

**Construction of Academic and Administrative Blocks at College of Engineering, Aranmula
(Phase - II)
TENDER SCHEDULE**

SI.No.	Quantity	Description	Unit	Rate	Amount
1	9500	Boring ,providing,and installing bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap ,to carry a safe working load not less than specified,excluding the cost of steel reinforcement but including the cost of boring ,with Bentonite solution and temporary casing of appropriate length for setting out and removal of same and length of pile to be embedded in the pile cap etc,all complete,including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pilecap) (SH. 20.2.5) 600mm dia. piles.	m	Rs.3,906.20 (Rs.three thousand nine hundred and six and paise twenty)	3,71,08,900
2	1 No.	Vertical load testing of pile in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer -in-charge Single pile above 50 tonne and upto 100 tonne capacity - Routine test (SH: 20.6.2.2)	Each	Rs.26,175.00 (Rs.Twenty six thousand one hundred and seventy five only)	26,715
3	5 Nos.	Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge.Note:- The inclusion of the above item in the schedule of work shall be judiciously decided by the technical sanctioning authority, keeping in view the quality control, type of soil strata & importance of the project.	Each	Rs.705.85 (Rs.Seven hundred and five and paise eighty five)	3,529
4	77 m3	Demolishing RCC work manually /by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 meters lead as per direction of Engineer -in -charge(at top of pile) (SH. 15.2.1)	m3	Rs.1193.45 (Rs.One thousand one hundred and ninety three and paise forty five)	91,896

Contractor:

5	150 m	Boring ,providing,and installing bored cast-in-situ under reamed piles of specified diameter and length below pile cap in M-25 cement concrete. To carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of bring with bentonite solution and the length of the pile to be embedded in pile cap etc. a;; complete (length of pile for payment shall be measured upto the bottom of pile cap.): (SH: 20.3.1) 300mm dia piles	m	Rs.2094.90 (Rs.Two thousand and ninety four and paise ninety)	3,14,235
6	6,61,000	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete level-(Thermo-Mechanically-Treated bars)	kg	Rs.73.55 (Rs.Seventy three and paise fiftyfive)	4,86,16,550
7	1000 m3	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 back filling, getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil (SH: 2.8.1)	m3	Rs.172.00 (Rs. One hundred and seventy two only)	1,72,000
8	2,300 m3	Filling the excavated earth(cut gravel) brought from outside in the scheme area ,filling inside the plinth, sides of foundation, yard etc in layers not exceeding 20 cm depth ,consolidating each deposited layer by ramming and watering with all leads and lifts etc. complete (SH: 2.27)	m3	Rs.523.20 (Rs.Five hundred and twenty three and paise twenty)	12,03,360
9	1000 m	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) along plinth/external wall where the apron is not provided using chemical emulsion @ 7.5 litres/sqm of vertical surface of the sub structure to a depth of 300mm including excavation channel along the wall and rodding etc complete: With Chlorpyrifos/Lindane E.C. 20 % with 1 % concentration (SH : 2.35.1.1)	m	Rs.20.40 (Rupees Twenty and paise forty)	20,400
10	10 hours	Bailing out water with engine and pump set including conveyance to the site and erection, cost of fuel, lubricating oil and other stores pay of staff etc complete during the course of construction work as per direction of Engineer-in-charge	hour	Rs.191.30 (Rs.One hundred and ninety one and paise thirty)	1,913

Contractor:

11	130 m3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering 1:4:8(1 cement :4 course sand :8 graded stone aggregate 40mm nominal size) (SH: 4.1.8)	m3	Rs.5168.00 (Rs.five thousand one hundred and sixtyeight only)	6,71,840
12	150 m3	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 (1cement ; 6 coarse sand) (SH : 7.1.1)	m3	Rs.4424.30 (Rupees four thousand four hundred and twenty four and paise thirty)	6,63,645
13	47 m3	Providing and laying in position specified grade of reinforced cement concrete 1:1.5:3 (1- cement; 1.5- Coarse sand; 3- 20mm nominal size aggregate) excluding the cost of centering, shuttering, finishing for works upto plinth level (SH: 4.2.1)	m3	Rs.7,349.55 (Rs.seven thousand three hundred and forty nine and paise fiftyfive)	3,45,429
14	461.5 m3	Providing and laying in position specified grade of reinforced cement concrete 1:1.5:3 (1- cement; 1.5- Coarse sand; 3- 20mm nominal size aggregate) excluding the cost of centering, shuttering, finishing for works upto five floor level (SH: 4.2.2)	m3	Rs.8170.45 (Rs.Eight thousand one hundred and seventy and paise forty five)	37,70,663
15	800 m3	Providing and laying in position machine batched and machine mixed designM-25 grade concrete for reinforced cement concrete works,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 propotions and as per IS 9103 to acclerate/retard setting of concrete, improve workability without impairing strength and durability as per the direction of engineer in chargeNote:-Cement content considered in this item is @330 kg/cum.Excess/less cement used as per design mix is payable/recovable seperately: for all works upto plinth level. (SH: 5.33.1)	m3	Rs.7487.60 (Rupees seven thousand four hundred and eightyseven and paise sixty)	59,90,080

