

**BILL OF QUANTITY (B.O.Q.)**

Name of Work : Interior Furnishing of Fire Control Room at Academic Block, Jawaharlal Institute of Postgraduate Medical Education And Research (JIPMER), Pondicherry					
SL NO.	DETAILS OF WORK	UNITS	QUANTITY	RATE	AMOUNT
1	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	15.00		
2	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
	For thickness of tiles 10 mm to 25 mm	sqm	80.00		
3	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.	cum	2.00		
4	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	cum	3.00		
5	Lifting and removing wash basin with all fittings including disconnecting the water supply connections, making good the walls, clearing and stacking materials useful for reuse and removing the debris with in a distance of 150m etc.	cum	2.00		
6	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead up to 50 m and lift up to 1.5 m, as directed by Engineer-in-charge.				
	All kinds of soil	cum	2.00		
7	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	sqm	10.00		
8	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
	1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size).	cum	8.00		
9	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	5.00		
10	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 :				
	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	cum	2.00		
11	Centering and shuttering including strutting, propping etc. and removal of form for all heights :				
	Shelves (Cast in situ)	sqm	8.00		
12	12 mm cement plaster of mix :				
	1:4 (1 cement: 4 fine sand)	sqm	52.00		
13	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :				
	Water thinnable cement primer	sqm	52.00		
14	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	Two or more coats on new work	sqm	295.00		

SL NO.	DETAILS OF WORK	UNITS	QUANTITY	RATE	AMOUNT
16	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 up to 12 metre or as desired by Engineering- charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete up to 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	2.00		
17	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
	Hot finished welded type tubes	kg	20.00		
18	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, paneling and dash fasteners to be paid for separately) :				
	For fixed portion				
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	264.00		
	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)	kg	110.00		
19	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	kg	176.00		
20	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in paneling 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	sqm	16.00		
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.				
	With float glass panes of 5.50 mm thickness	sqm	30.00		
22	Providing and fixing aluminium sliding door 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 nuts and screws etc. complete.				
	250x16 mm	Nos	2.00		
23	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.				
	200x10 mm	each	2.00		
24	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.				
	125 mm	each	4.00		

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25	Providing and fixing bright finished 100 mm mortice lock with 6 levers without pair of handles of approved quality for aluminium door, with necessary screws etc complete as per direction of Engineering- charge.	each	1.00		
26	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with IS : 3564, embossed on the body, door weight up to 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.	each	4.00		
27	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved	cum	18.00		
28	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete.				
	Size of Tile 600x600 mm	sqm	80.00		
29	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer), 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.	sqm	1.00		
30	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.				
	Using M.S. angles 40x40x6 mm for diagonal braces	sqm	16.00		
31	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
	Two or more coats on new work	sqm	52.00		
32	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 Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap	each	1.00		
33	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.				
	20 mm nominal outer dia Pipes	m	6.00		
34	Providing, laying and jointing 50mm dia uPVC pipes (6kg/sq.cm) conforming to IS specification 4985 and ISI marked including transportation to the site , lowering to the trenches, laying to proper grade and alignment, testing of joints with required testing equipment, including cost of solvent cement, uPVC specials such as bends,tees, threaded pieces,couplers, reducer,endcaps etc., complete all as per IS specification.	m	8.00		
35	Providing and fixing PTMT Bottle Trap for Wash basin and sink.				
	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms	Nos	1.00		
36	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	Nos	1.00		

