

**BOQ****NAME OF THE WORK:-AIR CONDITIONING SYSTEM IN OLD ACADEMIC CAMPUS.**

<b>SL NO</b>	<b>DESCRIPTION OF ITEMS</b>	<b>UNIT</b>	<b>QNTY</b>	<b>RATE</b>	<b>AMOUNT</b>
1	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means overareas (Exceeding 30Cm in depth 1.5m in width as well as 10 Sq.M on Plan) including disposal of excavated earth lead upto 50m and lift upto 1.5m disposed earth to be levelled and neatly dressed (All kinds of Soil)	Cum	120.00		
2	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (Exceeding 30Cm in depth 1.5m in width as well as 10 Sq.M on Plan) including dressing of sides and ramming of bottoms including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50Mtr. (Ordinary Rock)	Cum	278.00		
3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20Cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50M and lift upto 1.5M	Cum	250.00		
4	Supplying and filling in plinth with river sand under floors including watering ramming consolidating and dressing complete.	Cum	165.00		
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:3:6 (1 Cement : 3 sand:6 Coarse Aggregate 40mm Down)	Cum	10.00		
6	Brick work with F.P.S bricks of class designation 75 in Super structure above plinth levell upto V floor level in all shapes and size in Cement mortar 1:6 (1cement: 6 sand)	Cum	240.00		
7	Providing and laying in position Reinforced cement concrete of specified grade excluding the cost of centering and shuttering. Cement concrete in 1:1½:3 (1 Cement : 1½ sand:3 Coarse Aggregate 20mm Down)	Cum	245.00		
8	Centering and shuttering including struting propping etc and removal of form work for:				
(a)	Foundations footing bases of column etc for mass concrete	Sq.M	140.00		
(b)	Lintels beams plinth beams girders bressumers and cantilevers.	Sq.M	155.00		
(c)	Columns Pillars piers Abutment Posts and strutts	Sq.M	95.00		

(d)	Weather shades, Chajja, Corbels etc including edges	Sq.M	5.00		
(e)	Stair (Excluding landing except spiral Staircases	Sq.M	7.00		
9	Extra for additional height in centering and shuttering where ever required with adequate bracing ,propping etc. including cost of de shuttering and decentering at all levels over height of 3.5m for every additional height of 1mtr or part thereof (Plan area to be measured)				
	suspended floors, roofs, landing balconies and access platform with water proof ply of 12mm thick				
(a)	Suspended floors roofs landings balconies and access platform	Sq.M	1830.00		
(b)	Lintels beams plinth beams girders bressumers and cantilevers.	Sq.M	1230.00		
(c)	Columns Pillars piers Abutment Posts and strutts	Sq.M	675.00		
(d)	Weather shades, Chajja, Corbels etc including edges	Sq.M	8.00		
(e)	Stair (Excluding landing except spiral Staircases	Sq.M	53.00		
10	Half brick masonry with FPS bricks of class designation 75 in foundation and plinthin Cement mortar 1:4 (1 cement: 4 sand)	Sq.M	250.00		
11	Providing and placing reinforcement for R.C.C. work including straightining cutting bending placing in position and binding allcomplete.				
	Thermo Mechanically Treated Bars	Kg	28778.00		
12	Providing and fixing of M.S grills of required pattern in frames of windows etc. with M.S flats, Square or round bar etc all complete				
	Fixed to steel window by welding	Kg	330.00		
13	Providing and fixing of ISI marked flush door shutters conforming to IS 2202 (Part-I) decorative type , core block board construction with frame of 1st class hard wood and well matched teak 3ply veenering with vertical grains or cross bands and face veneers on both faces of shutters				
	35mm thick includig ISI marked stainless steel butt hinges with necessary screws.	Sq.M	30.00		
14	Providing and fixig panelled or pannelled and glazed shutters for doors and windows and clearstorey windows including ISI marked black enamelled M.S butt hinges with necessary screws				
	Second class Teak Wood (35mm thick shutters)	Sq.M	7.00		

