

**RENOVATION AND MODIFICATION
OF SIM THEATRE & WITHERING
THEATRE AT OLD OPD BLOCK,
JIPMER, Puducherry**

**Volume- IV
BILL OF QUANTITIES**

Tender No: HLL/IDD/CHN/19-20/029

Dated: 5th October 2019



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Bill of Quantities						
Tender No: HLL/IDD/CHN/19-20/029 dt. 05.10.2019						
Name of Work: Renovation and Modification of Sim Theatre & Withering Theatre at old OPD Block, JIPMER, Puducherry						
Renovation and Modification of sim Theatre at Old OPD Block, JIPMER, Puducherry.(A)						
	PART -A					
S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
	CIVIL WORKS					
1	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
1.1	For thickness of tiles 10 mm to 25 mm	sqm	58.30			
2	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	10.40			
3	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	11.13			
4	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	203.71			
5	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead.					
5.1	of area 3 sq. metres and below	each	6.00			
6	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	58.30			
7	Cutting holes up to 30x30 cm in walls including making good the same:					

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7.1	With common burnt clay F.P.S. (non modular) bricks	each	11.00			
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.					
8.1	Cement mortar 1:3 (1 cement :3 coarse sand)	sqm	20.57			
9	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	sqm	20.57			
10	15 mm cement plaster:					
10.1	1:4 (1 cement : 4 fine sand)	sqm	241.14			
11	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :					
11.1	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	544.85			
12	Providing and fixing uplasticised PVC connection pipe with brass unions :					
12.1	45 cm length					
12.2	15 mm nominal bore	each	2.00			
13	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.					

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13.1	Semi rigid pipe					
13.2	40 mm dia	each	2.00			
14	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc.					
14.1	20 mm nominal outer dia Pipes	metre	39.00			
14.2	32 mm nominal outer dia Pipes	metre	32.00			
15	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :					
15.1	50 to 80 mm nominal bore	each	1.00			
16	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
16.1	20 mm nominal bore	each	1.00			
16.2	50 mm nominal bore	each	1.00			

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17	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931					
17.1	15mm nominal bore	each	3.00			
18	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:					
18.1	White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap	each	2.00			
19	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).					
19.1	Size of Tile 600x600 mm	sqm	62.05			
20	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
20.1	Granite of any colour and shade					
20.2	Area of slab upto 0.50 sqm	sqm	20.00			
21	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) :					
21.1	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)					
21.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	365.00			
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):					
22.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	sqm	14.69			