Contractor:

16	2036 m3	Providing and laying in position machine batched and machine mixed design M-25 grade concrete for reinforced cement concrete works, 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 the 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 (for all work above plinth level upto 5 th floor level) (SH: 5.33.2)	m3	Rs.8310.85 (Rs.Eight thousand three hundred and ten and paise eighty Five)	1,69,20,891
17	5 m3	Reinforced cement concrete work upto five floor level excluding cost of centering, shuttering, finishing and reinforcement: (M-15) CC 1:2:4 (1 cement : 2 coarse sand : 3 graded stone aggregate 20 mm nominal size) (SH: 5.5) (for slope sunshade)	m3	Rs.8423.70 (Rs.Eight thousand four hundred and twenty three and paise seventy)	42,119
18	1300 m2	Centering and shuttering including strutting, propping etc and removal of form for: Foundations, footings, bases of columns, etc for mass concrete (SH: 5.9.1)	sqm	Rs.214.90 (Rs. Two hundred and fourteen and paise ninety)	2,79,370
19	200 m2	Centering and shuttering including strutting, propping etc and removal of form for: Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc (SH: 5.9.2)	sqm	Rs.424.40 (Rs.Four hundred and twenty four and paise forty)	84,880
20	8200 m2	Centering and shuttering including strutting, propping etc and removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilevers (SH: 5.9.5)	sqm	Rs.386.40 (Rs. Three hundred and eighty six and paise forty)	31,68,480
21	4,000 m2	Centering and shuttering including strutting, propping etc and removal of form for: Columns, Pillars, Piers Abutments, Posts and struts (SH: 5.9.6)	sqm	Rs.521.20 (Rs.Five hundred and twenty one and paise twenty)	20,84,800
22	7,805 m2	Centering and shuttering including strutting, propping etc and removal of form for: Suspended floor, roofs, landings, balconies and access platform (SH: 5.9.3)	sqm	Rs.476.70 (Rs.Four hundred and seventy six and paise seventy)	37,20,644

Contractor:

23	150 m2	Centering and shuttering including strutting,propping etc and removal of form for: Stairs (excluding landings) except spiral stiarcases (SH:5.9.7)	sqm	Rs.435.75 (Rs. Four hundred and thirty five and paise seventy five)	65,363
24	50 m2	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of deshuttering and decentering at all levels, over a height of 3.6m for every additional height of 1 metre or part thereof suspended floors, roofs, landing beams, and balconies (Plan area to be measured) (SH: 5.11.1)	sqm	Rs.195.05 (Rs. One hundred and ninety five and paise five)	9,753
25	800 m	Centering and shuttering including strutting,propping etc and removal of form for: Edges of slab and breaks in floors and walls under 20 cm wide (SH: 5.9.16.1)	m	Rs.125.25 (Rs.One hundred and twentyfive and paise twenty five)	1,00,200
26	1600 m3	Providing and constructing solid cement concrete block masonry in CM 1:6 (1 cement,6course sand) of size 30 x 20 x20cm using factory made load bearing ,approved quality cement blocks of specified size of grade(D-4) Density of blocks not less than 1800 kg/cum ,Minimum average compressive strength 4 N/mm2 and minimum strength of individual unit 3.2 N/mm2 etc,confirming to IS 2185 part 1 1979 setting in position ,curing raking out joints ,including scaffolding etc upto FLOOR LEVEL FIVE with all lead and lift and all as per specifications and direction of Engineer-in-charge	m3	Rs.4,765.00 (Rs.Four thousand seven hundred and sixty five only)	76,24,000
27	20 m3	Do. Do. Usisng block size of 40 x 20x 10 cm as per above specification for toilet, partition wall etc.	m3	Rs.5,652.00 (Rs.Five thousand six hundred and fifty two only)	1,13,040
28	9,587 m	Providing and fixing double layer chicken mesh in the junction of RCC beam and brick masonry at least 100mm on either face (total 200mm high) filling packed these junctions with polymer based cement mortar sand face plastering in two coats, base coat min. 15mm thick in CM 1:4 (1 cement : 4 sand) mixed with waterproofing compound made rough to received finish coat of 10mm thick in CM 1:3 waterproofed plaster in perfect plumb level to obtained fine grain sand including curing all complete as directed by The Architect.	m	Rs.354.65 Rs.Three hunded and fifty four and paise sixty five)	34,00,030

Contractor:

