

	<b>b) Machinery</b>					
	Tractor 3.6 tonne capacity	hour	0.72	492.00	354.24	
					536.46	
	c) Overhead charges & C.P@ 15%				80.47	
	Cost for 3.6 tonnes				616.93	
	Rate per tonnes				171.37	
				say	<b>171.40</b>	<b>Xb</b>
<b>4.4</b>	<b>Cost of Haulage Excluding Loading and Unloading</b>					
	Haulage of materials by tractor excluding cost of loading, unloading and stacking.					
	Unit = t.km or cum.km					
	Taking output ( 3.60 tonnes load and lead 10					
<b>4.4a</b>	<b>Surfaced Road</b>					
	Speed with load : 15 km / hour.					
	Speed while Returning empty :25 km / hour.					
	<b>a) Machinery</b>					
	Tractor 3.60 tonne capacity					
	Time taken for onward haulage with load	hour	0.667	492.00	328.16	
	Time taken for empty return trip.	hour	0.40	492.00	196.8	
					524.96	
	Overhead charges & C.P @ 15%				78.74	
	cost for 36 t.km				603.7	
	Rate per t.km				16.77	
				say	<b>16.80</b>	<b>Hsb</b>
<b>4.4b</b>	<b>Unsurfaced Graveled Road</b>					
	Speed with load: 12 km / hour					
	Speed for empty return trip : 20 km / hour					
	<b>a) Machinery</b>					
	Tractor 3.6 tonnes capacity					
	Time taken for onward haulage with load	hour	0.833	492.00	409.84	
	Time taken for empty return trip	hour	0.50	492.00	246	
	b) Overhead charges & C.P @15%				98.38	
	Cost for 36 t.km				754.22	
	Rate per t.Km				20.95	
				say	<b>21.00</b>	<b>Hub</b>
<b>4.4c</b>	<b>Katcha Track and Track in River Bed/Nallah Bed and choe Bed</b>					
	Speed with load :10 km / hour					
	Soeed while returning empty : 15 km / hour					
	<b>a) Machinery</b>					
	Tractor 3.6 tonnes capacity					
	Time taken for onward haulage	hour	1.00	492.00	492.00	
	Time taken for empty return trip	hour	0.667	492.00	328.16	
					820.16	
	b)Overhead charges & C.P.@ 15%				123.02	
	Cost for 36 t.km				943.18	
	Rate per t.Km				26.2	
				say	<b>26.20</b>	<b>Hkb</b>

**CARRIAGE OF MATERIALS (By TIPPER)**

No.	Description	Unit	Quantity	Rate	Cost	
4.1	<b>Loading and Unloading of Stone Boulder/ Stone aggregates/Sand /Kanker/Moorum</b>					
	Placing tipper at loading point, loading with front end loader, dumping,					
	Unit = cum					
	Taking output = 5.5 cum					
	Time required for					
	i) Positioning of tipper at loading point		1Min			
	ii) Loading by front end loader 1cum bucket capacity @ 25 cum per hour		13 Min			
	iii) Maneuvering, reversing, dumping and turning for return		2 Min			
	iv) Waiting time, unforeseen contingencies etc		4 Min			
	Total		20 Min			
	<b>a) Machinery</b>					
	Tipper 5.5 tonnes capacity	hour	0.33	957.00	315.81	P&M048
	Front end-loader 1cum bucket capacity @ 25 cum/hour	hour	0.33	1291.00	426.03	P&M017
					741.84	
	<b>b) Overhead charges &amp; C.P. @ 15%</b>				111.28	
	Cost for 5.5 cum				853.12	
	Rate per cum				155.11	
				say	<b>155.10</b>	
	Note:-Unloading will be by tipping.					
4.2	<b>Loading and Unloading of Stone Boulders by Manual means</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>a) Labour</b>					
	Mate	no.	0.11	266.00	29.26	
	Mazdoor for loading and unloading	no.	0.75	242.00	181.50	
	<b>b) Machinery</b>					
	Tipper 5.5 tonne capacity	hour	0.75	957.00	717.75	
					928.51	
	<b>c) Overhead charges &amp; C.P. @ 15%</b>				139.28	
	Cost for 5.5 cum				1067.79	
	Rate per cum = (a+b+c+d)/5.5				194.14	
				say	<b>194.10</b>	Xa
	Note:-Unloading will be by tipping.					
4.3	<b>Loading and Unloading of Cement or Steel by manual means and stacking.</b>					
	Unit = tonne					
	Taking output = 10 tonnes					
	<b>a) Labour</b>					
	Mate	no.	0.08	266.00	21.28	
	Mazdoor for loading and unloading	no.	2.00	242.00	484.00	
	<b>b) Machinery</b>					
	Truck 10 tonne capacity	hour	2.00	843.00	1686	P&M057
					2191.28	
	Overhead charges & C.P. @ 15%				328.69	
	Cost for 10 tonnes				2519.97	
	Rate per tonnes				252	
				say	<b>252.00</b>	Xb
4.4	<b>Cost of Haulage Excluding Loading and Unloading</b>					

Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
Unit = t.km					
Taking output ( for 10 tonnes or 5.5 cum load and lead 10 km)					
4.4a	<b>Surfaced Road</b>				
	Speed with load : 25 km / hour.				
	Speed while Returning empty :35 km / hour.				
	<b>a) Machinery</b>				
	Tipper 10 tonne capacity				
	Time taken for onward haulage with load	hour	0.40	957.00	382.8
	Time taken for empty return trip.	hour	0.29	957.00	277.53
					660.33
	Overhead charges &C.P @ 15%				99.05
	cost for 100 t.km or 55cum.km				759.38
	Rate per t.km				7.59
				say	7.60
	Rate per cum.km				13.81
				say	13.80
					<b>Hsb</b>
					<b>Has</b>
4.4b	<b>Unsurfaced Graveled Road</b>				
	Speed with load: 20 km / hour				
	Speed for empty return trip :30 km / hour				
	<b>a) Machinery</b>				
	Tipper 10 tonnes or 5.5 cum capacity				
	Time taken for onward haulage with load	hour	0.50	957.00	478.50
	Time taken for empty return trip	hour	0.33	957.00	315.81
					794.31
	Overhead charges &C.P @ 15%				119.15
	Cost for 100 t .km or 55cum.km				913.46
	Rate per t.Km				9.13
				say	9.10
	Rate per cum.km				16.61
				say	16.60
					<b>Hub</b>
					<b>Hua</b>
4.4c	<b>Katcha Track and Track in River Bed/Nallah Bed and choe Bed</b>				
	Speed with load :10 km / hour				
	Speed while returning empty: 15 km / hour				
	<b>a) Machinery</b>				
	Tipper 10 tonnes capacity				
	Time taken for onward haulage	hour	1.00	957.00	957.00
	Time taken for empty return trip	hour	0.67	957.00	641.19
					1598.19
	Overhead charges & C.P.@ 15%				239.73
	Cost for 100 t .km				1837.92
	Rate per t.Km				18.38
				say	18.40
	Rate per cum.km				33.42
				say	33.40
					<b>Hkb</b>
					<b>Hka</b>

CARRIAGE OF MATERIAL BY TIPPER OF 5.5 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P.

Sr.No	Name of Materials	Unit	Gross Tipper Capacity per trip	(For void) Multiplying Factor	Net Tipper capacity (Payable Qty) Per Trip	Cost of loading,Unloading & Stacking per Trip Of Tipper (Tipper capacity 5.5 cum Xa)	Cost Of Haulage Per cum 5.5 cum capacity (Tipper capacity 5.5cum XH)				Cost of Haulage per Tipper of 5.5 cum capacity (Tipper capacity 5.5cum XH)				Lead in KM			Per Unit Rate =(col17/Net Payable capacity)
							H <sub>sr</sub>	H <sub>ur</sub>	H <sub>hr</sub>	H <sub>hr</sub>	For Surface Road	For Unsurfaced graveled Road	For Hacha track & Track in river bed/ Mallah bed & Choe Bed	For Surface Road	For Unsurfaced graveled Road	For Hacha track & Track in river bed/ Mallah bed & Choe Bed	L <sub>1</sub>	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	Lime, Moorum, Rubbish	M <sup>3</sup>	6	1	6	55X <sub>a</sub>	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	
2	Earth	M <sup>3</sup>	6	0.8	4.8	1067.55	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	
3	Manur or Sludge	M <sup>3</sup>	6	0.92	5.52	1067.55	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	
4	Excavated Rock (120lbs)	M <sup>3</sup>	6	0.67	4.02	1067.55	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	
5	Stone metal (above 50)	M <sup>3</sup>	5.4	0.85	4.59	1067.55	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	
6	Boulder	M <sup>3</sup>	6	0.8	4.8	1067.55	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	
7	Stone chips / Sand /	M <sup>3</sup>	5.4	0.92	4.99	1067.55	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	
8	Soling stone	M <sup>3</sup>	5	0.85	4.25	1067.55	13.80	16.60	35.40	75.90	91.30	183.70	INPUT	INPUT	INPUT	#VALUE!	#VALUE!	

