

# **PACKAGE-6**

**(BOYS HOSTEL)**

BILL OF QUANTITIES

MAIN SUMMARY

S.NO.	DESCRIPTION	AMOUNT (Rs.)
1	CONDUITS & PIPES	
2	DISTRIBUTION BOARDS	
3	LOW VOLTAGE CABLES AND WIRES	
4	WIRING ACCESSORIES	
5	LIGHTING FIXTURES & FANS	
6	WIRING FOR LIGHTS, FANS & SOCKETS	
7	EARTHING SYSTEM	
8	VOICE, DATA COMMUNICATION & CCTV CABLING SYSTEMS (Passive Equipment Only)	
9	CCTV SYSTEM	
10	SELF CONTAINED EMERGENCY LIGHTS	
11	CABLE TELEVISION SYSTEM (CATV)	
	GRAND TOTAL AMOUNT CARRIED TO FORM OF BID	

## BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
<b>1</b>	<b><u>CONDUITS &amp; PIPES</u></b>				
a)	Supply and installation of following size internal diameter PVC / uPVC Class-D pipe / Flexible PVC Conduit as race ways with all accessories, recessed / surface on wall / column / under floor, as per drawings and specifications, complete in all respect.				
i	20 mm dia PVC Conduit	5	Rm.		
ii	25 mm dia PVC Conduit	5	Rm.		
iii	38 mm dia PVC Conduit	16	Rm.		
iv	2x38 mm dia PVC Conduit	80	Rm.		
v	2x100mm dia uPVC Pipe (Class-D)	70	Rm.		
vi	25 mm dia Flexible PVC Conduit	15	Rm.		
b)	Supply and installation of following size UPVC Pipe Class-D for Power / Telecommunication Cable (copper / optic fiber). Buried in ground / under roads / under floor as per specification, including excavation for laying of pipe, bricks, warning tape and backfilling with new and fresh sand (6" under and 6" above pipe) etc., (wherever required), as shown on the specifications and drawings, complete in all respect.				
i	2x100mm dia uPVC Pipe (Class-D)	8	Rm.		
c)	Supply and installation of Pull Boxes (Floor / Wall) 16 SWG, Size 450 mm x 300 mm with all installation accessories, as per drawings, specifications and approved brands, complete in all respect.	1	No.		
d)	Supply and installation of Pull Boxes (Floor / Wall) 16 SWG, Size 300mm x 150mm with all installation accessories, as per drawings, specifications and approved brands, complete in all respect.	1	No.		
e)	Supply and installation of Pull Boxes (Floor / Wall) 16 SWG, Size 200mm x 200mm with all installation accessories, as per drawings, specifications and approved brands, complete in all respect.	5	No.		
f)	Providing and Construction of Manhole Size 3'-0" x 3'-0" x 3'-0" deep, 6"thick, concrete 1:2:4 ratio with 3' round heavy duty cast iron cover, 100% water proof, as per specification as shown on the drawing, as per drawings and specification etc., complete in all respect. (For Electrical cables)	2	No.		
g)	Providing and Construction of Handhole Size 2'-0" x 2'-0" x 2'-0" deep, 6"thick, concrete 1:2:4 ratio with 2' round heavy duty cast iron cover, 100% water proof, as per specification as shown on the drawing, as per drawings and specification etc., complete in all respect. (For Telecommunication cables)	1	No.		
	<i>Amount Carried to Summary</i>				