29	8 m3	Providing wood work(second class teak wood) 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 seperately)-(SH: 9.1.1)	m3	Rs.1,33,547.20 (Rs, One lakh thirty three thousand five hundred and forty seven and paise twenty)	10,68,378
30	1,560 nos.	Providing 40 x 5mm flat iron hold fast 40 cm long including fixing to frame with 10mm diameter bolts ,nuts and wooden plugs and embedding in cement concrete block 30 x 10 x 15 cm ,1:3:6 mix (1 cement:3 course sand :6 graded stone aggregate 20mm nominal size) (SH: 9.53)	Each	Rs.136.00 (Rs. One hundred and thirty six only)	2,12,160
31	9600kg	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.(SH: 9.48)	kg	Rs.135.35 (Rs.One hundred and thirty five and paise thirty five)	12,99,360
32	80 m	Providing and fixing factory made door frame (single rebate) made out of single piece extruded solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 62 mm width & 32 mm thickness, frame will be mitred & Jointed with self driven self tapping screws of size 38 mm x 4 mm & PVC solvent cement , including fixing the frame to wall with suitable dia & length anchor fastener as per manufacturer's specification and direction of Engineer-in-charge (SH: 9.123)	m	Rs.429.70 (Rs. Four hundred and twenty nine and paise seventy)	34,376

Contractor:

33	35 m2	Providing and fixing factory made 30 mm thick door shutter made of solid PVC foam profile . The styles & rails shall be of size 75 mm x 30 mm having wall thickness 5 mm. The styles, top & bottom rails shall have one side wall thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power. The styles and rails shall be reinforced with M.S. tubes of size 33 mm x 17 mm x 1mm, painted with primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and the rails with a cavity, to receive single piece extruded 5 mm PVC sheet as panel. The styles and rails will be mitred cut and joint with the help of PVC solvent cement & self driven self tapping screws. Single piece extruded solid PVC lock rail of size 100mm x 30 mm with wall thickness 5 mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100 mm x 8 mm complete as per manufacturer's specifications and direction of Engineer-in-charge. (SH:9.124)	m2	Rs.2,691.40 (Rs. Two thousand six hundred and ninety one and paise forty)	94,199
34	20,800 m2	Plastering (cement plaster) with CM 1:4 (1 cement, 4 fine sand), 12mm thick, to the internal and external walls including all costs of materials and labour charges watering, curing etc complete (SH: 13.1.1)	m2	Rs.189.90 (Rs. One hundred and eighty nine and paise ninety)	39,49,920
35	9450 m2	Plastering (cement plaster) with CM 1:3 (1 cement, 3 fine sand) 6mm thick, to the under side of roof slab including all cost of materials and labour charges, watering, curing etc complete (SH: 13.16.1)	sqm	Rs.151.65 (Rs. One hundred and fifty one and paise sixty five)	14,33,093
36	2800 m2	Plastering (cement plaster) with CM 1:3 (1 cement, 3 fine sand) finished with a floating coat of neat cement , 15 mm thick, to the top of roof slab including all cost of materials and labour charges etc complete (SH: 13.7.1)	m2	Rs.263.40 (Rs. Two hundred and sixty three and paise forty)	7,37,520
37	2710 m2	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturer (SH: 13.21) on the top of roof slab and sunshade etc.	m2	Rs.5.50 (Rs. Five and paise fifty)	14,905
38	925 m	12mm thick plain cement mortar bands in cement mortar 1:4 (1 cement : 4 fine sand): Rasied band (SH: 13.28.3)	m	Rs.44.70 (Rs. forty four and paise seventy)	41,348

Contractor:

39	500 m2	Providing and fixing panelled or panelled and glazed shutters for doors ,windows and clerestery windows ,including ISI marked MS pressed butt hinges bright finished of required size with necessary screws ,excluding panelling which will be paid for seperately ,all complete as per direction of Engineer -in-charge (Second class teakwood-35mm thick shutters)-(SH: 9.5.1.1)	m2	Rs.3610.70 (Rs. Three thousand six hundred and ten and paise seventy)	18,05,350
40	500 m2	Providing and fixing panelled 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 (25mm to 40mm thick- using 2 nd class teak wood) (SH: 9.7.1)	m2	Rs.2909.00 (Rs.Two thousand nine hundred and nine only)	14,54,500
41	20m2	Providing and fixing 12 mm thick frame les toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arraangement and making necessary holes etc., for fiuxing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc to be paid separately) (SH: 21.18)	m2	Rs.4,841.15 (Rs.Four thousand eight hundred and forty one and paise fifteen)	96,823
42	30,250 m2	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface: Water thinnable cement primer (SH: 13.43.1)	m2	Rs.35.00 (Rs.Thirty five only)	10,58,750
43	4800 m2	Finishing the outside walls with Acrylic smooth exterior paint of required shade two or more coats @ 1.67ltr/10m2 over and including priming coat of exterior primer applied @ 2.20kg/10m2 etc. complete (SH: 13.46.1)	m2	Rs.86.10 (Rs.Eightysix and paise ten)	4,13,280
44	25,500 m2	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade - two or more coats on new work. (SH : 13.60.1)	m2	Rs.79.40 (Rs.Seventy Nine and paise forty only)	20,24,700
45	500 m2	Polishing on wood work with Ready mixed wax polish of approved brand and manufacture -New work-in the teak wood door including all cost of materials and labour etc. complete (SH: 13.69.1)	m2	Rs.84.00 (Rs. Eighty four only)	42,000
46	600 m2	Painting with synthetic enamel paint two coats having VOC content less than 150 grams/litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colouover an under coat of suitable shade with ordinary paint of approved brand and manufacture (SH:13.62.1)	m2	Rs.104.45 (Rs.One hundred and four and paise forty five)	62,670

