

CHAPTER NO. 23
River and Canal Protection works

Notes:-

- (i) The rates for carriage of materials manually upto 0.50 km and by mechanical means for every km lead have been given. The actual lead is to be paid if the lead is in fraction, the rate is to be worked out by interpolation.

Sr. No.	Description			Unit	Quantity	Plain as well as Sub-Mountainous region						
						Rate	Cost		Total	Rate	Cost	Total
1	2			3	4	5	6		7	8	9	10
23.1	Cutting Pilchi, farash and sarkanda and carriage to work lead two K.M. including loading and unloading:-	Unit	Cum									
	LABOUR											
	(a) LOOSE											
	One man can cut and carry 0.70 cum of loose pilchi up to 2 K.M. in one trip and he can make 5 trips in a day.											
	Cost of collection											
	Output	3.5	Cum									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % i.e. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	3.5	Cum				169.42					
	Labour	1	Cum				48.41		48.41			48.41
	(b) COMPACTED	Unit	Cum									
	Output	1	Cum									
	Labour for one cum compacted pilchi rate as per item No. 23.1 (a)				1.5	48.41	72.62					
	Labour	Per	Cum				72.62		72.62			72.62
	Cost of making rolls :-											
	One roll 15 mm dia 1.5 metre long = 0.0265 Cum											
	Labour for 38 rolls or 1 cum (Rate as per item No. 23.5(c)			per roll	38	3.39	128.82					
	Labour	1	Cum				128.82		128.82			128.82
							201.44		201.44			201.44

23.2	Loading pilchi, farash and sarkanda in boats within 15 meters:-	1	Cum									
	(a) Loose											
	Labour											
	output	31	Cum									
	(i) Mazdoor			Each	2	136.69	273.38					
	Add sundries charges @ 1 % ie. on Rs.273.38						2.73					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.276.11						59.36					
	Add labour cess @ 1 % on Rs 335.47						3.35					
	Labour	31	Cum				338.82					
	Labour	1	Cum				10.93		10.93			10.93
	(b) Compacted in rolls											
	Labour											
	output	7	Cum									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % i.e. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	7	Cum				169.42					
	Labour	1	Cum				24.20		24.20			24.20

23.3	Carriage of Pilchi, farash and sarkanda by boats including loading and unloading:-											
	(a) Loose-											
	(i) One K.M.			Cum					30.45			
	(ii) Two K.M.			Cum					56.55			
	(iii) Three K.M.			Cum					76.13			
	(iv) Four K.M.			Cum					92.22			
	(v) Five K.M.			Cum					106.58			
	(vi) Subsequent K.M. per K.M.			Cum					10.88			
	(b) Compacted-											
	(i) One K.M.			Cum					73.95			
	(ii) Two K.M.			Cum					136.59			
	(iii) Three K.M.			Cum					182.27			
	(iv) Four K.M.			Cum					222.72			
	(v) Five K.M.			Cum					265.18			
	(vi) Subsequent K.M. per K.M.			Cum					28.28			

23.4	Unloading pilchi, farash and sarkanda from boats and carriage to yard up to one K.M.:-	1	Cum									
	(i) (a) Loose											
	Labour											
	output	7	Cum									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	7	Cum				169.42					
	Labour	1	Cum				24.20		24.20			24.20
	(b) Compacted	Unit	Cum									
	Labour											
	output	7	Cum									
	(i) Mazdoor			Each	2.5	136.69	341.73					
	Add sundries charges @ 1 % ie. on Rs.341.73						3.42					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.345.15						74.21					
	Add labour cess @ 1 % on Rs 419.36						4.19					
	Labour	7	Cum				423.55					
	Labour	1	Cum				60.51		60.51			60.51

23.5	Making pilchi, farash or sarkanda rolls excluding supply of materials:-	1	Each									
	(a) 20 cm or 23 cm dia and 9 mtr long											
	Labour											
	output	4	Rolls									
	(i) Mazdoor		Each	1	136.69	136.69						
	Add sundries charges @ 1 % ie. on Rs.136.69					1.37						
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06					29.68						
	Add labour cess @ 1 % on Rs 167.74					1.68						
	Labour	4	Rolls			169.42						
	Labour	1	Roll			42.36		42.36				42.36
	(b) 15 cm dia and 9 mtr long	1	Each									
	Labour											
	output	6	Rolls									
	(i) Mazdoor		Each	1	136.69	136.69						
	Add sundries charges @ 1 % ie. on Rs.136.69					1.37						
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06					29.68						
	Add labour cess @ 1 % on Rs 167.74					1.68						
	Labour	6	Rolls			169.42						
	Labour	1	Roll			28.24		28.24				28.24
	(c) 15 cm dia and 1.5 m long	1	Each									
	Labour											
	output	50	Rolls									
	(i) Mazdoor		Each	1	136.69	136.69						
	Add sundries charges @ 1 % ie. on Rs.136.69					1.37						
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06					29.68						
	Add labour cess @ 1 % on Rs 167.74					1.68						
	Labour	50	Rolls			169.42						
	Labour	1	Roll			3.39		3.39				3.39

