

CONSTRUCTION OF MULTI DISCIPLINARY RESEARCH LABORATORY BUILDING AT MEDICAL COLLEGE, THIRUVANANTHAPURAM.

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
	PART - I A-CIVIL WORKS				
	SUB HEAD : - I DISMANTLING & DEMOLISHING				
1	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar	15.00	cum		
2	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	3.17	cum		
	SUB HEAD : - II EARTH WORK EXCAVATION				
3	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.	3500.00	sqm		
4	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.				
a	Beyond 60 cm girth upto and including 120 cm girth	14	each		
b	Beyond 120 cm girth upto and including 240 cm girth.	8	each		
5	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth,with all leads and lifts, disposed earth to be levelled and neatly dressed.	3334.00	cum		
6	Open Timbering over areas including strutting and shoring etc complete (measurement to be taken of the face area timbered).				
a	Depth not exceeding 1.5m.	53.00	sqm		
b	Depth exceeding 1.5m but not exceeding 3m.	2205.00	sqm		
7	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering etc complete, with all leads and lifts as directed by the Engineer in charge.	2496.00	cum		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
8	Earth filling with contractors own earth (excluding rock) in trenches, plinth sides of foundations etc in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering etc complete with all leads and lifts as directed by the Engineer in Charge	150.00	cum		
9	Supplying and filling in plinth with river sand/ Msand under floors including watering, ramming, consolidating and dressing complete. River sand/ M sand	95.00	cum		
10	Providing anti-termite treatment and creating a chemical barrier to the building by injecting chemical emulsion of required concentrations under raft slab and beam and around the footings. Column pits, trenches, pits, tunnels, wall trenches, back fill, plinth filling junction of wall and floor, side walls of basement floor external perimeter of building, surrounding of pipes, expansion joints, etc., as per IS specification and as per instructions of chemical manufacturer and also as directed. The treatment shall be carried out strictly in accordance with IS 6313 - Part II - Latest issue etc. complete. The work shall include the cost of all materials, cost of labour, cost of equipment and machinery, hire charges of equipments & machinery, lead & lift, loading and unloading, transportation and all other incidental charges etc., complete. The work shall be carried out as per the directions of the Engineer-in-Charge of the work.				
	Note:Plinth area of the building at Ground floor will be measured and paid for.	1583.00	sqm		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
	SUB HEAD - III:- PLAIN CEMENT CONCRETE				
11	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	426.00	cum		
12	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size),and Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	57.00	sqm		
13	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.	244.00	sqm		
	SUB HEAD- IV: REINFORCED CEMENT CONCRETE.				
14	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 & reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. All works upto plinth level	1143.00	cum		
15	Add for using extra cement in the items (12.a +13) of design mix over and above the specified cement content therein.	1988.70	qntl		
16	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. All works above plinth level upto floor V level.	1698.00	cum		
17	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor, etc., up to floor five level, excluding the cost of centering, shuttering and finishing : 1:3:6 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	17.00	cum		
18	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo Mechanically Treated bars.	428611.00	kg		
16	Centering and shuttering including strutting, propping etc. and removal of form for :				

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
a	Foundations, footings, bases of columns, etc. for massconcrete	1930.60	sqm		
b	Walls (any thickness) including attached pilasters, buttermesses, plinth and string courses etc.	144.00	sqm		
c	Suspended floors, roofs, landings, balconies and accessplatform.	7201.50	sqm		
d	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	4481.10	sqm		
e	Columns, Pillars, Piers, Abutments, Posts and Struts.	4011.60	sqm		
f	Stairs, (excluding landings) except spiral-staircases.	421.20	sqm		
g	Weather shade, Chajjas, corbels etc., including edges.	3000.00	sqm		
19	Providing and fixing in position copper plate as per design for expansion joints.	100.00	kg		
20	Providing and filling in position, blown bitumen in expansion joints.	25.00	per cm depth per cm width per 100 m		
21	Providing and filling in position bitumen mix filler of Proportion 80 kg of hot bitumen, 1 kg. of cement and 0.25 cubic metre of coarse sand for expansion joints.	8.00	per cm depth per cm width per 100 m		
22	Providing and fixing in position 12 mm thick bitumen impregnated fibre board conforming to IS: 1838, including cost of primer, sealing compound in expansion joints.	12.00	per cm depth per 100 m		
23	Providing and fixing sheet covering over expansion joints with iron screws as per design. Aluminium fluted strips 3.15 mm thick. 150 mm wide	120.00	Rm		
24	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured). Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	7047.39	sqm		