Contractor:

47	9200 m2	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 600 x 600 mm) (SH:11.41.2)	m2	Rs.1,531.25 (Rs. One thousand five hundred and thirty one and paise twentyfive))	1,40,87,500
48	284 m2	Providing and laying Ceramic glazed floor tiles of size 300 x 300mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS :15622, of approved make, in colours such as except Ivory, Grey, Fume Red Brown, laid on 20mm thick cement mortar 1:4 (1 cement:4 coarse sand), including pointing the joints with white cement and matching pigment, etc complete	m2	Rs.901.10 (Rs. Nine hundred and one and paise ten)	2,55,912
49	750 m2	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS :15622 (thickness to be specified by 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 or 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 (SH: 11.36)	m2	Rs.954.50 (Rs. Nine hundred and fifty four and paise fifty)	7,15,875
50	185 m2	Providing and fixing anti skid designer tiles (ceramic tile) of approved quality and colour for stair case over a base of 20mm thick cement mortar 1:4 (1 cement: 4 Coarse sand) inclusive of all cost of materials, labour, conveyance, sundries etc complete.	m2	Rs.964.65 (Rs. Nine hundred and sixty four and paise sixty five)	1,78,460
51	2800 m2	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection >0.70 and initial emittance >0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet	m2	Rs.1,271.80 (Rs. One thousand two hundred and seventy one and paise eighty)	35,61,040

Contractor:

52	248 m2	Providing and laying granite flooring using 18 mm thick granite , flooring 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. Black granite area of slab above 0.50sqm (SH: 8.2.2.2)	m2	Rs.3,396.95 (Rs.Three thousand three hundred and ninety six and paise ninety five)	8,42,444
53	16.5m	Extra for pre finished nosing to treads of steps of granite stone (SH: 8.3.2)	m	Rs.313.35 (Rs.Three hundred and thirteen and paise thirty five)	5,170
54	35m2	Providing and fixing 20mm thick pre polished galaxy black graite of approved qualaity for Lift facia joined with white cement slurry mixed granite filling material with pigment to match the hade of the slabs over and including gunmetal or stainles steel clamps 6mm dia 2100 mm long, 25mm bent at ends to detail (4 clamps minimum per panel) finished with lurry of white cement rubbed and finally polished complete.	m2	Rs.3,768.30 (Rs.Three thousand seven hundred and sixty eight and paise thirty)	1,31,891
55		Dessigning, fabricating, testing, intalling and fixing in poission Curtain wall with Aluminium Composite Panel ; cladding, with opeen grooves for limnear as well as curvilinear portions of the building, for all heights and all levels etc including: a) Structural aanalysis and design and preperation of shop drawings for presure equalisation or rain screen princip;le as required, proper drainage of water to make it watertight inlcuyding checking of all the structural and functional design			
		b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel maerial consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with kynar 500 based PVDF/Lumifion based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Servgice) ccoating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicon sealant, backer rods etc.			

Contractor:

		c) The fastening brackets of Aluminium alloy 6005 T5/MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners SS 316 Pins and anchor bolts of approved make in SS316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing. The item includes cost of all materials & labour components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work of ACP cladding is payable under the relevant aluminium item. The contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete as per the Architectural drawings, as per item description, as specified as per the approved shop drawings and as directed by the Engineer-in-charge.			
	50 m2	However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminium Composite Panel Cladding (including width of groove) shall be measured in sqm. Upto two decimal places. (SH: 26.7)	m2	Rs.6,878.90 (Rs.Six thousand eight hundred and seventy eight and paise ninety)	3,43,945
56	13,000kg	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 fastener of required dia and size including necessary filling up of 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 / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and panelling to be paid for separately) : Powder coated aluminium (Minimum thickness of powder coating 50 microns) (SH:21.1.1.2)	Kg	Rs.358.15 (Rs. Three hundred and fifty eight and paise fifteen)	46,55,950

Contractor:

57	9,107 kg	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) (SH: 21.1.2.2)	kg	Rs.423.10 (Rs.Four hundred and twentythree and paise ten)	38,53,172
58	1080 m2	Providing and fixing glazing in aluminium doors, windows, ventilator, shutters & partitions etc. complete with EPDM rubber/neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge (cost of aluminium snap bedding shall be paid in basic item): with float glass panes of 4mm thickness (SH: 21.3.1)	m2	Rs.891.10 (Rs.Eight hundred and ninetyone and paise ten)	9,62,388
59	2,000 m	Filling the gap between aluminium frame and adjacent RCC/Masonry/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge etc complete. (SH: 21.8)	m	Rs.77.20 (Rs.Seventy seven and paise twenty)	1,54,400
60	300 m2	Providing plinth protection by laying pre cast slab of size 45 x 45 x 7.5cm using cement concrete 1:3:6 using 12mm nominal size broken stone reinforced with 8mm steel rod suitably over well consolidated river bed for 15cm thick to line and level and to required slope as per direction and pointing the joints with cement mortar 1:3 using fine sand including necessary earth work, preparing the base, consolidating, casting of slab, form work, other sundries etc complete.	m2	Rs.531.80 (Rs.Five hundred and thirty one and paise eighty)	1,59,540
61	250 m	Providing and fixing in position plain cement concrete 1:3:6 kerb stone of size 45 cm x 30 cm x 15 cm to the outer edge of plinth protection work with top of kerb at the same level of the plinth protection slab with necessary slope for free flow of water inclusive of all cost of earth work, cost of kerb stone, labour, scaffolding, and disposal of excess earth etc complete.	m	Rs.376.05 (Rs.Three hundred and seventy six and paise five)	94,013

Contractor:

62	300 m2	<p>Providing and laying water proofing treatment in sunken portion of W.C.s, Bathroom etc. by applying cement slurry mixed with water proofing cement compound consisting of applying</p> <p>a).First layer of slurry of cement @ 0.488kg/m2 mixed with water proofing cement compound @ 0.253kg/m2. This layer will be allowed to air cure for 4 hours</p> <p>b) Second layer of slurry cement @ 0.242kg/sqm mixed with water proofing cement compound @ 0.126kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.</p> <p>The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry etc.with polymer mixed slurry, (SH: 22.6)</p>	m2	<p>Rs.321.93 (Rs.Three hundred and twenty one and paie ninety three)</p>	96,579
63	500 m2	<p>Providing Expansion Joint at required intervals in concrete flooring by cutting "V" Groove of 20mm depth aafter setting of concrete slab aand filling the resltant gap with Polysulphide sealant NITOSEAL 215 or equivalent as per direction of departmental officer at site/Architect inclusive of all cost of materials, labour, sundries etc complete.</p>	m2	<p>Rs.228.85 (Rs.Two hundred and twenty eight and paise eighty five)</p>	1,14,425
64	2,667 kg	<p>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.). (SH : 10.28)</p>	kg	<p>Rs.589.80 (Rs.Five hundred and eighty nine and paie eighty)</p>	15,72,997
65	6000 kg	<p>Steel work in built up tubular truss(round,square, or rectangular hollow tubes etc)including cutting ,hoisting , fixing in position and applying a priming coat of approved steel primer,including welding and bolted with special shaped washers etc complete.(Hot finished</p>	kg	<p>Rs.81.70 (Rs.Eightyone and paise seventy)</p>	4,90,200

Contractor:

66	600 m2	Providing best quality Poly carbonate sheet 6mm thick sheets roofing upto any pitch and fixing with polymer coated J or L hooks ,bolts and nuts 8 mm dia GI plain and butumen washers or with self drilling fastener and EPDM washers etc complete (excluding the cost of purlin ,rafters and trusses),including cutting sheets to size and shape wherever required (based on SH: 12.8)	m2	Rs.2,464.00 (Rs.Two thousand four hundred and sixty four only)	14,78,400
67	500m	Providing and fixing on wall face unplasticised Rigid 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, (i) Single socketed pipes. 110 mm diameter (SH: 12.41.2)	m	Rs.243.95 (Rs.Two hundred and forty three and paise ninety five)	1,21,975
68	150	Providing and fixing on wall face unplasticised-PVC moulded fittings / accessories for unplasticised Rigid 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. 110 mm bend (SH : 12.42.5.2)	Each	Rs.205.75 (Rs. Two hundred and five and paise seventy five)	30863
69	150	Providing and fixing on wall face unplasticised - PVCmoulded fittings/accessories for unplasticised Rigid PVC rain water pipes conformingto IS: 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion, 110mm shoe (SH: 12.42.6.2)	Each	Rs.291.70 (Rs.Two hundred and ninety one and paise seventy)	43755
70	130	Providing and fixing on wall face unplasticised - PVC pipes clips of approved design to un plastic ised Rigid PVC rain water pipes by means of 50x50x50mm hard wood plugs, screwed with MS screws of required length, including cutting brick work and fixing in cement mortar 1:4 and making good the wall etc. complete. size: 110mm (SH: 12.43.2)	Each	Rs.207.25 (Rs.Two hundred and seven and paise twentyfive)	26943
71	500 m2	Laying cement cocrete interlocking paver blocks required strength of any design/shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of 6mm metal, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	m2	Rs.780.60 (Rs.Seven hundred and eighty and paise sixty)	3,90,300
72	100 Nos.	Providing and fixing ISI marked M.S.Handles conforming to IS: 4992 with necessary screws etc. complete (SH:9.66.1) Size 125mm	Each	Rs.28.80 (Rs.twenty eight and paise eighty)	2,880