15	Structural steel work in single section fixed with or without connecting plate including cutting hoisting fixing in position and applying coat of approved steel primer complete.	Kg	30.00		
16	Supplying and fixing of rolling shutters of approved make and made of required 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 27.5CM long wire springs grade No-2 and M.S top cover of required thickness for rolling shutters				
	<b>80x1.25 M.S lath with 1.25mm thick top cover</b>	Sq.M	15.00		
17	Providing and fixing 4.0mm clear glass in wooden window and ventilators as per drawing and design complete to satisfaction of Engineer-in-charge/Architects rate include cost of glass, glasses fixing putty, nail etc.	Sq.M	4.00		
18	Providing and fixing glazed shutters for doors and windows and clearstorey windows using 4mm thick float glass panes including ISI marked black enamelled M.S butt hinges with necessary screws				
	<b>Second class Teak Wood (30mm thick shutters)</b>	Sq.M	2.00		
19	Providing wood work in framed of doors Windows, clearstorey windows and other frames , wrought framed and fixed in position:				
	<b>Second class teak wood</b>	Cum	0.70		

20	Providing and fixing to existing door frames 30mm thick factory made PVC door shutter made of styles and rails of a UPVC hollow section of size 30x60mm and thickness 2mm +/-0.2mm with inbuilt edging on both sides. The styles and rails mitred and jointed at the corners by means of M.S galvanised /plastic brackets of size 75x220 mm having wall thick ness 1.0mm and stainless steel screws. the styles of the shutter reinforced by inserting galvanised M.S tube of size 20x20mm and 1mm +/- 0.1mm wall thickness. the lock rail made up of H section, a UPVC hollow section of size 100x30mm and 2mm+/- 0.2mm wall thickness fixed to the shutter styles by means of plastic / galvanised M.S U cleats. the shutter frame filled with a UPVC multichambered single panel of size not less than 620mm , having over all thickness of 20mm and 1mm +/- 0.1mm wall thickness with 20mm panel beading of suitable size / glass (4mm thick) /louver section , louver frame of the suitable size the panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanised M.S rod and fastened with nuts and washers complete as per manufacture's specification and direction of Engineer in Charge. (For WC and bathroom door hutter)	Sq.M	8.00		
21	Providing and fixing ISI marked oxidised M.S pressed Butt hinges with necessary screw etc complete				
	100x58x1.90mm	Each	30.00		
22	Providing and fixing ISI marked oxidised M.S tower bolt black finish (barrel type) with necessary screws etc complete:				
	200x10mm	Each	20.00		
23	Providing and fixing ISI marked oxidised M.S door latches conforming to IS 5930 with screws etc complete..				
	250x20x6 mm	Each	5.00		
24	Providing and fixing ISI marked oxidised M.S handles conforming to IS 4992 with screws etc complete..				
	100mm	Each	20.00		
25	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts nuts and wooden plugs and embedding in cement concrete block 30x10x15 cm 1:3:6 mix (1 cement : 3 sand: 6 coarse aggregate)	Each	30.00		
26	6mm cement plaster of mix 1:3 (1 cement: 3 Sand)	Sq.M	930.00		

27	15mm cement plaster of mix 1:6 (1 cement: 6 Sand)over rough side of half brickwork	Sq.M	1930.00		
28	20mm cement plaster of mix 1:6 (1 cement: 6 Sand)	Sq.M	930.00		
29	Neat cement Punning	Sq.M	3790.00		
30	White washing with KATNI lime to give an even shade				
	<b>New work (Three or more coat</b>	Sq.M	2860.00		
31	Applying one coat of cement primer of approved brand and manufacturer on wall surface				
	<b>Cement primer</b>	Sq.M	930.00		
32	Finishing wall with acrylic smooth exterior paint of required shade:				
	<b>New work (two or more coat applied @1.67kg/10 Sq.M) over and including base coats of water proofing cement paint applied @ 2.2 Kg/10 Sq.M</b>	Sq.M	930.00		
33	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:				
	<b>Two or more coats on new work</b>	Sq.M	120.00		
34	cement concrete flooring 1:2:4 (1 cement : 2 sand: 4 coarse aggregate) finished with a floating coat of neat cement including cement slurry , but excluding the cost of nosing of steps etc. complete				
	<b>40mm thick with 20mmm nominal size stone aggregate</b>	Sq.M	850.00		
35	cement plaster skirting (Upto 30CM height) with cement mortar 1:3( 1 cement : 3 Sand) finished with floating coat of neat cement.				
	<b>18mm thick</b>	Sq.M	35.00		
36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS 15622 (thickness to be specified by the manufacture of approved make in all colours shade except burgundy, bottole 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 sand) and jointing with grey cement slurry @3.3 kg per Sq.M including pointing in white cement mixed with pigment of matching shade complete	Sq.M	20.00		