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	SUB HEAD V : BRICK WORK.				
25	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 50 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	20.00	cum		
26	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 50 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).	1100.00	cum		
27	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 50 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	1929.00	sqm		
28	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	1929.00	sqm		
	SUB HEAD VI : GRANITE WORK				
29	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. Granite of any colour and shade Area of slab over 0.50 sqm	387.00	sqm		
30	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	577.00	Rm		
	SUB HEAD VII: WOOD WORK				
31	Providing and fixing 18mm thick marine Plywood exterior grade of approved make for cup board shelves including necessary screws, nails,gum, painting etc complete as per the direction of engineer-in - charge	37.00	sqm		
32	Providing and fixing 25 mm thick shutters for cup board etc.Second class teak wood including ISI marked anodised aluminium butt hinges with necessary screw	18.00	sqm		
33	Providing and fixing 6 lever bright finished brass 100 mm mortice latch and locks and a pair of lever handles with necessary screws etc. complete (best make of approved quality)	96.00	each		
34	Providing wood work in frames of doors, windows, clerestory windowsand other frames, wrought framed and fixed in position with hold fastlugs or with dash fasteners of required dia & length (hold fast lugs ordash fastener shall be paid for separately).-Second class Teak wood.	0.30	cum		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
35	Providing 40x5mm flat iron hold fast 40cm long including fixing to frame with 10mm diameter bolts,nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size	48.00	each		
36	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	14.44	sqm		
37	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	14.44	sqm		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
	SUB HEAD VIII: STEEL WORK				
38	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	6116.00	Kg		
39	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses 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 welded type tubes.	26960.00	kg		
40	Providing and fixing M.S. fan clamp type I of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs during laying including painting the exposed portion of loop, all as per standard design complete.	293.00	each		
	SUB HEAD IX: FLOORING				
41	Providing and fixing 1st quality ceramic glazed wall tiles (Size 300 x400) conforming to IS:15622of thickness 5 mm or nearest size 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 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete. as approved by Engineer in charge (Basic Price of Tile not less than Rs.400 per Sqm)	1813.00	sqm		
42	Providing and laying Ceramic joint free antiskid floor tiles of size 400x400 mm ,thicknes 7.5mm or nearest size of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white Cement and matching pigments etc.complete.as approved by Engineer in charge (Basic price of Tile not less than Rs.370per sqm).	291.00	sqm		
43	Providing and fixing 1st quality germ free & joint free wall tiles (Size 600x300mm) of thickness 10 mm or nearest size of approved make in all colours, shades except begundy, bottle green, black or 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.as approved by Engineer in charge. (Basic Price of Tile not less than Rs. 839 per sqm.)	273	sqm		
44	Providing and laying vitrified floor tiles (Size of Tile 1000x1000 mm) of 10mm thickness or nearest size with water absorption less than 0.08% and conforming to IS : 15622, of approved make 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. . (Basic price of Tile not less than Rs.1630/ sqm)	247.00	sqm		
45	Providing and laying vitrified floor tiles of (Size of Tile 600x600 mm) of 10mm thickness or nearest size 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.as approved by Engineer in charge. (Basic price of Tile not less than Rs. 865 per sqm)	4311	sqm		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
46	Chequerred precast cement concrete tiles, 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand). Light shade pigment using white cement. (Basic price.of Tile not less than Rs. 470 per sqm)	409.00	sqm		
43	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Basic price of Block not less than Rs.325 per sqm.)	1074.78	sqm		
SUB HEAD X : ROOFING					
47	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	666.90	Rm		
48	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete - 110 mm	550.00	each		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
49	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15cm diameter and weighing not less than 440 grams.	52.00	each		
50	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. bend 87.5 degree				
a	110 mm bend.	124.00	each		
	Shoe(plain)				
b	110 mm shoe	62.00	each		
51	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer- in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	450.00	sqm		
b	Supply and installation of Polyurethane Sandwich Panel-Roofing sheets of thickness 50mm (0.5 mm thick sheet on both side) made of high quality color-coated steel sheet or aluminum foil sheet. The sheet shall be fixed using SDS screws of size (115 mm) with EPDM seal etc complete up to any pitch in horizontal/vertical or curved surfaces excluding the cost of purlins, rafters and trusses including cutting to size and shape wherever required.For fixing SDS screws use torque adjustable electronic gun screw driver with a capacity of 500w @2000-2500rpm	1107.00	sqm		
52	Providing and fixing semicircular 110mm PVC pipe for gutter with iron brackets 40 x 3 mm size, bolts , nuts and washers including making necessary connections with rain water pipes complete.	191.00	Rm		
53	Providing and fixing suspended acoustic mineral fibre ceiling, with 15mm grid, with 4mm GI rod, with 6mm nylon rawl plug and butterfly clips at every 1220mm intervals at the main T and laying of approved microlook ceiling panels with 12-15mm thick tiles of ARMSTRONG/ DAIKEN/ NITTOBO or approved equivalent make. of size 600 mm x600 mm to attain NRC-.0.5, STC value -35, Light reflection 85 %, humidity resistance RH 95 % with tegular edge. The rate include making cut out openings with additional frame work wherever required for eletrical fixtures,grills,diffusers & access panels etc. complete as directed by the Engineer in charge.	2624.61	Sqm		

