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## TENDER SPECIFICATION

**TENDER NO. BHEL/NR/SCT/ RAPP KOTA-CCI PCKG/ENABLING WORKS/978**

**FOR**

**Construction and Development of BHEL Closed Storage Sheds with office -01 no(900 sqmt) & 01 no. closed shed without office (720 sqmt) for 2 X 700 MW NPCIL Rawatbhata Atomic Power Plant at Kota, Rajasthan**

### **PART- II - PRICE BID**



**Bharat Heavy Electricals Limited**  
(A Govt. Of India Undertaking)  
**Power Sector – Northern Region,**  
**Plot No. 25 , Sector - 16A ,**  
**Distt. Gautam Budh Nagar,**  
**NOIDA – 201 301 (INDIA)**



**ISO 9001, ISO 14001,  
OHSAS 18001 & SA 8000  
certified company  
Sub Contract Deptt.**

**Bharat Heavy Electricals Limited**  
(A Govt. Of India Undertaking)  
**Power Sector – Northern Region,**  
Plot No. 25 , Sector - 16A ,  
Distt. Gautam Budh Nagar, NOIDA – 201 301(INDIA)  
Phone: 0091-0120-2416440/ 2416407  
Fax: 091-0120-2416528  
Email: [rmchandra@bhelnsnr.co.in](mailto:rmchandra@bhelnsnr.co.in) / [rb@bhelnsnr.co.in](mailto:rb@bhelnsnr.co.in)

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**IMPORTANT NOTE**

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THIS TENDER SPECIFICATION ISSUED TO:

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**ANNEXURE-A**

**RATE SCHEDULE**

<b>Item No.</b>	<b>DESCRIPTION OF WORK</b>	<b>Total Value (A) In Rupees (In figures and words) including service tax</b>
<b>1.0</b>	<b>CONSTRUCTION AND DEVELOPMENT OF BHEL CLOSED STORAGE SHED WITH OFFICE- 01 No. (900 SQMT ) &amp; CLOSED SHED WITHOUT OFFICE 01 No. (720 SQMT.) FOR CCI PACKAGE AT 2X700 MWe RAPP- KOTA</b>	
<b>Grand total amount (Rs)</b>		
<p>Notes:</p> <ol style="list-style-type: none"><li>1. The rates of individual item for the entire scope of work as defined in BOQ shall be arrived as per Calculation defined in Annexure- 'B'</li><li>2. The derived item rate will remain firm throughout the contract period.</li></ol>		