23.6	Making 0.75 mtr dia and 5.5 mtr long pilchi rolls for permeable spurs.	1	Each									
	Labour											
	output	8	Rolls									
	(i) Mazdoor			Each	9	136.69	1230.21					
	Add sundries charges @ 1 % ie. on Rs.1230.21						12.30					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.1242.51						267.14					
	Add labour cess @ 1 % on Rs 1509.65						15.10					
	Labour	8	Rolls				1524.75					
	Labour	1	Roll				190.59		190.59			190.59

23.7	Launching the above and placing in position.	1	Each									
	Labour											
	output	5	Rolls									
	(i) Mazdoor			Each	4	136.69	546.76					
	Add sundries charges @ 1 % ie. on Rs.546.76						5.47					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.552.23						118.73					
	Add labour cess @ 1 % on Rs 670.96						6.71					
	Labour	5	Rolls				677.67					
	Labour	1	Roll				135.53		135.53			135.53

23.8	Pilchi, farash or sarkanda pitching on slope with rolls 15 cm dia and 1.5 mtr long including supply of pilchi involving carriage within 2 K.M. and labour for making rolls	1	Sqm									
	(Details of cost for 30 metres length and 1.5 metre sloping height)											
	Area:- 30 x 1.5=45 Sq mtr											
	LABOUR											
	(i) Pilchi, farash or sarkanda compacted in rolls of 15 cm dia and 1.5 metre long:-											
	$30 \times 1.5 \times 1.5 = 33.75 \text{ Cum}$											
	(i) (Rate as per item 23.1 (b))			Cum	33.75	201.44	6798.60					
	(ii) Mazdoor for laying rolls in courses.			Each	2	136.69	273.38					
	(iii) Mazdoor for making wooden pegs and driving.			Each	2	136.69	273.38					
	(iv) Mazdoor for preparing bed and putting earth in layers including breaking clods and dressing.			Each	2	136.69	273.38					
	Add sundries charges @ 1 % ie. on Rs.820.14						8.20					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.828.34						178.09					
	Add labour cess @ 1 % on Rs 1006.43						10.06					
	Labour	45	Sqm				7815.09					
	Labour	1	Sqm				173.67		173.67			173.67

23.9	Extra for carriage beyond 2 K.M. of pilchi rolls 15 cm dia and 1.5 mtr long (vide item No. 23.8)											
	(a) 3 rd KM											
				Sqm of pitching surface					34.80			
	(b) Subsequent K.M. (per K.M.)			-do-					21.75			

23.10	Pilchi, farash or sarkanda pitching one metre depth.			Sqm of pitching surface					80 percent rate of item No. 23.8 & 23.9.			

23.11	Pilchi revetment including carriage up to 2 K.M.	1	Sqm									
	Labour											
	Taking output	9	Sqm									
	(i) Mazdoor			Each	4	136.69	546.76					
	(ii) Extra for revetment			L.S.	-		65.25					
	Add sundries charges @ 1 % ie. on Rs.612.01						6.12					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.618.13						132.90					
	Add labour cess @ 1 % on Rs 751.03						7.51					
	Labour	9	Sqm				758.54					
	Labour	1	Sqm				84.28		84.28			84.28

23.12	Surface protection with pilchi mattress lead up to 2 K.M.	1	Sqm									
	Labour											
	Taking output	9	Sqm									
	(i) Mazdoor			Each	3	136.69	410.07					
	Add sundries charges @ 1 % ie. on Rs.410.07						4.10					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.414.17						89.05					
	Add labour cess @ 1 % on Rs 503.22						5.03					
	Labour	9	Sqm				508.25					
	Labour	1	Sqm				56.47		56.47			56.47

23.13	Weaving mattresses of pilchi 30 cm thick.	1	Sqm									
	Labour											
	Taking output	10	Sqm									
	(i) Mazdoor			Each	2	136.69	273.38					
	(ii) Cost of string			L.S.	-		39.15					
	Add sundries charges @ 1 % ie. on Rs.312.53						3.13					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.315.66						67.87					
	Add labour cess @ 1 % on Rs 383.53						3.84					
	Labour	10	Sqm				387.37					
	Labour	1	Sqm				38.74		38.74			38.74

