

M/s HLL Infra Tech Services Ltd. (HITES)

(Subsidiary of HLL Lifecare Ltd., A Government of India Enterprise)

TENDER

for

**RENOVATION AND MODIFICATION OF SURGERY
SEMINAR HALL (BLALOCK THEATRE) IN 2ND FLOOR
AND
MEDICINE SEMINAR HALL IN 3RD FLOOR,
AT HOSPITAL BLOCK, JIPMER, PUDUCHERRY**

Volume- IV

BILL OF QUANTITIES

Tender No: HITES/CHN/18-19/001

Dated: 20th June 2018



HLL INFRA TECH SERVICES LTD.

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Renovation of Surgery Seminar Hall (2nd floor) and Medicine Seminar hall (3rd floor) at Hospital block, JIPMER, Puducherry.			
Tender no : HITES/CHN/18-19/001 Dated: 20th June 2018			
ABSTRACT OF BILL OF QUANTITIES			
S No.	Description of Work	Amount in Figures	Amount in words
1	Renovation of Surgery Seminar hall (2nd floor) at Hospital block, JIPMER, Puducherry. (A)		
2	Renovation of Medicine Seminar hall (3rd floor) at Hospital block, JIPMER, Puducherry. (B)		
	Total inclusive of all taxes (A+B)		

BILL OF QUANTITIES

Renovation of Surgery Seminar Hall (2nd floor) and Medicine Seminar hall (3rd floor) at Hospital block, JIPMER, Puducherry.

Renovation of Sugery Seminar hall (2nd floor) at Hospital block, JIPMER, Puducherry.

Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
1	15.7		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.					
	15.7.4		In cement mortar cum	Cum	16.00			
2	15.23		Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
	15.23.2		For thickness of tiles above 25 mm and up to 40 mm	Sqm	140.00			
3	14.46		Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm	325.00			
4	15.12		Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead.					
	15.12.1		Of area 3 sq. metres and below	Each	7.00			
5	15.60		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	30.00			
6	4.10		Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III): 4 graded stone aggregate 12.5mm nominal size)	Sqm	150.00			
7	14.1		Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In-Charge.					
	14.1.1		With cement mortar 1:4 (1 cement : 4 fine sand)	Sqm	85.00			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
8	11.46		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.					
	11.46.2		Size of Tile 600x600 mm	Sqm	180.00			
9	21.1.2.2		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 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	180.00			
10	21.30		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).					
	21.3.2		With float glass panes of 5.50 mm thickness	Sqm	15.00			
11	12.53		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 inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet,					

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SI. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
			1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to form grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening for services					
			like diffusers, grills, light fittings, fixtures, smoke detectors etc., hereever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm 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 24mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by Engineer-in-Charge.					
			Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non- combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/mK.	Sqm	155.00			
12	13.48		Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :					
	13.48.1		Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	Sqm	325.00			
13		1.10	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 Type PVC conduit with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sqmm, FRLS PVC insulated copper conductor single core cable etc. as required.					
		1.10.3	Group C	Point	37			
14		1.14	Wiring for circuit/submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed PVC conduit as required.					
		1.14.2	2 x 2.5 sq.mm + 1x 2.5 sq.mm earth wire	Rmt	300			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
		1.14.3	2 x 4 sq.mm +1x 4 sq.mm earth wire	Rmt	300			
		1.14.10	4 x 10 sqmm + 2 x 6 sqmm earth wire	Rmt	50			
		1.14.11	4 x 16 sqmm + 2 x 6 sqmm earth wire	Rmt	200			
15		1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
		1.24.1	5/6 A switch	Each	30			
		1.24.3	15/16 A switch	Each	30			
		1.24.4	3 pin 5/6 A socket outlet	Each	30			
		1.24.5	6 pin 15/16 A socket outlet	Each	30			
		1.24.6	Telephone socket outlet	Each	3			
16		1.18	Supplying and drawing 2 pair, 0.5 sq mm FRLS PVC insulated copper conductor, un armoured telephone cable in the existing surface/recessed steel/ PVC conduit as required					
		1.18.2	2 Pair	Mtrs	200			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
17		1.21	Supplying and fixing 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.					
		1.21.2	25 mm	Mtrs	100			
		1.21.3	32 mm	Mtrs	100			
18		1.25	Supplying and fixing 2 modular stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	12			
19		1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	25			
20		1.27	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required					
		1.27.1	1 or 2 Module (75 mmX75 mm)	Each	10			
		1.27.2	3 Module (100 mmX75 mm)	Each	10			
		1.27.4	6 Module (200 mmX75 mm)	Each	10			
		1.27.5	8 Module (125 mmX125 mm)	Each	10			
		1.27.6	12 Module (200 mmX150 mm)	Each	10			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
21		1.39	Providing and fixing plain 16/0.20 mm (0.50 sq.mm) twin flat flexible, FRLS PVC insulated, copper conductor cable, in PVC sleeve of suitable size on the floor/ wall, or side of the table/ door etc. as required.	mtr	120			
22		2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 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)					
		2.3.4	16 way, Double door	Each	1			
23		2.4	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)					
		2.4.3	8 way (4 + 24), Double door	Each	1			
24		2.10	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.					
a		2.10.1	Single pole	Each	30			
b		2.10.2	Single pole with neutral	Each	4			
c		2.10.5	Triple pole and neutral	Each	1			
25		2.13	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
		2.13.2	63 Amp	Each	1			

