

## BILL OF QUANTITY

Name of Work : Construction of 1st and 2nd Floor of Co-operative Farmers/Members Training Centre ( Administrative and Dormitories Block) at Co-operative Complex,Lamphelpat.

Sl No	Description of items	Qty	Unit	Rate (in rupees)	
1	2	3	4	5	6
				(in figure)	(in words)
<b>SH: RCC WORK</b>					
1	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 )	17.60	cum		
2	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 )	104.39	cum		
3	Reinforcement for R.C.C. work including bending, binding and placing in position complete				
	TMT bars	13986.28	kg		
<b>SH: FORM WORK</b>					
4	Centering and shuttering including strutting, propping etc. and removal of form for:				
	ii) Columns, Pillars, Piers, Abutments, Posts and Struts.	179.52	sqm		
	iii) Lintels, beams, plinth beams, girders, bressumers and cantilevers	258.36	sqm		
	iv) Suspended floors, roofs, landings, balconies and access platform.	393.71	sqm		
	v) Stairs, (excluding landings) except spiral-staircases	21.46	sqm		
<b>SH: BRICK WORK</b>					

5	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)	462.13	sqm		
<b>SH: WOOD WORK</b>					
6	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.	12	each		
7	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)	178	each		
8	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	0.54	cum		
9	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	25.20	sqm		
10	Providing and fixing bright finished brass night latch including necessary screws etc. complete (best make of approved quality)	10	each		
11	Providing and fixing ISI marked oxidised M.S.sliding door bolts with screws etc. complete				
	a) 300 x 16 mm	10	each		
12	Providing & fixing Brass Tower bolth (barral type) with screws etc. complete.				
	a) 250 x 10 mm	40	each		
13	Providing & fixing Brass handles with necessary screws etc. complete				
	a) 125 mm	20	each		
<b>SH: ALUMINIUM WORK</b>					

14	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 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)	73.04	kg		
15	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)	90.30	kg		
16	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	31.02	sqm		
<b>SH: STEEL WORK</b>					

17	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (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.)	472.57	kg		
18	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	1331.33	kg		
<b>SH: ROOFING &amp; CEILING</b>					
19	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	85.40	sqm		
20	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/m2	8.54	rm		

21	<p>Providing and fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main'T' runner suitably placed at joints to get required length and of size 24 x 38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross 'T' of size 24 x 28 mm made from 0.33 mm thick (minimum) sheet, 1200 mm long spaced between main'T' at 600 mm centre to centre to form a grid of 1200 x 600 mm and secondary cross 'T' of size 24 x 28 mm made from 0.33 mm thick (minimum) sheet to be interlocked at the middle of the 1200 x 600 mm panel to form grid of size 600 x 600 mm, resting on periphery walls, partitions on a Perimeter wall angle pre-coated steel of size (24 x 24 s 3000 mm made of 0.40 mm thick</p>				
	<p>(minimum) sheet with the help of rawl plugs at 450 mm centre to with 25mm long dry wall screws @ @230mm interval and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture in the grid, including cutting/ making opening for services like diffusers, grills,light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25 x 35 x 1.6 mm fixed to ceiling with 12.5 mm dia and 50mm long dash fasteners, 4mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main'T', bottom exposed with 24 mm of all T sectiond shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawing and as directed by Engineer-in-Charge.</p>	62.51	sqm		
<b>SH: FLOORING WORK</b>					
22	<p>Providing &amp; 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 &amp; shade laid on 12mm thick cement mortar 1:4 (1 cement :4 c/s), including grouting the joint with white cement &amp; matching pigments etc. complete. Non branded. size of tile 1000 x 1000mm (Single charged)</p>	177.49	sqm		
23	<p>Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.</p>	29.16	sqm		
24	<p>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</p>	51.14	sqm		
25	<p>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</p>				

	Makrana white second quality	42.90	sqm		
<b>SH: FINISHING WORK</b>					
26	12 mm cement plaster 1:3 (1 cem : 3 f /sand )	712.40	sqm		
27	15 mm cement plaster 1:3 (1 cem : 3 f /sand )	324.57	sqm		
28	6mm cement plaster to ceiling 1:3(1 cement : 3 fine sand)	354.97	sqm		
29	Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to IS: 2547 (Part - 1 & II) 1976, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc. complete.	1036.97	sqm		
30	Providing and applying white cement based putty of average thickness 1mm,of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	1036.97	sqm		
31	Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces :				
	Two coats	1036.97	sqm		
32	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade.				
	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	1036.97	sqm		
33	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour				
	Two coats	1036.97	sqm		
34	Finishing walls weather shield paint of approved quality on new work (three or more coats) to give an even shade.	324.57	sqm		
35	Applying ready mixed priming coat pink primer of approved quality on wood work.	25.20	sqm		