

BILL OF QUANTITY for the work of Development of Store Shed and Open Yard Complex at 4x130 MW TAPOVAN VISHNUGAD HEP, Distt. Chamoli, UK

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE	AMOUNT
	(A) CIVIL WORKS				
	DISMANTLING WORK				
1	Dismantling doors, windows and clerestory windows (steel/wood/rolling) shutter of all sizes including chowkhats, architrave, holdfasts etc. complete and stacking materials without damage to be reused within 50 metres lead.	Each	20.00		
2	Dismantling existing structural steel work in built up(welded/bolted/riveted) sections in Trusses, rafters, purlins, angles, tees, flats, pipes and channels including debolting/dewelding/dismantling all gusset plates,cleats, joint plates,base plates, bolts, nuts, cutting rivets/bolts, welding/dewelding etc.in structural steel columns, purlins, trusses, door frames including dismembering in reusable form and stacking within 50 metres lead without damage and at all heights and spans.	MT	12.00		
3	Dismantling existing GS/Meta poly permanently colourcoated sheet roofing/sheet cladding including ridges, hips valleys and gutters etc., removal of J hooks, bitumen/GI washers, and stacking the material in reuseable form within 50 metres.	m2	1300.00		
4	Demolishing RCC/brick work/rubble masonry/block work in cement mortar manually/by mechanical means including stacking of reusable materials as per directions of Engineer I/C	Cum	10.00		
5	Disposal of building/store rubbish, dismantled masonry, disposable scrap materials, etc within a lead of 1 km by mechanical carriage of materials including loading, unloading, disposal and levelling of disposal area.	Cum	20.00		
6	Removal of all Electrical fittings, wiring, DB's/Panels, switch/sockets, sanitary fittings,etc and stacking of reusable materials as per directions of Engineer I/C	LS	1.00		
	TRANSPORTATION				
7	Transportation from Sewa HEP Village Mashka,Distt. Kathua J&K to Tapovan Vishnugad HEP, Peepalkothi, Distt. Chamoli, UK of all dismantled and reusable materials like structural steel, doors, windows, trusses, purlins, G S/meta poly sheets,etc. as per the instructions of Engineer I/C including weighment, loading and unloading, stacking at destination all complete as per directions of Engineer I/C	MT	18.00		
	EARTHWORK/SITE CLEARANCE/ROADWORK				
8	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 200 m outside the periphery of the area cleared	sqm	4600.00		
9	Surfact dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50m and lift upto 1.5m in all kinds of soil.	sqm	4600.00		
10	Earth work in excavation in all types of ordinary and hard soil by mechanical means (Hydraulic excavator)/manual means including stacking the excavated soil, dressing of sides and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works such as concreting form work etc. and disposal of surplus excavated soil as directed, disposed soil to be neatly levelled and dressed lead upto 50 meters and lift upto 1.5meter	Cu.M	250.00		
11	Back filling available excavated earth in trenches, plinth, slides of foundations etc., including re-excavating the deposited soil excavated earlier, breaking clods, laying at all depths and heights in layers not exceeding 20 cm indepth, consolidating each deposited layer by ramming and watering complete lead upto 50 Metre and lift upto 1.5 Meter.	Cu.M	170.00		
12	Disposal of surplus excavated earth and debris including re-excavating the deposited soil earlier, transportation, loading, unloading, laying at all depths and heights, leveling and dressing both the area (viz. From where earth is transported and where it is deposited) to required levels and slopes complete with all lifts as directed upto 1 km	Cu.M	80.00		
13	Preparation and consolidation of site area with power road roller of 8 to 12 tonne capacity after levelling, grading, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth lead upto 50 Mtrs	sqm	4000.00		