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	Civil	E & M						
26		2.15	Supplying and fixing following rating, four pole, (three phase and neutral), 415 V, 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					
		2.15.3	63 Amp	Each	1			
27		4.1	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.					
		4.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	Mtr	30			
28		2.18	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "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	10.00			
29	LMR		Providing and Fixing Acoustical wall panel anutone wall laminated panelling - slat system finished floor level to till required height/false ceiling system to be as per approved sample. Core variants - Pine wood EI fibreboard, Fire - Class 1& P,Acousticts -NRC unto 0.75,Climate - (OCR RH - 5 ,70,light reflectance - 75%(beach haya), Green (RC% - 25,Hygiene (VoC, Clean room) - Low, class1,Strength, Load capacity (kg)ball impact.	Sqm	67.00			
30	LMR		Providing and Fixing Acoustical wall panel anutone stretch NRC wall fabric system by using FR grade fabric size 1200mm width, rigid vinyl stretch traks half wrap / full wrap 15mm (FSIS) strand board , synth PF infill with requisite accessories and tools.to be as per approved sample. Core - Pine wood fibre & polyfibre,Fire - Class 1,Acousticts -NRC upto 0.90,light reflectance - colour dependent, Green (RC% - 25,Hygiene (VoC, Clean room) - Low, class1.	Sqm	161.00			
31	LMR		Providing and fixing of approved color and quality window curtains with suitable aluminum pc rail/pipe, sliding rings, supporting rods, hang rods/clamps with fastners, required folding, and complete.	Sqft	365.00			
32		LMR	Providing of 3 Core unarmoured flexible cable connecting from AC to Metal clad socket exceeding more than 0.5 mts	m	10.00			
33		LMR	Removing the old light fixtures / ceiling fans and kept in safe custody inside the campus wherever JIPMER instructed (with in 1 km)	Each	30.00			

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	Civil	E & M						
34		LMR	Supply of 600 X 600 mm recess mounted Square LED 36 W down light in die-cast aluminium housing including high efficiency diffuser provides soft glare free light, driver etc including all required mounting accessories complete. (Crompton Model No : LCPL - 36-CDL-2 X2 , WIPRO Model No : LM25-361-XXX-57-XX-36 W).	Each	24.00			
35			Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
		LMR	Data socket	Each	5.00			
36		LMR	Supply and drawing of UTP 4 pair Cat 6 LAN cable in the existing surface/recessed PVC conduit as required.	Mts	250.00			
37		LMR	Supply, installing, testing & commissioning of approved make EPSON (EB-2040) XGA 1024x768 (4200 lumen - 2700 lumen), 4:3 ratio, 3 LCD Projector, HDMI X1, VGA X, 2 Video In X 1, RS 232 X1, LAN X1, Monitor Out X1, USB Viewer, USB Display, Wireless Ready	Nos	1.00			
38		LMR	Logic 120 inch mW (8' X 6') Sync Motor Screen with remote - LGS - 120 M	Nos	1.00			
39		LMR	VGA Cable 20 meter length	Set	1.00			
40		LMR	HDMI cable 15 meter length	Set	1.00			
41		LMR	Audio & Video Cable 20 meter length	Set	1.00			
42		LMR	Supply, installing, testing & commissioning of 6 watts ceiling mounted type speakers including necessary ceiling support system, connectors & installation hardwares.	Nos	20.00			
43		LMR	Supplying, installing, testing and commissioning solid state 4 zone Amplifier of 480 W RMS out put including necessary internal power & control wires, jacks, connectors, power supply units etc.	Nos	1.00			