Contractor:

73	58 Nos.	Providing and fixing bright finished brass door latch of size 300x16x5mm with necessary screws etc complete (SH: 9.75.1)	Each	Rs.Rs.221.60 (Rs.Two hundred and twenty one and paise sixty)	12,853
74	26 Nos.	Providing and fixing bright finished brass tower bolt of size 250x15mm with necessary screws etc complete (SH: 9.63.1)	Each	Rs.308.10 (Rs.Three hundred and eight and paise ten)	8,011
75	150 Nos.	Providing and fixing aluminium tower bolts ISI marked, anodised transparent or dyed to required colour or shade with necessary crews (SH: 9.97.3) Size : 200 x10 mm	Each	Rs.78.50 (Rs. Seventy eight and paise fifty)	11,775
76	1050 Nos	Providing and fixing bright finished aluminium casement stays , ISI marked anodised (anodic coating not less than grade AC 10 as per ISL 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete (SH: 9.102) (250mm)	Each	Rs.64.15 (Rs.Sixty four and paise fifteen)	67,358
77	24 Nos.	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI,IS:3564 embedded on the body, door weight upto 35kg and door width upto 700mm) with necessary accessories and screws etc. complete	Each	Rs.1,340.70 (Rs.One thousand three hundred and forty and paise seventy)	32,177
78	25 nos.	Providing and fixing Brass mortice latch and lock 100 x65 mm with 6 lever and pair of brass lever handle etc complete	Each	Rs.735.70 (Rs.Seven hundred and thirty five and paise seventy)	18,393
79	100 Nos.	Providing and fixing MS fan clamp type I or II of 16mm dia bar bent to shape with hooked ends in RCC slabs or beams during laying, including painting the exposed portion of loop etc complete as per standard design (SH: 10.17)	Each	Rs.141.35 (Rs. One hundred and forty one and paise thirty five)	14,135
80		Supplying and fitting furniture fittings as per details inclusive of all labour, cost, conveyance, screws sundries etc. complete			
	25 nos.	a. Brass handle 125 mm	Each	Rs.194.60 (Rs. One hundred and ninety four and paise sixty)	4,865
	10 Nos.	b. Brass tower bolt of size :150 x 10mm	Each	Rs.209.20 (Rs.Two hundred and nine and paise twenty)	2,092
	150 nos.	c. Aluminium aldrop of size 200 mm- 16mm dia	Each	Rs.158.65 (Rs.One hundred and fifty eight and paise sixty five)	23,798

Contractor:

	1000 nos.	d. Aluminium door handle of size 100 mm	Each	Rs.36.10 (Rs.Thirty six and paise ten)	36,100
	800 nos.	e. Alum,inium Tower bolt - 75 mm size	Each	Rs.15.75 (Rs.Fifteen and paise seventy five)	12,600
	50 nos.	f. 65mm dia 6 lever pad lock of best quality	Each	Rs.267.15 (Rs.Two hundred and sixty seven and paise fifteen)	13,358
81		Providing and fixing poly vinyl chloride(PVC) pipes,having thermal stability for hot & cold water supply, including all PVC plain&brass threaded fittings .This includes jointing of pipes & fittings,with one step PVC solvent cement ,trenching,re-filling & testing of joints complete as per direction of Engineer-in-charge, internal work - exposed on walls			
	50 m	a. 15 mm nominal outer dia PVCpipe (12 kgf/cm2)	m	Rs.118.30 (Rs.One hundred and eighteen and paise thirty)	5,915
	600 m	b. 20 mm nominal outer dia PVCpipe (12 kgf/cm2)	m	Rs.129.30 (Rs.One hundred and twenty nine and paise thirty)	77,580
	450 m	c. 25 mm nominal outer dia PVCpipe (12 kgf/cm2)	m	Rs.142.70 (Rs. One hundred and forty two and paise seventy)	64,215
	50m	d. 40 mm nominal outer dia PVCpipe (12 kgf/cm2)	m	Rs.226.65 (Rs.Two hundred and twenty six and paise sixty five)	11,333
	50 m	e. 50 mm nominal outer dia PVCpipe	m	Rs.262.70 (Rs. Two hundred and sixty two and paise seventy)	13,135
82		Providing and fixing poly vinyl chloride(PVC) pipes,having thermal stability for hot & cold water supply, including all PVC plain&brass threaded fittings i/c fixing the pipe with clamps at 1m spacing.This includes jointing of pipes & fittings,with one step PVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer- in-charge,concealed work ,including cutting chases and making good the wall etc (Concealed work)			