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**CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVERHEAD CHARGES & C.P.**

Sr.No	Names of Materials	Unit	4 Gross Tipper Capacity per trip	5 (For void) Multiplying Factor	6 Net Tipper capacity (Payable Qty) Per Trip	7 Cost of loading, Unloading & Stacking per Trip (Tipper capacity 8x Xb)	Cost Of Haulage Per cum				Cost of Haulage per Tipper of 8t capacity (8x H)				Lead in KM			17 Cost of carriage= [(8Hb.Ls+8Hhub.Lu+8Hkb.Lk)+8Xb]	18 Per Unit Rate = (cost/Net Payable capacity)
							8 H <sub>sb</sub> For Surface Road	9 H <sub>ub</sub> For Unsurfaced gravelled Road	10 H <sub>hb</sub> For Katcha track & Track in river bed/ Nallah bed & Choe Bed	11 8 <sub>Hsb</sub> For Surface Road	12 8 <sub>Hub</sub> For Unsurfaced gravelled Road	13 8 <sub>Hhb</sub> For Katcha track & Track in river bed/ Nallah bed & Choe Bed	14 L <sub>s</sub> For Surface Road	15 L <sub>u</sub> For Unsurfaced gravelled Road	16 L <sub>k</sub> For Hatcha track & Track in river bed/ Nallah bed & Choe Bed				
1	Cement, Steel, Stone CC pipe	M.T	8	1	8	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
2	Brick (93/4x43/4x23/4)	Per %	2000	1	2000	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
3	G.I. Crate (3x1.5x0.75)	Per %	80	1	80	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
4	Bitumen, Tar, Steam, Coal	MT	8	1	8	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
5	R.C.C hume, A.C. pipe	mtr	290	1	290	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	100 mm dia	mtr	200	1	200	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	125 mm dia	mtr	180	1	180	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	150 mm dia	mtr	100	1	100	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	200 mm dia	mtr	75	1	75	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	300 mm dia	mtr	60	1	60	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	350 mm dia	mtr	47.5	1	47.5	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	400 mm & 450 dia	mtr	32.5	1	32.5	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	500 mm & 600 mm dia	mtr	15	1	15	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		
	700 mm & 800 mm dia	mtr	12.5	1	12.5	2016.00	7.60	9.10	18.40	60.8	72.8	147.20	INPUT	INPUT	INPUT	#VALUE!	#VALUE!		

**CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVERHEAD CHARGES & C.P.**

Sr.No	Name of Materials	Unit	Gross Tipper Capacity per trip	(For void) Multiplying Factor	Net Tipper capacity (Payable Qty) Per Trip	Cost of loading, Unloading & Stacking per 8x5	Cost Of Haulage Per cum			Cost of Haulage per Tipper of 8t capacity (8x H)			Lead in Km			Cost of carriage = [(8Hsb.Ls+8Hhub.Lu+8Hkb.Lk)+8Xb]	Per Unit Rate = (col17/Net Payable capacity)
							H <sub>sp</sub>	H <sub>ub</sub>	H <sub>sb</sub>	For Surface Road	For Unsurfaced gravelled Road	For Katcha track & Track in river bed/ Nallah bed & Choe Bed	8H <sub>sp</sub>	8H <sub>ub</sub>	8H <sub>sb</sub>		
1	900mm & 1000 mm dia	mtr	10	1	10	2016.00	7.60	9.10	18.40	60.8	72.8	147.2	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	1100 & 1200 m dia	mtr	7.5	1	7.5	2016.00	7.60	9.10	18.40	60.8	72.8	147.2	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
6	Bamboo																
	75 mm to 100 mm dia	Per %	280	1	280	2016.00	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	50 mm to 75 mm dia	Per %	300	1	300	2016.00	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
7	E.C bag 30000 nos	Per %0	30000	1	30000	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
8	Timber	Cum	9.6	1	9.6	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
9	Sai Ballah av.6m length																
	100 mm dia	Nos	125	1	125	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	125 mm dia	Nos	80	1	80	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	150 mm dia	Nos	60	1	60	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	175 mm dia	Nos	45	1	45	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	200 mm dia	Nos	25	1	25	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	225 mm dia	Nos	20	1	20	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
10	S.W.Pipe 60 cm length																
	100 mm dia	Mtr	480	1	480	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	#VALUE!	#VALUE!

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**CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVERHEAD CHARGES & C.P.**

