

**Name of work: Construction of work shop building at College of Engineering, Aranmula**

**Tender schedule - Appendix A : Building proper**

SI.No.	Quantity	Description	Unit	Rate in figures & words	Amount.
1	1635 m	Boring ,providing,and installing bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diametre and length below the pile cap ,to carry a safeworking load not less than specified,excluding the cost of steel reinforcement but including the cost of boring ,with Bentonite solution and temperory 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) <b>(SH. 20.2.4 )</b> <b>500mm dia. piles.</b>	m	Rs.2948.10 (Rs. Two thousand nine hundred and fortyeight and paise ten)	48,20,144
2	2 Nos.	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 Enginer -in-charge Single pile above 50 tonne and upto 100 tonne capacity - Routine test <b>(SH: 20.6.2.2)</b>	Each	Rs.26,715.00 (Rs.Twentsix thousand seven hundred and fifteen only)	53,430
3	8.5 m3	Demolishing RCC work manually /by machanical 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) <b>(SH. 15.2.1)</b>	m3	Rs.1193.00 (Rs.One thousand one hundred and ninetythree only)	10,141
4	54,100 Kg	Steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in position and binding all complete <b>upto plinth level</b> -(Thermo-Mechanically-Treated bars) <b>(SH: 5.22.6)</b>	Kg	Rs.73.55 (Rupees Seventy three and paise fiftyfive)	39,79,055
5	70 m3	Earth work excavation by mechanical means (Hydraulic excavator)/Manual means in foundation trenches (exceeding 30 cm depth 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth in the trenches ,lead upto 50m and lift upto 1.5m,disposed earth to be levelled and neatly dressed <b>(SH- 2.8.1)</b>	m3	Rs.172.00 (Rupees One hundred and Seventytwo only)	12,040

Contractor.

6	2655 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 <b>(SH: 2.27)</b>	m3	Rs.505.00 (Rs.Five hundred and five only)	13,40,775
7	51 Litre	Supplying Chemical emulsion in sealed containers including delivery as specified: Chloropyriphos/Lindane emulsifiable concentrate of 20% <b>(SH : 2.34.1)</b>	litre	Rs.185.95 (Rupees One hundred and eightyfive and paise ninetyfive)	9,483
8	452 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 verticl surface of the sub structure to a depth of 300mm including excavation channel along the wall and rodding etc complete: With Chlorpyriphos/Lindane E.C. 20 % with 1 % concentration <b>(SH : 2.35.1.1)</b>	m	Rs.20.40 (Rupees Twenty and paise forty)	9,221
9	50 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)	2,58,400
10	40 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) <b>(SH : 7.1.1)</b>	m3	Rs.4424.30 (Rupees four thousand four hundred and twenty four and paise thirty)	1,76,972

Contractor.

11	103 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 and 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: <b>for all works upto plinth level.</b> (SH: 5.33.1)	m3	Rs.7487.60 (Rupees seven thousand four hundred and eightyseven and paise sixty)	7,71,223
12	356 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 ( <b>for all work above plinth Level upto 5 th floor level )</b> (SH: 5.33.2)	m3	Rs.8,310.85 (Rupees eight thousand three hundred and ten and paise eightyfive)	29,58,663
13	370 m2	Centering and shuttering including strutting, propping etc and removal of form for Foundations, footings, bases of columns, grade beams etc for mass concrete (SH: 5.9.1)	m2	Rs.214.90 (Rupees two hundred and fourteen and paise ninety)	79,513
14	974 m2	Centering and shuttering including strutting, propping etc and removal of form for Lintels, beams, girders, bressumers and cantilevers (SH: 5.9.5)	m2	Rs.386.40 (Rupees three hundred and eightysix and paise forty)	3,76,354

Contractor.