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37	Providing and fixing uplasticised PVC connection pipe with brass unions.				
	45 cm length				
	15 mm nominal bore	Nos	1.00		
38	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.	each	1.00		
39	<p>Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts &amp; bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm</p> <p>centre to Centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering up to 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :</p>				
	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I	sqm	15.00		
40	Providing & supplying 8 seater Conference Table of size 2400mm x 1200mm x 750mm having top panel made from Medium-density fiberboard (MDF) with top thickness 31.60mm (18mm + 12mm + 0.6 mm Decorative laminate(DL) + 0.4 mm Membrane). PVC Membrane foil (0.4mm thk) clad on the substrate MDF using PU glue for better adhesion. This foil is pre-coated with layer of polyurethane for better scratch resistance. Edge profile Waterfall edge 10mm radius on top edge and 5mm at bottom. Flat edge shall be provided with machine pressed 2mm thick PVC lipping glued with hot melt EVA glue. Understructure made from 25mm plain particle board(PPB) having a straight profile with half round edges and clad with 0.6mm thick Post Forming laminate. Overall thickness of leg is 26.2mm. Modesty Panel made from PLT (Prelaminated Twin) boards of 18mm thick. Wire carrier made from 0.80 mm thick M.S. CRCA Grade D as per IS: 513 - 1994. Carrier Cover made of 12mm thk. MDF painted all over. The rate shall include all materials, hardware and labour etc. complete as per instruction of engineer-in charge	each	1.00		
41	<p>Providing &amp; supplying L shaped Office table of size 1800 X 900 X 740 mm made up of 25 mm thick plain MDF board, clad with 0.6 mm thick post formed laminate and 0.6 mm thick Backing Laminate. Flat edge duly sealed with 2mm thick PVC Beading. The Modesty is 18mm thick pre laminate MDF board on both sides. Edge sealed with 2mm thick PVC beading. The door, partitions and shelves are made up of 18mm thick pre laminated MDF board. Edge sealed with 2mm thick PVC beading. The three drawer unit of size 390 X 440 X 646 mm shall be welded assembled with 0.6mm thick CRCA steel for body shell &amp; drawer tray, 1.2 mm thick CRCA top and bottom stiffeners and 0.8mm thick CRCA rear side stiffeners. Drawers shall be provided with double extension precision ball slide with 10 lever Cam lock and centre locking arrangement, finished with epoxy polyester powder coat of thickness of 50 microns. It has Black Color Metal Pedestal without Castors.</p> <p>All metal parts of Three Drawer should be powder coated and treated by seven tanks process before Powder Coating i.e. Degreasing (1st Tank), Water Rinsing-I (2nd Tank), Derusting (3rd Tank), Water Rinsing-II (4th Tank), Phosphating (5th Tank), Water Rinsing-III (6th Tank), Passivation (7th Tank), respectively with non-electrolytic deep process to produce a protective oxide coating for smooth surface with matt finish anticorrosive powder coating of thickness 40-60 microns and oven baked for high resistance to scratch, chemical, thermal and mechanical stress all over. The rate shall include all materials, hardware and labour etc. complete as per instruction of engineer-in charge</p>	each	2.00		

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42	<p>Proving &amp; supplying Medium back chair of size 475 mm(W) x 580 mm (H). The Seat and back are made up of 1.2 +/- 0.1 cm. Thick hot pressed plywood measured and upholstered with the fabric upholstery covers and moulded polyurethane foam. The back foam is designed with contoured lumber support for extra thick foam on front edge to give comfort to popliteal area. High Resilience(HR) Polyurethane Foam: The HR polyurethane foam is moulded with density 45 +/- 2 kg/m3 and hardness load 16 +/- 2 kgf as per IS: 7888 for 25% compression. Armrests : The one piece armrests are injection moulded from black Co-polymer polypropylene. Centre - Tilt Synchro Mechanism: The mechanism is designed with following features : 360 degree revolving type. Upright position locking. Tilt tension adjustment. Seat/Back tilting ratio of 1:3. Tubular Frame: The powder coated tubular frame is cantilever type &amp; made of 2.54+/- 0.03 cm (dia) x 0.2 +/- 0.016 cm (thk) M.S.E.R.W.</p> <p>Tube Pneumatic height Adjustment: The pneumatic height adjustment has an adjustment stroke of 12.0 +/- 0.3 cm. Telescopic Bellow Assembly : the bellow is 3 piece telescopic tyoe and injection back in polypropylene. Pedestal Assembly : The pedestal is injection moulded in black 33% glass-filled Nylon-66 and fitted with 5 nos. Twin wheel castors. The pedestal is 66.3 +/- 0.5 cm. Pitch-center dia.(76.3 +/- 1.0 cm with castors). Twin Wheel Castors : The twin wheel castors are injection moulded in black nylon. Tube Pneumatic height Adjustment: The pneumatic height adjustment has an adjustment stroke of 12.0 +/- 0.3 cm. The rate shall include all materials, hardware and labour etc. The rate shall include all materials, hardware and labour etc. complete as per instruction of engineer-in charge</p>	each	18.00		
43	<p>Proving &amp; supplying Steel Almirah (Godrej Make) of outer size 2000 (H) X 900 (W) X 450 (D) mm made of machine pressed steel sheet and powder coated in a shade as approved. Internal Size of Almirah: 1850 (H) X 900 (W) X 450 (D) mm. Leg Size of Almirah: 150 (H) X 120 (W) X 450 (D) mm. Rack with 5 Compartments of 4 no. of shelves. Distance between each shelf will be 360 mm. These shelves should be hanging arrangement (adjustable). Standard lock and 2 sets of keys. The thickness of the Almirah sheet shall be 18 SWG. The body of the Almirah shall be manufactured from cold rolled MS sheet (C. R. Sheet) with Antirust treatment and shall be finished with powder coating. The quality of used M.S sheet for making Almirah shall be free from any pitting and corrosion etc. H/D Rubber bushes shall be provided to the bottom of legs of Almirah.</p>	each	2.00		
44	<p>Providing and fixing 100mm vertical blinds of approved colour made from 100% polyester yarn coated with fade resistant polymer to ensure complete opaquely with zero light transmittance having suitable coating on exterior, including all fixtures and fittings complete in all respect as per design and instructions of the Engineer-in-charge</p>	sqm	8.00		
45	<p>Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.</p>				
	Group A	Point	20.00		
46	<p>Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface /recess including cutting the wall and making good the same in case of recessed conduit as required.</p>				
	25mm	m	110.00		
47	<p>Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required</p>				
	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	m	180.00		
	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	m	80.00		
48	<p>Supplying and fixing following modular switch/ socket on the existing modular plate &amp; switch box including connections but excluding modular plate etc. as required.</p>				
	2 way 5/6 A switch	m	1.00		
	15/16 A switch	m	6.00		
	3 pin 5/6 A socket outlet	m	6.00		