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14	Supply and Laying water bound macadam with specified stone aggregate stone screening and binding material including screening, sorting, spreading to template and consolidation with power road roller of 8 to 10 tonne capacity etc. complete with supply for stone aggregate, screenings, kankar, moorum and red bajri etc.				
	Base course with 63 mm to 45 mm size including stone screening 13.2mm size.	cum	150.00		
15	Providing and tilling of murrum/quarry dust as levelling course compacting the same with 8 to 10 ton road roller complete in all respects as directed by Engineer-in Charge	cum	40.00		
16	Supplying the good earth from outside the site including the cost of filling the same within the site in layer not exceeding 20cm in depth & consolidating each deposited layer by ramming and watering including all leads & lifts etc. complete.	cum	325.00		
17	Providing approved quality Yellow/silver sand and filling the same where required under floors etc., watering, ramming, consolidating, grading and finishing to final levels and slopes for all lifts and leads involved, complete as directed (Payment to be made for solid measure of the consolidated filling).	Cu.M	35.00		
	PCC				
11	Plain cement concrete of mix 1:3:6 (1 cement : 3 coarse sand and 6, 20 mm down graded stone aggregate) for column footing, levelling, floors etc., including cost of all materials, lead, lift, labour charges, consolidation, shuttering, curing etc. complete.	Cu. M	85.00		
12	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth .	sqm	110.00		
13	Providing and laying and laying damp proof course 40 mm thick with concrete grade 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and applying a coat of residual petroleum of penetration 80/100 of approved quality using 1.7 kg per sq. metre on damp proof coarse after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in KEROSENE OIL.	Sq m	35.00		
14	Providing and fixing at ground level precast 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) cement concrete in kerbs, RCC sleepers, lintels, edgings, drains, etc. as per approved pattern and placed in position including complete shuttering but without reinforcement steel.	cum	10.00		
	BRICKWORK				
15	Brick work with class designation 75 in cement mortar 1:6 (1 cement : 6 coarse sand) in foundation, plinth and super structure in thickness of 230 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification and direction of Engineer In-charge.	Cu. M	50.00		
16	Brick work with brick of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) in super structure in thickness of 115 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification. 2 nos. MS rods of 6 mm dia are to be provided after every 3rd layer for which no additional payment will be made.	Sq. M	200.00		
	RCC				
17	Reinforced cement concrete of mix 1:1.5:3 (1 cement, 1.5 coarse sand and ,3 :20 mm down graded aggregate) for column footing, sunshades, shelves, lintels etc. including cost of materials, lead lift, labour charges for concreting, shuttering, curing etc. complete.	Cu. M.	35.00		
18	Centring and shuttering including providing all shuttering material , strutting, propping etc. and removal of form work for : Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	230.00		
19	Providing and placing mild steel/ tor steel reinforcement for RCC work including cost of all materials, labour for cutting, bending, binding and placing in position complete as per drawing and instruction of Engineer.	MT	3.50		
20	Fabricating and fixing in position, M.S. Holding down bolts with sleeves and washers, nuts and lock nuts etc. including threading of required length and type as per instructions of Engineer I/C				
	Upto 20 mm dia. bolt	kg	400.00		
	ROOFING				