15	1887 m2	Centering and shuttering including strutting,propping etc and removal of form for Suspended floors,roofs,landings,balconies and access platform etc (SH: 5.9.3)	m2	Rs.476.70 (Rupees Four hundred and seventysix and paise seventy)	8,99,533
16	500 m2	Centering and shuttering including strutting,propping etc and removal of form for Columns,pillars,piers,abutments,posts and struts (SH: 5.9.6)	m2	Rs.521.20 (Rupees Five hundred and twentyone and paise twenty)	2,60,600
17	100 m2	Centering and shuttering including strutting,propping etc and removal of form for stairs (excluding landings) except spiral staircases (SH: 5.9.7)	m2	Rs.434.65 (Rs.Four hundred and thirtyfour and paise sixtyfive only)	43,465
18	41,850 kg	Steel reinforcement for RCC work including straightening ,cutting ,bending ,placing in position and binding all complete - <b>above plinth level</b> -(Thermo-Mechanically-Treated bars) (SH: 5.22A.6)	kg	Rs.73.55 (Rupees Seventy three and paise fiftyfive)	30,78,068
19		Providing and fixing <b>Cement concrete Solid Block</b> in cement mortar 1:6 (1 cement : 6 Coarse sand) of standard <b>size 40 x 20 x 20 cm</b> having minimum compressive strength of 5.5N/mm2 conforming to IS 2185 including all cost of materials, labour, scaffolding, watering, curing and including all lead and lift of material etc. complete as per the direction of the Engineer-in-charge.			
a	112 m3	Ground floor	m3	Rs.4292.70 (Rs.Four thousand two hundred and ninetytwo and paise seventy)	4,80,782
b	120 m3	First floor	m3	Rs.4,621.10 (Rs. Four thousand six hundred and twentyone and paise ten)	5,54,532
c	120 m3	Second floor	m3	Rs.4952.35 (Rs.Four thousand nine hundred and fiftytwo and paise thirtyfive)	5,94,282
d	32 m3	Third floor	m3	Rs.5,283.60 (Rs.Five thousand two hundred and eightythree and paise sixty)	1,69,075

Contractor.

20	125 m2	Providing and fixing double layer chicken mesh in the junction of RCC beam and block masonry at least 100mm on either face (total 200 high) filling packed these junctions with polymer based cement mortar sand face plastering in two coats, base coat minimum 15mm thick in Cement Mortar 1:4 (1 cement : 4 Fine sand) mixed with waterproofing compound made rough to receive finish coat of 10mm thick in Cement Mortar 1:3 with water proofing compound in perfect plumb level to obtain fine grain sand including all cost of materials, labour, scaffolding, curing etc. complete as per direction of Engineer-in charge	m2	Rs.70.90 (Rupees seventy and paise ninety)	8,863
21	1.2 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 (Rupees One lakh thirtlythree thousand five hundred and fortyseven and paise twenty)	1,60,257
22	61 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 <b>(Second class teakwood-35mm thick shutters)-(SH: 9.5.1.1)</b>	m2	Rs.3610.70 (Rupee Three thousand six hundred and ten and paise seventy)	2,20,253
23	61m2	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 25mm to 40mm thick- (using 2 nd class teak wood) (SH: 9.7.1)	m2	Rs.2909.00 (Rupees Two thousand nine hundred and nine only)	1,77,449
24	442 Nos.	Providing and fixing expandable Fasteners of specified size with necessary plastic sleeves and galvanised MS screws including drilling holes in masonry work/CC/RCC and making good the same etc complete.- <b>40mm long(SH : 9.33.3)</b>	Each	Rs.25.40 (Rupees twentyfive and paise forty only)	11,227

Contractor.

25	175 m	Providing and fixing factory made uPVC door frame made of uPVC extruded sections of size 65mm x 55mm with wall thickness 2 mm (+/-0.2mm) corners of the door frame to be mitred cut and jointed with plastic brackets and stainless steel screws reinforcing hinge side vertical of the frames with PVC profile of size 28mm x 30mm having wall thickness 2 mm (+/-0.2 mm) including providing and fixing 3 nos of 125mm long stainless steel hinges to the frame ,fixing the frame with jamb with required number &size of anchor dash fastener, all complete as per manufacturers specifications and direction of Engineer in charge (SH: 9.143)	m	Rs.403.10 (Rupees Four hundred and three and paise ten)	70,543
26	55 m2	Providing and fixing 37mm thick factory made PVC door shutter, styles and rails made of PVC hollow section of size 100 mm x 37 mm with wall thickness 2 mm (+/-0.2 mm)with inbuilt bead on one side, styles and rails mitred cut and joint at the corners by means of 2 nos of plastic brackets of size 75mm x 220 mm at each corner and stainless steel screws, reinforcing the hinge side of style by inserting PVC profile of size 100 mm x 37 mm, wall thickness 2mm(+/-0.2 mm) will be fixed to the vertical styles. Providing with PVC snap fit beads and panel of size 100 mm x 20 mm and inserting 2 nos tie bar of 6 mm dia and fastening with nuts and wsashers complete, all as per manufacturer's specification and direction of Engineer-in-charge. (SH : 9.144)	m2	Rs.2,778.90 (Rs.two thousand seven hundred and seventyeight and paise ninety)	1,52,840

Contractor.

