the working pressure or static head whichever is greater, maintaining the test pressure at least for half an hour complete as specified and directed .	35.00	Rm		
56	Supply , jointing and fixing 63mm OD 10 Kgf uPVC (Water supply -exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm ² or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	15.00	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
57	Supply , jointing and fixing 50mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	30.00	Rm		
58	Supply , jointing and fixing 40mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	28.00	Rm		
59	Supply , jointing and fixing 25mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	16.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
60	Supplying and fixing good quality concealed type (20mm) CP Brass Stop Cock (best quality, heavy) long body with flange in position.	2.00	each		
61	Supplying and fixing 15mm CP douche tap (health faucet with angle valve) in position.	4.00	each		
62	Supplying and fixing CP Brass (best quality, heavy) long body tap in position.	4.00	each		
63	Supplying and fixing 20mm or nearest size full way GM wheel valve (superior quality) in position.	2.00	each		
64	Supplying and fixing 50mm or nearest size full way GM wheel valve (superior quality) in position.	1.00	each		
65	Supplying and fixing 150mm CI Sluice valve with Wheel, PN 1.0, (superior quality) in position.	1.00	each		
66	Supply, installation, testing and commisioning of 25mm dia of GM float valve with flexible rod and PVC ball.	2.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
67	OHT PVC Supply, fixing, testing and commissioning of over head PVC water tank of 1000 litres capacity including transportation and cost of accessories.	2000.00	Litre		
	SUB HEAD XVII: SEWERLINES				
68	Supplying, laying 110mm dia. uPVC pipe, 4 kgf (pasted type) lowering into trenches , placing in position, aligning to line and levels and jointing with solvent cement and testing to specified head including earth work excavation in all classes of soil and hire for tools and equipments etc. complete.	30.00	Rm		
69	Supplying, laying 160mm dia. uPVC pipe, 4 kgf (pasted type) lowering into trenches , placing in position, aligning to line and levels and jointing with solvent cement and testing to specified head including earth work excavation in all classes of soil and hire for tools and equipments etc. complete.	10.00	Rm		
70	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with 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 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 (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finishedwith a floating coat of neat cement complete as per standard design.				
	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).With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	2.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
71	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).With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	2.00	each		
72	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 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 design100x100 mm size P typeWith common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	2.00	each		
73	Septic tank 100 users Supply, fixing, testing and commisioning of septic tank of readymade type of 100 user capacity including transportation, earth work excavation and back filling as required by engineer at site.	1.00	each		
74	Soak pit Supply fixing, testing and commisioning of soak pit 100 users capacity including transportation, earth work excavation and back filling as required by engineer at site	1.00	each		
	SUB HEAD XVIII: ROOF WATER DRAINAGE				
75	Providing and fixing on wall face unplasticised Rigid 110 PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.	10.00	Rm		
(i)	110mm PVC Coupler	2.00	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
(ii)	110mm PVC Bend 87.5°	4.00	each		
(ii)	110mm PVC Pipe clip	7.00	each		
76	Supplying and fixing 125mm PVC circular gratings including cutting, chasing wall, floors and making good the same etc. complete.	8.00	each		
77	Constructing masonry shoe to the bottom of the rain water pipes with brick in cement mortar 1:6 over CC 1:4:8 using 40mm metal concrete, plastering the exposed surfaces using CM 1:5 one coat, forming the circular spout outlet, finishing etc. complete.	8.00	each		
PART III - MOTION SIMULATOR					
PART III A - CIVIL WORKS					
SUB HEAD : - I EARTH WORK EXCAVATION.					
1.a	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	400.00	SQM		
b	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	400.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
2.a	Earth work excavation in all classes of soil except hard rock and depositing on bank with initial lead up to 50m and lift up to 1.5m including breaking of clods, sectioning of spoil bank,filling in the sides of trenches,basement watering,ramming,consolidating etc complete	264.00	CUM		
2a (1)	Earth work excavation in all classes of soil except hard rock and depositing on bank with initial lead up to 50m and lift from 1.5m to 3m including breaking of clods, sectioning of spoil bank,filling in the sides of trenches,basement watering,ramming,consolidating etc complete	61.00	CUM		
b	Filling available excavated earth (excluding rock) in trenches, plinth,sides of foundations etc. in layers not exceeding 20cm in depth,consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	265.00	CUM		
c	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	186.00	LTRS		
d	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion). Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor. With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	335.00	SQM		
	SUB HEAD - II : - PLAIN CEMENT CONCRETE				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) PCC & Floor concrete	46.50	CUM		
SUB HEAD III: STONE WORK					
4	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand).	6.50	CUM		
SUB HEAD IV: REINFORCED CEMENT CONCRETE.					
