

BILL OF QUANTITY CUM PRICE SCHEDULE							SCHEDULE-I	
Name of Project Name of Work		: 400KV Substation at Kirnapur : Construction of Control room						
SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 KV KIRNAPUR			
					Amount			
IN PLINTH & FOUNDATION								
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift. with dressing.	401(b)	Cum	26.00	125.00	3250.00		
2	Excavation in hard moorum i/c 50 m lead and 1.5 m lift. with dressing.	402	Cum	36.00	125.00	4500.00		
3	Excavation in Disintegrated Rock i/c 50 m lead and 1.5 m lift. with dressing.	403	Cum	71.00	75.00	5325.00		
4	Excavation in soft Rock i/c 50 m lead and 1.5 m lift. with dressing.	404	Cum	122.00	50.00	6100.00		
5	Excavation in hard rock i/c 50 m lead and 1.5 m lift (a)Blasting permitted.	405(a)	Cum	196.00	25.00	4900.00		
6	PCC 1:4:8 with graded metal of 40mm size	717(b)	Cum	1486.00	100.00	148600.00		
7	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:6 in plinth and found with one or half brick wall	901(e)-906-909	Cum	1677.00	15.00	25155.00		
8	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:6 in plinth and found	901(e)-906	Cum	1589.00	1.00	1589.00		
9	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire)							
	(a) MS steel bars conforming to grade IS-432 pt-I	1304(a)	Kg	40.00	1000.00	40000.00		
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	1200.00	49200.00		
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	10800.00	35640.00		
10	PIP in position M-20 RCC excluding cost of reinforcement but including ,formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	130.00	552890.00		
11	Labour only for Filling foundation and around masonry works for filling watering and ramming.	709(a)	Cum	43.00	200.00	8600.00		
SUPER STRUCTURE (GROUND FLOOR)								
1	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:6 in super structure. and found.	901 (e)+909	Cum	1737.00	95.00	165015.00		
2	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:6 in super structure and found.	901 (e)+909+910	Cum	1797.00	20.00	35940.00		
3	Providing, fabricating and fixing in position M.S. grill for window opening (or any other similar opening) or worksof similar nature of any pattern, anydesign (straight or curved) fitted andfixed in position. Including all welding rivetting etc.to floors, walls.....complete							
	(b) MS Grills consisting of MS flats, channels, angle Iron,T-section,joints, plates.	1320(b)	Kg	53.00	600.00	31800.00		
	(c) MS Grills consisting of square or hexagonal bars or sheets	1320(c)	Kg	55.00	750.00	41250.00		
4	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire)							
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	1400.00	57400.00		
	(a) MS steel bars conforming to Grade I of IS: 432 (Part-I)	1304(a)	Kg	40.00	1000.00	40000.00		
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	12600.00	41580.00		
5	PIP in position M-20 RCC excluding cost of reinforcement but including ,formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	80.00	340240.00		

SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 KV KIRNAPUR	Amount
6	-----do----- extra for each additional floor or every additional 3m or part thereof for R.C.C. and P.C.C. work in superstructure.	1607(b)+1608	Cum	4306.00	100.00	430600.00
7	6mm cement plaster to ceiling in CM 1:4	1103(b)	Sqm	59.00	1100.00	64900.00
8	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	800.00	51200.00
9	20mm thick cement plaster on brick work in CM 1:6	1106(c)	Sqm	88.00	625.00	55000.00
10	Wall painting two or more coats (excluding priming coat) on new surface with plastic emulsion paint (IS 5411-PT.1) to give an even shade.	1818	Sqm	53.00	2000.00	106000.00
11	Priming coat with ready mixed paint brushing,wood primer, pink(IS:3538)on new wood work (hard or soft) includingpreparing the surface.	1801	Sqm	17.00	65.00	1105.00
12	Priming coat with ready mixed paint brushing Zinc chrome ,priming on new steel /galvanised iron surface l/c preparing the surface.	1803	Sqm	19.00	105.00	1995.00
13	Painting two or more coats (excluding priming coat) on new surfaces with with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	190.00	5130.00
14	Sawn, sal, Bija, haldi, kem or hollock wood wrought framed and fixed complete in position.	1202	Cum	40150.00	0.50	20075.00
15	Providing and fixing in position (solid core type) flush door, single leaf shutters bonded with thermosetting liquid phenol-formaldehyde, synthetic resin (with iron hinges, cleats, door stoppers or eyes and hooks) fixed in position complete but excluding fitting.					
	(c) 40 mm thick shutters	1262 (c) (i)	Sqm	2775.00	3.00	8334.00
	(1) Commercial on both sides					
	-----do-----double leaf					
16	(c) 40 mm thick shutters	1263(c) (i)	Sqm	2857.00	20.00	57140.00
	(1) Commercial on both sides					
17	Providing and fixing aluminium sliding door bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 300 x 16 mm	1288(ii) (a)	each	378.00	4.00	1512.00
18	Providing and fixing aluminium tower bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 250x10 mm	1288(iii)(b)	each	130.00	23.00	2990.00
19	Providing and fixing aluminium handles anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					0.00
	(a) 125 mm	1288 (V)(a)	each	73.00	30.00	2190.00
20	Providing and fixing in position collapsible steel shutters with vertical channels 20x10 x2mm at 10 cm. centre and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6 mm with 40 mm dia steel pulleys complete with bolts,	1316	Sqm	2398.00	5.25	12589.50
21	Supplying and fixing rolling shutters og approved make,made of 80*1.25 mm latch interlocking.....shutter.	1324	Sqm	1323.00	8.00	10584.00
	SUPER STRUCTURE (FIRST- FLOOR)					
1	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:6 in super structure, and found for one or half brick wall add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.	901(e) +909+910	Cum	1797.00	85.00	152745.00
2	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:6 in super structure, and found for one or half brick wall add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.	901(e) +909+2(910)	Cum	1857.00	55.00	102135.00
3	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:4 in super structure and found for one or half brick wall add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.	901 c +909+910	Cum	1947.00	7.00	13629.00
4	Second class T.M. open bhatta or palwa burnt brick masonry in C.M. 1:4 in super structure and found for one or half brick wall above add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.6m.	901 c +909+2(910)	Cum	2007.00	4.00	8028.00
5	Providing, fabricating and fixing in position M.S. grill for window opening (or any other similar opening) or works of similar nature of any pattern, anydesign (straight or curved) fitted andfinked in position. including all welding rivetting etc.to floors,walls.....complete.					
	(b) MS Grills consisting of MS flats,channels,angle iron,T-section,joints,plates.	1320(b)	Kg	53.00	400.00	21200.00
	(c) MS Grills consisting of square or hexagonal bars or sheets	1320(c)	Kg	55.00	500.00	27500.00