27	2950 kg	<p>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) : Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868 , Minimum anodic coating of grade AC 15) <b>(SH: 21.1.1.1)</b></p>	kg	<p>Rs.328.90 (Rs.Three hundred and twentyeight and paise ninety)</p>	9,70,255
28	1475 kg	<p>Do. Do. For shutters of doors, windows and ventilators including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including cost of EPDM rubber/neoprene gasket required (Fittings shall be paid for separately)- Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15) <b>(SH: 21.1.2.1)</b></p>	Kg	<p>Rs.393.25 (Rs.Three hundred and ninetythree and paise twentyfive)</p>	5,80,043

Contractor.

29	151 m2	Providing and fixing glazing in aluminium door, window, ventilator shutter and partitions etc., with EPDM rubber/neopreme gasketetc., complete as per the archetural drawings and the directions of Engineer-in-charge (cost of aluminium snap beeding shall be paid in basic item) - with float glass panes of 4.0mm thickness (SH:21.3.1)	m2	Rs.891.10 (Rs.Eight hundred and ninetyone and paise ten)	1,34,556
30	3500 kg	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 plug screws etc <b>(SH: 9.48.2)</b>	Kg	Rs.135.30 (Rs.One hundred and thirtyfive and paise thirty)	4,73,550
31	200 kg	Providing and fixing <b>stainless steel</b> (Grade 304) railing made of Hollow tunes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and filling the same 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 arrangements 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)	kg	Rs.589.78 (Rs.five hundred and eightynine and paise seventyeight)	1,17,956

Contractor.

32	67 m2	Providing plinth protection work using cement concrete 1:3:6 ( 1 cement : 3 coarse sand : 6 graded metal of 12m and 20mmnominal size) for 7.5 cm thick laid over well consolidated sand/murum sand and murum mixed filling for 15cm depth to required level and slope and plastered over with cement mortar 1:3 (1 cement and 3 coarse sand) for 12mm thick including all earthwork, dressing the earth bed, disposal of surplus earth, all labour, watering, curing etc. complete. Top of plinth proection tobe about 7.5 cm above the finished driveway level	m2	Rs.1285.00 (Rs.One thousand two hundred and eightyfive only)	86,095
33	55 m2	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 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 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. The rate includes preperation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry etc.with polymer mixed slurry, (SH: 22.6)	m2	Rs.321.80 Rs.Three hundred and twentyone and paise eighty)	17,699
34	1815 m2	Plastering(cement plaster) with <b>Cement Mortar 1:3</b> (1 cement, 3 fine sand) <b>6mm thick</b> , to the under side of roof slab and sunshade bottom including all cost of materials and labour charges, watering, curing etc complete (SH: 13.16.1)	m2	Rs.152.65 (Rs.One hundred and fiftytwo and paise sixtyfive)	2,77,060
35	4470 m2	Plastering with <b>Cement Mortar 1:4</b> (1 cement ,4 coarse sand) , <b>12mm thick</b> , to the internal and external walls including all costs of materials and labour charges watering , curing etc complete (SH: 13.4.1)	m2	Rs.189.90 (Rs.One hundred and eightynine and paise ninety)	8,48,853

Contractor.