ANNEXURE-B							
BOQ CUM RATE SCHEDULE							
SCOPE: CONSTRUCTION AND DEVELOPMENT OF BHEL CLOSED STORAGE SHED WITH OFFICE-01 No. (900 SOMT ) & CLOSED SHED WITHOUT OFFICE 01 No. (720 SOMT.) FOR CCI PACKAGE AT 2X700 MW+ RAPP- KOTA.							
SL.NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	QUANTITY	Factor (F)	Rate (A X F) / 100000	Amount
<b>(A) CIVIL WORKS</b>							
<b>EARTH WORK/SITE CLEARANCE/ ROAD WORK</b>							
1	C1	EARTH WORK IN EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT SOFT ROCK AND HARD ROCK) FOR FOUNDATIONS, SEPTIC TANK, DRAINS, SOAK PIT, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	114.00	0.98		
2	C2	EARTH WORK IN EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH FOR SOFT ROCK AND HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FOR FOUNDATIONS, SEPTIC TANK, DRAINS, SOAK PIT, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	178.00	1.62		
3	B1	EARTH WORK IN EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH FOR HARD ROCK (REQUIRING BLASTING) BY MECHANICAL MEANS (HYDRAULIC EXCAVATOR) MANUAL MEANS FOR FOUNDATIONS, SEPTIC TANK, DRAINS, SOAK PIT, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	700.00	2.84		
4	C3	EARTH WORK IN EXCAVATION FROM 2.0M TO 4.0 M DEPTH IN ALL KINDS OF SOIL (EXCEPT HARD ROCK AND SOFT ROCK) FOR FOUNDATIONS, SEPTIC TANK, RAMPS, SOAK PIT ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	4.00	1.33		
5	C4	EXCAVATION IN ALL KINDS OF SOIL INCLUDING SOFT & HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FROM 2 TO 4M DEPTH FOR FOUNDATIONS, SEPTIC TANK, RAMPS, SOAK PIT ETC., WHEREVER REQUIRED INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	9.00	3.42		
6	B2	EARTH WORK IN EXCAVATION FROM 2 (ZERO) TO 4 M DEPTH FOR HARD ROCK (REQUIRING BLASTING) BY MECHANICAL MEANS (HYDRAULIC EXCAVATOR) MANUAL MEANS FOR FOUNDATIONS, SEPTIC TANK, RAMPS, SOAK PIT ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	M3	75.00	3.83		
7	C7	DEVELOPMENT OF APPROACH ROADS: SUB GRADE PREPARATION BY CUTTING & DISPOSAL OF GRASS, VEGETATIONS, BUSHES, TREES (GIRTH LESS THAN 300MM), LEVELLING, WATERING AND CONSOLIDATION ( 90% OF PROCTOR DENSITY) BY MEANS OF 10-12 MT CAPACITY POWER/VIBRO ROLLER FOR SUB BASE PREPARATION. THIS WILL INCLUDE AVERAGE CUTTING & FILLING UP TO ± 250 MM THICK (FOR ALL KIND OF SOILS INCLUDING SOFT ROCK AND HARD ROCK), GRADING THE AREA WITH PROPER SLOPE (CAMBER) FOR DRAINING OUT THE RAIN WATER WITH ALL T&P, LABOURS, MATERIALS, DEWATERING (IF REQUIRED) ETC. COMPLETE. FOR DEVELOPMENT OF APPROACH ROADS FROM NEAREST MAIN PLANT ROAD TO BHEL FACILITIES AS REQUIRED BY BHEL ENGINEER INCLUDING DISPOSAL OF UNUSABLE MATERIAL UP TO THE LEAD OF 1 KM. IF REQUIRED FILLING MATERIAL (VIZ. GOOD EARTH, SAND DUST, MOORUM ETC.) SHALL BE PROVIDED BY THE CONTRACTOR INCLUDING TRANSPORTATION, ROYALTIES, TAXES ETC. AT NO EXTRA COST.	M2	1200.00	0.49		
8	C8	SUB GRADE PREPARATION: CUTTING LEVELLING, FILLING WITH EXCAVATED EARTH, WATERING AND CONSOLIDATION FOR PLINTH PROTECTION AREA AND WHEREVER REQUIRED BEFORE LAYING THE PCC WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	M2	213.00	0.49		
9	C10	DISPOSAL OF EXCAVATED EARTH / ROCK (NOT SUITABLE FOR BACK FILLING) BEYOND INITIAL LEAD OF 50M AND UPTO A MAXIMUM LEAD OF 2 KM OR PART THEREOF INCLUDING LOADING, UNLOADING , TRANSPORTING AND SPREADING AS PER DIRECTION OF BHEL ENGINEER .	M3	252.00	0.76		
10	C11	BACKFILLING OF FOUNDATION , THE SIDES OF DRAINS AND CULVERTS, FLOORS AND PLINTH IN LAYERS NOT EXCEEDING 150MM THICK. INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.					
A	(A)	WITH GOOD EXCAVATED SOIL AVAILABLE FROM THE EARTH WORK.	M3	669.00	0.67		
B	(B)	WITH GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM ) BELOW FOUNDATIONS, FLOORING, AND RAMP ETC AS PER STANDARD SPECIFICATION, RELEVANT DRAWINGS AND INSTRUCTED BY BHEL ENGINEER INCLUDING ROYALTY. CONTRACTOR HAS TO SUBMIT ROYALTY CERTIFICATE FROM CONCERNED STATE GOVT. MINING DEPARTMENT	M3	130.00	4.96		
D	(D)	WITH GOOD EARTH BROUGHT FROM OUTSIDE FROM CONTRACTOR'S OWN SOURCE INCLUDING ROYALTY ETC.	M3	86.00	2.72		
E	(E)	PROVIDING & FILLING IN SOAK PIT WITH BRICK BATS 40-80MM INCLUDING SAND PACKING ETC. COMPLETE, AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	M3	9.00	4.65		
<b>PCC:</b>							
11	C12	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING PPC CONFIRMING TO IS GRADED STONE AGGREGATE 20 MM NOMINAL SIZE FOR FOUNDATION, FLOORING, COLUMN ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	214.00	25.99		
12	C13	PROVIDING AND LAYING OF 100 MM THICK PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING PPC CONFIRMING TO IS AND GRADED STONE AGGREGATE 20 MM NOMINAL SIZE FOR PLINTH PROTECTION WITH TROWEL FINISH INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M3	22.00	33.86		
13	C14	PROVIDING AND LAYING OF RCC MIX 1:2:4 USING PPC CONFIRMING TO IS AND GRADED STONE AGGREGATE 20 MM NOMINAL SIZE INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK & CENTERING AS PER DRAWING AND SPECIFICATION AND DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS.	M3	232.00	33.86		
14	C17	PROVIDING AND LAYING DPC (DAMP PROOF COURSE) 50MM THICK IN 1:2:4 CEMENT CONCRET LAYER USING PPC CONFIRMING TO IS AND WITH 6 MM DOWN AGGREGATE. INCLUDING FORMWRK, BITUMEN FELT USING CEMENT WITH WATER PROOFING COMPOUND ETC. COMPLETE	M2	115.00	2.18		
<b>REINFORCEMENT:</b>							
15	C18	PROVIDING, CUTTING, BENDING AND FIXING IN POSITION REINFORCEMENT OF VARIOUS DIA. USING HIGH TENSILE TOR STEEL (Fe - 415/500) FOR FOUNDATIONS, COLUMNS, BEAMS, FLOORS, SUNSHED, SLAB ETC. AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL MATERIALS, LEADS, LIFT, LABOURS, MS BINDING WIRE 18/20 GAUGE, TACK WELDING AND SUPPORTING IF REQUIRED COMPLETE.	MT	17.00	440.84		
<b>BRICK WORK:</b>							
16	C19	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING PPC CONFIRMING TO IS AND LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM <sup>2</sup> ) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, SUPER STRUCTURE, SEPTIC TANK, DRAIN, CULVERTS ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER . EXCLUDING PLASTERING & PAINTING.	M3	141.00	35.30		
17	C20	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING PPC AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM <sup>2</sup> ) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL, SEPTIC TANK, DRAINS, CULVERTS ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER . EXCLUDING PLASTERING & PAINTING.	M3	101.00	33.97		
18	C21	PROVIDING HALF BRICK WORK PARTITION WALL IN CM 1:4 (1 CEMENT & 4 COARSE SAND) USING PPC CONFIRMING TO IS AND LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM <sup>2</sup> ) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, RAKING OUT JOINTS, CURING AS PER DRAWING AND DIRECTED BY BHEL ENGINEER.	M2	6.00	4.30		
19	C22	PROVIDING HALF BRICK WORK FOR PARTITION WALL IN CM 1:4 (1 CEMENT & 4 COARSE SAND) USING PPC AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM <sup>2</sup> ) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, RAKING OUT JOINTS, CURING AS PER DRAWING AND DIRECTED BY BHEL ENGINEER.	M2	3.00	4.30		
<b>STRUCTURAL STEEL WORK:</b>							
20	C23	DESIGN, SUPPLY, FABRICATING AND ERECTION OF TUBULAR TRUSSES WITH TUBULAR POST & PURLINES (BY USING CLASS B, MEDIUM QUALITY PIPE) AS PER BHEL DRAWING WITH WIND TIES (USING FLAT OF SIZE 40X5MM) TO BE PROVIDED ABOVE SHEETS AND PROVIDING AND FIXING BASE PLATES WITH HOLDING DOWN BOLTS ON RCC COLUMNS, GUSSETS, RIBS, PINS, SPLICES ETC. AS REQUIRED INCLUDING TRANSPORT, LOADING, UNLOADING CHARGES FROM FABRICATION SHOP TO SITE ETC. COMPLETE. RATE IS INCLUSIVE OF ALL MATERIALS, LOADING & UNLOADING, FABRICATION, FIXING IN POSITION, LABOUR CHARGES , T&Ps AND COST OF RED OXIDE PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINTS (OVER PRIMER COAT OF RED OXIDE) OF APPROVED COLOUR AND QUALITY AT SITE. HOLLOW TRUSS ( OUTER MAIN FRAME WITH CENTER POST EXCEPT OTHER VERTICAL & CROSS BRACING/ TUBES/ CROSS STUD) SHALL BE PROVIDED ON BOTH SIDE OF GABLE END TO FIX THE PURLINS AND ROOFING MATERIAL.	MT	29.00	488.24		