Contractor:

	150 m	a. 15 mm nominal outer dia PVC pipe (12 kgf/cm ²)	m	Rs.220.80 (Rs. Two hundred and twenty and paise eighty)	33,120
	150 m	b. 20 mm nominal outer dia PVC pipe (12 kgf/cm ²)	m	Rs.223.50 (Rs. Two hundred and twenty three and paise fifty)	33,525
	100 m	c. 25 mm nominal outer dia PVC pipe (12 kgf/cm ²)	m	Rs.236.85 (Rs. Two hundred and thirty six and paise eighty five)	23,685
	25 m	d. 110 mm dia PVC pipe (6 kgf/cm ² - for sweage line work)	m	Rs.409.80 (Rs. Four hundred and nine and paise eighty)	10,245
83		Providing and fixing poly vinyl chloride (PVC) pipes, having thermal stability for hot & cold water supply, including all PVC plain & brass threaded fittings. This includes jointing of pipes & fittings, with one step PVC solvent cement, trenching, re-filling & testing of joints complete as per direction of Engineer-in-charge, external work			
	100 m	a. 50 mm nominal outer dia pipes (10 kgf/cm ²)	m	Rs.172.00 (Rs. One hundred and seventy two only)	17,200
	100 m	b. 62.5 mm nominal inner dia pipes (10 kgf/cm ²)	m	Rs.231.40 (Rs. Two hundred and thirty one and paise forty)	23,140
	150 m	c. 100 mm nominal inner dia pipes (10 kgf/cm ²)	m	Rs.236.85 (Rs. Two hundred and thirty six and paise eighty five)	77,415
	100 m	d. 110 mm dia PVC pipe (6 kgf/cm ² - for sweage line work)	m	Rs.244.90 (Rs. Two hundred and forty four and paise ninety)	24,490
	250 m	e. 110 mm dia PVC pipe (4 kgf/cm ² - for sweage line work)	m	Rs.225.00 (Rs. Two hundred and twenty five only)	56,250
84	10 Nos.	Providing and fixing CP brass stop cock (concealed) of standard design and of approved make conforming to IS:8931-(15mm nominal bore)	Each	Rs.502.00 (Rs. Five hundred and two only)	5,020
85	40 Nos	Providing and fixing CP brass Angle valve for basin mixer and geyser points of approved quality conforming to IS :8931 -(15mm nominal bore)	Each	Rs.519.00 (Rs. Five hundred and nineteen only)	20,760

Contractor:

86	10 Nos.	Constructing brick masonry manhole in cement mortar 1:4,(1 cement,4 course sand) with RCC top slab with 1:2:4 mix (1 cement,2 course sand,4 graded stone aggregate 20 mm nominal size) foundation concrete 1:4:8 mix (1 cement,4 course sand,8 graded stone aggregate 40mm nominal size) - slab thickness-15cm, inside plastering 12 mm thick with cement mortar 1:3,(1 cement :3 course sand) finished with neat cement flushing coat and making channels in cement concrete 1:2:4'(1 cement:2coarse sand :4 graded stone aggregate 20 mm nominal size)finished with neat cemeent flushing coat etc. complete as per standared design:Inside size 90 x 80cm and 45 cm deep including CI cover with frame (light duty) 455 x 610 mm intenal 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 FPS (non modular) bricks of class designation 7.5	Each	Rs.10,262.00 (Rs.Ten thousand two hundred and sixty two only)	1,02,620
87	10 Nos.	Providing and fixing CP brass bib cock of approved quality coforming to IS::8931-(15 mm nominal bore) (SH: 18.49.1)	Each	Rs,414.90 (Rs.four hundred and fourteen and paise ninety)	4,149
88	2 Nos.	Providing and fixing CP brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms (15mm nominal bore) (SH:18.50.1)	Each	Rs.463.70 (Rs.Four hundred and sixty three and paise seventy)	927
89		Providing and fixing gun metal gate valve with CI wheel of approved quality (screwed end):as per the direction of Engineer - in-charge			
	10 Nos.	a. 25mm size bore	Each	Rs.600.80 (Rs.Six hundred and paise eighty)	6,006
	5 nos	b. 50mm size bore	Each	Rs.1,784.15 (Rs.One thousand seven hundred and eighty four and paise fifteen)	8,921
90	30 nos.	Providing and fixing white vitreous china pedestal type water closet(European type) with seat and lid ,10 litre low level white vetreous china flushing cistern &Cpflush bend with fittings &CI brackets,40mm flush bend overflow arrangement with specials of standared make and mosquito proof coupl,ing of approved municipal design complete ,including painting of fittings and brackets,cutting and making good the walls and floors wherever required - WCpan with ISI marked white solid plastic seat and lid (SH: 17.2.2)	Each	Rs.4,197.90 (Rs.Four thousand one hundred and ninety seven and paise ninety)	1,25,937