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## BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
5	<b><u>LIGHTING FIXTURES &amp; FANS</u></b>				
a)	Supply, installation, testing and commissioning of following Light fixtures complete with starters, Electronic ballast (unless mention otherwise), lamps, lamp holders, drivers, mounting accessories etc., as per drawings and specifications, complete in all respects. Lighting fixtures sample must be submitted to consultant for approval. Note: Refer light fixtures drawings for complete light fixtures details.				
i	Surface Ceiling mounted LED Downlight Fixture (IP-20), PF>0.9, 4000K with Aluminum Profile housing and 1x25W LED lamp	272	No.		
ii	Surface Ceiling mounted LED Downlight Fixture (IP-44), PF>0.9, 4000K with Aluminum housing and 1x10W LED lamp	105	No.		
iii	Surface Ceiling mounted LED Downlight Fixture (IP-44), PF>0.9, 4000K with Aluminum housing and 1x40W LED lamp	36	No.		
iv	Wall / Surface mounted LED Batten Light Fixture (IP-20) with Polycarbonate Painted Steel housing and 1x40W LED lamp	14	No.		
v	Wall / Surface mounted LED Batten Light Fixture (IP-20) with Polycarbonate Painted Steel housing and 1x20W LED lamp	144	No.		
vi	Wall / Surface mounted LED Wall Light Fixture (IP-65), PF>0.9, 3000K with Polycarbonate housing and 1x23W LED lamp	74	No.		
vii	Wall / Surface mounted LED Decorative Wall Light Fixture (IP-20), PF>0.9, 4000K with 1x25W LED lamp	150	No.		
viii	Surface / Ceiling mounted LED Batten Light Fixture (IP-44) with Polycarbonate Painted Steel housing and 1x40W LED lamp	8	No.		
ix	In Floor mounted LED Spike Planter Light Fixture (IP-65), PF>0.8, 3000K with Polycarbonate housing and 1x7W LED lamp	13	No.		
b)	Supply, installation, testing and commissioning of following types of fan, including all connecting accessories, flexible wire etc. as per drawings and specifications, complete in all respects.				
i	56" dia Sweep Ceiling Fan complete with hook	107	No.		
ii	8" dia Exhaust Fan	65	No.		
	<i>Amount Carried to Summary</i>				

## BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
<b>6</b>	<b><u>WIRING FOR LIGHTS, FANS &amp; SOCKETS</u></b>				
a)	Supply, laying, tagging, testing and commissioning of Circuit wiring from DB to Switchboard including wiring between switch on the same circuit with 2x2.5 sq.mm + 1x2.5 sq.mm as ECC single core copper conductor PVC insulated wires in 3/4" dia PVC conduit, surface / recessed in wall, column, ceiling etc., including with all conduit accessories, as per drawing and specification, complete in all respect.	64	No.		
b)	Supply, laying, tagging, testing and commissioning of Point wiring from Switch Board to Light/fan Point with 3x1.5 sq.mm. single core copper conductor PVC insulated wires in 3/4" dia PVC conduit, surface / recessed in wall, column, ceiling etc., including with all conduit accessories, as per drawing and specification, complete in all respect.	680	No.		
c)	Supply, laying, tagging, testing and commissioning of Point wiring from Light point to Light point with 3x1.5 sq.mm. single core copper conductor PVC insulated wires in 3/4" dia PVC conduit, surface / recessed in wall, column, ceiling etc., including with all conduit accessories, as per drawing and specification, complete in all respect.	308	No.		
d)	Supply, laying, tagging, testing and commissioning of Circuit wiring (for Emergency / Exit Lights) from DB to Ist. Light Point with 2x2.5 sq.mm + 1x2.5 sq.mm as ECC single core copper conductor PVC insulated wires in 25mm dia PVC conduit surface / concealed / recessed in wall, column, ceiling etc., including with all conduit accessories, as per drawing and specification, complete in all respect.	4	No.		
e)	Supply, laying, tagging, testing and commissioning of Point wiring (for Emergency / Exit Lights) from Light Point to Light Point with 2x2.5 sq.mm + 1x2.5 sq.mm as ECC single core copper conductor PVC insulated wires in 25mm dia PVC conduit surface / concealed / recessed in wall, column, ceiling etc., including with all conduit accessories, as per drawing and specification, complete in all respect.	73	No.		
f)	Supply, laying, tagging, testing and commissioning of wiring for 13A Switch Socket outlet with 2x2.5 sq.mm + 1x2.5 sq.mm as ECC single core copper conductor PVC insulated wires in 25mm dia PVC conduit, surface / recessed in wall, column, ceiling, under floor etc., including with all conduit accessories, as per drawing and specification, complete in all respect.				
i	DB to Socket outlet	33	No.		
ii	Socket outlet to Socket outlet	161	No.		