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23	Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.					
23.1	Upto 5mm depth and 5 mm width	metre	99.00			
24	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers of approved quality including necessary screws etc. complete.					
24.1	50 mm	each	5.00			
25	Providing and fixing bright finished brass handles with screws etc.complete:					
25.1	100 mm	each	10.00			
26	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 :					
26.1	250x16 mm	each	2.00			
27	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 :					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
27.1	250x10 mm	each	4.00			
28	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 :					
28.1	125 mm	each	20.00			
29	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).					
29.1	Second class teak wood	cum	0.56			
30	Providing and fixing ISI marked flush door shutters conforming to IS :2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.					
30.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	11.34			
31	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	sqm	24.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
32	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	63.30			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
33	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 & 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 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 25 mm 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 upto 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 :					
33.1	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	204.70			
34	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	2.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
35	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	Sqm	220.00			
36	Providing and fixing of approved make uPVC floor trap size of 100x75mm, including necessary 1:2:4 PCC packing allround the floor drop, making and grouting the joints and necessary testing, all complete as per specifications and as directed by the Engineer.	each	2			
37	Providing and fixing of uPVC 6 kg/cm ² pipes embedded in floors/walls conforming to IS 4985 : 2000 of approved make including necessary solvent weldable fittings of approved make including trenching, cutting and making good masonry walls and floors wherever necessary required, testing, all complete as per specifications and as directed by the Engineer.					
37.1	75 mm diameter	metre	45			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
37.2	110 mm diameter	metre	29			
38	Providing and Fixing Acoustical wall panel of approved make wall laminated panelling - slat system finished floor level to till equired 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	35.66			
39	Providing and Fixing Acoustical wall panel of approved make stretch NRC wall fabric system by using FR grade fabric size1200mm width, rigid vinyl stretch traks half wrap / full wrap 15mm (FSIS) strand board , synth PF infll 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	71.15			
40	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	329.25			
Electrical & Fire						
1	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.					
1.1	Group C	Point	38			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
2	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.					
3	2 x 2.5 sq.mm + 1x 2.5 sq.mm earth wire	Rmt	300			
4	2 x 4 sq.mm +1x 4 sq.mm earth wire	Rmt	300			
5	4 x 10 sqmm + 2 x 6 sqmm earth wire	Rmt	130			
6	4 x 16 sqmm + 2 x 6 sqmm earth wire	Rmt	130			
7	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
7.1	5/6 A switch	Each	34			
7.2	15/16 A switch	Each	8			
7.3	3 pin 5/6 A socket outlet	Each	34			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
7.4	6 pin 15/16 A socket outlet	Each	8			
7.5	Telephone socket outlet	Each	1			
8	Supplying and drawing 2 pair, 0.5 sq mm FRLS PVC insulated copper conductor, unarmoured telephone cable in the existing surface/recessed steel/ PVC conduit as required					
8.1	2 Pair	Mtrs	70			
9	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.					
9.1	25 mm	Mtrs	150			
9.2	32 mm	Mtrs	100			
10	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	15			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
11	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required					
11.1	1 or 2 Module (75 mmX75 mm)	Each	3			
11.2	3 Module (100 mmX75 mm)	Each	10			
11.3	6 Module (200 mmX75 mm)	Each	24			
11.4	12 Module (200 mmX150 mm)	Each	10			
12	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	40			
13	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)					
13.1	16 way, Double door	Each	1			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
14	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)					
14.1	8 way (4 + 24), Double door	Each	1			
15	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.)					
15.1	12 way (4 + 36), Double door	Each	1			
16	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.					
16.1	Single pole	Each	74			
16.2	Single pole with neutral	Each	1			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
17	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
17.1	63 Amp	Each	2			
18	Supplying and fixing following rating, double pole, (single phase and neutral), 240 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.					
18.1	25 A	Each	1			
18.2	63 A	Each	6			
19	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					
19.1	63 Amp	Each	2			
20	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.					

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20.1	150 mm width X 50 mm depth X 1.6 mm thickness	Mtr	30			
21	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	Each	4			
22	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	4			
23	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.					
23.1	1 run of cable	Mts	150			
24	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Nos	8			
25	Installation, testing and commissioning of pre-wired, fluorescent fitting I compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	14			
26	Providing of 3 Core unarmoured flexible cable connecting from AC to Metal clad socket exceeding more than 0.5 mts	Mts	10.00			