SL.NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	QUANTITY	Factor (F)	Rate (A X F) / 100000	Amount
21	C24	DESIGN, SUPPLY, FABRICATING AND ERECTION OF STRUCTURAL STEEL STAGING (APPROX. Ht. 4.0M) FOR INSTALLATION OF PVC OVER HEAD WATER TANK (OHT) OF CAPACITY- 1000 LITRES AS PER BHEL DRAWING. RATE IS INCLUSIVE OF ALL MATERIALS, LOADING & UNLOADING, FABRICATION, FIXING IN POSITION, LABOUR CHARGES , T&P AND COST OF RED OXIDE PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINTS (OVER PRIMER COAT OF RED OXIDE) OF APPROVED COLOUR AND QUALITY AT SITE.	MT	1.00	488.24		
22	C25	PROVIDING , SUPPLYING AND FIXING OF 20 GAUGE MS ROLLING SHUTTERS OF SIZE 5 M X 5 M (APPROX.) AS PER I.S. SPECIFICATIONS, COMPLETE. MECHANICALLY OPERATED FROM IN AND OUTSIDE BOTH AS INSTRUCTED BY BHEL ENGINEER INCLUDING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER, LOCKING ARRANGEMENT. RATE SHALL BE INCLUSIVE OF ALL THE ABOVE COMPLETE.	M2	102.00	13.55		
		<b>ROOFING:</b>					
23	C26	PROVIDING AND FIXING 0.5MM THICK PERMANANTLY COLOUR COATED PROFILED GS SHEETS INCLUDING RIDGES AND HIPS OVER THE ROOF AND WALL/ SIDE CLADDING OF SHEDS AS PER BHEL DRAWING INCLUDING GALVANISED IRON J OR L HOOK, BOLTS, BITUMINOUS WASHERS, GI CRAMP BOLTS, NUTS, SCAFFOLDING ETC. INCLUDING STEEL PRIMER AND 2 COATS OF APPROVED PAINT AT OVERLAPS AS PER TECHNICAL SPECIFICATIONS COMPLETE. ALL AS PER LATEST IS 459, 3307 AND 730.	M2	2404.00	7.73		
24	C28	PROVIDING AND FIXING OF TRANSLUCENT RMP/FRP (FIBRE GLASS REINFORCED PLASTIC) SHEETS - 2.00 MM THICK OF APPROVED MAKE INCLUDING COST OF GI J OR L HOOKS, BOLTS, NUTS, WASHERS, BITUMEN WASHERS, SCAFFOLDING ETC. COMPLETE SO AS TO MATCH WITH PPGI SHEETS FOR NATURAL LIGHTING.	M2	121.00	3.39		
		<b>CEILING:</b>					
25	C29	PROVIDING AND FIXING OF FALSE CEILING OF 12.5 MM THICK TAPERED EDGE GYPSUM PLAIN BOARD CONFIRMING TO IS:2095 PART I WITH 4MM THICK PANELS OF APPROVED QUALITY AND DESIGN, OF SIZE 600x600 MM WITH SQUARE EDGES SUPPORTED BY ANODISED ALUMINIUM FRAMES OF TEES 35x23.5x1.5 MM THICK AS MAIN MEMBER AND 19x23.5x1.5 MM TEES AS CROSS SUPPORTING MEMBERS AND WALL ANGLES OF 23.5x23.5x1.5MM. THE MAIN RUNNERS SHALL BE SUSPENDED FROM ROOF AT 1200 MM CENTRE TO CENTRE BY MEANS OF MS RODS WITH GI T THREADED HOOK FOR ADJUSTMENTS. THE CROSS RUNNERS SHALL BE FIXED TO MAIN RUNNER TO FORM 'A' GRID PATTERN OF 600x600MM AND PROVIDING 25 MM WIDE ALUMINIUM STRIP TEES OR MOULDED SECTIONS AT ALL JOINTS. THE RATE SHALL BE INCLUSIVE OF TWO COATS OF APPROVED OBD ON GYPSUM BOARD, SUPPLY & FIXING OF ALUMINIUM FRAME AND SCAFFOLDING ETC. COMPLETE.	M2	190.00	5.34		
		<b>DOORS &amp; WINDOWS:</b>					
26	C31	PROVIDING AND FIXING OF BEST QUALITY COUNTRY WOOD DOORS COMPRISING OF FRAME 95 X 70MM OF HARD WOOD (SECOND CLASS TEAK WOOD) AND 38/40MM THICK FLUSH SHUTTERS OF SOLID CORE TYPE, CONFORMING TO IS: 2202 (PART I) USING COMMERCIAL PLY INCLUDING HOLD FASTS, WIND APPLIANCES, HANDLES, TOWER BOLTS AND ALDROPS, MORTISE OR SUITABLE LOCKS ETC. AS PER THE STANDARD PRACTICE AND APPLYING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED SHADE & COLOR OVER A COAT OF PRIMER AS DIRECTED BY BHEL ENGINEER.	M2	17.00	15.82		
27	C32	PROVIDING AND FIXING OF BEST QUALITY PVC PANELLED DOORS OF THICKNESS 29MM, SINTEX/BAJAJ MAKE OR APPROVED EQUIVALENT FOR TOILETS INCLUDING ALL FITTINGS AND FIXTURES, MS ANGLE FRAME OF SIZE 40x40x6MM ETC. ALL COMPLETE AS PER DRAWINGS AND SPECIFICATIONS.	M2	2.00	16.84		
28	C33	PROVIDING AND FIXING OF 18 GAUGE M.S. SHEET DOOR WITH FRAME WORK 40 X 40 X 6 MM M.S. ANGLE INCLUDING LOCKING ARRANGEMENTS, HOLD FAST , APPLYING ANTICORROSSIVE PRIMER COAT OF RED LEAD PAINT AND 2 COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR COMPLETE AS DIRECTED BY BHEL ENGINEER.	M2	3.00	19.50		
29	C34	SUPPLY FABRICATION, AND FIXING IN POSITION OF MS GATES WITH STRUCTURAL/TUBULAR STEEL FRAMES AS PER BHEL DRAWING INCLUDING COST OF FOUNDATION & POSTS, PAINTING TWO COATS BY SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER, COST OF ALL MATERIALS, LABOUR, TRANSPORT ETC. COMPLETE.	MT	5.00	488.24		
30	C35	SUPPLYING, MANUFACTURING AND FIXING IN POSITION OF STEEL WINDOWS AND VENTILATORS INCLUDING FRAMES & IRON BARRED (GUARD BAR OF SQUARE SECTION @ 100 MM C/C) AND GLAZED WITH 4 MM PLAIN GLASS AS PER STANDARD SPECIFICATIONS & RELEVANT IS CODE AND INSTRUCTIONS OF BHEL ENGINEER. THE COST SHALL BE INCLUSIVE OF ALL ACCESSORIES FITTINGS, HOLD FASTS, PAINTING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER ETC. COMPLETE.	M2	9.00	5.57		
	A)	STEEL WINDOWS	M2	9.00	5.57		
	B)	STEEL LOUVERED VENTILATORS :-	M2	16.00	5.57		