Sr.No	Name of Materials	Unit	4	5	6	7	Cost Of Haulage Per cum				Cost of Haulage per Tipper of 8t capacity (8x H)				Lead in Km			17	18
							8	9	10	11	12	13	14	15	16	17	18		
			Gross Tipper Capacity per trip	(For void) Multiplying Factor	Net Tipper capacity (Payable Qtyntly) Per Trip	8x <sub>b</sub> Cost of loading,Unloading & Stacking per Trip Of Tipper (Tipper capacity 8t x Xb)	H <sub>up</sub> For Surface Road	H <sub>up</sub> For Unsurfaced graveled Road	H <sub>up</sub> For Katcha track & Track in river bed/ Nallah bed & Choe Bed	8H <sub>up</sub> For Surface Road	8H <sub>up</sub> For Unsurfaced graveled Road	8H <sub>up</sub> For Katcha track & Track in river bed/ Nallah bed & Choe Bed	L <sub>1</sub> For Surface Road	L <sub>1</sub> For Unsurfaced graveled Road	L <sub>k</sub> For Hatcha track & Track in river bed/ Nallah bed & Choe Bed	Cost of carriage = [(8Hsb.Ls+8Hsub.Lu+8Hkb.Lk)+8Xb]	Per Unit Rate =(col17/Net Payable capacity)		
1	150 mm dia	Mtr	240	1	240	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	200 mm dia	Mtr	135	1	135	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	230 mm dia	Mtr	105.6	1	105	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	250 mm dia	Mtr	84	1	84	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	300 mm dia	Mtr	67.2	1	67.2	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	350 mm dia	Mtr	48	1	48	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	400 mm dia	Mtr	33.6	1	33.6	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	450 mm dia	Mtr	26.4	1	26.4	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	500 mm dia	Mtr	24	1	24	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	600 mm dia	Mtr	19.2	1	19.2	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
11	Tiles (Manglore / Mosaic )	Per %	3200	1	3200	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
12	Brick Tiles(300x150x50mm)	Per %	1760	1	1760	2016	0.00	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
13	Steel and C/J pipe																		
	100 mm dia	Mtr	292.8	1	292.8	2016	0.30	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	125 mm dia	Mtr	219.6	1	219.6	2016	0.30	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	150 mm dia	Mtr	183	1	183	2016	0.30	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	
	200 mm dia	Mtr	109.8	1	109.8	2016	0.30	0.00	0.00	0	0	0	INPUT	INPUT	INPUT	INPUT	INPUT	INPUT	

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**CHAPTER ---V****CANAL EMBANKMENT AND STRUCTURE****5.1 EARTH WORK**

Sr.No	Items	Rate	Unit
5.1.1	Preparation of seat of embankment or canals by 75 mm ploughing and removing the grass roots etc.as per specifications and direction of E/I.	3.8	Per M <sup>2</sup>
5.1.2	Preparation of borrow areas of embankment or canals by removing the grass and the jungle, bushes from the top including weeding out shrubs including roots and leveling all complete as per specifications and direction of E/I.	2.30	Per M <sup>2</sup>
5.1.3	Jungle clearance and weeding out shrubs including small tree up to 0.50 M girth and removal as per specifications and direction of E/I.	6.8	Per M <sup>2</sup>
5.1.4	Cutting of trees along with branches and their removal away from the work site and stacking the same as per specifications and direction of E/I. (Measurement of girth at a height of one meter above the ground level )		
	(a) Girth above 0.50 meter but up to 0.75 meter	226.20	Each
	(b) Girth above 0.75 meter but up to 1.50 meter	452.40	Each
	(c) Girth above 1.5 meter but upto2.50 meter	819.10	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	1326.40	Each
	(e) Girth above 4.00 meter	1919.40	Each
5.1.5	Uprooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.		
	(a) Girth above 0.50 meter but up to 0.75 meter	140.50	Each
	(b) Girth above 0.75 meter but up to 1.50 meter	140.50	Each
	(c) Girth above 1.5 meter but upto2.50 meter	187.40	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	281.10	Each
	(e) Girth above 4.00 meter	351.40	Each
5.1.6	Earth work in excavation of canals and dhars caring minimum full supply discharge above 28 cumecs (1000 cusecs ) in ordinary soil (vide classification of soil item -A ) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.	141.30	Per M <sup>3</sup>
5.1.7	Earth work in excavation of canals and dhars caring minimum full supply discharge between28 cumecs (1000 cusecs ) and 8.5 cumecs (300 cusecs ) in ordinary soil (vide classification of soil item A ) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.	117.20	Per M <sup>3</sup>
5.1.8	Earth work in excavation of canals and dhars caring minimum full supply discharge between 8.5 cumecs (300 cusecs ) and 0.14 cumecs (5 cusecs ) in ordinary soil (vide classification of soil item A ) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.	112.20	Per M <sup>3</sup>
5.1.9	Earth work in filling for the maintenance of canals having minimum full supply discharge up to 28 cumecs (1000 cusecs ) and flood embankment in ordinary soil (vide classification of soil item A ) including clod breaking having earth in 225 mm layers and rough dressing of soil with all leads and lift all complete as per specifications and direction of E/I.	112.20	Per M <sup>3</sup>