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	Civil	E & M						
44		LMR	Supply, Installation, Testing & Commissioning of zone selector	Nos	1.00			
45		LMR	Supply, Installation, Testing & Commissioning of Digital Signal Proccesor unit with all call facility	Nos	1.00			
46		LMR	Supply, Installation, Testing & Commissioning of Paging Microphone, goose neck type	Nos	1.00			
47		LMR	Supply, installation, testing & commissioning of MP3 player with facility of playing back ground music from compact disc & USB device.	Nos	1.00			
48		LMR	Supply and installation of floor mounted 15U rack including cable manager, power supply units etc.	Nos	1.00			
49		LMR	Supply laying and termination of 2 Core x 1.5 Sq.mm cable, Un armoured FRLS Twin Twisted PVC Insulated copper cable along with all accessories. Cable shall be terminated in devices and control panel by using properly sized cable gland & locknut. Cable shall be installed on wall/slab by using GI saddles at regular interval as per the specifications.	Mts	200.00			
50		LMR	Supply and fixing of ISI marked (IS:15683) portable chemical fire extinguisher, water (gas pressure) type capacity 9 litres with gun metal cap and nozzle and complete in all respects including initial fill and wall suspension brackets with pressure gauge squeeze grip type and complete.	Nos	1.00			
51		LMR	Supply and fixing of ISI marked (IS:15683) Fire Extinguisher, Carbon-di-oxide type capacity 4.5 Kg. Flat base including valve, discharge hose of not less than 10 mm dia, 1M long and complete in all respects including initial fill with CO2 gas conforming to IS:307-1966 filled to a filling rate of not more than 0.667 and wall suspension bracket and complete.	Nos	1.00			
52		LMR	Supply and fixing of ABC (Powder Type) Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683 4 Kg with pressure gauge squeeze grip type.	Nos	1.00			
53		LMR	Supply of Air Cooled High Wall mounted Split Air Conditioner of following capacities consisting of high wall mounted type room unit (fan coil) with cordless remote control, outdoor condensing unit comprising of enegy efficient suitable rotary compressor for operation on single phase, 230 V, 50Hz supply, upto 4 m distance refrigerant copper piping with 13mm nitrile rubber insulation, comprising of 1" dia drain PVC pipe with insulation 5m, canvas connections, full electrical cabling from power plug near indoor unit and to outdoor unit 4m distance, out door unit MS stand, suitable stabilizer etc complete as required.					

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SI. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
			2.00 TR 3 star rated as per BEE(inclusive of Stabilizer)	Nos	8.00			
54		LMR	Supplying and fixing of following sizes of medium class 20mm PVC drain pipe along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.	Mts	65.00			
55		LMR	Corecutting of 75mm dia to the existing slab for taking the refrigerant pipe to the over head terrace and closing with concrete with water treatment mixures etc. complete.	Nos	8.00			
56		LMR	Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping additional length for 1.5TR / 2 TR machines with 13 mm nitrile rubber insulation & suitable size electrical cabing interconnecting the condensing unit to evaporating unit for split units as per site condition.	Mts	80			
SUB TOTAL - A								

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Renovation of Medicine Seminar hall (3rd floor) at Hospital block, JIPMER, Puducherry.

Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
1	15.7		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.					
	15.7.4		In cement mortar cum	Cum	16.00			
2	15.23		Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
	15.23.2		For thickness of tiles above 25 mm and up to 40 mm	Sqm	140.00			
3	14.46		Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm	325.00			
4	15.12		Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead.					
	15.12.1		Of area 3 sq. metres and below	Each	7.00			
5	15.60		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	30.00			
6	4.10		Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III): 4 graded stone aggregate 12.5mm nominal size)	Sqm	150.00			

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	Civil	E & M						
7	14.1		Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In-Charge.					
	14.1.1		With cement mortar 1:4 (1 cement : 4 fine sand)	Sqm	85.00			
8	11.46		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.					
	11.46.2		Size of Tile 600x600 mm	Sqm	180.00			
9	21.1.2.2		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 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	180.00			
10	21.30		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).					
	21.3.2		With float glass panes of 5.50 mm thickness	Sqm	15.00			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
11	12.53		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 inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked					
			at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening"for services					
			like diffusers, grills, light fittings, fixtures, smoke detectors etc., herever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm 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 24mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by Engineer-in-Charge.					
			Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm.The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non- combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/mK.	Sqm	155.00			
12	13.48		Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :					
	13.48.1		Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	Sqm	325.00			
13		1.10	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 Type PVC conduit with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sqmm, FRLS PVC insulated copper conductor single core cable etc. as required.					

BILL OF QUANTITIES

Renovation of Surgery Seminar Hall (2nd floor) and Medicine Seminar hall (3rd floor) at Hospital block, JIPMER, Puducherry.