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27	Removing the old light fixtures / ceiling fans / switchs sockets/ (DBs including MCB, MCCB, RCCB) and kept in safe custody inside the campus wherever JIPMER instructed (with in 4 km)	Each	30.00			
28	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 (2x2) or equivalent as per approved make)	Each	10.00			
29	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
29.1	Data socket (RJ-45)	Each	2.00			
30	Supply, installing, testing & commissioning of approved make EPSON (EB-535W) WXGA (3400 lm), RGB liquid crystal shutter projection system (3LCD), HDMI, VGA Video In, LAN , Monitor Out, USB Viewer, USB Display, Wireless Ready all complete with mounting accessories or equivalent with smae specification as per approved make	Nos	1.00			
31	Supply, Installation, Testing & Commissioning of Sennheiser make (XSW2835) wireless hand micro phone (2 nos)	Set	2.00			
32	Supply, Installation, Testing & Commissioning of Sennheiser make(XSW2NE2) wireless collar micro phone	Nos	2.00			
33	Supply, Installation, Testing & Commissioning of JBL make (LIBRA) 250 W 6 Channel Amplifier with inbuilt-mixer	Nos	1.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
34	Supply of 12w round ceiling mount LED light	Nos	4.00			
35	Supply, Installation, Testing & Commissioning of 65 inch SONY make 4kLED TV(KD-65X7500F)	Nos	1.00			
36	Supply, Installation, Testing & Commissioning of GLOBUS – GEL203 Digital Podium Fully equipped	Nos	1.00			
37	Supply and Laying of 15 Core VGA Cable 15 Meters	Nos	2.00			
38	Supply and Laying of 15 Core VGA Cable 20 Meters	Nos	1.00			
39	Supply and Laying of HDMI Cable 15 Meters	Nos	2.00			
40	Supply and Laying of HDMI Cable 20 Meters	Nos	1.00			
41	8' X 6' Sync Motor Screen with remote	Nos	1.00			
42	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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43	Supply, installation, testing & commissioning of MP3 player with facility of playing back ground music from compact disc & USB device.	Nos	1.00			
44	Supply, installation, testing & commissioning of floor mounted 17U rack including cable manager, power supply units, cooling fan, etc.	Nos	1.00			
45	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			
46	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 along with signage	Nos	1.00			
47	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 along with signage	Nos	1.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
48	Supply, Installation, Testing, Commissioning of 4 way cassette type (non inverter model) with cordless remote control with inbuild drain pump, along with suitable 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 nitrile insulation 4m, canvas connections, full electrical cabling from power plug near indoor unit and to outdoor unit 4m distance, out door unit MS stand, etc complete as required. Heat exchanger should be of copper		4.00			
48.1	2.00 TR 3 star rated as per BEE	Nos	4.00			
49	Supplying and fixing of following sizes of medium class PVC drain pipe of suitable size along with 13 mm nitrile insulation, including all accessories for fixing in surface/recess, cutting the wall and making good the same in case of recessed conduit as required.	Mts	65.00			
50	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	4.00			
51	Supply, installation, testing and commissioning of suitable copper refrigerant piping additional length with 13 mm nitrile rubber insulation & suitable size electrical cabing interconnecting the condensing unit to evaporating unit for Cassette units beyond 4m as per site condition with all accessories complete.	Mts	80.00			
52	Supply of 3W deep spot LED light including all required accessories complete. (Havells LHEEBCPFUN1W003 or equivalent)	Nos	2.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
53	Supply & Installation of 400 mm sweep Wall Fan. (Havells DZIRE 400 or equivalent)	Nos	12.00			
54	Supply, Installation, Testing, Commissioning of LED strip 22W along with all accessories complete (Havells FLEXION LED STRIP 22 W or equivalent)	Mtrs	50.00			
55	Supply, laying, jointing and testing of following sizes of pipes conforming to IS1239 with all accessories like all fittings (for pipes upto 50mm dia socket weld forged steel fittings and for pipes above 50 mm dia butt weld MS fitting shall be used) including tees, elbows, reducers, union, flanges, rubber gaskets, GI nuts bolts, washer including supporting / fixing the pipe on floor/wall/ceiling with clamps, hangers (using anchor fastners) as per specification. Providing two coats of synthetic enamel paint of approved shade over a coat of primer					
55.1	25 NB	Mtrs	45			
55.2	32 NB	Mtrs	30			
56	Supply, Installation, Testing & Commissioning of Qutrazoid bulb type sprinkler of 15mm nominal size to operate 68 deg temperrature. UL listed, K=80(5.6)					
56.1	Standard Response Upright Sprinkler	Nos	12			
56.2	Standard Response Pendent Sprinkler with rossette plate	Nos	12			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
57	Sprinkler Flexible Hose 1200 mm in length, Unbraided, UL Listed along with all necessary accessories like Nipple threaded , Reducing Nipple threaded, Large Bracket with Bolt, Small Bracket with Bolt, clamps,reduser collar,Meter Square Bar etc complete as per spec.	Nos	12			
58	Supply, Installation, Testing, Commissioning & Integeration of Addressable Smoke Detector with standard base.	Nos	12			
59	Supply, Installation, Testing and Commissioning & Integeration of Addressable Manual Call point with base & Accessories etc.	Nos	1			
60	Supply, Installation, Testing and Commissioning & Integeration of Addressable Sounder with base & Accessories etc.	Nos	1			
61	Supply, Installation, Testing and Commissioning of 2 core X 1.5 sq. mm, FRLS fire cable armoured including cable gland, crimping & Accessories etc. confirming to IS standards and specifications. Red color	Mtrs	80			
Total						
GST						
Grand Total incl. of GST-A						