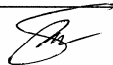


5.1.10	Extra for earth work in hard soil (vide classification of soil item B ) all complete as per specifications and direction of E/I.	19.90	Per M <sup>3</sup>
5.1.11	Extra for earth work in marshy, slushy and daldal soil (vide classification of soil item F ) all complete as per specifications and direction of E/I.	29.80	Per M <sup>3</sup>
5.1.12.1	Earth work in excavation in soft rock or ordinary rock ( vide classification of soil item C)with initial lead of 10 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )	560.80	Per M <sup>3</sup>
5.1.12.2	Earth work in excavation in soft rock or ordinary rock ( where blasting is not required ) ( vide classification of soil item C )with initial lead of 10M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	340.50	Per M <sup>3</sup>
5.1.13.1	Earth work in excavation in soft rock or ordinary rock ( vide classification of soil item C)with initial lead of 300M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )	574.90	Per M <sup>3</sup>
5.1.13.2	Earth work in excavation in soft rock or ordinary rock ( where blasting is not required ) ( vide classification of soil item C )with initial lead of 30M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	354.50	Per M <sup>3</sup>
5.1.14	Earth work in excavation in hard rock ( vide classification of soil item D ) where blasting is needed with initial lead of 10 mtr and lift of 1.5 mtr including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	907.40	Per M <sup>3</sup>
5.1.15	Earth work in excavation in hard rock ( vide classification of soil item D ) where blasting is needed with initial lead of 30 M and lift of 1.5 M including dressing , making the sides in proper profile and dressing the bed in proper grade as well as fine dressing of side and slopes etc. all complete as per specifications and direction of E/I.	921.50	Per M <sup>3</sup>
5.1.16	Earth work in excavation of water course in ordinary soil with all lead and lift including clod breaking ,rough dressing all complete as per specifications and direction of E/I.	112.20	Per M <sup>3</sup>
5.1.17	Earth work in maintenance of canals having discharge less than 28 cumecs ( 1000 cusecs ) in ordinary soil (vide classification of soil item A ) including clod breaking and rough dressing of soil with all leads and lift all complete as per specifications and direction of E/I.	112.20	Per M <sup>3</sup>
5.1.18	Earth work in bed clearance or desilting of canals caring full supply discharge of 28 cumecs (1000 cusecs ) or more in dead courses of river etc, in ordinary soil and removing the excavated earth in proper profile in spoils etc.with an initial lead of 30 mtr and lift of 1.5M all complete as per specifications and direction of E/I.	114.10	Per M <sup>3</sup>
5.1.19	Earth work in bed clearance or desilting of canals having full supply discharge between of 28 cumecs (1000 cusecs) and 8.5cumecs (300 Cusecs ) including rough dressing with all lead and lift all complete as per specifications and direction of E/I.	112.20	Per M <sup>3</sup>
5.1.20	Earth work in bed clearance or desilting of canals having full supply discharge between 8.5 cumecs (300 cusecs ) and 0.14cumecs (5 Cusecs ) and renovation of pynes etc. in ordinary soil and disposal of excavated earth etc.including rough dressing with all lead and lift all complete as per specifications and direction of E/I.	112.20	Per M <sup>3</sup>

5.1.21	Earth work in leap cutting in side slopes and bed of canal in ordinary soil with initial lead of 30 M and lift of 1.5 M including the cost of formation of sub grade of canal lining profiling, leveling ,controlling of slopes and fine dressing ,disposal of excavated earth and nominal dewatering if any all complete as per approved design , specifications and direction of E/I.	113.30	Per M <sup>3</sup>
5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.	9.90	Per M <sup>3</sup>
5.1.23	Earth work in excavation of filling of E.R.P.set channels, tube well channels (lined or unlined ) in ordinary soil with all lead and lift including clod breaking dressing of sides of banks etc. all complete as per specifications and direction of E/I.	112.20	Per M <sup>3</sup>
5.1.24	Earth work in filling in flood embankment ,canal banks (canals discharge above 28 cumecs)as well as special repairs of embankment and canal banks in ordinary soil in proper profile (vide classification of soil item A) obtained from borrow area or any other source free from logs, roots or any other ingredients etc. with initial lead of 30 M and initial lift of 1.5 M including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225 mm, thick all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth )	126.60	Per M <sup>3</sup>
5.1.25	Earth work in filling in canal banks (canals discharge up to 28 cumecs)as well as special repairs of canal banks in ordinary soil in proper profile (vide classification of soil item A ) obtained from borrow area or any other source free from logs, roots or any other ingredients etc. with initial lead of 30 M and initial lift of 1.5 M including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225mm, thick all complete as per specifications and direction of E/I. ( mode of measurement-sectional measurement of compacted earth )	117.20	Per M <sup>3</sup>
5.1.26	Deleted		
5.1.27	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A ) and disposal of excavated earth so obtained to a distance up to 50 mtr and average lift of 1.5 M including leveling , ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	112.60	Per M <sup>3</sup>
5.1.28	Earth work in excavation of foundation trenches in soft rock or ordinary rock ( vide classification of soil item C )with initial lead of 300M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )	574.90	Per M <sup>3</sup>
5.1.29	Earth work in excavation of foundation trenches in proper section in hard rock (vide classification of soil item D ) ( non- blasting zone ) with chisel and hammer with. disposal of excavated rock to a distance up to 30 M lifts of 1.5 M in proper stack including leveling, dressing of foundation trenches all complete as per specifications and direction of E/I.	404.20	Per M <sup>3</sup>
5.1.30	Earth work in excavation of foundation trenches in hard rock ( vide classification of soil item D ) in proper section by blasting disposal of excavated rock in proper stack sat places beyond working site with initial lead of 30 mtr and lift of 1.5M including leveling, dressing of foundation trenches all complete as per specifications and direction of E/I.	921.50	Per M <sup>3</sup>
5.1.31	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.	86.10	Per M <sup>3</sup>