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	SUB HEAD XI: FINISHING				
54	6 mm cement plaster of mix:1:3 (1 cement:3 fine sand)	12037.00	sqm		
55	15mm cement plaster on rough side of single or half brick wall of mix 1:6 (1 cement : 6 coarse sand)	2096.00	sqm		
56	12 mm cement plaster of mix : 1:6 (1 cement: 6 coarse sand)	5512.00	sqm		
57	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).	4353.00	sqm		
58	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work .	10526.00	sqm		
59	Finishing walls with Acrylic smooth exterior paint of required shade:- New work (Two or more coats applied @ 1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @ 2.2 kg/10sqm.)	4618.00	sqm		
60	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :New work (two or more coats) over and including water thinnable priming coat with cement primer	5557.00	sqm		
61	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. With ready mixed red oxide zinc chromatic on steel/ iron works having VOC content less than 250 grams/ litre	539.00	sqm		
62	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	539.00	sqm		
63	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	5512.00	sqm		
64	Melamine polishing on wood work (Two or more coat).	80.64	sqm		

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	SUB HEAD XII: MISCELLANEOUS				
65	Providing and fixing factory made PVC door frame manufactured by M/s Rajshri or equivalent of size 50x47 mm with a wall thickness of 5 mm. made out of extruded 5 rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15mm M.S. square tube,the vertical door profiles to be reinforced with 19x19 mm M.S. square tube of 19 guage, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size complete as per manufactures specification and direction of Engineer-in-charge	388.00	Rm		
66	Providing and fixing 30mm thick factory made PVC rigid foam panelled door shutters manufactured by M/s Rajshri or equivalent made from M.S. tube of 19 guage thickness, size 19x19 mm for styles and 15x15 mm for top and bottom rails, covered with heat moulded PVC "C" channel of 5 mm thick and 75 mm wide PVC sheets for top rail, lock rail and bottom rail on either side and 5 mm thick 20mm wide cross PVC sheet as gap insert for top rail and bottom rial, panelling of 5mm thick PVC sheet fitted in the M.S. frame welded/ sealed to the styles and rails with 5x30mm PVC sheet beading on either side and joined together with solvent cement adhesive etc., complete as per manufacture specification and direction of Engineer-in-charge fixed to frames with 4 Nos. M.S. powder coated butt hinges	120.00	sqm		
	SUB HEAD XIII :SANITARY INSTALLATIONS& WATER SUPPLY				
67	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	11.00	each		
68	Providing and fixing white vitreous china pedestal type water closet (European type W.C.pan) with seat and lid, 10 litre low level P.V.C. flushing cistern with manually controlled device (handle lever), conforming to IS: 7231, Parryware/ Hindware/ Seabrid/ Orient (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :-	32.00	each		
69	Supply and fixing wall hanging type water closet with flushing cistern('HIND WARE/' CERA' (special colours) or equivalent), with seat cover, along with all necessary requirement for fixing etc. complete.	8.00	each		
70	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap				
	Wash basin size 550x400mm with single 15mm C.P.brass pillar tap	50.00	each		

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71	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required: Kitchen sink with drain board 510x1040 mm bowl depth 250 mm	2.00	each		
72	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required: Size 450x300x150 mm	8.00	each		
73	Providing and fixing P.V.C waste pipe for sink or wash basin, including P.V.C waste fittings complete :- Flexible pipe :-32 mm dia.	58.00	each		
74	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors a)100mm inlet and 75mm outlet.	33	Each		
75	Providing and jointing PVC pipes of (pressure 10 Kg/cm ²) for water supply including testing of joints, concealing the pipes , & trenching & refilling wherever required etc complete.				
a	20mm PVC pipe	170	Rm		
b	25mm PVC pipe	480	Rm		
c	32mm PVC pipe	80	Rm		
d	40mm PVC pipe	80	Rm		
76	Providing and fixing C.P grating of approved quality and colour. 150 mm nominal size square 100 mm diameter of the inner hinged round grating	30.00	each		
77	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. 15mm nominal bore	59.00	each		
78	Providing and fixing unplasticised rigid P.V.C pipe conforming to IS Standards (pressure 6kg/cm ²) in drainage lines including cutting and making good the walls, cutting and refilling of earth, jointing all etc complete				

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a	110mm dia	150.00	Rm		
b	75mm dia	180.00	Rm		
79	Providing & fixing PVC Fittings and fixtures Conforming IS specifications including cutting and making good the walls etc complete				
a	110mm dia plain elbow	60	each		
b	75mm dia plain elbow	60	each		
c	110mm dia door elbow	60	each		
d	75mm dia door elbow	80	each		
e	110mm dia plain bend	30	each		
f	75mm dia plain bend	90	each		
g	110mm dia door tee	60	each		
h	75mm dia door tee	50	each		
i	110mm dia air cowl	10	each		
j	75mm dia air cowl	10	each		
k	110mm dia offset	40	each		

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I	75mm dia offset	40	each		
80	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 15mm nominal bore	5.00	each		
81	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15mm nominal bore	87.00	each		
82	Providing and fixing unplasticised P.V.C connection pipe with brass unions :- 45 cm length				
a	15MM nominal bore	87.00	each		
83	Providing and fixing gun metal gate valve with CI wheel of approved quality(screwed end) .				
	32mm dia nominal bore	2.00	each		
84	Providing and fixing ball valve (brass) of approved quality complete.High or low pressure with plastic floats 25 mm nominal bore	5.00	each		
85	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : Rectangular shape 453x357 mm	35.00	each		
86	Providing and fixing CP towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms	48.00	each		
87	Providing and fixing CP soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	48.00	each		
88	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : One urinal basin with 5 litre white P.V.C. automatic flushing cistern	12.00	each		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
	DRAINAGE				
89	Providing and fixing Porcelain Gully trap of 300 x 300 mm inside dimension for the waste line with cement concrete in 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) for foundation and with necessary brick masonry in cement mortar 1:4 (1 cement : 4 coarse sand) and plastering with 12mm thick cement plaster in cement mortar 1:4 (1 cement : 4 fine sand) including neat cement flushing coat and providing RCC top slab with 1:2:4 mix etc complete	12.00	each		
90	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design: Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg): With common burnt clay F.P.S. (non modular) bricks of class designation 50	18.00	each		
91	Extra for depth for manholes :- With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	5.00	Rm		
92	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	5.00	each		
	SUB HEAD XIV : ALUMINIUM WORK				
93	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/ paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately):				
	a) For fixed portion. Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as directed by the engineer in charge.	23118.01	kg		
b	b) For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron) of required colour as directed by the engineer in charge.	4360.00	kg		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
94	Providing and fixing 12 mm thick pre-laminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides	603.00	sqm		
95	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
a	With float glass panes of 5.5 mm thickness	1623.00	sqm		
b	With float glass panes of 4.0 mm thickness	263.00	sqm		
c	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . With toughened glass panes of 12.0 mm thickness	391.00	sqm		
96	Providing and fixing double action hydraulic floor spring of approved brand (DORMA) and manufacture conforming to IS : 6315, having brand logo embossed on the body/ plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. With stainless steel cover plate minimum 1.25 mm thickness	26.00	each		
97	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-	73.00	each		
	300x16mm				
98	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-				
a	125 mm	73.00	each		
b	100mm	73.00	each		
99	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-				

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
a	250 X 10 mm	171.00	each		
b	150x10mm	171.00	each		
100	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS: 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	50.00	each		
101	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	171.00	each		
102	Providing fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete. Powder coated minimum thickness 50 micron aluminium	199.00	each		
103	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer- in-charge complete. 255 X 19 mm	796.00	each		
104	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS: 1868) Transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	50.00	each		
105	Providing and fixing frosted/mat film of thickness 25 microns self adhesive of approved colour, shade and quality with cutting as per approved design and pattern including cleaning of glass and making surface smooth for fixing of film all complete as per direction of Engineer in charge	577.02	sqm		
106	Supplying and fixing hand rails with 304 grade and 16 gauge stainless steel pipe for stair cases with 1 No. polished stainless steel pipe of 50mm diameter at top and newel post and SS 304, 16gauge ,25mm dia 2nos polished stain less steel pipe middle horizontal and 0.30m centre to centre vertical(approximately) welded together . including all necessary fittings etc. as per the drawing and direction of the Engineer . in . charge. Hand rails shall be fixed in the floor/steps with expansion hold fasters of required size including drilling etc.complete	74.00	Rm		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
107	Providing and fixing Aluminium composite panel to columns and walls using 4mm thick composite panels (Alstrong, Euro bond ,Ajanta,Alex Panel or Equivaqlent range) consisting of 3 mm thick polythelene resin core sandwiched between 2 skins of 0.5 mm thick aluminium sheet with microne PVDF coating as per ASTM standards for exterior application .Protective film of good quality to be used to prevent leaching effect. Panels fixing to prefabricated anodized aluminium frame work using 50x 25x1.2mm section and MS frame work where ever necessary vertical and horizontals joined with stiffeners and cleats .The entire frame work to be fixed to wall /floor /columns through MS/aluminium clamps prefixed to masonry using suitable fasteners/anchor bolts or screws etc. the gap formed in between the composite panels to be sealed with silicon sealant Dowcorning 789 /WS 305 after sticking required masking tape and all accessories .	2032.00	sqm		
b	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc. to be paid separately).	3.15	SQM		
	SUB HEAD XV - WATER PROOFING				
108	Providing and laying in cement concrete in kerbs, steps and the like at or near ground level etc excluding cost of centering shuttering and finishing 1:2:4 mix (1 cement :2 coarse sand:4 graded stone aggregate 20mm nominal size).	318.00	cum		
109	Providing 12mm thick cement plaster of mix 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat admixed with water proofing material impermo or equivalent over terrace for water proofing treatment	6367.00	sqm		
110	Providing and application of bituminous water proof protective coating conforming to IS 9862-1981 Fosroc Nitoproof 100/120 over cleaned and well prepared surface (vertical/horizontal) with a priming coat of Nitoproof 100 over with two coats of Nitoproof 120 strictly following the manufactures specification and application procedure, including necessary chipping and refilling of construction joints with cement mortar 1:4 added with Nitobond SBR @ 2 lit per bag of cement and pressure grouting of weaker area, construction joints and honey combs if any with cement slurry mixed with plasticized expanding additive cebex 100 including cost of labour tools etc but excluding scaffolding , cement and sand complete etc or equivalent. (For Terrace & Toilet)	1550.00	sqm		
	SUB HEAD: XV - ROAD WORK				
111	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth with lead upto 50 metres.	1500.00	sqm		
112	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/ vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening/ binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	150.00	cum		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
113	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth: 1 : 5 : 10 (1 Cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	150.00	cum		
114	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	60.00	cum		
SUB HEAD XVI : SEPTIC TANK & SOAK PIT					
115	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.	221.76	cum		
116	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth : 1 : 5 : 10 (1 Cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size).	10.00	cum		
117	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 & reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. All works upto plinth level	24.25	cum		
118	Centering and shuttering including strutting, propping etc. and removal of form for :				

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
a	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	211.20	sqm		
119	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 50 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	0.31	cum		
120	12 mm cement plaster finished with a floating coat of neat cement of mix :- 1 : 3 (1 cement : 3 fine sand)	71.75	sqm		
121	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	48.00	sqm		
122	Providing M.S. foot rests including fixing in manholes with 20 x 20 x 10 cm cement concrete blocks 1 : 3 : 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :- With 20 mm diameter round bar	8.00	each		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
123	Supplying and fixing C.I. cover with frame for manholes, 455 x 610 mm rectangular C.I cover (light duty), the weight of the cover to be not less than 23 kg. And frame not less than 15 kg	4.00	each		
124	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	each		
125	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design: 100 mm diameter PVC. pipe	80.00	Rm		
126	Providing and filling up to floor five level surkhi inside of sunken floor 1:2 (1 lime : 2surkhi) as directed by the engineer in charge	7.00	cum		
SUB HEAD XVII : SUMP & Service Building House					
127	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, including all lifts and leads, disposed earth to be levelled and neatly dressed as directed by the Engineer in charge. All kinds of soil.	50.00	cum		
128	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, including all lifts and leads, disposed earth to be levelled and neatly dressed. All kinds of soil	131.00	cum		
129	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, including all lift and leads and as directed by the Engineer in charge.	91.00	cum		
130	Supplying and filling in plinth with river sand/ Msand under floors including watering, ramming, consolidating and dressing complete. River sand/ M sand	9.00	cum		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
131	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	19.00	cum		
132	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 & reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. All works upto plinth level	21.80	cum		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
133	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 but excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. All works above plinth level upto floor V level	38.00	cum		
134	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo Mechanically Treated bars	7723.00	kg		
135	Centering and shuttering including strutting, propping etc. and removal of form for :				
a	Foundations, footings, bases of columns, etc. for mass concrete	88.64	sqm		
b	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	141.75	sqm		
c	Suspended floors, roofs, landings, balconies and access platform	85.80	sqm		
d	Lintels, beams, plinth beams, girders, bressumers and cantilevers	57.97	sqm		
e	Columns, Pillars, Piers, Abutments, Posts and Struts	36.00	sqm		
g	Weather shade, Chajjas, corbels etc., including edges	26.60	sqm		
136	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand)	179.74	sqm		
137	12 mm cement plaster of mix : 1:6 (1 cement: 6 fine sand)	248.00	sqm		
138	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).	171.00	sqm		
139	12mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement	85.00	sqm		

Item No	Description of Item	Quantity	Unit	Rate (in figures & words) Rs	Amount Rs
140	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 20 mm nominal size)	15.00	cum		
141	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 50 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	33.00	cum		
142	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.20 mm M.S. laths with 1.20 mm thick top cover	31.50	sqm		
143	Providing and jointing PVC pipes of (pressure 10 K g/cm ²) for water supply including testing of joints, concealing the pipes, & trenching & refilling wherever required etc complete.				
a	25mm PVC pipe	65	Rm		
b	40mm PVC pipe	120	Rm		
144	Providing and fixing ball valve (brass) of approved quality complete. High or low pressure with plastic floats 25 mm nominal bore.	2.00	each		
145	Providing M.S. foot rests including fixing in manholes with 20 x 20 x 10 cm cement concrete blocks 1 : 3 : 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :- With 20 mm diameter round bar.	12.00	each		
146	Supplying and fixing C.I. cover with frame for manholes, 455 x 610 mm rectangular C.I cover (light duty), the weight of the cover to be not less than 23 kg. And frame not less than 15 kg.	2.00	each		
147	Providing and fixing vertical blinds to existing windows etc complete.	270.00	sqm		
	Total -Part IA - Civil works				