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49	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
	4 way (4 + 12), Double door	each	1.00		
50	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 and neutral	each	3.00		
51	Supplying and drawing 2 pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the including surface/ recessed steel/ PVC conduit as required.	m	60.00		
52	Supplying and drawing of UTP CAT 6 LAN Cable in the including surface/ recessed steel/ PVC conduit as required.	m	60.00		
53	Supplying and fixing following socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
	Telephone socket outlet	each	4.00		
	Data socket outlet	each	4.00		
54	Supply & installation of Full HD resolution, single chip DLP projector of approved make with around 4500 ANSI lumens,16:9 aspect ratio and HDMI input.	each	1.00		
55	Supply & installation of Ceiling Mount kit of approved make for Multi Media Projectors	each	1.00		
56	Supply & installation of 4 x 6 Ft Projection Screen of approved make, wide format supported, with remote.	each	1.00		
57	Design, Supply, Installation, testing and commissioning of 1 TR split high wall mounted cordless remote Air conditioners of 3 star rating with independent evaporator 1 TR each and one compressor of 1 TR each. The work includes design, supply and installation of refrigerant copper tubing along with connecting cable (in between evaporator and condensing unit) including installation of 20 mm HDPE PVC drain pipe including necessary refrigerant, polythine pipe section insulation etc. and also installation of MS stand for outdoor condensing units. Necessary opening on the wall may be done for drawing copper tubing and cabling finishing with cement plaster etc.	each	1.00		
58	Supply, Installation, Testing & Commissioning of 1200 mm sweep High Speed Ceiling fan with standard down rod, all accessories Electrical connections. Including fixing materials required.	Each	8.00		
59	Supply, Installation, Testing & Commissioning of LED 2ft x 2ft luminaire with CRCA matt powder coated housing and diffuser of polycarbonate with >85% light transmission recess mounted glare free light fixture. System lumen package > 2900 and system wattage of 38W - 40W. Color temperature 6500K. Driver efficiency > 85%, THD < 10%, PF > 0.95 etc., complete with driver and all accessories as per instruction of engineer-in charge.	Each	4.00		

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60	Supply, Installation, Testing & Commissioning of 4 feet hanging / wall mounting type 2 x 20 watt LED Tube light fixture with driver and all accessories as per instruction of engineer-in charge.	Each	12.00		
61	Supply and fixing trilingual signage (Tamil, Hindi & English) or only English of size 850mm x 250mm with all necessary texts and symbols as directed by Engineer in charge. The signage letters will be made with premium quality vinyl sheet of approved colour, pasted on 5mm thick foam board. The signage will be either fixed on the wall with the screws & double tape or hanged from the ceiling with the help of hooks & chains complete work.	Each	2.00		
Sub total Amount					
GST @ 18%					
<b>Grand Total</b>					

**Rupees..... only)**

N.B: The Bidder shall quote his price which should include all Taxes, Duties and all other levies applicable i.e. sales Tax, Income Tax, Custom duty, Contract Tax, Entry Tax, and Service Tax, freight etc. No extra cost will be entertained on account of any Taxes and duties.

SIGNATURE OF THE BIDDER WITH SEAL & DATE