

## BILL OF QUANTITY

**Name of work: Construction of shed for installation of the auxiliary equipment for the newly installed facility at annex. Building of ME Department.**

Item No.	Description of items	Unit	Qty	Rate in Figure (₹)	Rate in Words	Amount (₹)
	<b>Part A: Civil Work</b>					
1	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.					
	(a) All kinds of soil.	Cum	18.00			
2	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	cum	10.500			
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
	(a) 1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)	Cum	0.800			
	(b) 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	Cum	3.000			
4	Centering and shuttering including strutting, propping etc. and removal of form for all heights :					
	(a) Foundations, footings, bases of columns, etc. for mass concrete	Sqm	6.30			

	(b) Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	15.00			
	(c) Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	21.70			
5	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :					
	(a) 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size).	Cum	4.10			
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.	kg	515.50			
7	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					
	(a) Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	2.30			
8	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.					
	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	15.00			
9	15 mm cement plaster on the rough side of single or half brick wall of mix :					

	1:4 (1 cement: 4 fine sand)	Sqm	33.00			
<b>10</b>	Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.					
	20 mm cement plaster	Sqm	10.00			
<b>11</b>	Providing flat brick soling under floor with bricks of class designation 7.5 on a bed of 12 mm cement mortar, including filling the joints with same mortar 1:6 (1 cement : 6 coarse sand), with common burnt clay non modular bricks:	Sqm.	27.00			
<b>12</b>	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm	27.00			
<b>13</b>	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	290.00			

14	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 Engineerin- 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.	Sqm	38.00			
15	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.					
	Made of G.I. wire of dia 4 mm	Sqm	33.00			
16	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.					
	(a) In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	Kg	135.00			
17	Finishing walls with water proofing cement paint of required shade :					
	New work (Two or more coats applied @ 3.84 kg/10 sqm)	Sqm	33.00			
18	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :					

	(a) Two or more coats on new work	Sqm	33.00			
19	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, panelling and dash fasteners to be paid for separately) :					
	(a) For fixed portion	Kg	12.50			
	(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)	Kg	16.00			
20	Providing and fixing 12 mm thick prelaminate 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.					

	(a) Pre-laminated particle board with decorative lamination on both sides	Sqm	1.20			
21	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 mm thickness (weight not less than 12.50 kg/ sqm)	Sqm	0.90			
22	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.					
	(a) In cement mortar	Cum	0.35			
23	Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete.	Each	1.00			
24	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 :					
	(a) 250x10 mm	Each	2.00			

25	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 necessary screws etc. complete :					
	(a) 125 mm	Each	2.00			
26	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. <b>External work</b>					
	(a) 25 mm nominal outer dia Pipes	Rm	20.00			
27	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
	(a) 25 mm nominal bore	Each	1.00			
	<b>Total Amount of Part-A =</b>					
	<b>Part-B: Electrical Works</b>					
	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required					
	<b>2 X 4 sq. mm + 1 X 4 sq. mm earth wire</b>	meter	50			

1	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	meter	50			
	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	meter	110			
2	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	Single pole	each	2			
	Triple pole and neutral	each	3			
3	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
	6 way (4 + 18), Double door	each	1			



4	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
	63 A	each	1			
5	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required	each	1			
6	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	each	3			
	<b>Total Amount of Part-B =</b>					
	<b>Total amount of Part-(A+B) =</b>					
	<b>Rebate if Any =</b>					
	<b>Net total amount after rebate =</b>					
	<b>Rounded off =</b>					

(Rupees ..... Only)