23.14	Rolling pilchi mattress to river edge and floating after unrolling:-	1	Sqm									
	(a) area of mattress up to 200 Sqm.											
	Labour											
	Taking output	75	Sqm									
	(i) Mazdoor			Each	7	136.69	956.83					
	Add sundries charges @ 1 % ie. on Rs.956.83						9.57					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.966.4						207.78					
	Add labour cess @ 1 % on Rs 1174.18						11.74					
	Labour	75	Sqm				1185.92					
	Labour	1	Sqm				15.81		15.81			15.81
	b) Area of mattress 200 sqm to 250 sq mtr.	1	Sqm									
	Labour											
	Taking output	55	Sqm									
	(i) Mazdoor			Each	7	136.69	956.83					
	Add sundries charges @ 1 % ie. on Rs.956.83						9.57					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.966.4						207.78					
	Add labour cess @ 1 % on Rs 1174.18						11.74					
	Labour	55	Sqm				1185.92					
	Labour	1	Sqm				21.56		21.56			21.56
	(c) area of mattress above 250 Sqm.	1	Sqm									
	Labour											
	Taking output	30	Sqm									
	(i) Mazdoor			Each	4	136.69	546.76					
	Add sundries charges @ 1 % ie. on Rs.546.76						5.47					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.552.23						118.73					
	Add labour cess @ 1 % on Rs 670.96						6.71					
	Labour	30	Sqm				677.67					
	Labour	1	Sqm				22.59		22.59			22.59

23.15	Laying Kahi mattress lead up to 2 K.M.	1	Sqm									
	Labour											
	Taking output	10	Sqm									
	(i) Mazdoor			Each	3	136.69	410.07					
	Add sundries charges @ 1 % ie. on Rs.410.07						4.10					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.414.17						89.05					
	Add labour cess @ 1 % on Rs 503.22						5.03					
	Labour	10	Sqm				508.25					
	Labour	1	Sqm				50.83		50.83			50.83

23.16	Special Kahi revetment double lead up to 2 K.M.	1	Sqm									
	Labour											
	Taking output	20	Sqm									
	(i) Mazdoor			Each	12	136.69	1640.28					
	(ii) Extra for revetment			L.S.	-		69.60					
	Add sundries charges @ 1 % ie. on Rs.1709.88						17.10					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.1726.98						371.30					
	Add labour cess @ 1 % on Rs 2098.28						20.98					
	Labour	20	Sqm				2119.26					
	Labour	1	Sqm				105.96		105.96			105.96

23.17	Gachi pitching with average thickness of 30 cm(joints to be broken)	1	Sqm									
	Labour											
	Taking output	10	Sqm									
	(i) Mazdoor			Each	3	136.69	410.07					
	Add sundries charges @ 1 % ie. on Rs.410.07						4.10					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.414.17						89.05					
	Add labour cess @ 1 % on Rs 503.22						5.03					
	Labour	10	Sqm				508.25					
	Labour	1	Sqm				50.83		50.83			50.83

23.18	Gachi pitching done with slit clearance and berm dressing with thickness of 30 cm(joints to be broken)	1	Sqm									
	Labour											
	Taking output	14	Sqm									
	(i) Mazdoor			Each	4	136.69	546.76					
	Add sundries charges @ 1 % ie. on Rs.546.76						5.47					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.552.23						118.73					
	Add labour cess @ 1 % on Rs 670.96						6.71					
	Labour	14	Sqm				677.67					
	Labour	1	Sqm				48.41		48.41			48.41

23.19	Fixing floating spurs in channels with material from canal plantation with in 2 K.M.:-											
	(a) up to F.S. depth 0.5 mtr			Each					2.18			
	(b) F.S. depth exceeding 0.50 mtr but up to 1.0 mtr			Each					4.35			
	(c) F.S. depth exceeding 1.0 mtr but up to 1.25 mtr			Each					6.96			
	(d) above 1.25 mtr F.S. depth.			Each					8.7			

23.20	Stacking and bushing with canal plantation within 2 Km.										
	(a) (i) pegs 1.0 m long, 5 cm dia										
		100	Nos								
	Labour										
	(i) Carpenter IInd class			Each	¼	190.00	47.5				
	(ii) Mazdoor			Each	½	136.69	68.35				
	Add sundries charges @ 1 % ie. on Rs.115.85						1.16				
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.117.01						25.16				
	Add labour cess @ 1 % on Rs 142.17						1.42				
	Labour	100	Nos				143.59		143.59		143.59
	(ii) Driving pegs 1.0 m long, 5 cm dia.	100	Nos								
	Labour										
	Taking output	200	Pegs								
	(i) Mazdoor			Each	1	136.69	136.69				
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37				
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68				
	Add labour cess @ 1 % on Rs 167.74						1.68				
	Labour	200	Pegs				169.42				
	Labour	100	Pegs				84.71		84.71		84.71
	iii)Wattling brush wood between stakes and intertwining	One row	Metre								
	Labour										
	Taking output	150	One row								
	(i) Mazdoor			Each	2	136.69	273.38				
	Add sundries charges @ 1 % ie. on Rs.273.38						2.73				
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.276.11						59.36				
	Add labour cess @ 1 % on Rs 335.47						3.35				
	Labour	150	Mtr				338.82				
	Labour	Per	Mtr				2.26		2.26		2.26