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE	AMOUNT
21	Fabrication, assembly complete with all rework and Re-erection of transported structural steel work in beams,channels,plates,steel tubular trusses, purlines,gates, wind ties, base plates, gusset plates, bolts, nuts etc. complete as per drawings, specifications & instructions of engineer including cost of all materials leads, lifts labour charges etc. and two coats of approved enamel paint on old work for finished products at site complete as per technical specification and direction of engineer.	MT	12.00		
22	Supply fabrication and erection of new structural steel work in beams,channels,plates,steel tubular trusses, purlines,gates, wind ties, base plates, gusset plates, bolts, nuts etc. complete as per drawings, specifications & instructions of engineer including cost of all materials leads, lifts labour charges etc. and one coat of primer and two coats of approved enamel paint for finished products at site complete as per technical specification and direction of engineer.	MT	5.00		
23	Steel work in built up section/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel for gates, railings, frames,gratings etc.	kg	100.00		
24	Fitting & fixing transported steel rolling shutter , fitted with coil wire spring to necessitate the fitting of required nos of C.J pulley's on heavy type solid drawn gearless steel tube complete with locking arrangements bothside and outside specially built up side guide channels including,providing a hood for the rolling shutter painting with two coats of approved brand of aluminium paint on existing shutter complete with providing minor repair, oiling, greasing, aall accessories as required to make the rolling/sliding shutter functional.	Sqm	25.00		
25	Supplying , fitting & fixing steel rolling shutter , profile type in 18 B.G of approved type of steel lathe section 75 mm wide fitted with coil wire spring to necessitate the fitting of required nos of C.J pulley's on heavy type solid drawn gearless steel tube complete with locking arrangements bothside and outside specially built up side guide channels including,providing a hood for the rolling shutter painting with two coats of approved brand of aluminium paint over a coat of red lead primer complete.				
a)	Mechanically and manually Operated	Sq.M	25.00		
26	Straightening, repairing/plugging drilled holes,handling & re- fixing the transported Meta poly permanently colour coated roofing and side cladding fixed with polymer coated J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete (upto a pitch of 60 degrees) including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	1300.00		
27	Providing and fixing corrugated asbestos cement sheet 6 mm thick roofing and side cladding fixed with polymer coated J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete (upto a pitch of 60 degrees) including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	100.00		
28	Providing and fixing corrugated Transluscent Plastic sheet roofing fixed with GI J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete (upto a pitch of 60 degrees) including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	40.00		
29	Providing ridges or hips of width 60 cm over all width plain G.S.sheet 0.63mm thick with zinc coating not less than 275gm/m ² fixed with polymer coated J. or L hooks, bolts and nuts 8mm dia G.I. limpet and bitumen washers complete.	RM	20.00		
30	Providing valleys of 90cm wide overall in plain G.S. sheet 1.60mm thick with zinc coating not less than 350gm/m ² fixed with polymer coated J, or L hooks, bolts and nuts 8mm dia. G.I. limpet and bitumen washers complete.	RM	30.00		
31	Providing and fixing PVC pipe (2.5 kg/cm ²) of 110 mm dia. as rain water pipe in above item complete in all respect including required shoes, bends, etc	RM	10.00		
	CEILING				

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE	AMOUNT
32	Providing and fixing at all height false ceiling of 12.5mm thick tapered edge gypsum board conforming to IS : 2095 including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastner 12.5 mm dia x 40mm long with 6 mm dia bolts to the angle hangers of 25x25x.55 mm of reqd. length, and other end of angle hanger being fixed with nut and bolts to G.I.Channels 45x15x0.9 running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80mm with tapered flanges of 26mm				
	each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. Channel with connecting clips made out of 2.64mm diax230mm long G.I. Wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers specification and also including the coat of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer -in-charge but excluding the cost of painting.	sqm	15.00		
	FINISHING				
33	50 mm thk. Ironc Topping Cement Concrete flooring consisting(1-admixture:2-stone aggregate 6mm nominal size) by volume with metallic hardening compound of approved quality is mixed in the ratio(4:1) (4 cement : 1 metallic floor) hardening compound of approved quality by weight including cement slurry rounding off edges and strips etc. but excluding the cost of base of steps etc. complete	Sq. M	575.00		
34	Providing and fixing glass strips in joints of terrazo / cement concrete floors 40mm wide and 4mm thick	RM	500.00		
35	Providing and laying Ceramic glazed floor tiles 300 x 300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to NITCO, ORIENT, SOMANY KAJRIA, or equivalent make in colours such as white, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including the joints with white cement and matching pigment etc. complete	Sq.M	5.00		
36	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 12 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing, leads & lifts, curing etc. complete.	Sq. M	200.00		
37	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 15 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing, leads & lifts, curing etc. complete.	Sq. M	125.00		
38	Providing and fixing steel glazed windows and ventilators of operable standard rolled steel section joints mitred and welded with 15 x 3 mm lugs, 10 cm long, with steel lugs embedded in cement concrete blocks 15 x 10 x 10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 approved graded hard stone aggregate 20 mm nominal size) or with wooden plugs and screws or raw plugs and screws or with fixing clips or with bolts and nuts as required including providing and fixing of glass panels with glazing clips and special metal sash putty of approved make complete including painting with two coats of approved quality synthetic enamel paint over a base coat of red oxide zinc chromate primer including the cost of minor repair work, if required. Windows and ventilators will be provided with horizontal steel bars (8 mm x 8 mm) , welded to the frame @ 150 mm including supply of MS frames, bars, glazing, latches, handles, hook &key, stays , etc. all complete	Sq. M	4.00		
39	Providing and fixing ISI marked flush door shutters non decorative type , core of block baord construction with frame of ist 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 mm thick including ISI marked stainless steel butt hinges, handle,bolts, latches, door stoppers, aldrops,complete with necessary screws and other accessories	Sq. M	2.00		
40	Repairing and fixing transported door shutters complete with two coats on old work including providing new ISI marked stainless steel butt hinges, handle,bolts,latches, door stoppers, aldrops, complete with necessary screws and other accessories	Sq. M	2.00		
41	Providing and laying Ceramic glazed wall tiles 300x200 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 13755 of NITCO, ORIENT, SOMANY KAJARIA, or equivalent make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement Mortar 1:4 (1 cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete(2.1 m.ht.).	Sq. M	8.00		