Renovation of Medicine Seminar hall (3rd floor) at Hospital block, JIPMER, Puducherry.

Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
		1.10.3	Group C	Point	37			
14		1.14	Wiring for circuit/submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed PVC conduit as required.					
		1.14.2	2 x 2.5 sq.mm + 1x 2.5 sq.mm earth wire	Rmt	300			
		1.14.3	2 x 4 sq.mm +1x 4 sq.mm earth wire	Rmt	300			
		1.14.10	4 x 10 sqmm + 2 x 6 sqmm earth wire	Rmt	50			
		1.14.11	4 x 16 sqmm + 2 x 6 sqmm earth wire	Rmt	200			
15		1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
		1.24.1	5/6 A switch	Each	30			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
		1.24.3	15/16 A switch	Each	30			
		1.24.4	3 pin 5/6 A socket outlet	Each	30			
		1.24.5	6 pin 15/16 A socket outlet	Each	30			
		1.24.6	Telephone socket outlet	Each	3			
16		1.18	Supplying and drawing 2 pair, 0.5 sq mm FRLS PVC insulated copper conductor, un armoured telephone cable in the existing surface/recessed steel/ PVC conduit as required					
		1.18.2	2 Pair	Mtrs	200			
17		1.21	Supplying and fixing 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.					
		1.21.2	25 mm	Mtrs	100			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
		1.21.3	32 mm	Mtrs	100			
18		1.25	Supplying and fixing 2 modular stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	12			
19		1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	25			
20		1.27	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required					
		1.27.1	1 or 2 Module (75 mmX75 mm)	Each	10			
		1.27.2	3 Module (100 mmX75 mm)	Each	10			
		1.27.4	6 Module (200 mmX75 mm)	Each	10			
		1.27.5	8 Module (125 mmX125 mm)	Each	10			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
		1.27.6	12 Module (200 mmX150 mm)	Each	10			
21		1.39	Providing and fixing plain 16/0.20 mm (0.50 sq.mm) twin flat flexible, FRLS PVC insulated, copper conductor cable, in PVC sleeve of suitable size on the floor/ wall, or side of the table/ door etc. as required.	mtr	120			
22		2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 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)					
		2.3.4	16 way, Double door	Each	1			
23		2.4	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)					
		2.4.3	8 way (4 + 24), Double door	Each	1			
24		2.10	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.					
a		2.10.1	Single pole	Each	30			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
b		2.10.2	Single pole with neutral	Each	4			
c		2.10.5	Triple pole and neutral	Each	1			
25		2.13	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
		2.13.2	63 Amp	Each	1			
26		2.15	Supplying and fixing following rating, four pole, (three phase and neutral), 415 V, 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					
		2.15.3	63 Amp	Each	1			
27		4.1	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.					
		4.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	Mtr	30			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
28		2.18	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "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	10.00			
29	LMR		Providing and Fixing Acoustical wall panel anutone wall laminated panelling - slat system finished floor level to till required height/false ceiling system to be as per approved sample. Core variants - Pine wood EI fibreboard, Fire - Class 1& P,Acousticts -NRC unto 0.75,Climate - (OCR RH - 5 ,70,light reflectance - 75%(beach haya), Green (RC% - 25,Hygiene (VoC, Clean room) - Low, class1,Strength, Load capacity (kg)ball impact.	Sqm	67.00			
30	LMR		Providing and Fixing Acoustical wall panel anutone stretch NRC wall fabric system by using FR grade fabric size 1200mm width, rigid vinyl stretch traks half wrap / full wrap 15mm (FSIS) strand board , synth PF infill with requisite accessories and tools.to be as per approved sample. Core - Pine wood fibre & polyfibre,Fire - Class 1,Acousticts -NRC upto 0.90,light reflectance - colour dependent, Green (RC% - 25,Hygiene (VoC, Clean room) - Low, class1.	Sqm	161.00			
31	LMR		Providing and fixing of approved color and quality window curtains with suitable aluminum pc rail/pipe, sliding rings, supporting rods, hang rods/clamps with fastners, required folding, and complete.	Sqft	365.00			
32		LMR	Providing of 3 Core unarmoured flexible cable connecting from AC to Metal clad socket exceeding more than 0.5 mts	m	10.00			
33		LMR	Removing the old light fixtures / ceiling fans and kept in safe custody inside the campus wherever JIPMER instructed (with in 1 km)	Each	30.00			
34		LMR	Supply of 600 X 600 mm recess mounted Square LED 36 W down light in die-cast aluminium housing including high efficiency diffuser provides soft glare free light, driver etc including all required mounting accessories complete. (Crompton Model No : LCPL - 36-CDL-2 X2 , WIPRO Model No : LM25-361-XXX-57-XX-36 W).	Each	24.00			
35			Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
		LMR	Data socket	Each	5.00			
36		LMR	Supply and drawing of UTP 4 pair Cat 6 LAN cable in the existing surface/recessed PVC conduit as required.	Mts	250.00			
37		LMR	Supply, installing, testing & commissioning of approved make EPSON (EB-2040) XGA 1024x768 (4200 lumen - 2700 lumen), 4:3 ratio, 3 LCD Projector, HDMI X1, VGA X, 2 Video In X 1, RS 232 X1, LAN X1, Monitor Out X1, USB Viewer, USB Display, Wireless Ready	Nos	1.00			
38		LMR	Logic 120 inch mW (8' X 6') Sync Motor Screen with remote - LGS - 120 M	Nos	1.00			
39		LMR	VGA Cable 20 meter length	Set	1.00			
40		LMR	HDMI cable 15 meter length	Set	1.00			
41		LMR	Audio & Video Cable 20 meter length	Set	1.00			
42		LMR	Supply, installing, testing & commissioning of 6 watts ceiling mounted type speakers including necessary ceiling support system, connectors & installation hardwares.	Nos	20.00			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
43		LMR	Supplying, installing, testing and commissioning solid state 4 zone Amplifier of 480 W RMS out put including necessary internal power & control wires, jacks, connectors, power supply units etc.	Nos	1.00			
44		LMR	Supply, Installation, Testing & Commissioning of zone selector	Nos	1.00			
45		LMR	Supply, Installation, Testing & Commissioning of Digital Signal Processor unit with all call facility	Nos	1.00			
46		LMR	Supply, Installation, Testing & Commissioning of Paging Microphone, goose neck type	Nos	1.00			
47		LMR	Supply, installation, testing & commissioning of MP3 player with facility of playing back ground music from compact disc & USB device.	Nos	1.00			
48		LMR	Supply and installation of floor mounted 15U rack including cable manager, power supply units etc.	Nos	1.00			
49		LMR	Supply laying and termination of 2 Core x 1.5 Sq.mm cable, Un armoured FRLS Twin Twisted PVC Insulated copper cable along with all accessories. Cable shall be terminated in devices and control panel by using properly sized cable gland & locknut. Cable shall be installed on wall/slab by using GI saddles at regular interval as per the specifications.	Mts	200.00			
50		LMR	Supply and fixing of ISI marked (IS:15683) portable chemical fire extinguisher, water (gas pressure) type capacity 9 litres with gun metal cap and nozzle and complete in all respects including initial fill and wall suspension brackets with pressure gauge squeeze grip type and complete.	Nos	1.00			