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S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
g)	Supply, laying, tagging, testing and commissioning of wiring for 13A Switch Socket outlet (for Washing Machine / IT Rack) with 2x4 sq.mm + 1x4 sq.mm as ECC single core copper conductor PVC insulated wires in 25mm dia PVC conduit, surface / recessed in wall, column, ceiling, under floor etc., including with all conduit accessories, as per drawing and specification, complete in all respect.				
i	DB to Socket outlet	4	No.		
h)	Supply, laying, tagging, testing and commissioning of wiring for 13A Switch Socket outlet (for Water Cooler) with 2x4 sq.mm + 1x4 sq.mm as ECC single core copper conductor PVC insulated wires in 25mm dia PVC conduit, surface / recessed in wall, column, ceiling, under floor etc., including with all conduit accessories, as per drawing and specification, complete in all respect.				
i	DB to Socket outlet	14	No.		
j)	Supply, laying, tagging, testing and commissioning of wiring for 20A DP Switch / Flex Outlet (for Water Heater) with 2x4 sq.mm + 1x4 sq.mm as ECC single core copper conductor PVC insulated wires in 25mm dia PVC conduit, surface / recessed in wall, column, ceiling, under floor etc., including with all conduit accessories, as per drawing and specification, complete in all respect.				
i	DB to 20A DP Switch	18	No.		
ii	DP Switch to Flex Outlet	18	No.		
<i>Amount Carried to Summary</i>					

## BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
7	<b><u>EARTHING SYSTEM</u></b> Supply, installation, testing and commissioning of following items for complete earthing system including all connecting accessories as per drawings, specifications and as mentioned in General Notes, complete in all respects.				
a)	Supply, installation, testing and commissioning of following items for complete Earthing system, including Bentonite chemical, other all required materials and connecting accessories, boring, labor, tools, transportation etc., as per drawings and specifications, complete in all respects with detailed test reports.				
i	Earth pit with Rod type earth electrode, 3/4" dia and 9 Ft. long copper bonded rod.	1	No.		
b)	Supply, installation, testing and commissioning of following size of PVC insulated Cu. Conductor cable as earth continuity conductor (ECC) installed on surface / in appropriate already installed raceway / in already excavated trench / in already laid pipe, as per specifications and drawings, complete in all respect.				
i	1C, 70 Sq.mm Cu/PVC	15	Rm.		
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## BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
8	<b><u>VOICE, DATA COMMUNICATION &amp; CCTV CABLING SYSTEMS</u></b> <b><u>(Passive Equipment Only)</u></b>				
a)	Supply, installation, testing and commissioning of following Data / Voice Cabinets, for patch panel, Fiber panels, adapter, PDU's, Fans and space for active switches as it may require to complete the entire passive and active network as per the single line diagram, drawings and specifications, complete in all respect.				
i	12U Data Rack with PDU's (800mmx800mm)	2	No.		
b)	Supply, installation, testing and commissioning of Single RJ-45, Cat-6 outlet for Voice with shutter type and 16 SWG back box including tagging, as per drawing and specification, complete in all respect.	40	No.		
c)	Supply, installation, testing and commissioning of Dual RJ-45, Cat-6 outlet for Voice & Data with shutter type and 16 SWG back box including tagging, as per drawing and specification, complete in all respect.	2	No.		
d)	Supply, installation, testing and commissioning of Single RJ-45, Cat-6 outlet for Camera with shutter type and 16 SWG back box including tagging, as per drawing and specification, complete in all respect.	9	No.		
e)	Supply, installation, testing and commissioning of Single RJ-45, Cat-6 outlet for Wifi with shutter type and 16 SWG back box including tagging, as per drawing and specification, complete in all respect.	6	No.		
f)	Supply, laying, termination, testing and commissioning of CAT 6 - 4 pair cable for Single RJ-45 outlet (Data, Voice, Camera and Wifi system) in 25mm dia PVC conduit concealed / surface from each outlet to IDF racks / TJB, including tagging and piping with all necessary accessories, complete in all respect.	1,000	Rm.		
g)	Supply, installation, testing and commissioning of 24 port shutter type Cat 6, RJ 45 UTP Patch Panel fully loaded with tool less jacks and rear cable manager, as per drawing and specification, complete in all respect.	2	No.		
h)	Supply, installation, testing and commissioning of 24 port Multi Mode Fiber Patch Panel fully loaded with pigtails etc., and rear cable manager, as per drawing and specification, complete in all respect.	2	No.		
j)	Supply, installation, testing and commissioning of 19" front/rear (as required) cable organizer between patch panels and active equipment to provide patch cable management including with all necessary accessories, as per drawing and specification, complete in all respect.	4	No.		
k)	Supply, installation, testing and commissioning of CAT-6 UTP (RJ-45 to RJ-45) for the above Patch Panels including with all necessary accessories, as per drawing and specification, complete in all respect.				
i	CAT-6 (1m) Long Patch Cord	59	No.		
ii	CAT-6 (3m) Long Patch Cord	59	No.		