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5.1.32	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with semi -pervious or suitable earth obtained after cutting of borrow pits within a lead of 30 M and lift of 1.5 M complete job as per specifications and direction of E/I.	96.00	Per M <sup>3</sup>
5.1.33.1	Extra for earth work for ordinary or hard soil ( vide classification of soil item-A and B ) in each additional lead up to 25 M beyond the initial lead of 30 M as per specifications and direction of E/I.	9.90	Per M <sup>3</sup>
5.1.33.2	Extra for earth work for ordinary or hard soil ( vide classification of soil item-C and D ) in each additional lead up to 25 M beyond the initial lead of 30 M as per specifications and direction of E/I.	14.90	Per M <sup>3</sup>
5.1.34.1	Extra for earth work for ordinary or hard soil( vide classification of soil item-A and B) of each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.	9.90	Per M <sup>3</sup>
5.1.34.2	Extra for earth work for ordinary soft or hard rock( vide classification of soil item-C and D ) of each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.	14.90	Per M <sup>3</sup>
5.1.35	Deleted		
5.1.36	Trimming and fine dressing the side slopes of canal ( of preparation of soil of lining for precast P.C.C. slab ) to proper section and profile and disposal of spoil at a suitable place complete job as per specifications and direction of E/I.	19.90	Per % M <sup>3</sup>
5.1.37	Providing coarse clean local sand in filling in foundation trenches including ramming, watering ,royalty and all other taxes complete job as per specifications and direction of E/I.	241.90	Per M <sup>3</sup>
5.1.38	Watering and consolidation of earth laid in 150 mm to 225 mm layers by manual labour with C.I hammer to achieve minimum 85 % of dry density including supply of water and necessary tools and plants with all leads and lifts all complete as per specifications and direction of E/I.	60.30	Per M <sup>3</sup>
5.1.39	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by sheep foot roller driven by tractor to achieve minimum 95 % of dry density including sprinkling the required quantity of water, making arrangement for supply and carriage of water with all leads and lifts, finishing the surfaces as per plan and drawing including hire charge of compaction, machine and other tools and plants etc. for lined canal all complete as per specifications and direction of E/I. ( mode of measurement-sectional measurement of compacted earth )	#VALUE!	Per M <sup>3</sup>
5.1.40	Close timbering in trenches including strutting, shoring and packing cavities(wherever required)depth not exceeding 1.5 M, complete as per specifications and direction of E/I ( measurement to be taken of the face area timbered ).	135.10	Per M <sup>2</sup>
5.1.41	Close timbering in trenches including strutting, shoring and packing cavities(wherever required)depth not exceeding 1.5 M, but up to 3.0 M complete as per specifications and direction of E/I. ( measurement to be taken of the face area timbered ).	139.20	Per M <sup>2</sup>
5.1.42.1	Fine dressing of the canals banks or embankment and turfing with 75 mm thick grass sod obtained within a lead of 150 mtr including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.	1988.50	Per % M <sup>2</sup>
5.1.42.2	Extra for each lead of 150 mtr over initial lead of 150 mtr including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.	421.60	Per % M <sup>2</sup>
5.1.43	Jungle clearance in borrow area, building premises; flanks, slope of existing road and canal etc,embankment by removing the jungle , bushes from top including weeding out shrubs including roots and leveling complete job as per specifications and direction of E/I.	2.30	Per M <sup>2</sup>