(b) (i) Pegs 1.25 mtr long, 7.5 cm dia sharpened at one end	100	Nos									
Labour											
Output	210	Pegs									
(i) Carpenter II class			Each	1	190.00	190.00					
(ii) Mazdoor			Each	½	136.69	68.35					
Add sundries charges @ 1 % ie. on Rs.258.35						2.58					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.260.93						56.10					
Add labour cess @ 1 % on Rs 317.03						3.17					
Labour	210	Pegs				320.20					
Labour	100	Pegs				152.48		152.48			152.48
(ii) Driving pegs 1.25 m long, 7.5 cm dia.	100	Nos									
Labour											
Taking output	300	Pegs									
(i) Mazdoor			Each	2	136.69	273.38					
Add sundries charges @ 1 % ie. on Rs.273.38						2.73					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.276.11						59.36					
Add labour cess @ 1 % on Rs 335.47						3.35					
Labour	300	Pegs				338.82					
Labour	100	Pegs				112.94		112.94			112.94
iii) Wattling brush wood between stakes and intertwining. Unit :- Metre of one row											
Labour per metre of one row same as per item No. 23.20 (a) (iii)								2.26			2.26

(c) (i) pegs 1.5 m long, 7.5 cm dia sharpened at one end	100	Nos									
Labour											
Output	200	Pegs									
(i) Carpenter IInd class			Each	1	190.00	190.00					
(ii) Mazdoor			Each	½	136.69	68.35					
Add sundries charges @ 1 % ie. on Rs.258.35						2.58					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.260.93						56.10					
Add labour cess @ 1 % on Rs 317.03						3.17					
Labour	200	Pegs				320.20					
Labour	100	Pegs				160.10		160.10			160.10
(ii) Driving pegs 1.5 m long, 7.5 cm dia.	100	Nos									
Labour											
Taking output	140	Pegs									
(i) Mazdoor			Each	1	136.69	136.69					
Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
Add labour cess @ 1 % on Rs 167.74						1.68					
Labour	140	Pegs				169.42					
Labour	100	Pegs				121.01		121.01			121.01
iii) Wattling brush wood between stakes and intertwining	One row	Metre									
Labour											
Taking output	60	One row									
(i) Mazdoor			Each	1	136.69	136.69					
Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
Add labour cess @ 1 % on Rs 167.74						1.68					
Labour	60	Mtr				169.42					
Labour	Per	Mtr				2.82		2.82			2.82

(d) (i) Pegs 2.0 m long, 7.5 cm dia sharpened at one end	100	Nos									
Labour											
Output	140	Pegs									
(i) Carpenter IInd class			Each	1	190.00	190.00					
(ii) Mazdoor			Each	½	136.69	68.35					
Add sundries charges @ 1 % ie. on Rs.258.35						2.58					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.260.93						56.10					
Add labour cess @ 1 % on Rs 317.03						3.17					
Labour	140	Pegs				320.20					
Labour	100	Pegs				228.71		228.71			228.71
(ii) Driving pegs 2 mtr long, 7.5 cm dia.	100	Nos									
Labour											
Taking output	225	Pegs									
(i) Mazdoor			Each	2	136.69	273.38					
Add sundries charges @ 1 % ie. on Rs.273.38						2.73					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.276.11						59.36					
Add labour cess @ 1 % on Rs 335.47						3.35					
Labour	225	Pegs				338.82					
Labour	100	Pegs				150.59		150.59			150.59
iii) Wattling brush wood between stakes and intertwining	One row	Metre									
Labour											
Taking output (in mtr)	45	One row									
(i) Mazdoor			Each	1	136.69	136.69					
Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
Add labour cess @ 1 % on Rs 167.74						1.68					
Labour	45	Mtr				169.42					
Labour	Per	Mtr				3.76		3.76			3.76

23.21	Filling brush wood only.	1	Cum									
	Labour											
	output	25	Cum									
	(i) Mazdoor			Each	2	136.69	273.38					
	Add sundries charges @ 1 % ie. on Rs.273.38						2.73					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.276.11						59.36					
	Add labour cess @ 1 % on Rs 335.47						3.35					
	Labour	25	Cum				338.82					
	Labour	1	Cum				13.55		13.55			13.55