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42	Providing three coats of white wash to give a smooth and even shade including cost of materials, cleaning and preparation of surface, scaffolding etc. complete.	sqm	100.00		
43	Finishing walls/ surfaces with water proofing cement paint of approved brand and manufacture and of required shade to give an even shade.	sq.M	150.00		
44	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade in two or more coats on new work	sqm	20.00		
	SANITARY/SEWAGE				
45	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever), conforming to IS : 7231, Parryware/Hindware/Seabrid /Orient (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	No.	1.00		
46	Providing & fixing flat back white vitreous china wash basin 550 x 400 mm size with single 15 mm C.P.brass pillar with R.S. or C.I. brackets painted white 15 cm C.P. brass pillar taps C.P. brass chain with rubber plug, 32 mm dia CP Brass trap and M.I. unions, C.P. waste, C.P. connection, soap dish, waste pipe complete including cutting and making good the walls wherever required under counter complete in all respects	No.	1.00		
47	Providing and fixing 100 mm sand cast iron grating for gully, floor or Nahanitrap.	each	2.00		
48	Providing and fixing bevelled edge mirror of superior glass (of approved quality) complete lwith 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	sqm	0.50		
49	Providing and fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. complete	each	1.00		
50	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality colour and make (Prayag or equivalent).				
a)	450mm long towel rail with total elgnth of 495mm, 78mm wide and effective height of 88mm, weighin not less than 170gms.	each	1.00		
51	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality colour and make, weighing not less than 105gms (Prayag or equivalent)	each	1.00		
52	Providing, laying and jointing glazed stone ware pipes grade A with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc., complete 100 mm dia pipe.	RM	10.00		
53	Providing, laying, fitting and jointing medium grade GI pipes , confirming to IS 1239 for water lines at various elevations with all fittings stop cock, valve bends, elbows, tees, reducers., etc. making grooves in the brick wall, etc. (Internal work), trenching, refilling etc. (external work) including cost of all materials, labour charges etc. complete as per specifications and drawings.				
a)	25 mm dia G.I. Pipe (External work)	RM	10.00		
b)	20 mm dia G.I. Pipe (Internal work)	RM	10.00		
c)	15 mm dia G.I. Pipe (Internal work)	RM	10.00		
54	Providing and fixing GM full way valve with C.I wheel of approved quality etc. complete.				
a)	25 mm nominal bore	No.	1.00		
55	Providing and fixing C.P. brass 15 mm stop cock of approved quality of weight not less than 250 gms.	NO	2.00		
56	Providing and fixing C.P. brass 15 mm bib cock of approved quality of weight not less than 250 gms.	No.	2.00		
57	Construction brick masonry manholes of inside size 90x80 cm and 45-60 cm deep with 75 class designation bricks in cement mortar 1: 5 (1 cement : 5 find sand), RCC top slabs with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm size), foundation concrete 1:1:8 (1 cement : 4 coarse sand : 8 graded stone aggregate of 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a foating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded aggregate of 20 mm nominal size) neatly finished complete as per standard design excluding C1 manhole cover.	NO.	1.00		