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					KIRNAPUR	
6	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to IS.280-1978 (I/c cost of binding wire)					
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	1200.00	49200.00
	(a) MS steel bars conforming to Grade I of IS: 432 (Part-I)	1304(a)	Kg	40.00	1500.00	60000.00
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to IS.280-1978 (I/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rollers approved by main producers) stockyard.	1305(a)	kg	3.30	10800.00	35640.00
7	P/R in position M-20 RCC excluding cost of reinforcement but including, formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	0.00	0.00
	(a)-----do----- extra for each additional floor or every additional 3m or part thereof for R.C.C. and P.C.C. work in superstructure.	1601(b)+1608	Cum	4306.00	32.00	137792.00
	(b)-----do----- extra for each additional floor or every additional 3m or part thereof for R.C.C. and P.C.C. work in superstructure.(nt. Above 6m)	1601(b)+2(1608)	Cum	4359.00	140.00	610260.00
8	6mm cement plaster to ceiling in CM 1:4	1103(b)	Sqm	59.00	1000.00	59000.00
9	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	1050.00	67200.00
10	20mm thick cement plaster on brick work in CM 1:6	1106(c)	Sqm	88.00	650.00	57200.00
11	Wall painting two or more coats (excluding priming coat) on new surface with plastic emulsion paint (IS 5411-PT.1) to give an even shade.	1818	Sqm	53.00	2200.00	116600.00
12	Priming coat with ready mixed paint brushing,wood primer, pink(S:3536)on new wood work (hard or soft) includingpreparing the surface.	1801	Sqm	17.00	40.00	680.00
13	Priming coat with ready mixed paint brushing Zinc chrome ,priming on new steel /galvanised iron surface I/c preparing the surface.	1803	Sqm	19.00	25.00	475.00
14	Painting two or more coats (excluding priming coat) on new surfaces with with enamel paint (IS.2933-1975) to give an even shade.	1808	Sqm	27.00	75.00	2025.00
15	Sawn, sal, Bija, haidu, kem or hollock wood wrought framed and fixed complete in position.	1202	Cum	40150.00	0.50	20075.00
16	Providing and fixing in position (solid core type) flush door, single leaf shutters bonded with thermosetting liquid phynol-formaldehyde, synthetic resin (with iron hinges, cleats, door stoppers eyes and hooks) fixed in position complete but excluding fittings					
	(c) 40 mm thick shutters	1262 (c) (i)	Sqm	2778.00	16.00	44448.00
	(i) Commercial on both sides					
17	-----do-----double leaf					
	(c) 40 mm thick shutters	1263(c) (ii)	Sqm	3711.00	0.00	0.00
	(i) Commercial on both sides					
18	Providing and fixing aluminium sliding door bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 300 x 16 mm	1288(ii) (a)	each	378.00	9.00	3402.00
19	Providing and fixing aluminium lower bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 250x10 mm	1288(iii)(b)	each	130.00	18.00	2340.00
20	Providing and fixing aluminium handles anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 125 mm	1288 (v)(a)	each	73.00	18.00	1314.00
	SUPER STRUCTURE (TERRACE)					
1	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in super structure. and foundation.	901 e +909+(2x910)	Cum	1857.00	22.00	40854.00
2	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to IS.280-1978 (I/c cost of binding wire)					
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	35.00	1435.00
	(a) MS steel bars conforming to Grade I of IS: 432 (Part-I)	1304(a)	Kg	40.00	50.00	2000.00

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					KIRNAPUR	
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to IS-280-1978 (i/c cost of binding wire) The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, ISCO, RINL, JINDAL Steel or re-rollers approved by main producers) stockyard.	1305(a)	kg	3.30	315.00	1039.50
3	PIP in position M-20 RCC excluding cost of reinforcement but including formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm. -----do----- extra for each additional floor or every additional 3m or part thereof for R.C.C. and P.C.C. work in superstructure.(ht. Above 6m)	1601(b) +2x1608	Cum	4359.00	5.00	21795.00
4	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	150.00	9600.00
5	20mm thick cement plaster on brick work in CM 1:6	1106(c)	Sqm	88.00	100.00	8800.00
6	I.T. Flooring 40 mm thick	1017	Sqm	150.00	600.00	90000.00
7	Providing and fixing in position (solid core type) flush door, single leaf shutters bonded with thermosetting liquid.....cleats, door stoppers or eyes and hooks fixed in position comp-lete but excluding fitting.					
	(c) 40 mm thick shutters	1262 (c) (i)	Sqm	2775.00	2.00	5556.00
	(I) Commercial on both sides					
8	P/L in position CC with graded metal of 20mm size for coping over walls laid in panels of 1.5m./lc form work,templing v/b.,finishing etc.complete					
9	(a)12:4 concrete Priming coat with ready mixed paint brushing,wood primer, pink(IS:3536)on new wood work (hard or soft) includingpreparing the surface.	2455(a) 1801	Cum Sqm	4136.00 17.00	1.00 5.00	4136.00 85.00
10	Painting two or more coats (excluding priming coat) on new surfaces with with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	5.00	135.00
11	Providing and fixing aluminium sliding door bolts anodised transparent or dyed to required colour or shade with nuts and screws etc.,. complete-	1288(ii) (a)	each	378.00	1.00	378.00
12	Providing and fixing aluminium tower bolts anodised transparent or dyed to required colour or shade with nuts and screws etc.,. complete-	1288(iii)(b)	each	130.00	1.00	130.00
13	Providing and fixing aluminium handles anodised transparent or dyed to required colour or shade with nuts and screws etc.,. complete-- (a) 125 mm	1288 (v)(a)	each	73.00	2.00	146.00
	INTERNAL WATER SUPPLY					
1	Providing and fixing galvanised mild steel tubes (Medium Grade), IS:1239 part-I-complete with fittings and clamps, including cutting and making good the walls, etc. complete (internal work)					
	(a) 15 mm dia	3001(a)	Rnts.	136.00	50.00	6800.00
	(b) 20 mm dia	3001(b)	Rnts.	170.00	30.00	5100.00
	(c) 25 mm dia	3001(c)	Rnts.	204.00	30.00	6120.00
	(d) 32 mm dia	3001(d)	Rnts.	236.00	30.00	7080.00
2	Providing and fixing galvanised mild steel tubes (Medium Grade), IS:1239 part-I-1979,complete with fittings including trenching and relling etc.complete (External work)					
	(e) 40 mm dia	3004(e)	Rnts.	225.00	50.00	11250.00
3	Providing and fixing in position best indian make copper alloy gate, globe and check valve(class I), IS:778-1980 with iron wheel head etc. complete.					
	(c) 25 mm dia	3007(c)	each	385.00	2.00	770.00
	(d) 32 mm dia	3007(d)	each	446.00	3.00	1338.00
	(e) 40 mm dia	3007(e)	each	589.00	1.00	589.00
4	P&L in trenches and jointing water tight with jointing material rigid PVC clas II pressure pipes fittings (d) 160 mm	2736(d)	RM	450.00	30.00	13500.00
	SANITARY ITEMS					
1	Providing and fixing white vitreous china wash basin 55x40 cm size, IS:2556 (Pc-IV) with R.S. or C.I. bracket, conforming to I.S.775, painted with enamel or aluminium paint, 15 mm C.P.brass pillar taps and C.P. brass chain with rubber plug, 32 mm brass waste coupling,.... etc. complete	3224	each	2589.00	5.00	12945.00
2	P&F in position 100 mm dia C.I.nahanit trap with hinged perforated cover complete with gasket and caulked joints, i/c making necessary chases and holes in floors and walls and repairing the same to the original condition complete.	3124	each	182.00	6.00	1092.00
3	Providing and fixing square mouthed S.W. gully trap, IS:651(Grade 'A') complete with C.I.grating brick masonry chamber and water tight C.I.cover frame 30x30 cm size (inside) the weight of cover to be not less than 2.72 kg. as per standard design.	3126	each	659.00	2.00	1318.00
4	Providing and fixing in position 60 mm long AC drain complete.(a) 50 mm dia.	3108(a)	each	112.00	50.00	5600.00
5	Constructing manhole in brick masonry in C.M.1:5 with RCC top slab in 1:2:4 mix, with graded metal of 20mm max.size, Foundation concrete 1:4:8 mix with graded metal of max. size 40mm. 12mm thick plastering in C.M.1:3 finished with a floating coat of neat cement.....finished complete.					

SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 KV		Amount
					KIRNAPUR		
6	(a) Inside size 90x80cm and 45 cm deep i/c C.I.cover with frame (light duty) 445x610mm internal dimentions, total Wt of cover and frame 38 kg(weight of cover 23kg and wt of frame 15 kg.)	3128(a)	each	3471.00	2.00		6942.00
7	(b) Inside size 90x80cm and 60 cm deep i/c C.I.cover with frame (light duty)..... total Wt of cover and frame 38 kg(wt. of cover 23kg and wt of frame 15 kg.)	3128(b)	each	3664.00	1.00		3664.00
8	(c) Inside size 1.2mx90cm and 90 cm deep i/c C.I.cover with frame (light duty) 455x610mm internal dimentions, total Wt of cover and frame 38 kg(weight of cover 23kg and wt of frame 15 kg.)	3128(c)	each	8807.00	1.00		8807.00
9	Providing and fixing soap dish chromiumpated with brackets fixed wooden cleats,with brass screws complete i/c making chases in walls and repairing the same with cement mortar 1:3.	3303	each	197.00	3.00		591.00
10	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick asbestos sheet ground fixed to wooden cleats with C.P. brass screws and washers.	3311	each	616.00	2.00		1232.00
11	Providing and fixing in position C.P.brass towel rail complete with brackets i/c making chases in walls and repairing the same in C.M.1:3 complete-						
	(b) 600x20 mm	3301(b)	each	331.00	2.00		662.00
	SEPTIC TANK						
1	Excavation in hard moorum & moorum... i/c 50 m lead & 1.5m lifts with dressing.	402	Cum	36.00	8.00		288.00
2	Excavation in disintegrated rock... i/c 50 m lead & 1.5m lifts with dressing.	403	Cum	71.00	4.00		284.00
3	Cement concrete 1:4:8 with graded metal of max. size 40 mm.	717(b)	Cum	1486.00	1.00		1486.00
4	Second class TM open bhatta or Pajwa burnt brick Masonary in CM 1:6 in plinth and foundation.	904(e)-906	Cum	1599.00	4.00		6356.00
5	Second class TM open bhatta or Pajwa burnt brick Masonary in CM 1:6 in plinth and foundation,one or half brick.	901(e)-906+909	Cum	1677.00	2.00		3354.00
6	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to IS.280-1978 (i/c cost of binding wire)						
	(a) MS steel bars conforming to Grade I of IS: 432 (Part-I)	1304 (a)	Kg.	40.00	15.00		600.00
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of IS 1786	1304 (b)	Kg.	41.00	7.00		287.00
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to IS.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, JISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	68.00		224.40
7	P/P in position M-20 RCC excluding cost of reinforcement but including formwork, vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	1.50		6379.50
8	Labour only for Filling foundation and around masonry works with spoil including watering and ramming.	709(a)	Cum	43.00	1.00		43.00
9	15 mm thick cement plaster on brick work in C.M. 1:3						
10	Providing and fixing in position CI manhole cover and frames, IS:7267 embedded in RCC cover and slab all exposed edges rounded and finished in CM 1:3etc. complete:-	1105(a)	Sqm	95.00	17.00		1615.00
	(a) Fixing manhole cover light duty with frame 38 kg.	3129(a)	each	1354.00	1.00		1354.00
	NON UCSR ITEMS						0.00
1	Providing and fixing vitreous China Ivory colour Division plate for range of two urinals of hindware Category No. 61001 Size 69x16.5x32.5 cm. or equivalent make including all labour, all related works, material, T&P and cutting the holes making and finishing by cement mortar 1:3 etc., complete as per the direction of Engineer-In-Charge.						
	(Base Rate Rs. 2000/- each)	NCSR	No.	2000.00	1.00		2000.00

SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 KV	Amount
					KIRNAPUR	
2	Providing and fixing premium quality Ceramic mat finish floor tiles of minimum thickness 5mm and size 300mm x 300mm in Derby brown or any approved colour of Johnson,Kajaria,Nitco or equivalent make in toilet including cost of all material,taxes,T&P etc.complete including fixing the same on 20mm thick cement mortar bed of 1:4. (1 cement : 4 coarse sand) including pointing the joints with white cement , matching pigment and curing etc. complete as directed by Engineer-in-Charge.					
3	(Base Rate Rs.700/- per Sq.m). Providing and fixing premium quality Ceramic glazed wall tiles of minimum thickness 5mm and size 200mm x 300mm in desired shade of Johnson,Kajaria,Nitco or equivalent make in toilet skirting,fixd in Cement Mortar 1:3 including pointing the joints with white cement , matching pigment and curing etc. complete as directed by Engineer-in-Charge.	NUSR	Sqm	700.00	22.00	15400.00
4	(Base Rate Rs.700/- per Sq.m). Supply and fixing HR Johnson (Endura) or equivalent make IS approved acid / alkalic proof tiles of size 300x300mm (thickness as per manufacturers' specifications) of approved shade, confirming to relevant IS specifications for all physical properties hardness, compressive strength, impact strength, flexural strength, resistance to wear etc. and acid / alkali resistance, fixing the same with approved quality adhesive on subbase of acid proof cement mortar 1:4 (1 cement:4 sand) i/c preparation of subbase,i/c all taxes and T & P complete as per the direction of Engineer-in-Charge.	NUSR	Sqm	700.00	95.00	66500.00
5	(Base Rate : Rs. 800/- per sqm) Skirting of acid proof tiles complete as per above item for tile of size 300x300 mm & sub base of cement mortar 1:3 (1 cement :3 sand)	NCSR	Sqm	800.00	125.00	100000.00
6	(Base rate Rs.800/- per Sqm.) Providing and fixing aluminium glazed door shutters powder coated made of aluminium sections Jindal. Man or equivalent make having frame 100mmx45mm, bottom rail 120mmx40mm, top rails and styles 80mmx40mm and lock rail 125mmx40mm, all aluminium sections 1.5mm thick including providing 5mm thick clear triplex glass , 2 Nos.handles,hydraulic door closers (floor type),aluminium lower bolts,suitable locking arrangements, rubber beading, clips and other necessary fittings as per approved drawing and direction of Engineer-in-charge including cost of all material, labour,T&P etc. complete.(The sample Door shall be approved by the Engineer-in-charge, before its fixing in position). (Base Rate Rs.3500/- per Sqm)	NCSR NCSR	Sqm Sqm	800.00 3500.00	50.00 26.00	40000.00 91000.00
7	Providing & Fixing fully glazed two track/ three track/fixd powder coated aluminium section windows of Jindal, Man or equivalent make having rectangular hollow section 62mmx32mm, frame shutter 40mmx12mm , two track section 62mmx40mm , all aluminium sections 1.5 mm thick including providing 4 mm thick clear triplex glass, handles, tower bolts, stoppers, rubber beading & clips and other necessary fittings as per approved drawing and direction of Engineer-in-charge including cost of all material, labour,T&P etc. complete.(The sample Window shall be approved by the Engineer-in-charge, before its fixing in position). (Base Rs.2800/- Per Sqm.)	NCSR	Sqm	2800.00	130.00	364000.00
8	Providing & Fixing fully glazed two track or louver type powder coated aluminium section Ventilators of Jindal, Man or equivalent make having rectangular hollow section 62mmx32mm, frame shutter 40mmx12mm , two track section 62mmx40mm , all aluminium sections 1.5 mm thick including providing 4 mm thick clear triplex glass, handles, tower bolts, stoppers, rubber beading & clips and other necessary fittings as per approved drawing and direction of Engineer-in-charge including cost of all material, labour,T&P etc. complete.(The sample Ventilator shall be approved by the Engineer-in-charge, before its fixing in position). (Base Rs.2800/- Per Sqm.)	NCSR	Sqm	2800.00	7.00	19600.00
9	P&F 25 to 30 mm thick machine polished Kota stone flooring of tiles size 450x600 mm of approved quality and shade laid over a bed of 20 mm sub base of CM 1:4 (1 cement : 4 coarse washed sand) in approved pattern/design including filling the joints with pigmented cement slurry to match the shade of tiles, fine dressing of edges and finishing joints neatly, including curing rubbing, polishing all labour, T&P, material, etc. complete as per the direction of the Engineer-in-Charge.					
	(Base rate Rs. 700/- per Sqm)	NCSR	Sqm	700.00	425.00	297500.00

SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 KV KIRNAPUR		Amount
10	Providing and fixing 20 mm thick machine polished Kota stone skirting of tile of desired size and approved quality and shade laid over a bed of 20 mm subbase of cement mortar 1:3(1cement: 3coarse washed sand) fixed to wall finished with plaster in approved pattern/ design including filling the joints with pigmented cement slurry to match the shade of tiles, fine dressing of the edges and making a groove on top edge of the skirting and finishing joints neatly including curing, rubbing, polishing all labour, T&P materials,etc. complete as per the direction of Engineer-in-Charge (Base rate Rs.700/- per Sqm)	NCSR	Sqm	700.00	30.00		21000.00
11	Providing and applying cement based putty of Birla, JK or equivalent make in two or more coats so as to give perfectly finished, even & smooth wall surface including preparation of wall surface by application of primers, if required, as per manufacturers' specifications and as directed by Engineer-in-charge. (Base rate Rs. 80/- per Sq.M.)	NCSR	Sq.M.	80.00	5350.00		428000.00
12	Painting on wall and ceiling with acid proof paint Asian or equivalent brand of approved quality,color including preparation of surface,all leads and lifts,labour, T & P ,materials etc. complete so as to give an even and good surface, three coats i/c priming coat complete as per the Direction of Engineer -in-Charge. (Base rate Rs.75/- per Sqm.)	NCSR	Sqm	75.00	225.00		16575.00
13	Providing & applying on exterior surface of control room and other buildings,two coats of exterior paint based on anti fungal element of APEX OF ASIAN PAINTS or WEATHER COAT of BERGER Paints or equivalent make including applying primer coat as per manufacturers' specifications including all arrangements for scaffolding,ladders,brushes, curing of priming coat as per manufacturer's recommendation and as directed by Engineer-in-Charge. (a) For new surfaces (Base Rate Rs.55/- per Sq.m.).	NCSR	Sqm	55.00	1150.00		63250.00
14	(a) Providing and laying vitrified tiles in floor,as per relevant IS standards and specifications of size 600mmx 600mm having thickness as per manufacturers specifications but not less than 8mm premium quality tiles of Johnson,Kajaria,Nitco or equivalent make with water absorption less than 1% and flexural strength not less than 30 N/Sqmm, in desired shade and colours,laid on 20mm thick sub base of cement mortar 1:4 (1cement:4 coarse sand) including grouting the joints with white cement or specified matching pigments with cost of all material, labour, T&P, all taxes, transportation charges etc. complete as per direction of Engineer-in-Charge. (Base Rate Rs.1200/- Per Sqm).	NCSR	Sqm	1200.00	725.00		870000.00
15	(b) Item same as above but for skirting with the suitable size of tiles as directed by Engineer-in-charge fixed on sub-base of CM 1:3 (1cement:3 sand),complete as directed by Engineer-in-charge. (Base Rate Rs.1200/- per Sqm.).	NCSR	Sqm	1200.00	75.00		90000.00
16	Providing & Fixing Glass reinforced Gypsum, 12 mm thick semi perforated designer tile of size 600x600 mm False Ceiling system A- class , fire resistant, RH 95, NRC 0.3 to 0.4 with 15 mm select GI powder coated T grid system with black reviel suspended from existing roof by 4 mm GI wire hanger etc. complete duly approved at 1200 maximum centre to centre. Flush fitting 1200 mm cross Ts to be interlocked between main runner at 600 mm centers to form 1200 x 600 mm modules, cut cross Ts longer than 600 mm at 1200 mm cross Ts to form 600 x 600 mm grid to support ceiling tiles complete including all taxes and charges transportation etc. and as directed by Engineer in charge, the make of tiles (Armstrong or equivalent make) and shades will be got approved by the Engineer in charge.						
17	(Base rate- Rs. 800/- per Sqm) Providing & Fixing 32 mm dia. chromium plated brass or suitable alloy flush valve(heavy duty) push type or quarter turn of Johnson,Parryware, Plumber, Jaguar or equivalent make fitted with all necessary fittings, including cutting,chasing and making good the walls after concealment in C.M. 1:3 complete as directed by the Engineer-in-Charge. (Base Rate Rs.1100/- Per No.)	NCSR	Sqm	800.00	300.00		240000.00
18	Supplying and fixing in position moulded (without joints, welds, seams and any defect) HDPE tank of approved/ISI make with 1000 ltrs. capacity conf.to ISI 2701-1989 (of latest revision) in single wall constn. with lid and locking arrangement suitable for storage of drinking water /ic providing brass float valve/horizontal plunger to be of brass & bell to be of PVC conf.to IS 1703-1977 connection with water pipe line (both for inlet & outlet) /ic testing etc. completeas per direction of Engineer-in-Charge	NCSR	each	1100.00	3.00		3300.00
	(Base rate Rs. 5000/- each)	NCSR	each	5000.00	2.00		10000.00

SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 KV KIRNAPUR	
						Amount
19	Providing & Fixing on wall face & jointing water tight with jointing material 110mm dia rigid PVC (Poly Vinyl Chloride) class-II pressure pipes (with working pressure of 4 Kg.per CM2) as rain water pipes as per IS 4985-1988(Second Revision) including cost of all material, taxes, T&P etc. complete including cost of other fittings also as directed by Engineer-in-Charge. (Base Rate Rs.205/- Per Metre).	NCSR	Rmt.	205.00	95.00	19475.00
20	(a) Providing and fixing in position white Vitreous China (Orissa Pan) Hindware, Parryware, Johnson or equivalent, 580mm WC Pan with P or S trap and making connection with other accessories, such as flush pipe, outlet pipe in cement concrete 1:4:8 complete including making chases and holes in walls and floors repairing the same in CM 1:3, to original condition including painting of fittings and also providing and fixing 10 litre capacity plastic low level flushing cistern with all connections to inlet pipes and W.C.of Johnson, Parryware, Hindware or equivalent make with cost of all material, labour, fixtures, taxes, transportation etc. complete as directed by Engineer-in-Charge. (Base Rate Rs.2800/- per No.).	NCSR	No	2800.00	1.00	2800.00
21	Providing & Fixing European WC Unit having size 680x390x680 mm (LxBxH) of Johnson, Perryware, Hindware or equivalent make with PVC cistern having flush volume min. 10 litres, fixing all accessories such as jet, flush pipe, outlet pipes, making chases, holes in walls and repairing the same with CM 1:3 and painting etc. complete as per direction of engineer in charge.					
22	(Base rate Rs. 3000/- each) Providing & fixing Johnson, Perryware or equivalent make white vitreous china flat back single half stall urinal of size 580x380x350 mm with 5 ltr PVC automatic flushing cistern with fittings flush pipes, spreaders, unions, clamps etc. of standard size all in CP brass with waste fitting as per IS 2556, CI trap with outlet grating and other couplings in CP brass including painting of fittings, making good the walls and floor wherever required including cost of all material, labour, T&P, etc. complete as per direction of Engineer in charge.	NCSR	Each	3000.00	3.00	9000.00
23	(Base Rate Rs. 4000/- each) Providing and fixing premium quality Chromium plated 15mm Bib cock or Stop cock quarter turn made of suitable metal alloy of Johnson, Parryware, Plumber or Jaguar make including all fitting, labour, and other charges complete, as directed by Engineer-in-Charge	NCSR	Each	4000.00	4.00	16000.00
24	(Base rate Rs. 900/- each) Providing, fabricating and fixing in position railing as per drawings & specifications made up of mild steel hollow square/Rectangular sections outer frame and inner section made up with 2 mm and 1.5 mm thick M.S. sheet respectively as per approved drawing and specifications inclusive of cost of all materials, fabrication charges, cutting, welding, riveting, transportation upto site, fixing in position by grouting of hold fasts to the R.C.C. columns, and applying suitable steel primer etc., complete as per direction of Engineer-in-charge.	NUSR	each	900.00	10.00	9000.00
25	(Base Rate Rs.80/- per Kg.) Providing & Fixing of perforated cable tray, fabricated from 1.50mm thick MS Sheet in standard length, duly hot dipped galvanised after fabrication including jointing with coupler plate with nuts and bolts etc. complete including all transportation, taxes etc. complete as per Drawing and direction of Engineer-in-charge.	NUSR	Kg	80.00	550.00	44000.00
26	(Base Rate Rs. 80/- per Kg) Providing, fabricating and placing in position cable rack, consisting of vertical angles 65x65x6mm fixed on base plate 100x100x5mm and welded with runner angle of 50x50x5 mm in 4 tiers with horizontal support of MS Flat 50x5 mm also in 4 tiers including all transportation bending, cutting welding taxes etc. complete with placing of rack in position and fixing of cable tray with nuts and bolts etc. complete with applying two coats of steel primers as per drawing and direction of Engineer-in-charge.	NUSR	Kg	80.00	2100.00	168000.00
	(Base Rate Rs. 55/- per Kg)	NUSR	Kg	55.00	7000.00	385000.00

SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 KV	Amount
					KIRNAPUR	
27	Providing and Fixing pre-cast concrete M-15 strength, kerb stone of suitable size with excavation 150mm deep and thoroughly compacting the surface before laying the Kerb stone and will be back filled with CC 1:3:6 jointing the tiles with C.M.1:4 painting with synthetic enamel paint in coloured stripes painted alternatively, complete as per direction of the Engineer-in-charge					
	(b) Kerb stone of size 450mmx300mmx80mm (Base Rate Rs. 175/- per M)	NUSR	RM	175.00	100.00	17500.00
28	(a) Providing and Laying precast M-30 grade cement concrete inter locking paving blocks manufactured as per relevant IS specifications in PVC moulds and casted on vibratory platform, blocks of appropriate shape and size with required glazing in desired colour and shade, anti-skid lines on the blocks, mixed with suitable resins during manufacturing for desired colour and shade etc. complete laid over 50mm thick bedding layer of stone crusher dust including brushing complete, joints filled by fine sand or stone dust including levelling, tamping and sweeping etc. complete including cost of all material labour charges, T&P transportation, taxes, royalty etc. complete as directed by Engineer-in-charge. This item is meant for execution in front of or around control room buildings or other prestigious buildings. (Colour, shade, glazing and shape of tiles shall be approved by Engineer-in-charge.) (a) 60 mm thick paving blocks					
	Base rate Rs.600/- per Sqm	NUSR	Sqm	600.00	400.00	240000.00
	SUB TOTAL					8016166.90

SCHEDULE-II									
BILL OF QUANTITY CUM PRICE SCHEDULE									
Name of Project		: 400KV Substation at Kirnapur							
Name of Work		: Construction of Foundations for Structures (including foundation of peripherial lighting poles) .							
SNO	PARTICULARS	USR item No.	Unit	USR unit rate	400 Kv KIRNAPUR	Amount			
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	407(b)	Cum	26.00	5000.00	130000			
2	Excavation in hard moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	5000.00	180000			
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	3000.00	213000			
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	2000.00	244000			
5	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing.	405(a)	Cum	196.00	1000.00	196000			
	(a) Blasting permitted								
	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing.	405(b)	cum	233.00	0.00	0			
	(b) Blasting prohibited								
6	Cement concrete 1:4:8 with graded metal of 40 mm size.	717 (b)	Cum	1486.00	565.00	839590			
7	Cement concrete 1:2:4 with graded metal of 20 mm size.	715 (c)	Cum	2299.00	4.00	9196			
8	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire)								
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	26800.00	1098800			
	(a) MS steel bars conforming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	45800.00	1832000			
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rollers approved by main producers) stockyard.	1305(a)	kg	3.30	240000.00	792000			
9	P/P in position M-20 RCC excluding cost of reinforcement but including ,formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	3860.00	16416580			
10	Steel work in single section including forging and hoisting, fixing in position etc. complete-(b) In angles, channels, flats and tees	1301(b)	Kg.	42.00	200	8400			
11	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in plinth and found for one or half brick wall.	901(e)-906-909	Cum	1677.00	10.00	16770			
12	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	50	3200			
13	Filling foundation and around masonry works with hard moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0	0			
14	Filling foundation and around masonry works with hard moorum picked up noulder including watering and ramming.	705	Cum	195.00	0	0			
15	Labour only for filling foundation and around masonry works with material obtained from spoils including watering and ramming.	705(a)	Cum	43.00	11800	507400			
16	P&F bolts upto & above 300 mm in length i/c nuts & washers, galvanisation complete.	1336	kg	77.00	37000.00	2849000			
17	Labour only for P&F bolts upto & above 300 mm in length i/c nuts & washers complete.	1338	Kg	6.60	1000.00	6600			
18	Transportation of excavated earth upto 200 m beyond initial lead of 50 mtr.	2902(2)-(a)-2903(4)	Cum	37.26	3000.00	111780			
	SUB TOTAL					25454316			

SCHEDULE-III						
BILL OF QUANTITY CUM PRICE SCHEDULE						
SNO	Name of Project	:400KV Substation at Kirnapur				
	Name of Work	PARTICULARS	USR Item No.	Unit	USR unit rate effective from 2009	Amount
					KIRNAPUR	
1		Excavation in hard soil includg.50m lead & 1.5m lift with dressing.	401(b)	Cum	26.00	1300.00
2		Excavation in hard moorum & moorum with boulder /ic 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	0.00
3		Excavation in SR /ic 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	0.00
4		PCC 1:4:8 with graded metal of 40mm size	717(b)	Cum	1486.00	14860.00
5		Supplying & Fixing steel reinforcement bars tested for RCC includg.cleaning, straightening,cutting bending all handling,placing in position and binding with 0.9mm annealed binding wire confirming to IS 280:1978 (includg.cost of binding wire)				
		b.Cold worked steel high strength bars confirming to grade FE 415 of IS 1786	1304(b)	Kg	41.00	3690.00
		a. MS Steel Bars confirming to Grade-I of IS 432 Part-I.	1304(a)	Kg	40.00	23000.00
		(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming to I.S.280-1978 (I/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rollers approved by main producers) stockyard.	1305(a)	kg	3.30	2673.00
6		P & P in position M-20 RCC excluding cost of reinf. but including form work, vibration, finishing, curing etc.complete with graded metal of Max.size 20mm.	1601(b)	Cum	4253.00	127590.00
7		Labour only for Filling foundation and arround masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	731.00
8		Filling foundation and arround masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00
9		P & F Galvanised mild steel tubes (Medium Grd) IS 1239 (Part -I - 1979) complete with fittings includg. trenching and refilling etc.complete(External work).				
		15mm dia	3004 (a)	Rm	116.00	350.00
		20mm dia	3004 (b)	Rm	144.00	200.00
		25mm dia	3004 (c)	Rm	178.00	325.00
		40mm dia	3004 (e)	Rm	225.00	250.00
10		P & F in position best Indian Make Copper alloy gate, globe and check valve(Class-I) IS 778 with iron wheel head etc. complete.				
		20mm dia	3007 (b)	Each	311.00	10.00
		25mm dia	3007 (c)	Each	385.00	20.00
		40 mm dia	3007 (e)	Each	589.00	10.00
11		P & F in position IS apprped quality Copper Alloy Blb Cock 15 mm dia heavy duty complete with all materials etc.				
		SUB TOTAL	3020(a)	Each	219.00	50.00
						384994.00