23.22	Filling cement bags with sand or earth and sewing including cost of strings.	100	Nos									
I	Materials											
	Supply of E.C. bags			No	100	2.40	240.00					
	Misc/petty items			L.S.			30.80					
	Add sundries charges @ 1 % ie. on Rs.270.8						2.71					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.273.51						27.35					
	Add labour cess @ 1 % on Rs 300.86						3.01					
	Total-I						303.87		303.87			
II	Labour											
	Taking output	100	Bags									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	100	Bags				169.42		169.42			
	Total-I + II								473.29			473.29

23.23	Loading cement bags filled with sand or earth in to trucks or boats with in 100 metres lead	100	Nos									
	Labour											
	Taking output	75	Bags									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	75	Bags				169.42					
	Labour	100	Bags				225.89		225.89			225.89

23.24	Carriage of sand filled in bags by boats:-											
	(a) 1st chain of 30 meters.			100 Nos					34.8			
	(b) 2nd to 4th chain per chain of 30 meters.			100 Nos					20.88			
	(c) 5th and subsequent chains per chain of 30 meters.			100 Nos					13.92			

23.25	Unloading from boats, bags filled with sand and	100	Nos									
	(a) Placing in dry											
	Labour											
	Taking output	80	Bags									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	80	Bags				169.42					
	Labour	100	Bags				211.78		211.78			211.78
	(b) Placing in water	100	Nos									
	Labour											
	Taking output	40	Bags									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	40	Bags				169.42					
	Labour	100	Bags				423.55		423.55			423.55

23.26	Filling cement bags with sand sewing and laying in position within 30 meters in dry including cost of strinos. (Unit 100 Nos)	100	Nos									
I	Materials											
	Supply of E.C. bags			No	100	2.40	240.00					
	Misc/petty items			L.S.			60.90					
	Add sundries charges @ 1 % ie. on Rs.300.9						3.01					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.303.91						30.39					
	Add labour cess @ 1 % on Rs 334.3						3.34					
	Labour	100	Bags				337.64		337.64			
	Total-I											
	Labour											
	Taking output	50	Bags									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	50	Bags				169.42					
	Labour	100	Bags				338.84		338.84			
	Total-I + II								676.48			676.48

23.27	Filling cement bags with sand, sewing and laying in position within 30 meters in water including cost of strinas.	100	Nos									
I	Materials											
	Supply of E.C. bags			No	100	2.40	240.00					
	Misc/petty items			L.S.			87.00					
	Add sundries charges @ 1 % ie. on Rs.327						3.27					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.330.27						33.03					
	Add labour cess @ 1 % on Rs 363.3						3.63					
	Labour	100	Bags				366.93		366.93			
	Total-I											
	Labour											
	Taking output	30	Bags									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	30	Bags				169.42					
	Labour	100	Bags				564.73		564.73			
	Total-I + II								931.66			931.66

23.28	Sewing empty cement bags in to sheets.	100	Nos									
I	Materials											
	Supply of E.C. bags			No	100	2.40	240.00					
	Misc/petty items			L.S.			29.00					
	Add sundries charges @ 1 % ie. on Rs.269						2.69					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.271.69						27.17					
	Add labour cess @ 1 % on Rs 298.86						2.99					
	Labour	100	Bags				301.85		301.85			
	Total-I											
	Labour											
	Taking output	150	Bags									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	150	Bags				169.42					
	Labour	100	Bags				112.95		112.95			
	Total-I + II								414.80			414.80

23.29	Weaving wire netting for wire crates including binding sides and partitions to make crate of 15 cm x 15 cm or 25 cm x 7.5 mesh.	1	Sqm									
I	Materials											
	Supply of M.S. annealed wire			Sqm	0.002085	41340.00	86.21					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.86.21						8.62					
	Add labour cess @ 1 % on Rs 94.83						0.95					
	Total-I						95.78		95.78			
II	Labour											
	Taking output	35	Sqm									
	(i) Black smith Grade-I			Each	3	223.36	670.08					
	Add sundries charges @ 1 % ie. on Rs.670.08						6.70					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.676.78						145.51					
	Add labour cess @ 1 % on Rs 822.29						8.22					
	Labour	35	Sqm				830.51					
	Labour	1	Sqm				23.73		23.73			
	Total-I + II								119.51			119.51

23.30	Filling brick bats in crates and hand packing.	1	Cum									
I	Materials											
	Supply of Brick bats including carriage of 5 kilometres including loading / unloading			Cum	1	543.73	543.73					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.543.73						54.37					
	Add labour cess @ 1 % on Rs 598.1						5.98					
	Total-I						604.08		604.08			
II	Labour											
	output	17	Cum									
	(i) Mazdoor			Each	4	136.69	546.76					
	Add sundries charges @ 1 % ie. on Rs.546.76						5.47					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.552.23						118.73					
	Add labour cess @ 1 % on Rs 670.96						6.71					
	Labour	17	Cum				677.67					
	Labour	1	Cum				39.86		39.86			
	Total-I + II								643.94			643.94

23.31	Filling brick in crates and hand packing.	1	Cum									
I	Materials											
	Bricks 1st Class including carriage of 5 kilometres including loading / unloading			Each	480	3.13	1502.40					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.1502.4						150.24					
	Add labour cess @ 1 % on Rs 1652.64						16.53					
	Total-I						1669.17		1669.17			
II	Labour											
	output	9	Cum									
	(i) Mazdoor			Each	4	136.69	546.76					
	Add sundries charges @ 1 % ie. on Rs.546.76						5.47					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.552.23						118.73					
	Add labour cess @ 1 % on Rs 670.96						6.71					
	Labour	9	Cum				677.67					
	Labour	1	Cum				75.30		75.30			
	Total-I + II								1744.47			1744.47

23.32	Filling stones or spalls into crates and hand packing	1	Cum									
I	Materials											
	Supply of stones including carriage of 5 kilometres including loading / unloading (18 kg to 40 Kg)			Cum	1	491.92	491.92					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.491.92						49.19					
	Add labour cess @ 1 % on Rs 541.11						5.41					
	Total-I						546.52		546.52			
II	Labour											
	output	13	Cum									
	(i) Mazdoor			Each	8	136.69	1093.52					
	Add sundries charges @ 1 % ie. on Rs.1093.52						10.94					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.1104.46						237.46					
	Add labour cess @ 1 % on Rs 1341.92						13.42					
	Labour	13	Cum				1355.34					
	Labour	1	Cum				104.26		104.26			
	Total-I + II								650.78			650.78

23.33	Tipping wire crates including equipment.	1	Cum									
	Labour											
	output	9	Cum									
	(i) Mazdoor			Each	4	136.69	546.76					
	Add sundries charges @ 1 % ie. on Rs.546.76						5.47					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.552.23						118.73					
	Add labour cess @ 1 % on Rs 670.96						6.71					
	Labour	9	Cum				677.67					
	Labour	1	Cum				75.30		75.30			75.30

23.34	Opening out old wire crates and remaking after filling.	1	Sqm									
	Labour											
	Output	50	Sqm									
	(i) Black smith 1st class			Each	1	223.36	223.36					
	(ii) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.360.05						3.60					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.363.65						78.18					
	Add labour cess @ 1 % on Rs 441.83						4.42					
	Labour	50	Sqm				446.25					
	Labour	1	Sqm				8.93		8.93			8.93

23.35	Labour for dismantling existing portion of old protection work including cutting old trangger and stacking old stones for re-use.	1	Cum									
	Labour											
	Output	12	Cum									
	(i) Black smith 2nd class			Each	1	190.00	190.00					
	(ii) Mazdoor			Each	5	136.69	683.45					
	Add sundries charges @ 1 % ie. on Rs.873.45						8.73					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.882.18						189.67					
	Add labour cess @ 1 % on Rs 1071.85						10.72					
	Labour	12	Cum				1082.57					
	Labour	1	Cum				90.21		90.21			90.21

23.36	Filling spaces and foundation with old stone obtained from dismantling including labour for dismantling.	1	Cum									
	Labour											
	output	5	Cum									
	(i) Mazdoor			Each	6	136.69	820.14					
	Add sundries charges @ 1 % ie. on Rs.820.14						8.20					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.828.34						178.09					
	Add labour cess @ 1 % on Rs 1006.43						10.06					
	Labour	5	Cum				1016.49					
	Labour	1	Cum				203.30		203.30			203.30

23.37	Spreading wire crates over pitching connecting with side protective walls inclusive of wire etc.	1	Sqm									
	Labour											
	Output	10	Sqm									
	(i) Mazdoor			Each	1	136.69	136.69					
	(ii) Miscellaneous such as wire etc.			L.S.			78.30					
	Add sundries charges @ 1 % ie. on Rs.214.99						2.15					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.217.14						46.69					
						Total	263.83					
	Add labour cess @ 1% on Rs 263.83						2.64					
	Labour	10	Sqm				266.47					
	Labour	1	Sqm				26.65		26.65			26.65