31	C36	PROVIDING AND FIXING OF METALLIC DECORATIVE TYPE HEAVY DUTY PELMET ROD FOR DOORS AND WINDOWS. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC. AS APPROVED BY BHEL ENGINEER.	EACH	5.00	5.23		
32	C37	PROVIDING & FIXING OF WOODEN FRAME OF BEST QUALITY COUNTRY WOOD (2.5"x3.0") FOR INSTALLING PORTABLE 1.5T AIR CONDITIONER (AC) ON THE WALL OPENING, SO AS TO MAKE A FRAME OF INSIDE CLEAR DIMENSION SUITABLE FOR INSTALLATION OF AC WITH COMPLETE FINISHING, PAINTING, HOLD FAST ETC. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR, MAKING GOOD THE DAMAGED SURFACE ETC. COMPLETE. AS APPROVED BY BHEL ENGINEER.	NOS.	6.00	7.20		
		<b>FLOORING:</b>					
33	C38	PROVIDING AND FIXING OF IPS FLOORING 40MM THICK USING PPC WITH CEMENT CONCRETE 1:2:4 (USING 12 MM DOWN AGGREGATES) AS PER STANDARD PRACTICE IN PANELS OF SIZE NOT EXCEEDING 2.0 x 2.0 SQ.M BY PROVIDING, FIXING GLASS STRIPS INCLUDING CURING & CLEANING ETC. ALL COMPLETE	M2	1484.00	2.32		
34	C39	PROVIDING AND LAYING OF 5.5 MM THICK CERAMIC TILES OF REQUIRED SIZE LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING PPC. TILES FROM REPUTED MANUFACTURER LIKE JONSON OR EQUIVALENT INCLUDING ALL MATERIALS COMPLETE AS PER STANDARD PRACTICE AND SPECIFICATION.					
	A)	(I) FLOORING- 600MMX600MM	M2	0.00			
	B)	(II) FLOORING - 300MM X 300MM	M2	77.00	5.53		
	C)	(III) SKIRTING - 300MM X 150MM	M2	7.00	5.53		
35	C40	SUPPLYING AND FIXING OF WHITE GLAZED TILES OF REQUIRED SIZES LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING PPC DADO IN TOILET & PANTRY ROOM UP TO 1.5 M ELEVATIONS INCLUDING PEREPARATION OF BASE LAYING UNDERBED, FINISHING AND ROUNDING CORNERS AND JUNCTIONS, CURING ETC. COMPLETE AS PER DRAWINGS AND SPECIFICATIONS.					
	A)	(I) FLOORING (5.0MM TO 6.0MM THICK OF SIZE 300MM X 300MM)	M2	28.00	5.45		
	B)	(II) DADO (5MM TO 6MM THICK OF SIZE 150MM X 150MM) - 1.5M HEIGHT FROM FINISHED FLOOR LEVEL.	M2	32.00	5.26		
		<b>FINISHING:</b>					
36	C41	PROVIDING PLASTERING WITH CEMENT MORTAR -1:6 (1 CEMENT & 6 COARSE SAND) USING PPC OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES, PARTITION WALLS ETC. AT ALL LEVELS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.					
	A)	(i) EXTERNAL PLASTERING - 18MM THICK	M2	1611.00	1.31		
	B)	(ii) INTERNAL PLASTERING -12MM THICK	M2	2010.00	0.89		
37	C42	PROVIDING 2MM THICK NEAT CEMENT FINISH USING PPC OVER CONCRETE BASE FOR FLOORING, PAVING, PLASTERED SURFACE ETC. INCLUDING CURING & CLEANING AND SCAFFOLDING COMPLETE.	M2	1629.00	0.24		
38	C43	PROVIDING & APPLYING COLOUR WASH -THREE COATS ON NEWLY PLASTERED EXTERNAL SURFACE OF WALLS BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , COLOURING AGENT, BASE COAT OF WHITE WASH, APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	1611.00	0.13		
39	C44	PROVIDING & APPLYING WHITE WASH - THREE COATS ON NEWLY PLASTERED INTERNAL SURFACE OF SHED (EXCLUDING INNER WALL OF OFFICE/C&I ROOM) BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	M2	1502.00	0.10		
40	C45	PROVIDING & APPLYING TO INTERIOR SURFACES OF E&C INCHARGE OFFICE, COMMON ROOMS, C&I STORE, TOILET, PANTRY ETC. BY TWO COATS OF OIL BOUND DISTEMPER (OBD) OF APPROVED SHADE ,COLOR AND MAKE CONFIRMING TO IS :428 TO OBTAIN A EVEN FINISH AND UNIFORM COLOR OVER A COAT OF PRIMER AS PER MANUFACTURE RECOMMENDATION INCLUDING COST OF PAINT, SURFACE PREPARATION LIKE CLEANING AND BRUSHING & BROOMING OF WALLS , SCAFFOLDING AT ALL LEVEL, ETC. COMPLETE. SURFACE PREPARATION SHALL BE DONE BY APPLYING PUTTY/PLASTER OF PARISH (POP) INCLUDING COST OF MATERIAL, LABOUR ETC. COMPLETE. AS PER SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M2	436.00	0.53		
41	C46	PROVIDING AND FIXING OVER HEAD HYDRAULIC DOOR CLOSER (HEAVY DUTY) OF APPROVED BRAND AND SIZE ON NECESSARY DOORS AS DIRECTED BY BHEL ENGINEER.	NO.	7.00	3.91		
		<b>FENCING:</b>					
42	C47	PROVIDING AND FIXING BARBED WIRE FENCING AROUND BHEL ALLOTTED AREA AS PER BHEL DRAWING & AS DIRECTED BY BHEL ENGINEER. POSTS SHALL BE SPACED AT 3M CENTRES AND STRUTS AT 30M CENTRES AND AT ALL TURNINGS WITH FOUNDATIONS, SUPPLYING AND FIXING GI BARBED WIRES, 10 HORIZONTAL LINES, TWO DIAGONALS BETWEEN POSTS BY MEANS OF GI STAPLES AS PER STANDARD PRACTICE. THE BARBED WIRE SHALL CONFORM TO IS 278 AND BE MADE OF TWO STRANDS OF GALVANISED TWISTED 2.5MM DIA (12.5 GAUGE) STEEL WIRE WITH FOUR POINT BARS. RATE QUOTED SHALL BE INCLUSIVE OF EXCAVATION, DISPOSAL OF SURPLUS EARTH, CONCRETE (1:3:6), FORM WORK AND ALL MATERIALS, COST OF POSTS, BARBED WIRES, TRANSPORTING, FIXING IN POSITION ETC. INCLUDING COST OF ALL LABOUR AND TWO COATS OF ENAMEL PAINT OF APPROVED SHADE WITH A SHOP COAT OF PRIMER IN ALL STRUCTURAL MEMBERS ETC COMPLETE.	RM	350.00	4.62		
		<b>SANITARY/SEWAGE</b>					