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58	Construction of 2.0x0.90x1.60 size Septic tank in all types of soil with 250 mm thick brick masonry in cement Mortar of 1:6 15 cm thick cement concrete 1:4:8 grade in bed, 75 mm thick 1:2:4 grade cement concrete flooring and 100 mm thick over RCC slab of 1:2:4 grade, 75 mm thick partition wall, 15 mm thick plaster on brick wall finished with neat cement providing M.S. rugs etc., complete as per drawing including excavation, disposal of surplus earth with a load of 50 Mtr. Item includes all material, labour, leads, lifts etc., complete but excluding C.I manhole cover.	NO.	1.00		
59	Construction soak pit of 2.5Mtr dia and 3 Mtr depth filled with brick bats including S.W. drain pipe 100 mm dia and 1.2 meter long complete as per standard design.	NO.	1.00		
60	Providing and laying soil, waste and vent pipes, centrifugally cast (spun) iron S&S pipes				
a)	100mm	RM	10.00		
61	Supplying and installation of HDPE cylindrical and vertical water tank with closed top of SINTEX or approved equivalent of undermentioned capacity with all necessary fittings including supplying and fixing input and out putlines including support of brick pillars of height of 3 Mtrs each complete				
a)	500 Ltr. Capacity tank	per litre	500.00		
62	Providing and Laying of non-Pressure NP2 class (light duty) RCC Pipe with collar of 250 mm dia jointed with stiff mixture of cement mortar in proportion of 1:2 (1 cement :2 fine sand)including testing of joints etc complete	RM	5.00		
63	Construction of brick masonry road gully chamber 50 cm x 45 cm x 60 cm with MPS Brick of class 75 kg in cement mortar (1 cement : 6 fine sand) including 500 , 450 mm RCC precast horizontal with frame completed as per standard specification	EACH	1.00		
FENCING					
64	1.5 m high fencing with 2.0 m angle iron 50 x 50x 6 mm posts placed every 3 m centre to centre embedded in cement concrete block, every 15th post last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 8 horizontal lines and two diagonals inter woven with horizontal wires of barbed wire 9.38 Kg per 100 m (min) between the two posts and fixed with GI stapies, turn buckles etc. complete. including providing and laying earth work and plain concrete (1:3:6)(300X300X600 mm pit)				
	With G.I. Barbed wire (Payment to be made for per metre of complete fencing)	RM	50.00		
65	Supplying at site Angle iron post 50x50x6 mm & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. Etc. complete including a priming coat and two coats of enamel paint	kg	50.00		
SUB TOTAL AMOUNT (A)					
B) ELECTRICAL WORKS					
66	Erection , testing & commissioning of LT panel, 440 V, outdoor type, Electrical panel comprising of 600/400A Switch fuse unit as incoming with no of 200A , 100A & 63A switche fuse unit as outgoing as the common main panel complete with switch fuses, bus bar chamber, adaptor box with stand,etc making good & ready for commissioning, grouting in the floor, and commissioning is under contractors scope.	No.	1.00		
67	Providing and fixing 1 x 40 Watt Batten type flourescent tube fitting (Crompton / Philips / Bajaj make),fabricated from CRCA sheet steel and finished with stove enamel paint complete with Accessories like flourescent lamp,copper wound polyester choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof tusties with clamps as required	Nos.	20.00		
68	Providing and fixing 1 x 250 W HPSV out door type fittings (Crompton / Philips/Bajaj , complete with lamp, ballast control gear box, fixing clamp etc.	Nos.	8.00		
69	Providing and fixing of following sweep exhaust fan/ceiling fan/wall mounted fan (Khaitan / Crompton make) single phase alongwith gravity louvers, frame / tripod for holding the motor including making necessary opening in wall, supply & fixing of assembly with grouting bolts, making connections, loop earthing etc.				
a)	230 mm sweep	Nos.	1.00		
b)	Ceiling fan	Nos.	1.00		
70	Providing & fixing of 240 V, 5 / 15 Amp 6 Pin Power socket outlet point (with 15 A switch). Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet	Nos.	2.00		
71	Providing & fixing of 240 V, 5A 3 Pin Power socket outlet point (with switch). Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet along with the piano switches and fan regulator	Nos.	2.00		
72	Providing & fixing 5A piano type switch for Light / Fan Control (Anchor make)	Nos.	30.00		
73	Providing & fixing of 240 V, 20 Amp INDUSTRIAL Power socket outlet point (with 20 A MCB). Switch / socket to be fitted in suitable size 20 SWG metal type box .	Nos.	1.00		

