

BILL OF QUANTITY

Name of Work : Construction of Administrative Block at ITI Imphal East, Phaknung , Imphal East , Manipur .

SI No	Description of items	Qty	Unit	Rate (in rupees)	
1	2	3	4	5 (in figure)	6 (in word)
SH: EARTH WORK					
1	Earthwork in excavation 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 disposal of surplus excavated soil as directed within a lead of 50 m				
	All kind of soil	52.33	cum		
2	Filling available excavated earth (e/c rock) in trenches, plinth sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering lead upto 1.5 m	17.44	cum		
3	Supplying and filling in plinth with sandy soil under floors including watering ramming, consolidating and dressing complete.	73.06	cum		
SH: CEMENT CONCRETE WORK					
4	Providing and laying in position cement concrete of specified grade excluding the cost of cantering and shuttering - All work upto plinth level: a) 1:2:4 (1 cem :2 c/sand :4 graded stone aggregate 40 mm nom size)	8.18	cum		
SH: RCC WORK					
5	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement-All work upto plinth level : 1:1.5:3 (1 cem : 1.5 c/sand : 3 graded stone aggregate 20 mm nom size)	25.75	cum		
6	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers,abutments, posts and struts etc. above plinth level upto floor five level excluding cost of centering,shuttering, finishing and reinforcement :				

	1:1.5:3 (1 cem : 1.5 c/sand : 3 graded stone aggregate 20 mm nom size)	5.08	cum		
7	Reinforced cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level upto floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with				
	1:1.5:3 (1 cem : 1.5 c/sand : 3 graded stone aggregate 20 mm nom size)	15.90	cum		
8	Reinforcement for R.C.C. work including bending, binding and placing in position complete				
	TMT bars	6968.35	kg		
SH: FORM WORK					
9	Centering and shuttering including strutting, propping etc. and removal of form for:				
	i) Foundations, footings, bases of columns, etc. for mass concrete	60.48	sqm		
	ii) Columns, Pillars, Piers, Abutments, Posts and Struts.	67.68	sqm		
	iii) Lintels, beams, plinth beams, girders, bressumers and cantilevers	311.61	sqm		
SH: BRICK WORK					
10	2nd class (local 1st class) brick work in foundation & plinth in cement mortar 1:3 (1cement: 3 f/s)	24.25	cum		
11	Half brick masonry with 1st class common burnt clay F.P.S. (non modular) bricks in superstructure above plinth level upto floor v level in cement mortar 1:3 (1 cement: 3 coarse sand)	248.71	sqm		
SH: WOOD WORK					
12	P & F MS fan clamp type I of 16mm dia MS bar bent to shape with hooked end in RCC slabs during laying i/c painting the exposed portion of loop. all per standard design complete.	6	each		
13	Providing 40x5mm iron hold fast 40 cm long including fixing to frame with 10mm diameter bolts, nuts and wooden pugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size)	166	each		
14	Providing wood work in frames of doors, windows, clerestory windows and other frames wrought, framed and fixed in position				
	a) Local best quality Teak wood	0.37	cum		

15	Providing and fixing 35 mm thick panelled, glazed or panelled and glazed shutter for doors, windows and clerestory windows including bright finished brass hinges (heavy type)with necessary screws.				
	a) Local best quality Teak wood	15.75	sqm		
16	Providing and fixing bright finished brass night latch including necessary screws etc. complete (best make of approved quality)	7	each		
17	Providing and fixing ISI marked oxidised M.S.sliding door bolts with screws etc. complete				
	a) 300 x 16 mm	7	each		
18	Providing & fixing Brass Tower bolth (barral type) with screws etc. complete.				
	a) 250 x 10 mm	28	each		
19	Providing & fixing Brass handles with necessary screws etc. complete				
	a) 125 mm	14	each		
SH: ALUMINIUM WORK					
20	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 EPDM rubber/ Neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleatangle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steelscrews, 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)	46.31	kg		
21	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)				
	Shutter section (18mm)	57.26	kg		
22	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):				
	With float glass panes of 8 mm thickness	17.05	sqm		
SH: STEEL WORK					
23	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5mm size with top and bottom rail of T-iron 40x40x6mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	3.60	sqm		
24	Steel work in built up tubular (round, square or rectangular tubes etc.) trusses etc., including cutting, hoisting fixing in position and applying a priming coat of approved steel primer, including welding and bolted including special shaped washers etc. complete.				
	a) Hot finished welded type tubes	1773.14	kg		
SH: ROOFING & CEILING					
25	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 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 with				
	Precoated galvanised iron profile sheets 0.50 mm thick	112.50	sqm		
26	Providing ridges or hips of width 60 cm over all width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete				