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Sl. NO	DSR 2016		Description of Work	Unit	Quantity	Rate in Figure	Rate in Words	Amount in Rs. (figures)
	Civil	E & M						
51		LMR	Supply and fixing of ISI marked (IS:15683) Fire Extinguisher, Carbon-di-oxide type capacity 4.5 Kg. Flat base including valve, discharge hose of not less than 10 mm dia, 1M long and complete in all respects including initial fill with CO2 gas conforming to IS:307-1966 filled to a filling rate of not more than 0.667 and wall suspension bracket and complete.	Nos	1.00			
52		LMR	Supply and fixing of ABC (Powder Type) Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683 4 Kg with pressure gauge squeeze grip type.	Nos	1.00			
53		LMR	Supply of Air Cooled High Wall mounted Split Air Conditioner of following capacities consisting of high wall mounted type room unit (fan coil) with cordless remote control, outdoor condensing unit comprising of energy efficient suitable rotary compressor for operation on single phase, 230 V, 50Hz supply, upto 4 m distance refrigerant copper piping with 13mm nitrile rubber insulation, comprising of 1" dia drain PVC pipe with insulation 5m, canvas connections, full electrical cabling from power plug near indoor unit and to outdoor unit 4m distance. out door unit					
			2.00 TR 3 star rated as per BEE(inclusive of Stabilizer)	Nos	8.00			
54		LMR	Supplying and fixing of following sizes of medium class 20mm PVC drain pipe along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.	Mts	65.00			
55		LMR	Corecutting of 75mm dia to the existing slab for taking the refrigerant pipe to the over head terrace and closing with concrete with water treatment mixtures etc. complete.	Nos	8.00			
56		LMR	Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping additional length for 1.5TR / 2 TR machines with 13 mm nitrile rubber insulation & suitable size electrical cabling interconnecting the condensing unit to evaporating unit for split units as per site condition.	Mts	80			
Sub Total - B								

**END OF
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