Contractor:

91	2 Nos.	Providing and fixing water closet squatting pan (Indian TypeWC pan) with 1`0mm sand cast iron P or s trap 10 litre low level wwhite PVC flushing cistern, including s;lush pipe, manuallyt control;led device (Handle lever0 conforming to IS: 7231, with all fitting and fixtures complete including cutting and making good the walls and floors wherever required. White Vitreous chine Orissa Pattern W.C. pan of ize 580 x 440 mm witgh integral type foot rest.	Each	Rs.4,275.70 (Rs.Four thousand two hundred and seventy five and paise seventy)	8,551
92	10 nos.	Providing and fixing wash basin with CI brackets ,15 mm CP brass pillar taps,32mm CP brass waste of standared pattern ,including painting of fittings and brackets ,cuttings and making good the walls wherever require - White vetreous china wash basin size 630 x 450 mm with 15 mm CP brass pillar tap (SH: 17.7.1)	Each	Rs.2,149.00 (Rs.Two thousand one hundred and forty nine only)	21,490
93	10 nos.	Providing and fixing PVC waste pipe for sink or wash basinincluding PVC waste fittings - flexible pipe-32 mm dia. (SH: 17.28.2.1)	Each	Rs.50.20 (Rs.fifty and paise twenty)	502
94	10 nos.	Providing and fixing 100mm sand cast iron grating for Gully trap (SH: 17.29)	Each	Rs.24.60 (Rs.Twenty four and paise sixty)	246
95	10 nos.	Providing and fixing ball valve (brass) of approved quality,High or low pressure,with plastic floats complete: 15mm nominal bore (SH: 18.18.1)	Each	Rs.309.00 (Rs.Three hundred and nine only)	3,090
96	20 Nos.	Providing and fixing 100 mm PVC multi floor trap of approved quality in the toilet room	Each	Rs.112.90 (Rs.One hundred and twelve and paise ninety)	2,258
97	5 Nos.	Supplying and fixing PTMT 600 mm Towel rod of approved quality including all cost of materials and labour charges for fixing etc complete (SH:17.73.2)	Each	Rs.327.65 (Rs.Three hundred and twentyseven and paise sixty five)	1,638
98	15,000 ltr	Providing and placing on terrace (at all floor levels)polyethlene water storage tank ISI ; 12701 marked ,with cover and suitable locking arrangements and making necessary holes for inlet ,outlet and over flow pipes but without fittings and the base support for tank.750 litre capacity (SH: 18.48)	Litre	Rs.5.60 (Rs.five and paise sixty)	84,000

Contractor:

99	5 Nos.	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 30 x 300 mm size (inside) the weight of cover to be not less than 4.5kg and frame to be not less than 2.7 kg a per standard design 100 x 100 mm size P type - with common burnt clay F.P.S (non-modular) bricks of class designation 7.5 (SH: 19.4.1.1)	Each	Rs.1,995.40 (Rs.One thousand nine hundred and ninetyfive and paise forty)	9,977
100	2 nos.	Making soak pit 2.5m diameter 3.0metre deep with 45x45 cm dry brick honey comb shaft with bricks and S.W.drain pipe 100mm diameter,1.8m long complete as per standard design (SH: 19.32.1.)	Each	Rs.17,815.50 (Rs.Seventeen thousand eight hundred and fifteen and paise fifty)	35,631
101		Supplying and providing 110 mm dia PVC Specials for line work			
	25 Nos	a. 110 mmdia PVC bend	Each	Rs.157.60 (Rs.One hundred and fiftyseven and paise sixty)	3,940
	25 nos.	b. 110 mm dia PVC Door bend	Each	Rs.211.00 (Rs.Two hundred and eleven only)	5,275
	10 nos.	c. 110 mm dia PVC Tee	Each	Rs.205.25 (Rs.Two hundred and five and paise seventy five)	2,053
	10 n os.	d. 110 mm dia PVC Door Tee	Each	Rs.234.60 (Rs.Two hundred and Thirty four and paise Sixty)	2,346
	10 Nos.	e. 110 mm dia PVC Vent Cowl	Each	Rs.89.10 (Rs.Eightynine and paie ten)	891
102	3 Nos.	Providing and fitting ready made PVC septic tank of size 4.00 x 1.00x 1.20m- or nearest size (suitable for for 50 users) inclusive of all cost of materials, labour, transportation, loading and unloding charges etc.	Each	Rs.35,000.00 (Rs.Thirty five thousand only)	1.05,000

Estimate P.A.C. of the work

18,79,99,944

Rs.Eighteen Crore Seventy nine lakh ninity nine thousand nine hundred and forty four

Sd/
Director

Contractor: