

Strengthening & Up gradation of Medical college of Kozhikode-Construction of Virology lab

Part I -Civil Works

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
	PART A - CIVIL WORKS				
	DISMANTLING & DEMOLISHING WORKS				
1	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	336.00	sqm		
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.	3.00	cum		
3	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	3.00	cum		
4	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of : Asbestos sheet	60.00	sqm		
5	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead	350.00	kg		
	EARTH WORK				

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
6	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.	43.00	Cum		
7	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and 20. disposal of surplus excavated soils as directed, within a lead of 50 m Ordinary rock	58.00	Cum		
8	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	94.00	Cum		
PLAIN CEMENT CONCRETE					
9	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stoneaggregate 20 mm nominal size)	21.00	Cum		
10	Supplying and filling in plinth with M sand under floors, including watering, ramming, consolidating and dressing complete	8.00	Cum		

SL No	Description	Qty	Unit	Rate of Rs in figures & words	Amount (Rs.)
	REINFORCED CEMENT CONCRETE				
11	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using fly ash and cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering, finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge.				
	NOTE- 1) Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.				
	2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS 456. Uniform blending with cement to be ensured in accordance with clauses 5.2 and 5.2.1 of IS:456 -2000 in the items of BMC and RMC				
	3) The above item shall be used judiciously where specified quality of Fly Ash is available for mixing in concrete. Also, the guidelines issued by CDO, CPWD, vide circular no. CDO/SE(RR)/Fly Ash (Main)/102 dated 9th April 2009 shall be followed in such cases.				

SL No	Description	Qty	Unit	Rate of Rs in figures & words	Amount (Rs.)
	All works up to Plinth level.	32.00	cum		
12	All works above plinth & up to floor V level	92.00	cum		
13	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 : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	4.00	cum		
14	Add for using extra cement in the items of design mix over and above the specified cement content therein	38.00	Quintal		
15	Centering and shuttering including strutting, propping etc. and removal of form for: foundations footings, bases of columns, etc. for mass concrete.	142.00	Sqm		
16	Centering and shuttering including strutting, propping etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform.	363.00	Sqm		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
17	Centering and shuttering including strutting, propping etc. and removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilevers.	330.00	sqm		
18	Centering and shuttering including strutting, propping etc. and removal of form for :Columns, Pillars, Piers, Abutments, Posts and Struts.	220.00	Sqm		
19	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).	233.00	Sqm		
20	Reinforcement for RCC works including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically treated bars (Using Vizac, Tata or SAIL)	20440.00	Kg		
	STONE /BRICK WORK				
21	Providing and fixing up to floor five level precast cement concrete solid block including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete : 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	76.00	Cum		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
22	Half Brick masonry with F.P.S bricks of class designation 75 in super structure above plinth level upto floor V level in Cement mortar 1:3 (1 cement : 3 coarse sand)	47.00	Sqm		
23	Extra for providing and placing in position 2 nos 6mm dia. M.S bars at every third course of half brick masonry (with F.P.S bricks)	47.00	Sqm		
STEEL WORK					
24	Providing and fixing M.S grills of required pattern in frames of windows etc with M.S.flats,square or round bars etc all complete:-Fixed to openings/ wooden frames with rawl plugs screws etc	284.00	Kg		
25	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making urvature (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.).	46.00	Kg		
26	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar,bent to shape with hooked ends in R.C.C. slabs or beams during laying,including painting the exposed portion of loop, all as per standard design complete..	8.00	Each		
ROOFING					

SL No	Description	Qty	Unit	Rate of Rs in figures & words	Amount (Rs.)
27	Providing and fixing at all height false ceiling of 12.5 mm thick tapered edge gypsum board conforming to IS : 2095/calcium silicate boards, including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating 600 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastner 12.5mm dia x 40mm long with 6mm dia bolts to the angle hangers of 25x25x5mm of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels 45x15x0.9mm running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick botton wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips made out of 2.64mm dia x 230mm long G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick	80.00	sqm		
28	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 (i) Single socketed pipes – 110mm diameter OD	43.00	Rm		
29	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° - 110mm diameter OD Plain Bend	8.00	Each		
30	Providing and fixing unplasticised-P.V.C pipes clips of approved design to unplasticised-P.V.C rain water pipes by means of 50 x 50 x 50 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 walls etc. complete - 110mm	32.00	Each		

SL No	Description	Qty	Unit	Rate of Rs in figures & words	Amount (Rs.)
31	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15cm diameter and weighing not less than 440 grams.	4.00	Each		
FLOORING					
32	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm <i>Basic rate of tile not less than Rs. 865/sqm</i>	118.00	Sqm		
33	Providing and fixing 1st quality ceramic glazed wall tiles joint free of size 300x450 mm conforming to IS 15622, approved make like NITCO, JOHNSON, KAJARIA, or equivalent approved by Engineer in charge in all colours, shades Except bottle green, Black of any size as approved by engineer in charge in skirting, rises of step and dados over 12mm 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. <i>Basic rate of tile not less than Rs. 400/sqm</i>	226.00	Sqm		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
34	Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, flooring, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with 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.(Lowest retails price not less than Rs. 2000/m2)	26.00	sqm		
35	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	34.00	Rm		
36	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	34.00	Rm		
	FINISHING				
37	CEMENT PLASTER (IN FINE SAND) 12 mm cement plaster of mix: 1:4 (1 cement : 4 fine sand)	432.00	Sqm		
38	12 mm cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement: 3 fine sand)	110.00	sqm		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
39	6mm cement plaster to ceiling of mix 1:3 (1 cement : 3 fine sand)	181.00	Sqm		
40	15 mm cement plaster on the rough side of single or half brick wall of mix: 1:4 (1 cement: 4 fine sand)	765.00	Sqm		
41	Providing and fixing 150mm width chicken wire mesh (26 gauge) at the junctions of RCC & brick work fixed with steel nail in cement mortar 1:3 (1 cement : 3 fine sand)6mm thick etc complete	1074.00	Rm		
42	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	713.00	Sqm		
43	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface: Water thinnable cement primer.	821.00	Sqm		
44	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:	821.00	Sqm		
45	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.)	1065.00	Sqm		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
46	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade-Two or more coats on new work.	59.00	Sqm		
ALUMINIUM WORK					
47	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, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ neoprene felt 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):				
	For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)	421.00	Kg		
48	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)	421.00	Kg		
49	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):				

SL No	Description	Qty	Unit	Rate of Rs in figures & words	Amount (Rs.)
	With float glass panes of 5.50 mm thickness	20.00	sqm		
50	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 directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 4 mm thickness	19.00	sqm		
51	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	9.00	Sqm		
52	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour and shade with necessary screws etc. complete. Twin rubber stopper	10.00	Each		
53	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 necessary screws etc. complete: 250 x 10 mm	10.00	Each		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
54	Providing and fixing chromium plated brass handles with necessary screws etc. complete:125mm	10.00	Each		
55	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	5.00	Each		
56	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.	5.00	Each		
57	Providing and laying factory made chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method, to attain superior smooth finish using PU or equivalent moulds, laid in required Grey colour & pattern over 50mm thick compacted bed of coarse sand, compacting and proper embedding / laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc. all complete as per manufacturer's specifications & direction of Engineer -in-Charge: (a) 80 mm thick c.c. paver block of M-30 grade with approved color design and pattern.				
	fooring GF	116.00	sqm		

SL No	Description	Qty	Unit	Rate of Rs in figures & words	Amount (Rs.)
	SANITARY ITEMS				
58	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 Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	4.00	Each		
59	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	4.00	Each		
60	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/stone work, including necessary holes for pillar taps etc. Including moulding, rubbing and polishing of cut edges etc. complete	8.00	Each		
61	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	4.00	Each		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
62	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long,200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour,weighing not less than 88 gms.	4.00	Each		
63	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC 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 walls etc.				
a	20 mm nominal outer dia Pipes	25.00	Rm		
b	25 mm nominal outer dia Pipes	25.00	Rm		
c	32 mm nominal outer dia Pipes	25.00	Rm		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
64	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge External work 40 mm nominal outer dia Pipes	25.00	Rm		
65	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.Flexible pipe 40 mm dia	4.00	Each		
66	Providing and fixing PVC pipes including fixing the pipe with clamps/clips at 1M spacing.This includes jointing of pipes with one step PVC solvent cement and testing of joint complete as per direction of engineer in charge.75mm/63mm dia 6kg/cm2.External work -exposed on wall				
a	75 mm dia	25.00	Rm		
b	63mm dia	25.00	Rm		
67	Providing and fixing of PVC moulded fittings/accessories for PVC 6kg/cm2 pipes				

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
a	Single tee with door				
i	75 x 75 x 75 mm	4.00	Each		
ii	63x63x63 mm	4.00	Each		
b	Bend				
i	75 mmdia	4.00	Each		
ii	63mm dia	4.00	Each		
68	Providing and fixing PVC floor trap self cleansing design with or without vent arm complete including cutting and making good the walls and floors. Make:Supreme,Finolex,Prince etc.,110mm dia inlet 110mm dia outlet	4.00	Each		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
69	Providing and fixing uplasticised PVC connection pipe with brass unions : 45 cm length 15 mm nominal bore	4.00	Each		
70	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.15 mm nominal bore	4.00	Each		
71	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 15 mm nominal bore	4.00	Each		
72	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
a	25 mm nominal bore	1.00	Each		
b	32 mm nominal bore.	1.00	Each		

SL No	Description	Qty	Unit	Rate of Rs infigures & words	Amount (Rs.)
73	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	4.00	Each		
74	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 o f 300 x300 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:				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	4.00	Each		
	Total- Part I - Civil works				