36	1000 m2	Plastering (cement plaster) with <b>Cement Mortar 1:4</b> (1 cement, 4 fine sand) finished <b>with a floating coat</b> of neat cement, <b>12 mm thick</b> , etc. including all cost of materials and labour charges etc complete to top of roof slab and sun shade <b>(SH: 13.7.2)</b>	m2	Rs.230.00 (Rs.twohundred and thirty only)	2,30,000
37	1000 m2	Extra for providing and mixing water proofing material in <b>cement plaster work in roof top and sun shade top portion etc.</b> in proportion recommended by the manufacturers, <b>(SH : 13.21)</b>	m2	Rs.5.50 (Rs.five and paise fifty)	5,500
38	5085 m2	Applying <b>white cement washing</b> as priming coat over newly plastered surface after cleaning, to make the surface even and smooth to apply painting work.	m2	RS.20.45 (Rs.Twenty and paise fortyfive)	1,03,988
39	1815 m2	Preparing the surface and applying two or more coat <b>cement paint to ceiling of slab</b> , bottom of sun shade etc including all cost of materils, labour, scaffolding etc complete (SH: 13.44.1)	m2	Rs.66.35 (Rs.Sixtysix and paise thirtyfive)	1,20,425
40	3270 m2	Wall painting with <b>acrylic emulsion</b> paint of approved brand and manufacture to give an even shade - <b>two or more coats</b> on new work. (SH : 13.60.1)	m2	Rs.82.00 (Rs.Eightytwo only)	2,68,140
41	1200 m2	Finishing the outside walls with Acrylic smooth <b>exterior paint</b> of required shade two or more coats @ 1.67ltr/10m2 over and including priming coat of exterior primer applied @ 2.20kg/10m2 etc. complete <b>(SH: 13.46.1)</b>	m2	Rs.86.10 (Rs.Eightysix and paise ten)	1,03,320
42	160 m2	Painting <b>wood work</b> with Deluxe Multy Surface Paint of required shade ,Two or more coat applied @ 0.90 lit/10 sqm over an under coat of primer applied @ 0.75 lit/10 sqm of approved brand and manufacture <b>((SH: 13.48.2)</b>	m2	Rs.91.10 (Rs.Ninetyone and paise ten)	14,576
43	1350 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 course sand),including grouting the joints with white cement and matching pigments etc,complete(Size of tile 600 x 600 mm) <b>(SH: 11.41.2)</b>	m2	Rs.1,531.25 (Rs.One thousand five hundred and thirty one and paise twentyfive)	20,67,188

Contractor.

44	55 m2	Providing <b>anti-skid</b> Ceramic glazed <b>floor tiles</b> of size 300 x 300mm (thickness to be specified by the manufacturer), of 1st quality confirming to IS :15622, of approved make&colour,laid on 20mm thick cement mortar 1:4 (1 cement:4 course sand),including pointing the joints with white cement and matching pigment ,etc complete ( <b>SH : 11.38</b> )	m2	Rs.901.10 (Rs.Nine hundred and one and paise ten)	49,561
45	310 m2	Providing and fixing 1st quality ceramic glazed <b>wall tiles</b> confirming 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 course 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.958.65 (Rs.Nine hundred and fiftyeight and paise sixtyfive)	2,97,182
46	125 m2	Providing and fixing 18mm 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 20mm thick base cement mortar 1:4 (1 cement: 4 coare sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing edges to give high gloss finish etc, complete at all levels for staircase setps, landing etc. <b>Granite of any colour and shade</b> (SH : 8.2.2.1)	m2	Rs.3,708.30 (Rs.Three thousand seven hundred and eight and paise thirty)	4,63,538
47	25 No.	Providing and fixing 100 mm diameter and 60 cm long rain water spout in cement mortar 1:4 (1 cement: 4 find sand) as per direction of the Engineering -in-charge( <b>SH : 12.37</b> )	Each	Rs.87.75 (Rs.Eightyseven and paise seventyfive)	2194

Contractor.

48	300 m	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 10mm gap for thermal expansion, (1) <b>Single socketed pipe of 110 mm diameter (SH: 12.41.2)</b>	m	R.283.40 (Rs.Two hundred and eightythree and paise forty)	85,020
49	25 Nos.	Providing and fixing 100mm dia. PVC shoe to suit the rain water pipe as per direction of the Engineer-in-charge	Each	Rs.198.50 (Rs.One hundred and ninetyeight and paise fifty)	4,963
50	500 m2	Providing and laying interlocking cobbles 63 mm thick(standard)minimum strength 4 kg/sqm over a <b>sand bed 50 mm thick</b> compacting with plate vibrator including hire charges of machinery labour materials etc complete as per direction of Engineer -in charge	m2	Rs.802.00 (Rs.Eight hundred and two only)	4,01,000
51		Supplying and fixing following furniture fittings to suit the doors/window as per direction of the Engineer-in charge.			
	35 Nos.	a. 300 mm Aluminium Barrel tower bolts of 12mm dia or nearest size with screws.	Each	Rs.108.40 (Rs.One hundred and eight and paise forty)	3,794
	175 nos.	b. 150mm Aluminium tower bolts with screws	Each	Rs.64.85 (Rs.Sixtyfour and paise eightyfive)	11,349
	20 Nos.	c. 300 x 16mm Aluminium sliding door bolt with nut and screws	Each	Rs.226.40 (Rs.Two hundred and twentysix and paise forty)	4,528
	35 Nos.	d. 200mm or nearest size aluminium door handle	Each	Rs.89.00 Rs.Eightynine only)	3,115
52	20 Nos.	Providing and fixing bright finished brass 100mm mortice latch and lock with 6 levers and pair of lever handles of approved quality with necessary screws etc complete (SH: 9.76)	Each	Rs.592.85 (Rs.Five hundred and ninetytwo and paise eightyfive)	11,857
53	70 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: 9.5.3)	Each	Rs.128.85 (Rs.One hundred and twentyeight and paise eightyfive)	9,020

Contractor.