37	Providing and laying ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS 15622 of approved make in colours such as white ivory grey fume red, brown laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including pointing the joints with white cement and matching pigment etc complete.	Sq.M	10.00		
38	Providing and fixing white vitreous china water closet squatting pan (Orissa pattern) long pattern Orissa pattern W.C pan of size 580x 440mm	Each	1.00		
39	Providing and fixing PVC low level flushing cistern with manually controlled device (handle lever) conforming to IS 7231 with all fittings and fixtures complete. 10ltr Capacity white	Each	1.00		
40	Providing and fixing white vitreous china pedestral type water closets (European type W.C. Pan) with seat lid, 10ltr low level white P.V.C flushing cistern 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 where ever required :				
	W.C. Pan with ISI marked White solid plastic seat and lid	Each	1.00		
41	Providing and fixing of wash basin with C.I brackets, 15mm Cp brass pillar taps 32mm Cp 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 630x450mm with single 15mm CP Brass	Each	1.00		
42	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265 mm sizes respectively.	Each	1.00		
43	Providing and fixing of CP towel rail complete with bracket fixed to wooden cleats with CVp brass screw with concealed arrangement of approved make and brand and quality : 600mm x20mm dia CP Brass	Each	1.00		
44	Providing and fixing Soil, waste and vent pipes (SAND CAST IRON (S&S) PIPE as per IS 1729 100mm dia	RM	55.00		

45	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse aggregate: 10 graded stone aggregate) around SW pipes including bed concrete as per standard design:				
	150mm dia	RM	55.00		
46	Providing and fixing of chlorinated polyvinyl chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes fittings with one CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge (Concealed work including cutting chases and making good the walls etc.)				
(a)	15mm nominal bore	RM	10.00		
(b)	20mm nominal bore	RM	70.00		
(c)	25mm nominal bore	RM	20.00		
47	Providing and fixing of chlorinated polyvinyl chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00m spacing. This includes jointing of pipes fittings with one CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge (Internal work exposed on Wall)				
(a)	50mm nominal bore	RM	40.00		
48	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing and staircases railing including applying priming coat of approved steel primer				
	Stainless steel Tube of 302/202 grade	RM	65.00		
49	Conveyance of Materials such as stone metal refuse, garbage, rubbish etc including labour for loading and unloading. Beyond initial lead.				
	Truck load upto 5 KM	Cum	160.00		
50	Providing and placing on terrace (at all floor levels) polythelene water storage tank ISI 12701 marked with cover and suitable locking arrangement and making necessary holes for inlets outlet and overflow pipe but without fittings and the base support for the tank	Ltr	1000.00		

51	Surface dressing of the ground including removing vegetation and in equalities not exceeding 15 Cm deep and disposal of rubbish , Lead upto 50M and lift upto 1.5M	100 Sq.M	650		
52	Providing and laying screed concrete on the top of the roof in 1:2:4 (1 cement :2 sand : 4 stone chips 10mm down gauge) with water proofing admixture Conforming to IS:2645, and crack resistance fibre like RECRON 3S or equivalent with slope of 1 in 100 and necessary hollering as per direction of Engineer- in-charge. (minimum thickness of 75mm )	Sq.M	460.00		
53	Providing and applying cement slurry coat (minimum two layer ) admixed with polymer modified water proofing cum bonding agent as per manufacturer specification and direction of Engineer inCharge.	Sq.M	460.00		
			<b>TOTAL</b>		