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S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
l)	Supply, laying, termination, testing and commissioning of Cat-5e, 25 pair cable from IDF rack to remaining IDF racks in already laid conduit / cable tray including with all the necessary accessories as per drawing and specifications, complete in all respect.	35	Rm.		
m)	Supply, laying, termination, testing and commissioning of 8 Core Multi mode Fiber Optic Cable from IDF rack to remaining IDF Racks in already installed conduit / cable tray, as shown in drawings including termination and tagging at both ends, as per standard specifications with all termination accessories up to entire satisfaction of IT Engineer.	15	Rm.		
n)	Supply, installation, testing and commissioning of following 19" Tag blocks in Telephone Junction Box (TJB) / Data rack, as per drawing and specification, complete in all respect.				
i	1x50 Pair IDC Block 19" type	1	No.		
ii	1x25 Pair IDC Block 19" type	1	No.		
iii	TJB with 1x10 Pair IDC Block 19" type	2	No.		
o)	Installation, testing and commissioning by Manufacturer Authorized Agent / Dealer and handing over complete Voice & Data System to Owner with Providing Training voice data fuke & OTDR Testing, as build drawing, Rack layouts and certification's Principal, complete equipment's Manual and Warranty Documents to Owners representative.	1	Job.		
<i>Amount Carried to Summary</i>					



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S.NO.	DESCRIPTION	QTY	UNIT	RATE (Pak Rs.)	AMOUNT (Pak Rs.)
10	<b><u>SELF CONTAINED EMERGENCY LIGHTS</u></b> Supply, installation, testing and commissioning of following items for self contained emergency lights with all fixing accessories, as per drawing and specification, complete in all respect.  a) 3W, Emergency light with self contained Battery, Surface / Recessed mounted IP-20 rated, UL 924 Listed, as per specification and drawing, complete in all respect. (non-maintained)  b) 3W, Emergency light with self contained Battery, Surface / Recessed mounted IP-65 rated, UL 924 Listed, as per specification and drawing, complete in all respect. (non-maintained)  c) 3W, Exit light with self contained Battery, 24m viewing, Directional Pandent, IP-65 rated, UL 924 Listed, as per specification and drawing, complete in all respect. (non-maintained)  Note: Selection of Exit Light is as per Architect's approval.	46  9  22	No.  No.  No.		
	<i>Amount Carried to Summary</i>				