SL.NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	QUANTITY	Factor (F)	Rate (A X F) / 100000	Amount
43	S1	PROVIDING AND FIXING WHITE GLAZED VITREOUS CHINA WASH HAND BASIN OF 55 CM X 40 CM SIZE INCLUDING COLD WATER PILLER TAP, BRACKETS, STOP TAP, CHROMIUM PLATED BOTTLE TRAP AND NECESSARY PIPE CONNECTIONS INCLUDING UPVC WASTE PIPE AND TRAP UP TO THE OUT SIDE FACE OF THE WALL, MAKING GOOD THE DAMAGED SURFACE, TESTING ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	NO	2.00	11.27		
44	S2	PROVIDING AND FIXING EUROPEAN TYPE WHITE GLAZED VITREOUS CHINA W.C.PAN WITH UPVC SEAT AND LID WITH CHROMIUM PLATED BRASS HINGES AND RUBBER BUFFERS INCLUDING UPVC VENT PIPE (APPROX. 2M. HT. WITH COWL) ON THE OUTSIDE FACE OF WALL, 10 LITRE PVC LOW LEVEL FLUSHING CISTERN WITH ALL FITTINGS, PIPE AND STOP COCK, BRACKETS FOR FIXING CISTERN, 32 MM DIA. UPVC FLUSH PIPE WITH FITTINGS AND CLAMPS, 20 MM DIA. UPVC OVERFLOW PIPE, FLOAT VALVES, CUTTING AND MAKING GOOD TO THE WALLS AND FLOORS, TESTING ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	NO	1.00	21.15		
45	S3	PROVIDING AND FIXING IN POSITION OF WHITE GLAZED EARTHENWARE FLAT BACK/CORNER TYPE LIPPED FRONT URINALS OF 430MM X 260MM X 350MM / 340X460X265 MM OF APPROVED MAKE AND QUALITY WITHOUT FLUSHING CISTERN, GI FLUSH PIPE AND SPREADERS WITH BRASS UNIONS, GI CLAMPS, CUTTING OF WALLS AND MAKING GOOD OF ALL DAMAGES AND FINISHING TO MATCH THE EXISTING WORK ETC. COMPLETE. RATE QUOTED SHALL INCLUDE COST OF ALL MATERIALS AND LABOUR FOR CARRYING, LAYING & FIXING AND ALL OTHER INCIDENTAL CHARGES ETC. COMPLETE.	NO	78.00	21.04		
46	S4	PROVIDING AND FIXING IN POSITION OF HIGH CLASS BELGIUM OR SUPERIOR MAKE BEVELLED EDGE MIRROR OF SIZE 450MM X 550MM X 6MM WITH 16 MM DIA & 550MM LENGTH NICKEL PLATED TOWEL ROD MOUNTED ON 6 MM THICK PLYWOOD OR PLASTIC FOLDER SHEET. RATE TO INCLUDE COST OF ALL MATERIALS, LABOUR FOR FIXING THE WOODEN PLUGS WITH CP BRASS SCREWS AND WASHERS ETC. COMPLETE.	NO	1.00	5.06		
47	S5	PROVIDING AND FIXING IN POSITION OF 15 MM DIA CONCUSSION PUSH BUTTON TYPE BRASS/ GUN METAL SELF CLOSING TAP INCLUDING NECESSARY SOCKET, TESTING ETC COMPLETE FOR URINALS AS DIRECTION OF BHEL ENGINEER.	NO	2.00	0.80		
48	S6	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS BIB COCKS OF STANDARD TYPE OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES JOINTING MATERIALS,SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NO	3.00	3.04		
49	S7	PROVIDING AND FIXING IN POSITION OF 25 MM DIA GATE VALVE. INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NO	1.00	2.84		
50	S8	PROVIDING AND FIXING IN POSITION OF 40 MM DIA GATE VALVE. INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NO	1.00	3.87		
51	S9	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS STOP COCKS OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES COST OF JOINTING MATERIALS, SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NO	86.00	2.28		
52	S10	PROVIDING AND FIXING IN POSITION OF 100MM X 50MM HCI "NAHANI" TRAP WITH HCI GRATINGS, BENDS, CONNECTING PIECES OF CI PIPE UPTO OUTSIDE FACE OF THE WALL. MAKING GOOD THE DAMAGED SURFACE,TESTING ETC COMPLETE AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVE.	NO	4.00	0.19		
53	S11	PROVIDING AND FIXING IN POSITION OF 150MM SALT GLAZED STONE WARE GULLY TRAP WITH HCI GRATINGS AND CI COVER OF SIZE 300X300 MM OF APPROVED MAKE (WEIGHT NOT LESS THAN 2 KG) AND QUALITY AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVE.	NO	2.00	10.26		
54	S12	PROVIDING AND LAYING WITH REQUIRED GRADING & LEVELING IN TRENCHES MEDIUM GRADE (TYPE) GALVANISED IRON (G I) PIPE HAVING EMBOSSED ISI MARK ON IT, OF REQUIRED DIAMETER WITH SCREWED, SOCKETS, JOINTS, NECESSARY GALVANISED IRON FITTINGS SUCH AS SOCKETS, BACK NUTS, ELBOWS, BENDS, TEES, REDUCERS, ENLARGERS, PLUGS, CLAMPS ETC. INCLUDING ALL NECESSARY EXCAVATION / CUTTING OF WALLS, BACK FILLING/ MAKING GOOD THE WALLS, FIXING WITH CLAMPS, TESTING ETC. COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.) RATE TO INCLUDE EARTH WORK EXCAVATION IN ALL SOILS, INCLUDING HARD ROCK REQUIRING BLASTING , SHORING, BALLING OR PUMPING OUT OF WATER WHEREVER REQUIRED, REMOVAL OF SLUSH ETC. REMOVING AND DEPOSITING SURPLUS EARTH AS DIRECTED BY THE BHEL ENGINEER INCLUDING ALL LEADS AND LIFTS AS PER SITE CONDITIONS.					
A	A)	40MM DIA	RM	100.00	2.17		
B	B)	25MM DIA	RM	50.00	1.87		
C	C)	20MM DIA	RM	25.00	1.47		
D	D)	15MM DIA	RM	20.00	1.20		
55	S13	PROVIDING AT WORKING SITE, CARRYING AND LOWERING INTO TRENCHES, LAYING TO PROPER ALIGNMENT, LEVEL AND GRADE, JOINTING WITH CM (1:1) AND TESTING OF JOINTS ETC. OF THE FOLLOWING SIZE OF SALT GLAZED STONWARE PIPE INCLUSIVE OF ALL NECESSARY SPECIALS TARRED HEMP YARN AND ALL JOINTING MATERIALS COMPLETE AS PER STANDARD SPECIFICATIONS INCLUDING ALL NECESSARY EXCAVATION ,BACKFILLING,DISPOSAL OF SURPLUS EARTH ,LEAD AND LIFT AS PER SITE CONDITIONS. RATE SHALL INCLUDE COST OF ALL MATERIALS, LABOUR CHARGES AND INCIDENTAL CHARGES ETC. COMPLETE.					
A	A)	100MM DIA STONWARE PIPELINE INCLUDING ALL SPECIALS COMPLETE.	RM	50.00	1.20		
56	S17	PROVIDING AND FIXING IN POSITION OF PVC OVERHEAD WATER TANK OF SYNTEX OR ANY APPROVED MAKE OF 1000 LITRE CAPACITY WITH PROVISION FOR OVERFLOW ARRANGEMENT VALVES, INLET AND OUTLET ETC. COMPLETE, SUPPORTING STEEL STRUCTURE FOR FIXING THE TANK SHELL BE PAID IN THE RELEVANT ITEM.	NO	1.00	41.76		
57	S18	CONSTRUCTION OF 230MM THICK BURNT CLAY / FLY ASH LIME BRICK CHAMBER USING PPC OF THE FOLLOWING DIMENSIONS (INNER DIMENSION) WITH 20MM THICK INTERNAL & EXTERNAL CEMENT PLASTER OF MIX CM 1:5 (1 CEMENT & 5 COARSE SAND) , NEAT CEMENT FINISH , TOP CI - COVER AND CONNECTORS FOR SEWER LINES. RATE SHALL BE INCLUSIVE OF ALL NECESSARY EXCAVATION & FILLING, PCC-100 MM THICK OF 1:3:6 FOR BEDDING ON 100MM THICK OVERSIZER SOLING WITH 80 MM METAL ETC. COMPLETE.					
A	A)	600X450X450 WITH C.I COVER	NO	2.00	28.03		
B	B)	900X600X450 WITH C.I COVER	NO	3.00	36.27		
58	S18	PROVIDING AND FIXING OF PRECAST 80 MM THICK RCC COVER OF MIX 1:1.5:3 FOR MAN HOLES OF VARIOUS SIZES WITH REINFORCEMENT OF 10 MM DIA BOTH WAY TIED WITH TACK WELDING @ 150 MM C/C WITH 2 HOOKS OF 12 MM DIA BARS ETC. COMPLETE.					
A	A)	750MM x 600MM	Nos.	2.00	4.64		
B	B)	1050MM x 750MM	Nos.	3.00	6.96		
59	S19	PROVIDING AND FIXING CHROMIUM PLATED TOWEL 16 MM DIA. AND 75CM. IN LENGTH INCLUDING ALL ACCESSORIES COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE).	NO.	1.00	2.97		
60	S20	PROVIDING & FIXING OF LIQUID SOAP DISPENSER AT ALL WASH BASIN LOCATION.	NO.	1.00	1.20		
61	S21	PROVIDING AND FIXING OF AQUA-GUARD / KENT R.O. OR EQUIVALENT WATER PURIFIER (CAPACITY- 10 Litre), ALONG WITH ALL FITTINGS. RATE TO INCLUDE ALL NECESSARY FITTINGS & FIXTURES, LABOUR ETC.AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS.	1.00	110.92		
62	S22	PROVIDING AND FIXING OF 1 No. 18"X24" SIZE STAINLESS STEEL SINK WITH ALL FITTINGS LIKE DRAIN PIPE, STOP VALVE ETC.RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC.AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS.	1.00	29.42		
63	S23	PROVIDING AND FIXING 40MM THICK BEST QUALITY 18 MM THICK GANG SAW CUT, MIRROR POLISHED, PREMOULDED AND PREPOLISHED, MACHINE CUT GRANITE SLAB FOR KITCHEN PLATFORMS OF REQUIRED SIZE, APPROVED SHADE, COLOUR AND TEXTURE LAID OVER 20 MM THICK BASE CM 1:4 (1 CEMENT : 4 COARSE SAND), JOINTS TREATED WITH WHITE CEMENT, MIXED WITH MATCHING PIGMENT, EPOXY TOUCHUPS, INCLUDING RUBBING, CURING, MOULDING AND POLISHING TO EDGES TO GIVE HIGH GLOSS FINISH etc. COMPLETE OF REQUIRED SHAPE FOR FIXING SS SINK FOR KITCHEN COUNTER AND RACKS FOR KITCHEN STORE AREA ETC.COST INCLUSIVE OF MAKING OPENING AND FINISHING COMPLETE.	SQM	3.00	24.69		
64	S25	PROVIDING & FIXING IN POSITION OF CI VENT PIPE OF DIA. 100MM (APPROX. HT. 3M ) IN SEPTIC TANK. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC.	RM	4.00	7.11		
		<b>TOTAL VALUE OF SECTION- A IN Rs.</b>					
		<b>(B) ELECTRICALS WORKS</b>					

SL.NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	QUANTITY	Factor (F)	Rate (A X F) / 100000	Amount
65	E1	SUPPLY & INSTALLING 3 PHASE METERING AND POWER DISTRIBUTION BOARD COMPLETE WITH : (1) INCOMING SFU TPN 400 AMPS -1NO. (2) OUTGOING SFU TPN 200 AMPS -2NOS. (3) OUTGOING SFU TPN 100 AMPS -2NOS. (4) OUTGOING SFU TPN 32 AMPS -2NOS. 3 PHASE ELECTRONIC ENERGY METER - BHEL / L&T / GEC MAKE. AMMETER, VOLTMETER AND SELECTOR SWITCHES FOR BOTH - AE AND KAYCEE MAKE. PHASE INDICATION LAMPS, HRC FUSES FOR IC AND OG FEEDERS, CABLE GLANDS, POWER TERMINALS FOR CABLES TERMINATION, CABLE LUGS AND PROVISION FOR DOUBLY EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICKNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION, MODULAR CONSTRUCTION, HINGED DOOR WITH LOCKING ARRANGEMENT, BASE FRAME, SHOULD HAVE SLOPPED CANOPY, DULY PAINTED WITH FIRST COAT OF PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH LIGHT GREY AS PER SHADE 5, IS 630) INTERNAL POWER DISTRIBUTION TO DEVICES SHALL BE WITH AL BUSBARS OR COPPER FLEXIBLE SINGLE CORE PVC CABLES OF 1.1 KV GRADE, CONTROL WIRING WITH 1.5 SQMM, SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRANGEMENT AT FOUNDATION, SUITABLE FOR BOTTOM ENTRY OF CABLES.	NO.	1.00	638.68		
66	E3	SUPPLYING & INSTALLING POWER DISTRIBUTION BOARD FOR COVERED STORAGE SHEDS COMPLETE WITH COMMON BOARD FOR ALL SHEDS. 1) INCOMING MCB TPH 100 AMPS. - 1 NO. 2) OUTGOING MCB TPH 32 AMPS. -3NOS. 3) RCCB DP 25/20 AMPS. - 2NOS. 4) OUTGOING MCB SP 6 AMPS - 6NOS. ALL RCCBs, MCBs SHALL BE MDS/INDO KOPP MAKE. DISTRIBUTION BOARDS SHALL BE SIEMENS / MDS / INDO KOPP MAKE WITH INTERNAL BUSBARS, INTERNAL WIRING, 2 NOS. EARTHING TERMINALS, EARTH CONNECTIONS, INCLUDING GLANDS, LUGS.	Set	2.00	232.65		
67	E4	SUPPLYING, PROVIDING SUITABLE FOUNDATION FOR MOUNTING 415 VOLT AC POWER FEEDER PILLAR BOARD AS SPECIFIED IN SL. NO.12, INSTALLATION & COMMISSIONING OF PANEL	NO	2.00	18.91		
68	E7	SUPPLYING & FIXING WALL MOUNTING TYPE LIGHTING PANELS, EACH WITH. (1) INCOMING MCB TPN -32 AMPS - 1NO. (2) RCCB DP 32 AMPS - 3NOS (3) MCB SP 6AMPS - 30 NOS. ALL MCBs AND RCCBs SHALL BE OF MDS / INDO KOPP MAKE. LIGHTING PANEL SHALL BE SIEMENS/MDS/INDO KOPP MAKE WITH INTERNAL BUSBARS, 2 NOS. EARTHING TERMINALS, EARTH CONNECTIONS, INCLUDING GLANDS, LUGS & WIRING FROM MAIN DB.		2.00	133.66		
69	E8	SUPPLYING, PROVIDING AND INSTALLING WIRING USING 2.5 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES. WIRING SHALL BE CONCEALED TYPE FOR MAIN OFFICE, COMMON ROOMS, E&C INCHARGE OFFICE & FOR REST OF SHEDS OPEN AND WHEREVER REQUIRED IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI/ POLY CAP/ HAVELLS/ FINALEX/ L & T / STANDARD.	RM	240.00	0.93		
70	E9	SUPPLYING, PROVIDING AND INSTALLING WIRING USING 4.0 SQ.MM. COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES. WIRING SHALL BE CONCEALED TYPE FOR MAIN OFFICE, COMMON ROOMS, E&C INCHARGE OFFICE & FOR REST OF SHEDS OPEN AND WHEREVER REQUIRED IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI / POLY CAP/ HAVELLS/ FINOLEX/L&T/STANDARD.	RM	99.00	1.13		
71	E10	SUPPLYING, PROVIDING AND INSTALLING WIRING USING 6.00 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES OF ISI MAKE. WIRING SHALL BE CONCEALED TYPE FOR WHEREVER REQUIRED AS PER INSTRUCTION OF BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI / POLY CAP/ HAVELLS/ FINOLEX/L&T/STANDARD.	RM	83.00	1.43		
72	E11	SUPPLYING, PROVIDING AND INSTALLING WIRING USING 16.00 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES OF ISI MARK WIRING SHALL BE CONCEALED TYPE FOR WHEREVER REQUIRED AS PER INSTRUCTION OF BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI / POLY CAP/ HAVELLS/ FINOLEX/L&T/STANDARD..	RM	59.00	2.92		
73	E12	SUPPLYING, PROVIDING AND INSTALLATION OF WIRING FANS/COOLERS USING 2.5 SQ.MM COPPER CONDUCTOR OF ISI MARK THROUGH PVC CONDUITS WITH ACCESSORIES AND FIXTURES. THIS INCLUDES ALL MODULAR FITTINGS ETC. COMPLETE.	RM	48.00	4.82		
74	E13	SUPPLYING, PROVIDING AND INSTALLATION OF PLUG POINT OF 5A SOCKET (ANCHOR OR EQUIV.) OUTLET INCLUDING WIRING TERMINATION. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NO	17.00	2.12		
75	E14	SUPPLYING, PROVIDING AND INSTALLATION OF PLUG POINT OF 15A SOCKET (ANCHOR OR EQUIV.) OUTLET INCLUDING WIRING TERMINATION. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NO	9.00	2.72		
76	E15	SUPPLYING AND FIXING ORDINARY TUBELIGHT WITH FRAME OF STANDARD MANUFACTURER LIKE PHILIPS/BAJAJ OR EQUIVALENT AS APPROVED BY BHEL. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NO.	44.00	2.49		
77	E16	SUPPLYING AND FIXING EXHAUST FANS 12" DIAMETER WITH FRAME OF STANDARD MANUFACTURER LIKE CROMPTAN GREEVES OR EQUIVALENT AS APPROVED BY BHEL.	NO.	9.00	14.76		
78	E17	SUPPLYING & FIXING HEAVY DUTY PLUG POINT 15 AMPS (ANCHOR MAKE OR EQUIV.) WITH ONE SWITCH FOR COMPUTER ,ONE FOR AC CONNECTION WITH BOARD ETC COMPLETE.	NO.	7.00	2.83		
79	E18	SUPPLYING AND FIXING METAL CLAD PLUG AND MCB OF 30AMPS. (CROMPTON/MDS MAKE) FOR AIR CONDITIONER WITH BOARD ETC COMPLETE.	NO.	4.00	3.93		
80	E19	SUPPLYING AND FIXING CEILING FAN 48" DIAMETER OF APPROVED COMPANY SUCH AS CROMPTAN GREEVES OR ANY OTHER STANDARD MANUFACTURER AS DIRECTED BY BHEL. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NO	6.00	9.77		
81	E21	PROVIDING AND FIXING CALLING BELLS (WITH INDICATOR LIGHT) OF STANDARD MANUFACTURER OR EQUIVALENT AS APPROVED BY BHEL INCLUDING ALL FITTINGS.	NO	2.00	0.40		
82	E22	SUPPLYING, INSTALLATION & COMMISSIONING OF WEATHER PROOF FLOOD LIGHT LUMINAIRES. (FBD 1425/40-WITH HIGH PRESSURE SODIUM VAPOUR LAMP 1X 400 WATT ALONG WITH NON- INTEGRAL TYPE CONTROL GEAR BOX HAVING ADEQUATE NUMBER OF TERMINAL CONNECTORS FOR TERMINATING TWO CABLE OF 3X 10 SQMM AL AND SUITABLE FOR OUT DOOR APPLICATION) INCLUDING SUPPLY & FIXING CABLES BETWEEN THE CONTROL GEAR BOX AND LIGHT LUMINAIRES AND MOUNTING FIXTURE WITH HARDWARE FOR MOUNTING OF LIGHT LUMINAIRES AND CONTROL GEAR BOX ON POLE TYPE -410 SP-28. CONTROL GEAR BOX, CABLING & TERMINATION.	NOS.	3.00	34.11		
83	E23	SUPPLY, INSTALLATION & COMMISSIONING OF SODIUM VAPOUR LAMP STREET LIGHT FITTING 150 WATT SSG-2315 IH OF CROMPTON OR SIMILAR PHILIPS MAKE, COMPLETE WITH ONE PIECE CANOPY, INTEGRAL CONTROLGEAR COMPRISING OF COPPER WOUND CHOKE , IGNITOR , HPF CAPACTOR, HPSV LAMP AND SUITABLE FOR DIRECTLY SLIPPING OVER LIGHT MOUNTING BRACKET MADE OUT OF 40 MM OD PIPE AND SUITABLE FOR LAMPS, CONTROL GEAR BOX CABLING & TERMINATION OF ITEMS SUPPLIED (TO BE MOUNTED ON 9 MTR POLE - ITEM CODE NO. E24).	NOS.	7.00	29.76		
84	E24	SUPPLYING AND ERECTING STEEL TUBULAR SWAGED POLES, 9 MTR LONG MADE OF SHEET STEEL HAVING ULTIMATE TENSILE STRENGTH 42 KG F/SQ.MM CONFIRMING TO BIS :2713 (RPART-II) COMPLETE WITH 300X300X6 MM THICK M. S. BASE PLATE FOR WELDING AT SITE AND SIZE AS PER CONFIGURATION GIVEN IN BIS FOR 410 SP-28 (113 KG- POLE WEIGHT ) WITH 1.5 MTR. DEEP EXCAVATION, CONCRETING IN 1:4:8 RATIO SIZE 45 CMS X 45 CMS X 150 CMS AND POLE PLINTH IN 1:3:6 CEMENT CONCRETING HAVING 300 MM HEIGHT AND 300 MM DIA .INCLUDING DOUBLE EARTHING OF POLE WITH SUITABLE ARRANGEMENT, DULY PAINTED WITH TWO COATS OF RED OXIDE PAINT AND ONE COAT OF ALUMINIUM PAINT TO BE APPLIED AFTER ERECTION; THE LENGTH OF POLE BELOW GROUND TO BE PAINTED WITH TWO COATS OF BLACK BITUMINUS PAINT. THE POLE SHALL BE COMPLETE WITH JB, FUSE AND MINOR FABRICATION AS BELOW : I) DRILING 20 MM DIA HOLE AT ABOUT 2.5 MTR FROM GROUND LEVEL FOR WIRE LEADS FROM JUNCTION BOX TO LIGHT FIXTURE . II) DRILING 15MM DIA HOLES AT ABOUT 0.7 AND AT 2.5 MTR FROM GROUND LEVEL AND WELDING 12 MM NUTS FOR USING A 12 MM G.I BOLT FOR FASTENING EARTH CONDUCTERS. III) WELDING REQUIRED HOLES FOR FIXING POLE CAP OF STREET LIGHT BRACKET. IV) WELDING DIAMETRICALLY 10 MM M.S. ROUND 30 MM BELOW POLE TOP EDGE FOR CLIPPING WIRE LEADS .	NOS.	10.00	71.58		
85	E25	PROVIDING EARTHING PITS WITH 2" DIA , 2 M LONG GI PIPES WITH FLANGE & GI WIRES WITH CHARCOAL, SALT AND AS PER THE STANDARD PRACTICE FOR ELECTRICAL CONNECTION.RATE SHALL BE INCLUSIVE OF ALL MATERIALS, LABOURS, ETC COMPLETE.	NO	4.00	8.19		
86	E26	SUPPLY AND FIXING ALUMINIUM DISPERSIVE LUMINAIRE ENAMELED GREEN AND WHITE WITH CAST ALUMINIUM FLANGE AND NIPPLE SUITABLE FOR USE WITH GLS LAMP, DOME 12" DIAMETER, WITH HANGING BRACKET AND 200W GLS LAMP OF CROMPTON OR EQUIVALENT BAJAJ/PHILIPS MAKE, COMPLETE.	Nos.	63.00	9.12		
87	E27	WIRING WITH 2.5 SQ MM ISI MARK COPPER WIRE FOR ABOVE IN PVC CONDUIT ALONG WITH GI EARTH WIRE INCLUSIVE OF ALL MATERIAL, LABOUR ETC. COMPLETE	Per Point	67.00	7.42		
88	E28	SUPPLY OF CABLES 3 -1/2 CORE X 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	RM	90.00	0.98		

SL.NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	QUANTITY	Factor (F)	Rate (A X F) / 100000	Amount
89	E29	INSTALLATION OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 ( PART -J) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD.	RM	90.00	1.29		
90	E30	SUPPLY OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 ( PART -J)	RM	72.00	23.89		
91	E31	INSTALLATION OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 ( PART -J) INCLUDING LAYING OF CABLE BELOW GROUND, EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC DISTRIBUTION BOARD TO	RM	72.00	1.25		
92	E32	SUPPLY OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 ( PART -J)	RM	108.00	0.84		
93	E33	INSTALLATION OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 ( PART -J) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC.	RM	108.00	1.20		
94	E34	SUPPLY OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 ( PART -J)	RM	180.00	0.54		
95	E35	INSTALLATION OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 ( PART -J) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC POWER FEEDER PILLAR BOARD TO LIGHTING POLES & POLE TO POLE.	RM	180.00	1.20		
		<b>TOTAL VALUE OF SECTION- B IN Rs.</b>					
		<b>TOTAL VALUE OF SECTION A + SECTION- B IN Rs.</b>					
		<b>GROSS TOTAL</b>					