54	175 Nos.	Providing and fixing aluminium casement stays, 250mm or nearest size ISI marked, anodised (anodise coating not less than grade AC 10 as per IS :1868) transparent or dyed to required colour and shade ,with necessary screws etc complete (SH: 9.102)	Each	Rs.63.00 (Rs.Sixtythree only)	11,025
55	30 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 fortyone and paise thirtyfive )	4,241
				Total	2,95,18,774

### Appendix B-Water supply and Sanitary works.

Sl.No.	Quantity	Description	Unit	Rate in figures & words	Amount.
1		Supplying and laying PVC pipes of approved make /ISI marking and conforming to IS: 4985 for internal line including conveying to position with all lead and lifts,laying in true line and level with necessary specials in floor or walls, clamping with iron or steel clips with screws and plugs, jointing, and making good the walls ,testing and replacing if necessary including all sundries, scaffolding charges etc. complete - <b>For internal works</b>			
	100 m	a. 110 mmdia PVC pipe of 6kgf/cm <sup>2</sup>	m	Rs.317.45 (Rs.Three hundred and seventeen and paise fortyfive)	31,745
	50 m	b. Do. Do - 63mm dia (6kgf/cm <sup>2</sup> )	m	Rs.145.15 (Rs.One hundred and fortyfive and paise fifteen)	7,258
	50 m	c. <b>50 mm dia.</b> PVC Pipe of 10 kgf/cm <sup>2</sup>	m	Rs.132.90 (Rs.One hundred and thirtytwo and paise ninety)	6,645
	40m	d. <b>32 mm dia.</b> PVC Pipe of 10 kgf/cm <sup>2</sup>	m	Rs.72.15 (Rs.Seventytwo and paise fifteen)	2,886

Contractor.

	120 m	e. 2 <b>5 mm dia.</b> PVC Pipe of 10 kgf/cm <sup>2</sup>	m	Rs.53.90 (Rs.Fiftythree and paise ninety)	6,468
	100 m	f. <b>20 mm dia.</b> PVC pipe of 10kgf/cm <sup>2</sup>	m	Rs.42.30 (Rs.Fortytwo and paise thirty)	4,230
2		Supplying and fixing following chromium plated brass fittings of approved make conforming to IS standard with wall flanges wherever required, including all cost of fittings, conveyance and labour etc complete.			
	15 Nos.	a. 15mm or nearest size SDB Tap ( weighing ot less than 400 grams)	Each	Rs.268.00 (Rs.Two hundred and sixtyeight only)	4,020
	30 Nos.	b. 15mm angle valve	Each	Rs.176.50 (Rs.One hundred and seventysix and paise fifty)	5,295
3		Supplying and installing following PVC ball/gate valve with ISI marking as directed by the Engineer -in charge			
	3 Nos.	a. 50 mm or nearest size PVC Valve	Each	Rs.148.80 (Rs.One hundred and fortyeight and paise eighty)	446
	3 Nos.	b. 32 mm or nearest size PVC Valve	Each	Rs.102.35 (Rs.One hundred and two and paise thirtyfive)	307
	10 Nos	c. 25 mm or nearest size PVC Valve	Each	Rs.53.80 (Rs.Fiftythree and paise eighty)	538
	10 Nos	d. 20 mm or nearest size PVC Valve	Each	Rs.34.00 (Rs.Thirtyfour only)	340
4	4 Nos	Supplying and providing 110 mm dia multiple inlet PVC floor trap with suitable outlet as per direction of Engineer-in-charge	Each	Rs.185.85 (Rs.One hundred and eightyfive and paise eightyfive)	743
5	3 Nos.	Supplying and providng 20mm nominal bore H.P or L.P. ball valve with plastic floats	Each	Rs.511.00 (Rs. Five hundred and eleven only)	1,533

Contractor.