5.1.44	Earth work by tractor ( Rajashani) with bucket (Doli) with spreader ( Tractor leveler or Tractor Dozer) in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers and construction & removal of dhalas properly with lead of .... meter (lead will be considered as perpendicular distance from C.G. of Pit to C.G. of banks or embankment ) and with all lifts all complete as per specifications and direction of E/l. ( mode of measurement-sectional measurement of compacted earth )(Lead should be taken C.G to C.G. perpendicular to the bank Maximum Lead Upto - 150 mtr. Note:- Track Path may not be taken as lead )		
5.1.44.1	For C.G to C.G Lead 15 M	84.60	Per M <sup>3</sup>
5.1.44.2	For C.G To C.G Lead 30 M	93.80	Per M <sup>3</sup>
5.44.3.	For C.G to C.G Lead 55 M	105.50	Per M <sup>3</sup>
5.44.4	For C.G to C.G Lead 80 M	114.90	Per M <sup>3</sup>
5.44.5	For C.G to C.G Lead 100 M	120.90	Per M <sup>3</sup>
	<b>NOTE :- Add Royalty of Earth Rs 22.00 Where needed without overhead charge &amp; C.P</b>		
5.1.45	Deleted		
5.1.46	Earth work by Mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers properly with lead of ..... meter (lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of haulage path from pit to bank or embankment. Pit will be beyond 150 meter from centre of bank i.e. perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 meter) and with all lifts all complete job as per specifications and direction of E/l. ( mode of measurement-sectional measurement of compacted earth )		
5.1.46.1	Beyond 150M but upto 1/2 K.M	132.30	Per M <sup>3</sup>
5.1.46.2	Beyond 1/2 K.M but upto 1 K.M	161.20	Per M <sup>3</sup>
5.1.46.3	Beyond 1.00 K.M but upto 1.50 K.M	195.10	Per M <sup>3</sup>
5.1.46.4	Beyond 1.50 K.M but upto 2.00K.M	229.20	Per M <sup>3</sup>
5.1.46.5	Beyond 2.0 K.M but upto 2.50 K.M	263.10	Per M <sup>3</sup>
5.1.46.6	Beyond 2.50 K.M but upto 3.00 K.M	297.00	Per M <sup>3</sup>
	<b>NOTE :- Add Royalty of Earth Rs 22.00 Where needed without overhead charge &amp; C.P</b>		
5.1.47	Earth work by excavator and spreader or tractor- leveler in lower level canal or flood embankment or dhar ( Like, Minor, Sub -minor, Jamindari bundh, Pynes etc where tipper is not needed ) all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers properly with lead below 15 meter and with. all lifts all complete job as per specifications and direction of E/l. ( mode of measurement-sectional measurement of compacted earth ) <b>NOTE :- Add Royalty of Earth Rs 22.00 Where needed without overhead charge &amp; C.P</b>	56.80	Per M <sup>3</sup>

**CHAPTER ---V****CANAL EMBANKMENT AND STRUCTURE****5.1 EARTH WORK**

S.No.	Description	Quantity	Unit	Rate	Amount	Ref
5.1.1	Preparation of seat of embankment or canals by 75 mm ploughing and removing the grass roots etc.as per specifications and direction of E/I.					
	Unit :- Per Sqm.					
	Taking Out put:- 92.94 Sqm					
	Unskilled mazdoor for leveling and ploughing	0.50	nos	242.00	121.00	
	Unskilled mazdoor for removing grass roots and leveling	0.75	nos	242.00	181.50	
					302.50	
	Add Overhead charge & C.P @ 15%				45.38	
					347.88	
	Add cess @ 1%				3.48	
					351.35	
	Rate per Sqm.				3.78	
				say, Rs	3.80	Per M <sup>2</sup>
5.1.2	Preparation of borrow areas of embankment or canals by removing the grass and the jungle, bushes from the top including weeding out shrubs including roots and leveling all complete as per specifications and direction of E/I.					
	Unit :- Per Sqm.					
	Taking Out put:-92.94 Sqm					
	Unskilled mazdoor for leveling and ploughing	0.75	nos	242.00	181.50	
	Add Overhead charge & C.P @ 15%				27.23	
					208.73	
	Add cess @ 1%				2.09	
					210.81	
	Rate per Sqm			Rs	2.27	
				say, Rs.	2.30	Per M <sup>2</sup>
5.1.3	Jungle clearance and weeding out shrubs including small tree up to 0.50M girth and removal as per specifications and direction of E/I.					
	Unit :- Per Sqm					
	Taking Out put:- 92.94 Sqm					
	Unskilled mazdoor for cutting shrubs and trees	1.50	nos	242.00	363.00	
	Unskilled mazdoor for collecting and removing shrubs, weeds and trees.	0.75	nos	242.00	181.50	
					544.50	
	Add Overhead charge & C.P @ 15%				81.68	
					626.18	
	Add cess @ 1%				6.26	
					632.44	
	Rate per Sqm				6.8	
				say, Rs	6.80	Per M <sup>2</sup>