23.38	Wire crates of specified dimensions from all directions of G.I. wire filled with boulders with square cut faces against the wire.	1	Cum									
	(a) 4 mm dia G.I. wire 25 cm x 7.5 cm mesh											
	Labour											
	Output	6	Cum									
	(i) Stone mason 2 nd class for filling stones into crates			Each	2	190.00	380.00					
	(ii) Black smith 2 nd class for making wire crates.			Each	3	190.00	570.00					
	Add sundries charges @ 1 % ie. on Rs.950						9.50					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.959.5						206.29					
	Add labour cess @ 1 % on Rs 1165.79						11.66					
	Labour	6	Cum				1177.45					
	Labour	1	Cum				196.24		196.24			196.24
	(b) 4 mm dia G.I. wire 15 cm x 15 cm mesh (diagonal wise)			Rate same as per item no 23.38(a)					196.24			196.24
	(c) 4.75 mm dia G.I. wire 25 cm x 7.5 cm mesh (diagonal wise)			Rate same as per item no 23.38(a)					196.24			196.24
	(d) 4.75 mm dia G.I. wire 15 cm x 15 cm mesh (diagonal wise)			Rate same as per item no 23.38(a)					196.24			196.24
	(e) 3.25 mm dia G.I. wire 25 cm x 7.5 cm mesh (diagonal wise)			Rate same as per item no 23.38(a)					196.24			196.24
	(f) 3.25 mm dia G.I. wire 15 cm x 15 cm mesh (diagonal wise)			Rate same as per item no 23.38(a)					196.24			196.24

Note:- The through rate of item No. 23.38 is dependent on the size of crate which varies as per the site conditions and design/ drawing.

23.39	Dumping stone	1	Cum									
I	Materials											
	Supply of stone including carriage of 5 kilometres including loading / unloading (18 kg to 40 Kg)			Cum	1	491.92	491.92					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.491.92						49.19					
	Add labour cess @ 1 % on Rs 541.11						5.41					
	Total-I						546.52		546.52			
II	Labour											
	output	3	Cum									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	3	Cum				169.42					
	Labour	1	Cum				56.47		56.47			56.47
	Total-I + II								602.99			602.99

23.40	Extra for anchoring boat for dumping in position.			Cum					17.40			17.40
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23.41	Dismantling brush wood boulder bund.	1	Cum									
	Labour											
	output	9	Cum									
	(i) Mazdoor			Each	8	136.69	1093.52					
	Add sundries charges @ 1 % ie. on Rs.1093.52						10.94					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.1104.46						237.46					
	Add labour cess @ 1 % on Rs 1341.92						13.42					
	Labour	9	Cum				1355.34					
	Labour	1	Cum				150.59		150.59			150.59

23.42	Stone or Kankar block pitching:-	1	Cum									
	(a) Horizontal											
	Labour											
	output	9	Cum									
	(i) Mazdoor			Each	10	136.69	1366.90					
	Add sundries charges @ 1 % ie. on Rs.1366.9						13.67					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.1380.57						296.82					
	Add labour cess @ 1 % on Rs 1677.39						16.77					
	Labour	9	Cum				1694.16					
	Labour	1	Cum				188.24		188.24			188.24
	(b) On slopes of guide bund and protection works	1	Cum									
	Labour											
	output	7	Cum									
	(i) Mazdoor			Each	10	136.69	1366.90					
	Add sundries charges @ 1 % ie. on Rs.1366.9						13.67					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.1380.57						296.82					
	Add labour cess @ 1 % on Rs 1677.39						16.77					
	Labour	7	Cum				1694.16					
	Labour	1	Cum				242.02		242.02			242.02

23.43	Stone pitching top coping only	1	Cum									
I	Materials											
	Supply of stones including carriage of 5 kilometres including loading / unloading (18 kg to 40 Kg)			Cum	1	491.92	491.92					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.491.92						49.19					
	Add labour cess @ 1 % on Rs 541.11						5.41					
	Total-I						546.52		546.52			
II	Labour											
	Output	17	Cum									
	(i) Mazdoor			Each	24	136.69	3280.56					
	(ii) Mazdoor boy			Each	18	136.69	2460.42					
	Add sundries charges @ 1 % ie. on Rs.5740.98						57.41					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.5798.39						1246.65					
	Add labour cess @ 1 % on Rs 7045.04						70.45					
	Labour	17	Cum				7115.49					
	Labour	1	Cum				418.56		418.56			
	Total-I + II								965.08			965.08

23.44	Filling stone or spall:-	1	Cum									
	(a) On level.											
I	Materials											
	Supply of stones including carriage of 5 kilometres including loading / unloading (18 kg to 40 Kg)			Cum	1	491.92	491.92					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.491.92						49.19					
	Add labour cess @ 1 % on Rs 541.11						5.41					
	Total-I						546.52		546.52			
	Labour											
	output	3	Cum									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	3	Cum				169.42					
	Labour	1	Cum				56.47		56.47			56.47
	Total-I + II								602.99			602.99