BILL OF QUANTITY CUM PRICE SCHEDULE							SCHEDULE-IV	
Name of Project		:400KV Substation at Kirnapur						
Name of Work		:Construction For Cable Trenches						
SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective	400 Kv KIRNAPUR	Amount		
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	2000.00	52000.00		
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	1150.00	41400.00		
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	0.00	0.00		
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	0.00	0.00		
5	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (a) Blasting permitted	405(a)	Cum	196.00	0.00	0.00		
6	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (b) Blasting prohibited	405(b)	Cum	233.00	0.00	0.00		
7	PCC 1:4:8 with graded metal of 40mm size	717(b)	Cum	1486.00	310.00	460860.00		
8	Cement concrete 1:2:4 with graded metal of 20 mm size.	715 (c)	Cum	2299.00	675.00	1551825.00		
9	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning, straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire)							
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	1150.00	47150.00		
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning, straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, RINL, JINDAL Steel or re-rollers approved by main producers) stockyard.	1305(a)	kg	3.30	10350.00	34155.00		
10	P/P in position M-20 RCC excluding cost of reinforcement but including formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	195.00	829335.00		
11	Steel work in single section including forging and hoisting, fixing in position etc. complete-(b) In angles, channels, flats and tees	1301(b)	Kg.	42.00	19000	798000.00		
12	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in plinth and found for one or half brick wall	901(e)-906+909	Cum	1677.00	880.00	1475760.00		
13	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	3700	236800.00		
14	Filling foundation and around masonry works with hard moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0	0.00		
15	Filling foundation and around masonry works with hard moorum picked up noulder including watering and ramming.	705	Cum	195.00	0	0.00		
16	Labour only for filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	800	34400.00		
17	Priming coat with ready mixed paint i/c preparing the surface.	1803	Sqm	19.00	1250	23750.00		
18	Painting two or more coats (excluding priming coat) on new surfaces with with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	1250	33750.00		
19	P&L in position cement concrete with graded metal of max. 20 mm for coping complete (a) 1:2:4 concrete	2455(a)	Cum	4136.00	20	82720.00		
NON USR ITEMS								
1	Providing and Fixing 5mm or 8 mm thick chequered plates of mild steel for cable trench covers, of desired size including fixing of handles, 2 Nos.on each end made of 10mm dia 500mm long MS Bar including making holes in the covers for handles to drop down as per approved drawing including cost of all material, cutting, welding, grinding T&P taxes transportation complete as per direction of Engineer-in-Charge. (Upto opening of the size of "D" type cable trench, 5 mm thick covers will be used and for opening larger than "D" type trench , 8 mm thick covers will be used)							
2	(Base rate : Rs. 75/ per Kg). Providing & Laying of 160 mm diameter heavy duty PVC Pipes beneath the yard capable to withstand minimum pressure 4 Kg. per sq. cm. laid over 75 mm thick plain cement concrete of mix 1:4:8 (1 Cement: 4 sand: 8 metal) , pipe fixed in main trench wall and running upto desired point & secured through fixing of pipe cap or plugging the same by suitable sealing adhesives including all lead & lift and cost of all material, excavation of trench, refilling, compaction, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge	NUSR	Kg	75.00	19500.00	1462500.00		
	(Base Rate Rs. 700/- per metre)	NUSR	Mtr	700.00	0.00	0.00		
SUBTOTAL						7164205.00		

BILL OF QUANTITY CUM PRICE SCHEDULE						SCHEDULE-V
Name of Project		:400kV Substation at Kirnapur				
Name of Work		:Construction For Yard Fencing				
S.No	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Amount	
					KIRNAPUR	
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	8.00	208
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	20.00	720
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	0.00	0
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	0.00	0
5	Boring holes with auger for under reamed pile..... (i) For 200 mm dia piles	420(a)(i)- 420(b) (i)	Each	65.00	0.00	0
6	Cement concrete 1:4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	5.00	7430
7	Cement concrete 1:3:6 with graded metal of 20 mm size.	716(c)	Cum	1854.00	31.00	57474
8	Steel work in single section i/c forging, hoisting, fixing in position etc					
	(b) In angles, channels, flats and tees.	1301(b)	Kg	42.00	3150	132300
9	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling.....rming to I.S.280-1978 (i/c cost of binding wire)					
	(b) Cold worked steel high strength bars confirming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	0.00	0
10	(a) MS steel bars confirming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	0.00	0
	P/P In position M-20 RCC excluding cost of reinforcement but including formwork graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	0.00	0
11	Priming coat with ready mixed paint brushing Zinc chrome ,priming on new steel /galvanised iron surface i/c preparing the surface.	1803	Sqm	19.00	155	2945
12	Painting two or more coats (excluding priming coat) on new surfaces with with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	140	3780
13	Filling foundation and around masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0	0
14	Labour only for Filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	6	258
15	Second class T.M. open bhatta or paja burnt brick masonry in C.M. 1:6 in plinth and found for one or half brick wall .	901(e)- 906+909	Cum	1677.00	6	10062
16	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	60	3840
17	Water Proofing cement paint snowcem or Durocem (Two coats)	1733	Sqm	40.00	60	2400
	NUSR ITEMS					
1	P/F 2400 mm high chain link mesh 75x75 mm square size of GI wire 4 mm dia confirming to IS specification 2771-1981 including all necessary arrangement for fixing the same to angle iron post as per drawing and direction of Engineer-in- Charge.					
	(Base rate Rs. 300/- per sqm).	NUSR	Sqm	300.00	480	144000
2	P&F barbed wire (9.88 Kg per 100 m) to M.S.angle iron post i/c screwing with G.I.tying wire, GI Staples, or steel pins i/c cost of wire, staples, pins, etc. complete at above 2.5 m height as per direction of Engineer-in-charge.					
	(Base rate Rs. 9.00 per m).	NUSR	RM.	9.00	600	5400

3	Dismantling of chainlink mesh fencing which include taking out the mesh from the posts including barbed wire and lower & Upper Runner Angles if any, i/c stacking, rolling the mesh and keeping all taken out material at specified place in desired pattern including all labour, T&P, taxes etc as per direction of Engineer in Charge (Base rate Rs. 8/- per sqm).	NUSR	sqm	8.00	0	0
4	Taking out RCC Posts of Yard fencing from the embedded pits or piles by excavating the pit or exposing the piles and then separating it from the concrete mass through chieseling, hammering or any other suitable safe method and then stacking it at desired place including all labour, T&P, taxes etc as per direction of Engineer in Charge (Base rate Rs. 40/- per Post).	NUSR	each	40.00	0	0
5	Taking out MS Angle Posts of Yard fencing from the embedded pits or piles by excavating the pit or exposing the piles and then separating it from the concrete mass through chieseling, hammering or any other suitable safe method and then stacking it at desired place including all labour, T&P, taxes etc as per direction of Engineer in Charge (Base rate Rs. 35/- per Post).	NUSR	each	35.00	0	0
6	Labour only for fixing of chain link mesh fencing in position on angle iron with nuts, bolts, washer including grouting of angle post if required including cost of nuts,bolts, flat washers of size 100 x 30 x 3mm as required but excluding cost of other material as per direction of Engineer-in-Charge. (Base Rate Rs.20/- per Sqm).	NUSR	sqm	20.00	0	0

YARD FENCING CONTINUEDFor 1 No. gate						
S.No	PARTICULARS	USR item No.	Unit	USR unit rate effective fromm 2009	400 Kv KIRNAPUR	
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	20.00	520
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	20.00	720
2	Cement concrete1::4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	2.00	2972
3	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire)					
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	10.00	410
	(a) MS steel bars conforming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	30.00	1200
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	90.00	297
4	P/P in position M-20 RCC excluding cost of reinforcement but including ,formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	2.00	8506
5	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	20	1280
6	Water Proofing cement paint snowcem or Durocem (Two coats)	1733	Sqm	40.00	20	800
7	Priming coat with ready mixed paint brushing Zinc chrome, priming on new steel /galvanised iron surface i/c preparing the surface.	1803	Sqm	19.00	30	570
8	Painting two or more coats (excluding priming coat) on new surfaces with steel with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	30	810
9	Filling foundation with moorum & moorum with boulder including watering and ramming etc.	703	Cum	95.00	0	0
10	Labour only for Filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	36	1548
11	Providing,fabricating and fixing in position compound gate made of mild steel hollow square rectangular sections outer frame and inner sections made up with 2 mm and 1.5mm thick MS sheet respectively as per specifications and approved drawings inclusive of cost of all materials, fabrication charges, cutting, welding, riveting, transportation up to site, fixing in position by grouting of hold fast to the RCC column, and applying suitable steel primer etc.complete as per direction of Engineer-in-charge. (i) Pair of gate of 2x2.5x2.4 Mtr.size (ii) 1 No.wicket gate of 1x1.25x2.4m size. (Above said sizes are standard sizes but likely to change during execution.) (Base Rate Rs.80/- per Kg.)	NUSR	Kg	80.00	700	
SUBTOTAL						56000
						446450

BILL OF QUANTITY CUM PRICE SCHEDULE							SCHEDULE-VI	
Name of Project		:400KV Substation at Kirnapur						
Name of Work		:Construction of Area Fencing						
SN O	PARTICULARS	USR Item No.	Unit	USR unit rate effective from 2009	400 kV		Amount	
					KIRNAPUR			
1	Excavation in hard soil/c 50 m lead and 1.5 m lift	401(b)	Cum	26.00	5.00		130.00	
2	Excavation in hard moorum l/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	0.00		0.00	
3	Cement concrete 1:4:8 with 40 mm metal	717 (b)	Cum	1486.00	1.00		1486.00	
4	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (l/c cost of binding wire)							
	(a) MS steel bars conforming to Grade I of IS: 432 (Part-I)	1304(a)	Kg.	40.00	15.00		600.00	
	(b) Cold worked steel high strength bars conforming to grade Fe 415 of I.S.1786	1304(b)	Kg.	41.00	5.00		205.00	
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (l/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rollers approved by main producers) stockyard.		kg	3.30	45.00		148.50	
5	PIP in position M-20 RCC excluding cost of reinforcement , but including formwork vibration, finishing, curing etc. complete with graded metal of max.size.							
	(b) 20 mm	1607(b)	Cum	4253.00	1.00		4253.00	
6	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	10.00		640.00	
7	Providing, fabricating and fixing in position M.S. grill for window opening (or any other similar opening) or works of similar nature of any pattern, anydesign (straight or curved) fitted andfixed in position, including all welding/riveting etc.to floors, walls, columns,etc., and repairing the same to the original condition in CM 1:3 complete							
	(c) M.S.grills consisting of square or hexagonal MS bars or sheets	1320(c)	Kg	55.00	200.00		11000.00	
8	Water proofing cement paint Snowcem or Durocem.(Two coats)	1733	Sqm	40.00	10.00		400.00	
9	Painting two or more coats	1803+ 1808	Sqm	46.00	15.00		690.00	
10	Labour only for filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	3.00		129.00	
11	Providing & Fixing precast RCC post M-20 strength of section 100mmx100mm casted with 4 Nos.6 mm dia MS bars and stirrups placed 300 mm C/c , 1.85 M long placed at 2 M C/c , corner and every tenth post to be strainer post and struted with struts (struts , strainer post & main post all of same size) , excavation of pit in all type of strata and pit size 30cmx30cmx60 Cm and grouting the posts in Cement Concrete 1:3:6 laid in the pit , providing & fixing 6 horizontal rows and 2 diagonals of barbed wire (9.38 Kg per Metre) to concrete posts and tied up suitably with GI wire & staple pins of 6 mm dia MS Bars embedded in posts , complete as per approved drawing & direction of Engineer in charge including cost of all material , labour , T&P, transportation etc. complete .							
(Base rate Rs. 325/ per Rmt.)				NCSR	RMT	325.00	50.00	16250.00
SUBTOTAL								35931.50

BILL OF QUANTITY CUM PRICE SCHEDULE			SCHEDULE-VII
Name of Project	:400kV Substation at Kirnapur		
Name of Work	:Yard Leveling Work		

SNO	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 Kv	Amount
					KIRNAPUR	
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	10000.00	260000.00
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	15000.00	540000.00
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	5000.00	355000.00
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	2500.00	305000.00
5	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (a) Blasting permitted)	405(a)	Cum	196.00	2500.00	490000.00
	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (b) Blasting prohibited	405(b)	cum	233.00	0.00	0.00
6	Transportation of excavated earth upto 200 m beyond initial lead of 50 mtr.	2902(2)--(a)--2903(4)	Cum	37.26	20000.00	745200.00
7	Compaction of earth at OMC to achieve 90%.dry density by non mech. sheepfoot roller/vibratory compactors etc. l/c. watering earth work for compaction ao OMC with lead upto 100 m	417((b)+418(a)	Cum	25.00	40000.00	1000000.00
	SUBTOTAL					3695200.00

SCHEDULE-VIII							
BILL OF QUANTITY CUM PRICE SCHEDULE							
Name of Project		:400KV Substation at Kirnapur					
Name of Work		:Yard Metalling Work					
Sl. No.	Description of Item	USR Item No.	Unit	USR unit rate effective from 2009	400 Kv		Amount
					KIRNAPUR		
1	Supply stacking and spreading of 40mm crusher broken metal black trap, basalt or granite uniformly in substation yard in desired thickness, free from dust and foreign matter,including transportation up to site, lead and lift, T&P, labour,royalty and taxes etc. complete as directed by Engineer-in-charge. (Base Rate Rs. 1100/- per Cum.)]						
2	Providing & Laying stone crusher dust (1st layer) and mix of stone crusher dust & cement (2nd layer) in substation yard as indicated below (applicable for other than B.C.soil strata) : (a) 1st layer : Providing & Laying stone crusher dust (free from organic matter and foreign matters etc.) of average thickness 50 mm including spreading, watering so as to attain desired degree of moisture for optimum compaction, compaction by light roller, making top surface levelled, even and smooth etc. for all lead & lift including cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge. (b) 2nd layer : Providing & Laying mixture of stone crusher dust (free from organic matter and foreign matters etc.) and cement in ratio of 1 : 14 (1 cement : 14 stone crusher dust, the quantity of cement shall not be less than 1 standard bag of 50 Kg. in 0.5 Cum of stone crusher dust) of minimum thickness 50 mm including mixing of stone crusher dust and cement in mixer with desired water cement ratio, laying, vibration, curing etc.complete to give a perfect cohesive, smooth & even surface , finishing as per requirement ,cleaning etc. including all lead & lift and cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge (Base Rate combined for both the layers @ Rs. 103/-per Sqm).	NUSR	Cum	1100.00	4000	4400000	
3	Providing & Laying stone crusher dust (1st layer) and mix of stone crusher dust & cement (2nd layer) in substation yard as indicated below (applicable for B.C.soil strata) : (a) 1st layer : Providing & Laying stone crusher dust (free from organic matter and foreign matters etc.) of average thickness 100 mm including spreading, watering so as to attain desired degree of moisture for optimum compaction, compaction by light roller, making top surface levelled, even and smooth etc. for all lead & lift including cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge. (b) 2nd layer : Providing & Laying mixture of stone crusher dust (free from organic matter and foreign matters etc.) and cement in ratio of 1 : 14 (1 cement : 14 stone crusher dust, the quantity of cement shall not be less than 1 standard bag of 50 Kg. in 0.5 Cum of stone crusher dust) of minimum thickness 50 mm including mixing of stone crusher dust and cement in mixer with desired water cement ratio, laying, vibration, curing etc.complete to give a perfect cohesive, smooth & even surface , finishing as per requirement ,cleaning etc. including all lead & lift and cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge (Base Rate combined for both the layers @ Rs. 103/-per Sqm). Note: This item shall not be executed without prior permission of CE(Civil-Trans.). The quantity of stone crusher dust shall be measured in volumetric terms also so as to exercise cross check.	NUSR	Sqm	103.00	50000	5150000	
4	Providing and Fixing pre-cast concrete inter-locking paving blocks (the compressive strength should not be less than 350 kg/cm ²) manufactured as per relevant IS Specification by electric hydraulically operated block making machine of appropriate size & shape, laid over 50 mm thick bedding layer of river sand or stone crusher dust /c sand brushing complete, joint 3 mm thick filled by fine sand /c levelling, tamping & sweeping etc. complete /c cost of all material & preparation of bedding surface with all material , all taxes, T&P etc. complete as per direction of Engineer-in-charge. (Size & pattern of tiles shall be decided by the Engineer-in-charge.) Kerb stone of size 450mmx300mmx60mm (Base Rate Rs. 125/- per M) Providing and laying precast cement concrete inter-locking paving blocks (the compressive strength should not be less than 350 kg/cm ²) manufactured as per relevant IS Specification by electric hydraulically operated block making machine of appropriate size & shape, laid over 50 mm thick bedding layer of river sand or stone crusher dust /c sand brushing complete, joint 3 mm thick filled by fine sand /c levelling, tamping & sweeping etc. complete /c cost of all material & preparation of bedding surface with all material , all taxes, T&P etc. complete as per direction of Engineer-in-charge. (Size & pattern of tiles shall be decided by the Engineer-in-charge.)						
5	60 mm thick paving Blocks-Base rate Rs.450/- per Sqm	NUSR	Sqm	450.00	2000	900000	
SUBTOTAL						10825000	

BILL OF QUANTITY CUM PRICE SCHEDULE							SCHEDULE-IX
Name of Project		:400kV Substation at Kirnapur					
Name of Work		:Construction of Road inside the Yard					
Sl. No.	Description of Item	USR item No.	Unit	USR unit rate effective from 2009	400 Kv	Amount	
Col. No.					KIRNAPUR		
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	2	3		4		
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	1450	37700.00	
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	0.00	0.00	
4	Supply, stacking, spreading and packing of 80 mm oversize metal black trap / basalt or granite free from dust and foreign materials i/c all leads and lifts of material, labour charges, T&P, transportation from approved quarry to S/S site, stacking, boxing, handling, all taxes, royalty charges etc. complete as per specification & instruction of Engineer-in-charge.	403	Cum	71.00	0.00	0.00	
5	(Base rate Rs. 800/- per cum.) Supply and stacking of 40 mm metal black trap / basalt or granite free from dust and foreign materials i/c all leads and lifts of materials, labour charges, transportation from approved quarry to S/S site, stacking, handling, all taxes, royalty charges etc. as per specification & instruction of Engineer-in-charge.	NUSR	Cum	800.00	1450	1160000.00	
6	(Base rate Rs. 900/- per cum.) Supply and spreading of hard moorum in EHV Substation yard or road works, including stacking, boxing all lead and lifts, labour, T&P,Taxes,Royalty etc. complete as per specifications and direction of Engineer-in-Charge	NUSR	Cum	900.00	360	324000.00	
7	(Base rate Rs. 350/- per cum.) Same as above but including compaction as per direction of Engineer-in-charge..	NUSR	Cum	350.00	700	245000.00	
8	(Base rate Rs. 375/- per cum.) Consolidation of oversize metal by SRR / DRR including spreading moorum and lead of water up to 100 mt.	NUSR	Cum	375.00	160	60000.00	
9	(I) including hire and running expenses of roller. 80 mm thick W.B.M. coat in wet season by SRR / DRR i/c spreading of metal and moorum watering, korbandi (40 mm metal)	2003(b)(i)	Cum	98.00	1450	142100.00	
	(I), including hire and running expenses of roller.	2008(a)	Cum	167.00	360	60120.00	
SUBTOTAL						2028920	

BILL OF QUANTITY CUM PRICE SCHEDULE							SCHEDULE-X
Name of Project		:400kV Substation at Kirnapur					
Name of Work		:Construction of Culverts inside the Yard					
S.No	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 Kv	Amount	
					KIRNAPUR		
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401 (b)	Cum	26.00	100	2600.00	
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	0	0.00	
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	0	0.00	
4	PCC 1:4:8 with graded metal of 40mm size	717(b)	Cum	1486.00	10	14860.00	
5	Cement concrete 1:2:4 with graded metal of 20 mm size.	715 (c)	Cum	2299.00	6	13794.00	
6	Uncoursed and random rubble masonry in plinth and foundation in cement mortar 1:6.	812 (e)-827	Cum	1681.00	50	84050.00	
7	Filling foundation and around masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0	0.00	
8	Labour only for filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	60	2580.00	
9	Pointing on stone work in CM 1:4						
	(a) Flush pointing.	1126 (a)	Sqm	52.00	60	3120.00	
	NUSR Items						
1	Providing and laying in position NP 3 hume pipe of required diameter including filling 450 mm thick moorum bed well compacted above the pipes, jointing the pipe with complete fixtures if required & placing in position including all charges for labour transportation ,loading, unloading and taxes etc. complete as per direction of Engineer-in-charge.						
	Pipe Diameter 300mm (Base Rate Rs.1700/- per Metre)	NUSR	RM	1700.00	0	0.00	
	Pipe Diameter 600mm (Base Rate Rs.2125/- per Metre)	NUSR	RM	2125.00	30	63750.00	
	Pipe Diameter 1000mm (Base Rate Rs.4375/- per Metre)	NUSR	RM	4375.00	15	65625.00	
	SUBTOTAL					250379.00	

BILL OF QUANTITY CUM PRICE SCHEDULE							SCHEDULE-XI
	Name of Project	:400kV Substation at Kirnapur					
	Name of Work	:Construction of Retaining wall					
S.No	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	400 Kv	Amount	
					KIRNAPUR		
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	80.00	2080.00	
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	70.00	2520.00	
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	0.00	0.00	
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	0.00	0.00	
5	Cement concrete1::4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	25.00	37150.00	
6	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling,.....rming to I.S.280-1978 (i/c cost of binding wire)						
	(b) Cold worked steel high strength bars confirming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	470.00	19270.00	
	(a) MS steel bars confirming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	0.00	0.00	
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.00	4230.00	12690.00	
7	P/P in position M-20 RCC excluding cost of reinforcement but including ,formwork graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	94.00	399782.00	
8	P&F AC pipe with grating for weep holes.... Complete. (a) 100 mm dia .	2434	Mtr	206.00	32.00	6592.00	
9	Filling foundation and arround masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00	0.00	
10	Filling foundation and arround masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	116.00	4988.00	
	SUBTOTAL					485072.00	

BILL OF QUANTITY CUM PRICE SCHEDULE							SCHEDULE-XII
Name of Project		:400kV Substation at Kirnapur					
Name of Work		:Construction of Boundary wall					
S.No	PARTICULARS	USR item No.	Unit	USR unit rate effective fromm 2009	400 Kv	Amount	
					KIRNAPUR		
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	730.00	18980.00	
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	730.00	26280.00	
3	Cement concrete1:4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	175.00	260050.00	
4	Supplying and fixing steel reinforcement bars (tested) FOR R.C.C. including cleaning, straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming I.S.280-1978 (i/c cost of binding wire)						
	(b) Cold worked steel high strength bars confirming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	3565.00	146165.00	
	(c) MS steel bars confirming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	4650.00	186000.00	
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	32085.00	105880.50	
4	Providing and Placing in position M-20 R.C.C. excluding cost of reinforcement but including , form work , vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	496.00	2109488.00	
6	Labour only for Filling foundation and arround masonry works with material obtained from spoils i/c watering and ramming,labour only.	709(a)	Cum	43.00	1054.00	45322.00	
7	Steel work in single section I/c forging, hoisting, fixing in position etc complete						
	(b) In angles, channels, flats and tees.	1301(b)	Kg	42.00	4750.00	199500.00	
8	Water Proofing cement paint snowcem or Durocem (Two coats)	1733	Sqm	40.00	8680.00	347200.00	
9	Priming coat with ready mixed paint brushing Zinc chrome, priming on new steel /galvanised iron surface I/c preparing the surface.	1803	Sqm	19.00	310.00	5890.00	
10	Painting two or more coats (excluding priming coat) on new surfaces with enamel paint (IS:2933-1975) to give an even shade.	1808		27.00	310.00	8370.00	
11	P&L in position cement concrete with graded metal of max. 20 mm for coping complete (a) 1:2:4 concrete	2455(a)	Cum	4136.00	23.00	95128.00	
12	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in plinrh foundation for one or half brick wall .	901e-906+909	Cum	1677.00	124.00	207948.00	
13	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in super structure for one or half brick wall .	901e+909	Cum	1737.00	682.00	1184634.00	
14	15mm thick cement plaster on brick work in CM 1:6	1105 (c)	Sqm	64.00	4340.00	277760.00	
15	20mm thick cement plaster on brick work in CM 1:6	1106 (c)	Sqm	88.00	4340.00	381920.00	
16	P&F barbed wire (9.88 Kg per 100 m) to M.S.angle iron post i/c screwing with G.I.tying wire, GI Staples, or steel pins i/c cost of wire, staples, pins, etc. complete at above 2.5 m height as per direction of Engineer-in-charge.						
	(Base rate Rs. 9/- per m).	NUSR	RM.	9.00	9300.00	83700.00	
	SUBTOTAL					5690215.50	
	TOTAL					64476850	