5	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, 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				
	(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).				
a	All works up to plinth level	53.33	CUM		
b	All works above plinth level & up to floor V level	111.58	CUM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
6	Add for using extra cement in the items of design mix over and above the specified cement content therein	98.00	QNT		
7	Centering and shuttering including strutting, propping etc. and removal of form for				
a	Foundations, footings, bases of columns, etc. for mass concrete.	225.00	SQM		
b	Columns, Pillars, Piers, Abutments, Posts and Struts.	405.00	SQM		
c	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	410.85	SQM		
d	Suspended floors, roofs, landings, balconies and access platform	348.80	SQM		
e	Weather shade, Chajjas, corbels etc., including edges	6.00	SQM		
	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc, including the cost of deshuttering at all levels, over a height of 3.5m, for every additional height of 1 m or part thereof (plan area to be measured) above 3.5m uup to 4.5	335.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
8	Supplying and fabrication of reinforcement grills Fe 500 grade for R.C.C work including all cost and labour charges etc complete.	25,840.00	kg		
SUB HEAD V: BRICK WORK					
9.a	Brick work in cement mortar 1:6 (1 cement : 6 coarse sand) using first class Wire cut bricks (22.9 x 11.20 x 7.0 cm) outer exposed and inside with country burnt bricks for superstructure including scaffolding, raking out the joints, curing, cost and conveyance of all materials, labour, lead, lift etc.complete, as directed by the Engineer in Charge.	86.00	CUM		
b	Brick masonry in c.m 1:6 using common burnt clay F.P.S. (non modular) bricks of class designation 7.5 above plinth level up to floor V level in for super structure walls all shapes and sizes in :Cement mortar 1:6 (1 cement : 6 coarse sand)	44.00	CUM		
c	Honey-comb brick work 10 / 11.4 cm thick with common burnt clay bricks of class designation 7.5 in super structure above plinth level upto floor V level with cement mortar 1:4 (1 cement : 4 coarse sand)	22.50	SQM		
d	Supplying and cladding exposed external faces of columns and beams with Wirecut bricks to a thickness of 5cm using CM 1:3 including cost and conveyance of all materials hire and labour charges etc complete.	81.00	SQM		
SUB HEAD VI: ALUMINIUM WORK.					

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
10	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) :				
a	Powder coated aluminium (minimum thickness of powder coating 50 micron)	92.00	Kg		
b	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)				
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	171.00	kg		
c	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.	20.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
d	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 s With float glass panes of 5.50 mm thickness	15.00	SQM		
e	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 to the existing floor finishing and cover plates with brass pivot and embedding in floors as required and making good the same matching doors, including cost of cutting floors, single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. With stainless steel cover plate minimum 1.25 mm thickness	10.00	Each		
f	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete- 125 mm	20.00	Each		
g	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete- 250 X 10 mm	40.00	Each		
h	Providing and fixing IS: 3564 marked aluminium extruded section body tubular type universal hydraulic door closer with double speed adjustment with necessary accessories and screws etc. complete.	10.00	Each		
i	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	10.00	Each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
I	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) Transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	10.00	Each		
	SUB HEAD VII :STEEL WORK				
11.a	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.	205.00	kg		
b	Supplying and fixing of handrails with 2"x1" M.S Rectangular square tube at top with 1.50" M.S square square tube Vertically fixed and 1/2" M.S square tube 5nos for connecting horizontally and diagonally as per the approved design and drawing and as per the instructions of Engineer-in-Charge including cost and conveyance of all materials welding charges hire and labour charges for fixing etc complete	210.00	Kg		
c	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	25.00	kg		
	SUB HEAD VIII : PVC WORK				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
12.a	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer- in- charge Extruded section profile size 48x40 mm	20.00	Rm		
b	Providing and fixing to existing door frames 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer in-charge. (For W.C. and bathroom door shutter)	7.00	m2		
SUB HEAD IX : FLOORING					
13.a	Providing and laying vitrified floor tiles in different sizes thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, 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. Size of Tile 600x600 mm (Lowest retail price not less than Rs. 900/m2)	289.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
b	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White,Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), including grouting the joints with white cement and matching pigments etc., complete. (Lowest retail price not less than Rs. 550/m2)	32.00	SQM		
c	Providing and fixing 1st quality ceramic glazed wall tiles of size 300x450 mm conforming to IS:15622 (thickness to be specified by the manufacturer), of approved make,in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados,over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. (Lowest retail price not less than Rs. 450/m2)	39.00	SQM		
d	Providing and laying pre-polished decorative designer cement concrete tiles of thickness (+/-2mm) of M/s Eurocon tiles of equivalent conforming to IS 1237-1980 of approved tiles over a bed of 25mm thick cement mortar 1:6 with cement slurry at 3.3 kg/sqm jointed and pointed with matching grey/white cement slurry mixed with matching pigment and finishing to required level, curing etc complete all as per manufacturers specifications, design and direction of engineer in charge. Step Tiles	30.50	SQM		
SUB HEAD X : FINISHING.					
14.a	Ceiling plastering with c.m 1:3, 9mm thick including all cost and labour charges etc complete.	270.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
b	Plastering the inside wall with c.m 1:4, 12mm thick including all cost and labour charges etc complete.	990.00	SQM		
c	Providing bordering / watercutting to bottom of sunshades and roof projection including all cost and conveyance of all materials hire and labour charges etc complete	100.00	Rm		
d	Pointing the brick work in cm 1:3 including brick washing and cost and conveyance of all materials and labour charges etc. complete.Flush / Ruled/ Struck or weathered pointing	460.00	SQM		
e	Providing and laying roof insulation with 40 mm thick impervious sprayed, closed cell free Rigid Polyurethane foam over deck insulation conforming to IS - 12432 Pt. III (density of foam being 40-45 kg/ cum), over a coat of polyurethane primer applied @ 6-8 sqm per litre, laying 400 G polythene sheet over PUF spray and providing a wearing course of 40 mm thick cement screed 1: 2 : 4 (1 cement 2 coarse sand : 4 stone aggregate 20 mm nominal size) in chequered rough finish, in panels of 2.5 m x 2.5 m and embedding with 24 G wire netting and sealing the joints with polymerized mastic, all complete as per direction of Engineer-in-Charge.	335.00	SQM		
f	Roof plastering with CM 1:3, 15 mm thick floated hard and trowelled smooth including watering ,curing cost and conveyance of all materials and labour charges etc complete with waterproof compound.	335.00	SQM		
g	Distempering Ceiling with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification. Two or more coats on new work	1,260.00	SQM		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
h	Painting plastered surfaces with two coats of ready mixed plastic emulsion paint of approved colour, shade to give an even shade with matt finish over a coat of cement primer and after rubbing and cleaning the surface and levelling with a coat of wall putty including including cost and conveyance of all materials hire and labour charges etc. complete	1,437.00	SQM		
i	Painting plastered external surfaces with two coats of Anti fungal exterior emulsion of superior quality of any branded make and colour over a coat of cement primer and including filling the crevices with approved filler materials including cost and conveyance of all materials hire and labour charges etc complete	20.00	SQM		
j	Painting M.S Grills , Handrails , with readymixed synthetic enamel paint two coats over one coat of iron primer after screapping the surface to remove the rust and all including cost and conveyance of all materials hire and labour charges etc complete	16.50	SQM		
	SUB HEAD XI : ROOFING.				
15	Providing and fixing tiled false ceiling of approved materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying also ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash				

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
a	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS:2095 part I , of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backing.	227.00	SQM		
b	Providing and fixing thermal insulation with Resin Bonded rock wool conforming to IS: 8183, having density 48 kg/m3,50 mm thick,wrapped in 200 G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held in position by criss crossing GI wire etc complete as per directions of Engineer-in-Charge..	137.00	SQM		
c	Providing and fixing, in position concealed G.I. section for wall paneling using board of required thickness fixed on the 'W' profile (0.55 mm thick) having a knurled web of 51.55 mm and two flanges of 26 mm each with lips of 10.55 mm, placed @ 610 mm C/C in perimeter channel having one flange of 20 mm and another flange of 30 mm with thickness of 0.55 mm and web of length 27 mm. Perimeter channel is fixed on the floor and the ceiling with the nylon sleeves @ 610 mm C/C with fully threaded self-tapping dry wall screws. Board is fixed to the 'W' profile with 25 mm countersunk ribbed head screws @ 200 mm C/C., all complete as per the drawing & directions of engineer-in-charge, the joints of the boards are finished with specially formulated jointing compound and 48 mm wide jointing tape to provide seamless finish.				
	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS:2095 part I , of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backing.	310.00	SQM		
PART III C - PLUMBING & SANITARY WORKS					

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
	SUB HEAD : XII SANITARY WORK				
16	Supplying and fixing European type white glazed earthen ware W.C Pan with ' S' trap as required (Indian make best quality) and Duroplastic seat and lid with C.P brass hinges and rubber buffers etc., low level PVC flushing cistern with float valve and all internal fittings and 2 no C.P brass bracket, 1 no. 15mm CP Brass angle valve, 1 no 15mm PVC connection, 40mm PVC flush pipe, over flow pipe with mosquito proof arrangement etc. complete including cutting and making good the walls and floors.	3	each		
17	Supplying and fixing white glazed European water closet, wash basin, one hinged hand rails, two grab rails and all associated accessories like flushing cistern, seat and cover, CP brass angle valve, CP brass pillar tap with spatula lever, waste coupling etc. to make the toilet functional for special need persons including cutting and making good the walls and floor, etc. complete.	1	Set		
18	Supplying and fixing 550x400mm or nearest size Wash hand basin of white glazed earthenware (Indian make best quality) with CI brackets fitted to 150x150x80mm plugs with screws, embedded in CM 1:4, 15mm CP brass pillar tap – 1no, 15mm heavy duty PVC connection – 1no, 32mm CP waste with chain and Plug – 1no, 32mm PVC waste – 1no, 1 no 15mm CP Brass angle valve including cutting and making good the walls, painting the bracket with suitable paint 2 coats etc. complete.	3	each		
19	Supplying and fixing 490mm dia. or nearest size circular wash hand basin of white glazed earthenware (Indian make best quality) counter sunk already built with necessary chipping and chamfering and finishing including supplying and fixing 32mm CP brass waste with plug and chain – 1no., 15mm CP brass pillar tap (Heavy, best quality) 1 no., 32mm PVC waste pipe and 15mm heavy duty PVC connection 1 no 15mm CP Brass angle valve including cutting and making good the walls etc. complete.	2	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
20	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430mmx260mm x350mm or nearest size 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. One urinal basin with 5 litre white P.V.C. automatic flushing cistern.	2	each		
21	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. Circular shape 450 mm dia.	6	each		
22	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.	2	each		
23	Supplying and fixing PVC Floor Trap 100mmx75mm size with Jali including cutting open, boring through walls, RCC slabs etc. and making good the damages.	8	each		
24	Supply , jointing and fixing 110mm OD 6 Kgf UPVC (Sanitary - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum of 4.5kg/cm2 static head for at least half an hour, finishing complete.	12	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
25	Supply , jointing and fixing 75mm OD 6 Kgf UPVC (Sanitary - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum of 4.5kg/cm2 static head for at least half an hour, finishing complete.	18	Rm		
26	Supplying 110mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	6	Rm		
27	Supplying 75mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	9	Rm		
28	Supplying 50mm OD 10 Kgf uPVC (Sanitary concealed) pipes , jointing and fixing them on slabs, floors etc. in position for connecting various fixtures and specials with brick or CC supports wherever necessary including cutting and chasing brock walls as required, making good the same with brick in CM 1:6 and plastering with CM 1:4, 12mm thick one coat complete.	13	Rm		
29	Supplying and fixing 110mm PVC Ventilation Cowl in position.	4	each		