	(b) On side slopes behind pitching.	1	Cum									
I	Materials											
	Supply of spall including carriage of 5 kilometres including loading / unloading (22 mm to 53mm hand broken crushed grade-3)			Cum	1	347.91	347.91					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.347.91						34.79					
	Add labour cess @ 1 % on Rs 382.7						3.83					
	Total-I						386.53		386.53			
	Labour											
	output	17	Cum									
	(i) Mazdoor			Each	6	136.69	820.14					
	Add sundries charges @ 1 % ie. on Rs.820.14						8.20					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.828.34						178.09					
	Add labour cess @ 1 % on Rs 1006.43						10.06					
	Labour	17	Cum				1016.49					
	Labour	1	Cum				59.79		59.79			
	Total-I + II								446.32			446.32

23.45	Grouting stone filling or pitching:-	1	Sqm									
	(a)With bajri or shingle.											
I	Materials											
	Supply of spall including carriage of 5 kilometres including loading / unloading (22 mm to 53mm hand broken crushed grade-3)			Cum	0.061	347.91	21.22					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.21.22						2.12					
	Add labour cess @ 1 % on Rs 23.34						0.23					
	Total-I						23.57		23.57			
	Labour											
	output	7	Sqm									
	(i) Mazdoor			Each	1	136.69	136.69					
	Add sundries charges @ 1 % ie. on Rs.136.69						1.37					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.138.06						29.68					
	Add labour cess @ 1 % on Rs 167.74						1.68					
	Labour	7	Sqm				169.42					
	Labour	1	Sqm				24.20		24.20			24.20
	Total-I + II								47.77			47.77

	(b) With mortar.	1	Sqm									
I	MATERIALS											
	Supply of cement sand mortar 1:4 including supply of material loading, unloading within 5 Km											
	Cement		Sqm	0.015	261.47	6.89	27.02					
	Sand		sqm	0.015	288.10	1.15	4.97					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.31.99						3.20					
	Add labour cess @ 1 % on Rs 35.19						0.35					
	Total-I						35.54		35.54			
II	Labour											
	Output	14	Sqm									
	(i) Mason 2nd class			Each	1	190.00	190.00					
	(ii) Mazdoor			Each	2	136.69	273.38					
	Add sundries charges @ 1 % ie. on Rs.463.38						4.63					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.468.01						100.62					
	Add labour cess @ 1 % on Rs 568.63						5.69					
	Labour	14	Sqm				574.32					
	Labour	1	Sqm				41.02		41.02			
	Total-I + II								76.56			76.56

23.46	Grouting masonry joints of floors including finishing:-	1	Sqm									
	(a) When stones are up to 23 cm square											
	Labour											
	Output	30	Sqm									
	(i) Mason 2nd class			Each	1	190.00	190.00					
	(ii) Mazdoor			Each	2	136.69	273.38					
	Add sundries charges @ 1 % ie. on Rs.463.38						4.63					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.468.01						100.62					
	Add labour cess @ 1 % on Rs 568.63						5.69					
	Labour	30	Sqm				574.32					
	Labour	1	Sqm				19.14		19.14			19.14
	(b) When stones are more than 23 cm square but under 45 cm square	1	Sqm									
	Labour											
	Output	93	Sqm									
	(i) Mason 2nd class			Each	2	190.00	380.00					
	(ii) Mazdoor			Each	4	136.69	546.76					
	Add sundries charges @ 1 % ie. on Rs.926.76						9.27					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.936.03						201.25					
	Add labour cess @ 1 % on Rs 1137.28						11.37					
	Labour	93	Sqm				1148.65					
	Labour	1	Sqm				12.35		12.35			12.35

Note:- The through rate of item No. 23.46 varies as per thickness of stone & richness of mix as per requirements.

23.47	Sand grouting stone apron with high pressure hose.			Sqm		L.S.			6.96			6.96

23.48	Weaving- Coir Rope netting for Coir rope crates including binding sides and partitions to make crate of 22.5 cm x 22.5 cm mesh. (min. weight per crate = 2.80 Kg) Size 8' x 4' x 3'	Unit	Sqm									
I	MATERIALS											
	Supply of coir rope			Kg	0.22	31.00	6.82					
	Add sundries charges @ 1 % ie. on Rs.6.82						0.07					
	Add for Contractor's profit and overhead charges @ 10 % i.e. on Rs.6.89						0.69					
	Add labour cess @ 1 % on Rs 7.58						0.08					
	Total-I						7.66		7.66			
	LABOUR											
	Taking Output	63.20	Sqm									
	(i) Cane man			Each	2	149.97	299.94					
	Add sundries charges @ 1 % ie. on Rs.299.94						3.00					
	Add for Contractor's profit and overhead charges @ 21.5 % i.e. on Rs.302.94						65.13					
	Add labour cess @ 1 % on Rs 368.07						3.68					
	Labour	63.20	Sqm				371.75					
	Labour	1	Sqm				5.88		5.88			5.88
	Total-I + II								13.54			13.54