6	25,000 Ltr.	Providing and placing on terrace and for sump PVC <b>water storage tank</b> 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 (SH: 18.48)	Ltr.	Rs.5.60 (Rs.Five and paise sixty)	1,40,000
7	15 Nos.	Providing and fixing white vitreous china pedestal type <b>water closet(Europian type)</b> with seat and lid , 10 litre low level white vitreous china flushing cistern & flush bend with fittings & CI brackets, 40mm flush bend overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete , including painting of fittings and brackets, cutting and making good the walls and floors wherever required - <b>WCpan with ISI marked black solid plastic seat and lid</b> (SH: 17.2.2)	Each	Rs.3,779.75 (Rs.Three thousand seven hundred and seventy nine and paise seventy five)	56,696
8	12 Nos.	Providing and fixing wash basin with C.I.brackets, 15mm C.P. brass pillar tap, 32mm C.P.brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the wells wherever required - White Vitreous China <b>Wash Basin of size 550 x 400 mm</b> with 15mm C.P. brass pillar tap (SH : 17.7.4)	Each	Rs.2,061.35 (Rs.Two thousand and sixty one and paise thirty five)	24,736
9	12 Nos.	Providing and fixing PVC waste pipe for sink or wash basin including PVC waste fittings complete: <b>32 mm dia.(SH: 17.28.1.1)</b>	Each	Rs.50.20 (Rs.fifty and paise twenty)	602
10	12 Nos.	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 6mm thick hard board backing - <b>Rectangular shape 453 x 357 mm or nearest size. (SH: 17.32.2)</b>	Each	Rs.806.00 (Rs.eight hundred and six only)	9,672

Contractor.

11	5 Nos.	Construction of Inspection chamber of 50 x 50 cm in size for sewer line depth upto 1.00m with brick/ laterite in cement mortar 1:6 , 20 cm thick side wall including providing foundation with cement concrete 1:3:6 10cm thick using 20mm nominal size broken stone and forming channel inside with cement concrete 1:3:6 for free flow of water and plastering with cement mortar 1:3, 12mm thick with neat flushing coat etc and providing C.I. man hole cover of 60 x 60 xm of 20kg wieght or nearest size inclusive of all earth work, masonry, cost of materials, labour, conveyance etc. complete. <b>(SH : 19.27.1)</b>	Each	Rs.4.219.00 (Rs.Four thousand two hundred and nineteen only)	21,095
12	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 300 x 300 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: 100 x100 mm size P type with common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	Rs.1995.45 (Rs.One thousand nine hundred and ninetyfive and paise fortyfive)	9,977
13	2 No.	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.30,800.00 (Rs.Thirty thousand and eight hundred only)	61,600
14		Providing and fixing 110mm dia PVC Specials as per direction inclusive of all fitting charges, solvent cement, conveyance, scaffolding etc. complete			
	10 Nos.	a.110mm dia PVC - plain bend	Each	Rs.150.50 (Rs.One hundred and fifty and paise fifty)	1,505

Contractor.

	10 Nos.	b. Do.do Plain Tee	Each	Rs.208.00 (Rs. Two hundred and eight only)	2,080
	10 Nos.	c. Do. Do - plain elbow	Each	Rs.173.55 (Rs.One hundred and seventythree and paise fiftyfive)	1,736
	5 Nos.	d. Do. Do - Door elbow	Each	Rs.214.70 (Rs. Two hundred and fourteen and paise seventy)	1,074
	3 Nos.	e. Do. Do - Door Tee	Each	Rs.245.55 (Rs.Two hundred and fortyfive and paise fiftyfive)	737
	5 Nos.	f. Do. Do - vent cowl	Each	Rs.86.80 (Rs.Eightsix and paise eighty)	434
15		Supplying and providing PVC pipes with necessary fittings such as bend, elbows tees etc including trenching to a minimum depth of 0,50m and refiling etc, complete - <b>External work.</b>			
	100m	a. 110mm dia PVC pipe -6kgf/m <sup>2</sup>	m	Rs.308.15 (Rs. Three hundred and eight and paise fifteen)	30,815
	250 m	b. 50 mmdia pipes - 6kgf/m <sup>2</sup>	m	Rs.104.45 (Rs. One hundred and four and paise fortyfive)	26,113
					4,61,326

**Total Estimate P.A.C**

**2,99,80,100**

**(Rupees two crore ninety nine lakh eighty thousand one hundred only)**

Contractor.