

CENTRE FOR PERFORMING ARTS AT VARKALA					
CIVIL WORKS					
PART - I					
No	Description	Quantity	Unit	Rate Rs (in figures & words	Amount in Rs
APPENDIX A MAIN BLOCK					
1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.- All kinds of soil	400.00	cum		
2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	70.00	cum		
3	Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete	115.00	sqm		
4	Centering and shuttering including strutting, etc. and removal of form for: Lintels, beams, plinth beams, girders bressumers and cantilevers	250.00	sqm		
5	Centering and shuttering including strutting, etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts	290.00	sqm		
6	Centering and shuttering including strutting, etc. and removal of form for: Vertical and horizontal fins individually for forming box louvers band, facias and eaves boards	10.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
7	Centering and shuttering including strutting, etc. and removal of form for: Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	51.00	sqm		
8	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 or less cement used as per design mix is payable or recoverable separately. All work upto plinth level	95.00	cum		
9	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	6.00	cum		
	Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work above plinth level upto floor V level				
10	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	1.00	cum		
11	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level - Thermo - Mechanically Treated bars	12000.00	kg		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
12	Providing anti-corrosive treatment to steel reinforcement with Fusion Bonded Epoxy Coating (FBEC).	12000.00	kg		
	<i>Note- Contractors generally do not have expertise for this item . The job is therefore, got done from specialised firms who have the expertise in the field of construction chemicals. Detailed guidelines in this regard have been issued by MoRTH vide their circular no. RW/NH-34041/44/91-S&R dated 21.3.2000. (from MoRTH Spec)</i>				
13	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	260.00	cum		
14	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in: Cement mortar 1:6 (1 cement : 6 coarse sand)	72.00	cum		
15	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement : 4 coarse sand)	12.00	sqm		
16	12 mm cement plaster of mix: 1:4(1 cement : 4 coarse sand)	760.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
17	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying : a) after surface preparation, first layer of slurry of cement @ 0.488 kg/ sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. laying second layer of fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/ sqm mixed with water proofing cement compound @ 0.670 kg/sqm				
	and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around. d) fourth and final layer of brick tilling with cement mortar (which will be paid for separately. For the purpose of measurement the entire treated surface will be measured)	105.00	sqm		
18	Forming groove of uniform size from 12x12 mm and upto 25 x 15 mm in the top layer of washed stone grit plastered surface as per approved pattern, including providing and fixing aluminum channels of appropriate size and thickness (not less than 2 mm), nailed to the under layer with rust proof screws and nails and finishing the groove complete as per specifications and direction of the Engineer -in-Charge.	150.00	m		
19	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15 cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	105.00	E		
20	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	24.00	cum		
21	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. Second class teak wood- 35 mm thick shutters	11.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
22	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick : Second class teak wood	10.00	sqm		
23	Providing and fixing panelled or panelled and glazed shutters for shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer - in-charge. Second class teak wood- 35 mm thick shutters	5.00	sqm		
24	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured), Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick: Second class teak wood, as per the drawing	61.00	sqm		
25	Providing and fixing glazed shutters for door, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S. Pressed butt hinges bright finished of required size with necessary screws. 30 mm thick	34.00	sqm		
26	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. as per the drawing and direction of Engineer in charge.	540.00	kg		
27	Providing and fixing door system (in standard dimension of 600mm-900mm door size) 12mm thick solid compact laminate panel should be resistant to heat, bacteria, water, chemical, scratch and impact. Finished product should be as per approved texture, shade and drawing detailing and developed according to IS 2046 and BS 476/97 standards. The product should have a green guard certificate. The door setup includes necessary door fittings made out of Nylon polymied and aluminium anodised as per standard drawing, specification and engineers direction.	3.00	E		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
28	Providing and fixing urinal partition of approved brand: (Merino, Greenlam, royal crown laminates) (in standard dimension of 1195mm x 450mm size- Model A) 12mm thick solid compact laminate panel should be resistant to heat, bacteria, water, chemical, scratch and impact. Finished product should be as per approved texture, shade and drawing detailing and developed according to IS 2046 and BS 476/97 standards. The product should have a green guard certificate. The urinal partition includes necessary standard fittings made out of stainless steel as per standard specification and engineers direction.	2.00	E		
29	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	21200.00	kg		
30	Extra for fixing the base of structural columns with 4nos Anchor Bolts - M20 (500mm long) embeded in Non shrinkable grout, in correct line and level, including cost of bolts, Non shrinkable grout and labour charges etc complete as per the drawing and direction of Engineer in charge.	44.00	E		
31	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.as per the drawing and direction of Engineer in charge.	1300.00	kg		
32	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., of approved brand (TaTa ,kalinga,appolo) including cutting, hoisting, fixing position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes	33000.00	kg		
33	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10 mm	6.00	E		
34	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 150x10 mm	6.00	E		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
35	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer of approved brand (Gindal,hindalco,bhoruka,sapa) (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width form 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	6.00	E		
36	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved brand (ramson,godrage,ekri) with necessary screws etc. complete.	6.00	E		
37	Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, necessary brass screws etc. to suit shutter thickness complete	6.00	E		
38	Providing and fixing finished brass hard drawn hooks and eyes: 200 mm	24.00	E		
39	Providing and fixing finished brass hard drawn hooks and eyes: 100 mm	50.00	E		
40	38 mm thick wood block flooring of first class teak wood laid over 25 mm thick leveling layer of cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 10 mm nominal size) to be paid separately, coated with a thin layer of hot bitumen (blown type) @2.45 kg per sqm, including fixing blocks in position after dipping in hot bitumen (blown type) up to half depth, planed, levelled smooth and finished complete.	50.00	sqm		
41	Encasing rolled steel sections, in beams and columns, with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size), including centering and shuttering complete but excluding cost of reinforcement.	6.00	cum		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
42	Extra for providing and fixing expanded metal mesh of size 20x60 mm and strands 3.25 mm wide 1.6 mm thick weighing 3.64 kg per sqm for encasing or rolled steel sections in beams, columns and grillages excluding cost of hangers.	100.00	sqm		
43	Kota stone slab flooring 25 mm thick over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1:4 (1 cement : 4 coarse sand)	400.00	sqm		
44	Kota stone slab 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	26.00	sqm		
45	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	70.00	m		
46	Mirror polishing on marble work/ granite work/stone work where ever required to give high gloss finish complete.	410.00	sqm		
47	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, (kajaria,NITCO,ORIENT Bell, RAK) in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.	30.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
48	Providing and fixing 1 st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer), of approved make, (kajaria,NITCO,ORIENT Bell, RAK) 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 @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	50.00	sqm		
49	Providing and fixing 18 mm thick gang saw cut, mirror, polished, 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.- Area of slab over 0.50 sqm	2.00	sqm		
50	Providing edge moulding to 18 mm thick marble stone counters, vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer -in-Charge. Granite work	4.00	m		
51	Extra for providing opening or required size & shape for wash basin/kitchen sink in kitchen platform, vanity counter and similar location in marble/granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	4.00	E		
52	Granite (natural stone) 300 x 300 x 25mm work for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.	110.00	sqm		
53	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick : 12 mm thick glass with bevelled edge as per approved drawing.	2.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words	Amount in Rs
54	Providing and fixing cornice work at top and bottom of column in CM 1:3 and plastering the pillar as per approved design including cost of all materials and labour charges etc. complete, as per approved drawing.	34.00	E		
55	Providing supplying and fixing shingles premium type of approved brand (saint-gobain,timberline) for roofing with an additional bottom layer of 12 mm premium cement board fixed over the existing roof members including cost of adhesive, screws, all materials and labour charges etc. complete	1250.00	sqm		
56	Extra for providing supplying and fixing shingles premium type ridge including cost of adhesive, screws, all materials and labour charges etc. complete	200.00	m		
57	Extra for providing supplying and fixing shingles premium type starter including cost of adhesive, screws, all materials and labour charges etc. complete	220.00	m		
58	Providing and fixing eve board with 150 x 12mm size teak wood plank with approved carving and design including coat of all materials, labour charges for making and fixing in correct line and level as per engineers direction	220.00	m		
59	Providing and fixing traditional type ornamental/ carved trellis with Teak wood of size 18 x 7.5 cm size including cost of all materials and labour charges, etc. complete as per approved design and direction of Engineer in charge. (drawing in charge)	75.00	E		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
60	Teak wood reepering in 6 x 3 cm or nearest size, between trellis in line and level, as per approved design including cost of all materials and labour charges etc. complete as per the direction of engineer in charge.	650.00	m		
61	Providing and fixing 2nd class teak wood 12 mm thick plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface and melamine polish with approved brand	1350.00	sqm		
62	Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee /angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P brass/ stainless steel sunk screws, aluminium perimeter angles fixed to wall with stainless steel rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-in-Charge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).	2600.00	kg		
63	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.)	70.00	kg		
64	Providing and fixing 18mm thick toughened glass of approved brand and manufacture with necessary including providing and fixing pivot arrangement and making necessary holes etc. all complete as per direction of Engineer-incharge. (frame work to be paid seperately)	6.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
65	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface: Water thinnable cement primer	760.00	sqm		
66	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	760.00	sqm		
67	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	320.00	sqm		
68	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.- Two coat	450.00	sqm		
69	Melamine polishing: Two or more coats on new works including a coat of wood filler	2000.00	sqm		
70	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.- On steel work	1500.00	sqm		
APPENDIX B- Land scaping					

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
71	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 up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. All kinds of soil	2000.00	cum		
72	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil	1450.00	cum		
73	Extra rates for quantities of works, executed: In or under water and /or liquid mud, including pumping out water as required	60.00	m		
74	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4)1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	200.00	cum		
75	Extra for laying concrete in or under water and or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note for item No. 4.15 : - The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.10 m 0.05 m or more shall be taken as 0.10 m and less than 0.05 m ignored.	6.00	cum		
76	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) up to plinth level with: Cement mortar 1:6 (1 cement : 6 coarse sand)	375.00	cum		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
77	Extra for laying stone work in or under water and/ or liquid mud including cost of pumping or bailing out water and removing slush etc. complete. Note:- The quantity will be calculated by multiplying the depth measure from sub-soil water level upto the centre of gravity of stone work under sub-soil water with the quantity of stone work in cum executed under the sub-soil water. The depth of centre of gravity shall be reconed correct to 0.1 m. 0.05 m or more shall be taken as 0.1 m and less than 0.05 m ignored.	35.00	cum		
78	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like. Cement mortar 1:6 (1 cement : 6 coarse sand)	200.00	cum		
79	Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete	470.00	sqm		
80	Centering and shuttering including strutting, etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts	1250.00	sqm		
81	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 or less cement used as per design mix is payable or recoverable separately. All work upto plinth level	200.00	cum		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
82	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				
83	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 or less cement used as per design mix is payable or recoverable separately. All work above plinth level upto floor V level	80.00	cum		
84	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level- Thermo - Mechanically Treated bars	23250.00	kg		
85	Providing anti-corrosive treatment to steel reinforcement with Fusion Bonded Epoxy Coating (FBEC).	23250.00	kg		
	Note- Detailed guidelines in this regard have been issued by MoRTH vide their circular no. RW/NH-34041/44/91-S&R dated 21.3.2000. (from MoRTH Spec)				
86	Laterite masonry in CM 1:6 with high quality laterite stone 40 x 20x 20 cm size neatly dressed including cost of all materilas and labour charges etc. complete	325.00	cum		
87	Grinding/ carving and finishing the laterite masonry as per approved design and shape including hire charges of grinding machine and labour charges etc. complete as per the direction of engineer incharge.	650.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
88	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern,	2250.00	sqm		
	finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc. complete as per manufacturer's specifications & direction of Engineer-in-Charge. 60mm thick C.C. paver block of M-35 grade with approved colour, design & pattern.				
89	Kota stone slab 25 mm thick flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1:4 (1 cement : 4 coarse sand)	250.00	sqm		
90	75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with. Stone aggregate 6 mm nominal size.	215.00	sqm		
91	Granite (natural stone) 300 x 300 x 25mm work for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.	600.00	sqm		
92	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	265.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
93	Kota stone 300x300x25 mm size exposed face dressed and rubbed flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand)	520.00	sqm		
94	Kota stone slabs exposed face dressed and rubbed 300x300x25 mm mm size in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	55.00	sqm		
95	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	55.00	cum		
96	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m : All kinds of soil	1850.00	cum		
97	Deduct for not rolling with power roller of minimum 8 tonnes for banking excavated earth in layers not exceeding 20 cm in depth	-110.00	cum		
98	Deduct for not watering the excavated earth for banking	-200.00	cum		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
99	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in: Cement mortar 1:6 (1 cement : 6 coarse sand)	210.00	cum		
100	12 mm cement plaster of mix: 1:4 (1 cement : 4 coarse sand)	1500.00	sqm		
101	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying : a) after surface preparation, first layer of slurry of cement @ 0.488 kg/ sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. laying second layer of fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/ sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm.	940.00	sqm		
102	This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around. d) fourth and final layer of brick tilling with cement mortar (which will be paid for separately. For the purpose of measurement the entire treated surface will be measured)				
103	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface: Water thinnable cement primer	1500.00	sqm		
104	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	1500.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
105	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	1500.00	sqm		
106	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.- On steel work	75.00	sqm		
107	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	4300.00	sqm		
108	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	3000.00	sqm		
109	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.- Beyond 30 cm girth upto and including 60 cm girth	15.00	E		
110	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.- Beyond 60 cm girth upto and including 120 cm girth	12.00	E		
111	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.- Beyond 120 cm girth upto and including 240 cm girth	10.00	E		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
112	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.- Above 240 cm girth	8.00	E		
APPENDIX C - SUMPS AND PUMP HOUSE					
113	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.	400.00	cum		
114	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	10.00	cum		
115	Centering and shuttering including strutting, propping etc. and removal of form for :Foundations, footings, bases of columns, etc. for mass concrete	55.00	sqm		
116	Centering and shuttering including strutting, propping etc. and removal of form for :Columns, Pillars, Piers, Abutments, Posts and Struts	340.00	sqm		
117	Centering and shuttering including strutting, propping etc. and removal of form for :Suspended floors, roofs, landings, balconies and access platform	340.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
118	Centering and shuttering including strutting, propping etc. and removal of form for :Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	5.00	sqm		
119	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). All works upto plinth level	90.00	cum		
120	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). All works above plinth level upto floor V level	3.00	cum		
121	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete . Thermo-Mechanically Treated bars	8500.00	kg		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
122	Providing anti-corrosive treatment to steel reinforcement with Fusion Bonded Epoxy Coating (FBEC).	8500.00	kg		
	Note- Contractors generally do not have expertise for this item . The job is therefore, got done from specialised firms who have the expertise in the field of construction chemicals. Detailed guidelines in this regard have been issued by MoRTH vide their circular no. RW/NH-34041/44/91-S&R dated 21.3.2000. (from MoRTH Spec)				
123	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	10.00	cum		
124	12 mm cement plaster of mix : 1:4(1 cement: 4 coarse sand)	150.00	sqm		
125	6 mm cement plaster of mix :: 1:3 (1 cement: 3 fine sand)	90.00	sqm		
126	12 mm cement plaster finished with a floating coat of neat cement of mix : 1:3 (1 cement: 3 fine sand)	240.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
127	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying: a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm.	430.00	sqm		
	This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around. d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately. For the purpose of measurement the entire treated surface will be measured.				
128	Providing and fixing 1st quality ceramic glazed wall tiles 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 @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	225.00	sqm		
129	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	10.00	sqm		
130	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. Using M.S. angels 40x40x6 mm for diagonal braces	3.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
131	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).- Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block				
	15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	70.00	kg		
132	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 steel windows by welding	80.00	kg		
133	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with : 5.5 mm thick glass panes	6.00	sqm		
134	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : Water thinnable cement primer	100.00	sqm		
135	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	40.00	sqm		
136	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.- Two coat	60.00	sqm		

No	Description	Quantity	Unit	Rate Rs (in figures & words)	Amount in Rs
137	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.- On steel work	10.00	sqm		
138	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality : Rectangular shape 600x450 mm internal dimensions	8.00	E		
139	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS : 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend				
	test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	25.00	E		
	TOTAL- PART I - CIVIL WORKS				