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74	Wiring of above power sockets with 2X4 Sq. mm FR PVC insulated Copper Conductor wires as per IS, 650 / 1100 V grade including 1 no. 4 sq mm FR PVC insulated Copper Conductor extra cable for loop earthing in medium grade conduit including supply of items.				
a)	For 15/16/20 AMP Power sockets	Points	4.00		
75	Circuit/Sub main wiring in 20/25 mm PVC conduit including supplying of all conduits, clamps, wires, complete				
a)	2x1.5 sq. mm + 1x1.5 sqmm earth wire	RM	10.00		
b)	2x2.5 sq. mm + 1x2.5 sqmm earth wire	RM	10.00		
c)	2x4 sq. mm + 1x4 sqmm earth wire	RM	10.00		
76	Point Wiring of the following points (including supply of Wires, conduits, clamps, boards, other misc. items) with 1.5 sq.mm colour coated FR PVC insulated copper conductor wires as per IS- 650/1100 volts grade in surface/recessed PVC conduits (medium grade) including laying of 20 SWG GI wire, conduit fitting, fixing of piano type control switches (Anchor make) in suitable sized 20 SWG metal box with 3 mm phenolic laminated sheet having provision for fan regulator, 5 Amp switch socket (supplied above) included in scope)				
a)	Light Point	Points	10.00		
b)	Twin control light point	Points	5.00		
c)	Wiring for 5/6 amps socket points	Points	2.00		
d)	Wiring for ceiling fan and regulator	Points	1.00		
e)	Wiring for exhaust fan.	Points	1.00		
f)	1 x 250 W HPSV out door type fitting. One number 10 A DP switch to be used for controlling 2 fittings. D.P Switches to be fixed on outside of the store shed wall	Points	8.00		
77	Providing and fixing of 32 Amp TPN with HRC fuses along with earth wire. The TPN to be provided on one side of the central shed with rain protection cover.	Nos.	1.00		
78	Supply and burying of earths electrodes GI Pipe 40mm dia 4.5 mtrs. Long, including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe complete with salt, charcoal and including earthing upto switch board with 8 SWG GI wire.	Set	1.00		
79	Providing , Installation and commissioning of 24 W Lighting Panel with 10 no 20 A MCB and 14 nos 16 A MCB with 125 A SFU incomer in Sheet metal housing with double door arrangement , including all earthing and statutory requirements .	Nos.	1.00		
80	Laying of following type of PVC Insulated, PVC armoured standard aluminium conductor cable confirming to IS:1554-1976 (part 1), glanding with single compression gland, termination of both end in DB & SFU. The cable has to be laid underground on sand cushion including backfilling, suitable clamp, clamping on surface including all materials etc. complete.This includes road crossing for which suitable GI Pipe to be provided by the contractor.				
a)	3 1/2 core x 185 / 300 Sq.mm armoured cable	RM	50.00		
b)	3 1/2 Core x 50 / 95 Sq.mm armoured cable	RM	200.00		
c)	2c/3c/4c upto 16 sq.mm armoured cable	RM	200.00		
81	Earthing Flat 25 x 6 for Earthing 0.5 mtr below ground as strip earth electrode including soldering as required.	RM	10.00		
	SUB TOTAL AMOUNT (B)				
	TOTAL OF ALL THE ABOVE WORKS (A) + (B)				

NOTES:

- 1 In case of omission in quoting any rate, the evaluation will be done considering the highest quoted rate obtained against that item but the work, if awarded, will be on the lowest quoted rate obtained against that item.
- 2 The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.
- 3 The bidders shall enter both 'Unit Rate' & 'Amount'. In case of any mismatch between 'Total Amount based on Unit Rate' & 'Total Amount as quoted', the higher of the two shall be considered for evaluation and the lower of the two shall be considered for award.

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE	AMOUNT
4	The quantities indicated against each item above are tentative and are liable to vary depending upon the site requirement. The contractor has to supply / install actual quantities as per advice of BHEL Engineer and accordingly the final contract price shall be worked out.				
5	Evaluation of the bids shall be done based on total price against this BOQ.				

(Signature, date & seal of authorized representative of the bidder)