Bill of Quantities						
Tender No: HLL/IDD/CHN/19-20/029 dt. 05.10.2019						
Name of Work: Renovation and Modification of Sim Theatre & Withering Theatre at old OPD Block, JIPMER, Puducherry						
Renovation and Modification of Withering Theatre at Old OPD Block, JIPMER, Puducherry.(B)						
	PART-B					
S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
	CIVIL WORKS					
1	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
1.1	For thickness of tiles 10 mm to 25 mm	sqm	58.30			
2	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	10.40			
3	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	11.13			
4	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	203.71			
5	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead.					
5.1	of area 3 sq. metres and below	each	6.00			
6	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	58.30			
7	Cutting holes up to 30x30 cm in walls including making good the same:					
7.1	With common burnt clay F.P.S. (non modular) bricks	each	11.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
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.					
8.1	Cement mortar 1:3 (1 cement :3 coarse sand)	sqm	20.57			
9	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	sqm	20.57			
10	15 mm cement plaster:					
10.1	1:4 (1 cement : 4 fine sand)	sqm	241.14			
11	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :					
11.1	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	544.85			
12	Providing and fixing uplasticised PVC connection pipe with brass unions :					
12.1	45 cm length					
12.2	15 mm nominal bore	each	2.00			
13	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.					
13.1	Semi rigid pipe					
13.2	40 mm dia	each	2.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
14	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc.					
14.1	20 mm nominal outer dia Pipes	metre	39.00			
14.2	32 mm nominal outer dia Pipes	metre	32.00			
15	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :					
15.1	50 to 80 mm nominal bore	each	1.00			
16	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
16.1	20 mm nominal bore	each	1.00			
16.2	50 mm nominal bore	each	1.00			
17	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931					
17.1	15mm nominal bore	each	3.00			
18	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:					
18.1	White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap	each	2.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
19	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).					
19.1	Size of Tile 600x600 mm	sqm	62.05			
20	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.					
20.1	Granite of any colour and shade					
20.2	Area of slab upto 0.50 sqm	sqm	20.00			
21	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) :					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
21.1	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)					
21.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	365.00			
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):					
22.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	sqm	14.69			
23	Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.					
23.1	Upto 5mm depth and 5 mm width	metre	99.00			
24	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers of approved quality including necessary screws etc. complete					
24.1	50 mm	each	5.00			
25	Providing and fixing bright finished brass handles with screws etc.complete:					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
25.1	100 mm	each	10.00			
26	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 :					
26.1	250x16 mm	each	2.00			
27	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 :					
27.1	250x10 mm	each	4.00			
28	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 :					
28.1	125 mm	each	20.00			
29	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately)					
29.1	Second class teak wood	cum	0.56			
30	Providing and fixing ISI marked flush door shutters conforming to IS :2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
30.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	11.34			
31	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	sqm	24.00			
32	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	63.30			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
33	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 & 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 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 25 mm 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 upto 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 :					
33.1	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	204.70			
34	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	2.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
35	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	Sqm	220.00			
36	Providing and fixing of approved make uPVC floor trap size of 100x75mm, including necessary 1:2:4 PCC packing allround the floor drop, making and grouting the joints and necessary testing, all complete as per specifications and as directed by the Engineer	each	2.00			
37	Providing and fixing of uPVC 6 kg/cm ² pipes embedded in floors/walls conforming to IS 4985 : 2000 of approved make including necessary solvent weldable fittings of approved make including trenching, cutting and making good masonry walls and floors wherever necessary required, testing, all complete as per specifications and as directed by the Engineer.					
37.1	75 mm diameter	metre	45.00			
37.2	110 mm diameter	metre	29.00			
38	Providing and Fixing Acoustical wall panel of approved make wall laminated panelling - slat system finished floor level to till equired height/false ceiling system to be as per approved sample. Core variants - Pine wood EI fibreboard, Fire - Class 1&P,Acoustictics -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	35.66			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