	0.80mm thick with zinc coating not less than 275gm/m ²	11.25	rm		
27	Providing and fixing tiled False Ceiling of approved materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 120 gsm/sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet, spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 21x21x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x 1.6 mm fixed to ceiling with 12.5 mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200mm center to center along main T, bottom exposed width of 24mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications, drawings and as directed by Engineer in-Charge. (The rate is excluding the cost of tiles which will be paid				
	GI Metal ceiling Lay in plain Tegular edge Global white color tiles of size 595 x 595 mm, and 0.5 mm thick with 8 mm drop, made of GI sheet having galvanizing of 100 gms/sqm(both sides inclusive) and electro statically polyster powder coated of thickness 60 microns (minimum), including factory painted after bending.	105.98	sqm		
SH: FLOORING WORK					
28	Providing & laying vitrified tiles in diferent sizes (thickness to be specified by manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours & shade laid on 12mm thick cement mortar 1:4 (1 cement :4 c/s), including grouting the joint with white cement & matching pigments etc. complete. Non branded. size of tile 600 x 600mm (Single charged).	105.98	sqm		
29	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, shades except burgundy, bottle green, black of 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 @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete	25.20	sqm		
30	Tile work in skirting, risers of steps and dado (upto 2 m height) over 12 mm thick bed of cement mortar 1:3 (1 cement :3 coarse sand) and jointed with grey cement slurry @ 3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	24.88	sqm		

31	Marble stone flooring with 18mm thick marble stone (sample of marble shall be approved by Engineer-in-charge) over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing complete with Makrana white second quality	4.62	sqm		
SH: FINISHING WORK					
32	12 mm cement plaster 1:3 (1 cem : 3 f/sand)	395.34	sqm		
33	15 mm cement plaster 1:3 (1 cem : 3 f/sand)	167.43	sqm		
34	Distemping (two or more coats) with oil bound washable distemper of approved quality on new work i/c priming coat to hive an even shade.	562.77	sqm		
35	Painting with synthetic enamel paint of approved brandand manufacture to give an even shade.	562.77	sqm		
36	Painting with synthetic enamel paint of approved brandand manufacture to give an even shade.	562.77	sqm		
37	Finishing walls weather shield paint of approved quality on new work (three or more coats) to give an even shade.	167.43	sqm		
38	Applying ready mixed priming coat pink primer of approved quality on wood work.	15.75	sqm		
SH: PROTECTION WORK					
39	Applying a coat of residual petroleum bitumen of grade VG-10 of approved quality using 1.7kg 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.	37.21	sqm		
40	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarsesand : 6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	33.26	sqm		
SH: WATER SUPPLY & SANITARY INSTALLATION					
41	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				
	100mm nominal outer dia Pipes	25.56	rm		

42	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge				
	Internal work				
	50 mm nominal outer dia Pipes	15.25	rm		
43	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm 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				
	W.C. pan with ISI marked black solid plastic seat and lid	3.00	each		
44	Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required				
	(a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass	3.00	each		
45	Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete				
	10 litre (full flush) capacity-white	3.00	each		
46	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc				
	Internal work				
	a) 15 mm dia	36.42	rm		
	External work				
	d) 40 mm dia	12.47	rm		
47	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931				
	a) 15 mm nominal bore	6.00	each		

48	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms. Wash room \$ Panrty b	3.00	each		
49	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete 40 mm dia	3.00	each		
50	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	2000.00	lit		