30	Supplying and fixing 75mm PVC Ventilation Cowl in position.	6	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
31	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	4	each		
32	Supplying and fixing 700mmx340mmX120mm or nearest size Division plate of porcelain material including making good the wall etc. complete.	3	each		
	SUB HEAD : XIII WATER SUPPLY WORKS				
33	Supply, jointing and fixing 25mm OD 15 Kgf uPVC (Water supply-concealed) pipes and uPVC specials/end fitting with brass inserts conforming to IS standards with good quality solvent cement using teflon tape chasing the walls and floors, making the holes, clamping to walls using pipe hooks and restoring the same to the original conditions, necessary excavation, testing the pipe line using a manually operated test pump to a pressure of 10 Kg/cm ² or twice the working pressure or static head whichever is greater, maintaining the test pressure at least for half an hour complete as specified and directed .	50	Rm		
34	Supply , jointing and fixing 50mm OD 10 Kgf uPVC (Water supply -exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm ² or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	32	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
35	Supply , jointing and fixing 40mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	35	Rm		
36	Supply , jointing and fixing 32mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	10	Rm		
37	Supply , jointing and fixing 25mm OD 10 Kgf uPVC (Water supply - exposed) pipes and specials with good quality solvent cement and teflon tape and fixing the same to line, plumb and level on the sides of ducts, walls, slabs as the case may be by using slotted rails , U clamps, 8mm threaded rods and other required materials including drilling holes, making good the walls, cleaning etc. and testing the pipe line to minimum 6 Kg/cm2 or 1.5 times the maximum working pressure or static head to which the pipe line shall be subjected whichever is greater maintaining the test pressure for at least half an hour, finishing complete.	13	Rm		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
38	Supplying and fixing good quality concealed type (20mm) CP Brass Stop Cock (best quality, heavy) long body with flange in position.	2	each		
39	Supplying and fixing 15mm CP douche tap (health faucet with angle valve) in position.	4	each		
40	Supplying and fixing CP Brass (best quality, heavy) long body tap in position.	5	each		
41	Supplying and fixing 25mm or nearest size full way GM wheel valve (superior quality) in position.	1	each		
42	Supplying and fixing 20mm or nearest size full way GM wheel valve (superior quality) in position.	1	each		
43	Supply, installation, testing and commisioning of 25mm dia of Brass float valve with flexible rod and PVC ball.	2	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
44	OHT PVC Supply, fixing, testing and commissioning of over head PVC water tank of 1000 litres capacity including transportation and cost of accessories.	2000	Litre		
	SUB HEAD : XIV SEWER LINES				
45	Supplying, laying 110mm dia. uPVC pipe, 4 kgf (pasted type) lowering into trenches , placing in position, aligning to line and levels and jointing with solvent cement and testing to specified head including earth work excavation in all classes of soil and hire for tools and equipments etc. complete.	40	Rm		
46	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with 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 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.				
	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).				
	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	2	each		

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
47	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).				
	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	4	each		
48	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 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				
	100x100 mm size P type				
	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	3	each		
49	Septic tank 50 users Supply, fixing, testing and commissioning of septic tank of readymade type of 50 user capacity including transportation, earth work excavation and back filling as required by engineer at site.	1	each		
50	Soak pit: Supply fixing, testing and commissioning of soak pit 100 users capacity including transportation, earth work excavation and back filling as required by engineer at site	1	each		
SUB HEAD : XV ROOF WATER DRAINAGE					

Item No	Description of Item	Quantity	Unit	Rate In figures & in Words)	Amount (in Rs.)
51	Providing and fixing on wall face unplasticised Rigid 110 PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.	20	Rm		
(i)	110mm PVC Coupler	5	each		
(ii)	110mm PVC Bend 87.5°	10	each		
(ii)	110mm PVC Pipe clip	14	each		
52	Supplying and fixing 125mm PVC circular gratings including cutting, chasing wall, floors and making good the same etc. complete.	8	each		
53	Constructing masonry shoe to the bottom of the rain water pipes with brick in cement mortar 1:6 over CC 1:4:8 using 40mm metal concrete, plastering the exposed surfaces using CM 1:5 one coat, forming the circular spout outlet, finishing etc. complete.	8	each		
	TOTAL (PART I A + PART II A + PART III A)				