39	Providing and Fixing Acoustical wall panel of approved make stretch NRC wall fabric system by using FR grade fabric size1200mm 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	71.15			
40	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	329.25			
Electrical & Fire						
1	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.					
1.1	Group C	Point	38.00			
2	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.					
3	2 x 2.5 sq.mm + 1x 2.5 sq.mm earth wire	Rmt	300.00			
4	2 x 4 sq.mm +1x 4 sq.mm earth wire	Rmt	300.00			
5	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
5.1	5/6 A switch	Each	34.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
5.2	15/16 A switch	Each	8.00			
5.3	3 pin 5/6 A socket outlet	Each	34.00			
5.4	6 pin 15/16 A socket outlet	Each	8.00			
5.5	Telephone socket outlet	Each	1.00			
6	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					
6.1	2 Pair	Mtrs	70.00			
7	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.					
7.1	25 mm	Mtrs	150.00			
7.2	32 mm	Mtrs	100.00			
8	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	15.00			
9	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
9.1	1 or 2 Module (75 mmX75 mm)	Each	3.00			
9.2	3 Module (100 mmX75 mm)	Each	10.00			
9.3	6 Module (200 mmX75 mm)	Each	24.00			
9.4	12 Module (200 mmX150 mm)	Each	10.00			
10	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	40.00			
11	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.					
11.1	150 mm width X 50 mm depth X 1.6 mm thickness	Mtr	30.00			
12	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	Each	4.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
13	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	4.00			
14	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.					
14.1	1 run of cable	Mts	150.00			
15	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Nos	8.00			
15.1	Installation, testing and commissioning of pre-wired, fluorescent fitting I compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	14.00			
16	Providing of 3 Core unarmoured flexible cable connecting from AC to Metal clad socket exceeding more than 0.5 mts	Mts	10.00			
17	Removing the old light fixtures / ceiling fans / switchs sockets/ (DBs including MCB, MCCB, RCCB) and kept in safe custody inside the campus wherever JIPMER instructed (with in 4 km)	Each	30.00			
18	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 (2x2) or equivalent as per approved make)	Each	10.00			
19	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
19.1	Data socket (RJ-45)	Each	2.00			
20	Supply, installing, testing & commissioning of approved make EPSON (EB-535W) WXGA (3400 lm), RGB liquid crystal shutter projection system (3LCD), HDMI, VGA Video In, LAN , Monitor Out, USB Viewer, USB Display, Wireless Ready all complete with mounting accessories or equivalent with same specification as per approved make	Nos	1.00			
21	Supply, Installation, Testing & Commissioning of Sennheiser make (XSW2835) wireless hand micro phone (2 nos)	Set	2.00			
22	Supply, Installation, Testing & Commissioning of Sennheiser make(XSW2NE2) wireless collar micro phone	Nos	2.00			
23	Supply, Installation, Testing & Commissioning of JBL make (LIBRA) 250 W 6 Channel Amplifier with inbuilt-mixer	Nos	1.00			
24	Supply of 12w round ceiling mount LED light	Nos	4.00			
25	Supply, Installation, Testing & Commissioning of 65 inch SONY make 4kLED TV(KD-65X7500F)	Nos	1.00			
26	Supply, Installation, Testing & Commissioning of GLOBUS – GEL203 Digital Podium Fully equipped	Nos	1.00			
27	Supply and Laying of 15 Core VGA Cable 15 Meters	Nos	2.00			
28	Supply and Laying of 15 Core VGA Cable 20 Meters	Nos	1.00			
29	Supply and Laying of HDMI Cable 15 Meters	Nos	2.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
30	Supply and Laying of HDMI Cable 20 Meters	Nos	1.00			
31	8' X 6' Sync Motor Screen with remote	Nos	1.00			
32	Supply, installing,testing & commissioning of 6 watts ceiling mounted type speakers including necessary ceiling support system, connectors & installation hardwares.	Nos	20.00			
33	Supply, installation, testing & commissioning of MP3 player with facility of playing back ground music from compact disc & USB device.	Nos	1.00			
34	Supply, installation, testing & commissioning of floor mounted 17U rack including cable manager, power supply units, cooling fan, etc.	Nos	1.00			
35	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			
36	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 along with signage	Nos	1.00			
37	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 along with signage	Nos	1.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
38	Supply, Installation, Testing, Commissioning of 4 way cassette type (non inverter model) with cordless remote control with inbuilt drain pump, along with suitable 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 nitrile insulation 4m, canvas connections, full electrical cabling from power plug near indoor unit and to outdoor unit 4m distance, outdoor unit MS stand, etc complete as required. Heat exchanger should be of copper					
38.1	2.00 TR 3 star rated as per BEE	Nos	4.00			
39	Supplying and fixing of following sizes of medium class PVC drain pipe of suitable size along with 13 mm nitrile insulation, including all accessories for fixing in surface/recess, cutting the wall and making good the same in case of recessed conduit as required.	Mts	65.00			
40	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	4.00			
41	Supply, installation, testing and commissioning of suitable copper refrigerant piping additional length with 13 mm nitrile rubber insulation & suitable size electrical cabling interconnecting the condensing unit to evaporating unit for Cassette units beyond 4m as per site condition with all accessories complete.	Mts	80.00			
42	Supply of 3W deep spot LED light including all required accessories complete. (Havells LHEEBCPFUN1W003 or equivalent)	Nos	2.00			
43	Supply & Installation of 400 mm sweep Wall Fan. (Havells DZIRE 400 or equivalent)	Nos	12.00			

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
44	Supply, Installation, Testing, Commissioning of LED strip 22W along with all accessories complete (Havells FLEXION LED STRIP 22 W or equivalent)	Mtrs	50.00			
45	Supply, laying, jointing and testing of following sizes of pipes conforming to IS1239 with all accessories like all fittings (for pipes upto 50mm dia socket weld forged steel fittings and for pipes above 50 mm dia butt weld MS fitting shall be used) including tees, elbows, reducers, union, flanges, rubber gaskets, GI nuts bolts, washer including supporting / fixing the pipe on floor/wall/ceiling with clamps, hangers (using anchor fastners) as per specification. Providing two coats of synthetic enamel paint of approved shade over a coat of primer					
45.1	25 NB	Mtrs	45			
45.2	32 NB	Mtrs	30			
46	Supply, Installation, Testing & Commissioning of Qutrazoid bulb type sprinkler of 15mm nominal size to operate 68 deg temperature. UL listed, K=80(5.6)					

S. No	Description of work	Unit	Qty	Rate in figs in Rs.	Rate in words In Rupees	Amount in figs In Rs.
46.1	Standard Response Upright Sprinkler	Nos	12			
46.2	Standard Response Pendent Sprinkler with rossette plate	Nos	12			
47	Sprinkler Flexible Hose 1200 mm in length, Unbraided, UL Listed along with all necessary accessories like Nipple threaded , Reducing Nipple threaded, Large Bracket with Bolt, Small Bracket with Bolt, clamps,reduser collar,Meter Square Bar etc complete as per spec.	Nos	12			
48	Supply, Installation, Testing, Commissioning & Integeration of Addressable Smoke Detector with standard base.	Nos	12			
49	Supply, Installation, Testing and Commissioning & Integeration of Addressable Manual Call point with base & Accessories etc.	Nos	1			
50	Supply, Installation, Testing and Commissioning & Integeration of Addressable Sounder with base & Accessories etc.	Nos	1			
51	Supply, Installation, Testing and Commissioning of 2 core X 1.5 sq. mm, FRLS fire cable armoured including cable gland, crimping & Accessories etc. confirming to IS standards and specifications. Red color	Mtrs	80			
Total						
GST						
Grand Total inclu. of GST-B						

RENOVATION AND MODIFICATION OF SIM THEATRE & WITHERING THEATRE AT OLD OPD BLOCK, JIPMER, PUDUCHERRY**Tender No: HLL/IDD/CHN/19-20/029 Dated: 5th October 2019****ABSTRACT OF BILL OF QUANTITIES**

S No.	Description of Work Amount in	Amount in Figures	Amount in words
1	Renovation and Modification of sim Theatre at Old OPD Block, JIPMER, Puducherry.(A)		
2	Renovation and Modification of Withering Theatre at Old OPD Block, JIPMER, Puducherry.(B)		
	GRAND TOTAL (A+B) in Figs (in Rs.)		
	GRAND TOTAL (A+B) in Words (in Rupees)		