5.1.4	Cutting of trees along with branches and their removal away from the work site and stacking the same as per specifications and direction of E/I. (Measurement of girth at a height of one metre above the ground level )					
	Unit :- Each					
	<b>(a) Girth above 0.50 metre but up to 0.75 metre</b>					
	Carpenter Gr II	0.25	nos	295.00	73.75	
	Unskilled mazdoor	0.50	nos	242.00	121.00	
					194.75	
	Add Overhead charge & C.P@ 15%				29.21	
					223.96	
	Add cess @1%				2.24	
					226.20	
	Rate for each			say,Rs	<b>226.20</b>	Each
	<b>(b) Girth above 0.75 metre but up to 1.50 metre</b>					
	Carpenter Gr II	0.50	nos	295.00	147.50	
	Unskilled mazdoor	1	nos	242.00	242.00	
					389.50	
	Add Overhead charge & C.P@15%				58.43	
					447.93	
	Add cess @1%				4.48	
					452.40	
	Rate for each			say,Rs	<b>452.40</b>	
	<b>(c) Girth above 1.5 metre but up to 2.50 metre</b>					
	Carpenter Gr II	0.75	nos	295.00	221.25	
	Unskilled mazdoor	2	nos	242.00	484.00	
					705.25	
	Add Overhead charge & C.P@ 15%				105.79	
					811.04	
	Add cess @1%				8.11	
					819.15	
	Rate for each			say,Rs	<b>819.10</b>	Each
	<b>(d) Girth above 2.50 metre but up to 4.00 metre</b>					
	Carpenter Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	3.50	nos	242.00	847.00	
					1142.00	
	Add Overhead charge & C.P@15%				171.30	
					1313.30	
	Add cess @ 1%				13.13	
					1326.43	
	Rate for each			say,Rs	<b>1326.40</b>	each
	<b>(e) Girth above 4.00 metre</b>					
	Carpenter Gr II	1.50	nos	295.00	442.50	
	Unskilled mazdoor	5	nos	242.00	1210.00	
					1652.50	
	Add Overhead charge & C.P@15%				247.88	
					1900.38	
	Add cess@1%				19.00	
					1919.38	
	Rate for each			say,Rs	<b>1919.40</b>	Each
5.1.5	Up rooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.					
	Unit :- Each					
	<b>(a) Girth above 0.50 metre but up to 0.75 metre</b>					

	Unskilled mazdoor	0.50	nos	242.00	121.00	
					121.00	
	Add Overhead charge & C.P@15%				18.15	
					139.15	
	Add cess @1%				1.39	
					140.54	
				say,Rs	140.50	each
	<b>(b) Girth above 0.75 metre but up to 1.50 metre</b>					
	Unskilled mazdoor	0.50	nos	242.00	121.00	
					121.00	
	Add Overhead charge & C.P@15%				18.15	
					139.15	
	Add cess @1%				1.39	
					140.54	
				say,Rs	140.50	Each
	<b>(c) Girth above 1.5 metre but upto 2.50 metre</b>					
	Unskilled mazdoor	0.67	nos	242.00	161.33	
					161.33	
	Add Overhead charge & C.P@15%				24.20	
					185.53	
	Add cess@1%				1.86	
					187.39	
				say,Rs	187.40	Each
	<b>(d) Girth above 2.50 metre but up to 4.00 metre</b>					
	Unskilled mazdoor	1	nos	242.00	242.00	
					242.00	
	Add Overhead charge & C.P @15%				36.30	
					278.30	
	Add cess @1%				2.78	
					281.08	
				say, Rs	281.10	each
	<b>(e) Girth above 4.00 metre</b>					
	Unskilled mazdoor	1.25	nos	242.00	302.50	
					302.50	
	Add Overhead charge & C.P*15%				45.38	
					347.88	
	Add cess @1%				3.48	
					351.35	
				say,Rs	351.40	Each
5.1.6	Earth work in excavation of canals and dhars carrying minimum full supply discharge above 28 cumecs (1000 cusecs) in ordinary soil (vide classification of soil item A) and making the banks with excavated earth in proper profile, clod breaking and laying earth in 225 mm layers with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting	5	nos	242.00	1210.00	
	Unskilled mazdoor for carrying	6	nos	242.00	1452.00	
	Unskilled mazdoor for clod breaking	0.75	nos	242.00	181.50	
	Mate	0.25	nos	266.00	66.50	
					2910.00	
	Add Overhead charge & C.P @15%				436.50	
					3346.50	
	Add cess @1%				33.47	
					3379.97	119.35
	Add Royalty on Earth					22.00
	Rate Per Cum					141.35
				say,Rs	141.30	Per M <sup>3</sup>

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5.1.7	Earth work in excavation of canals and dhars carrying minimum full supply discharge between 28 cumecs (1000 cusecs ) and 8.5 cumecs (300 cusecs ) in ordinary soil (vide classification of soil item A ) and making the banks with excavated earth in proper profile , clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 15M and lift of 1.5 M all complete as per specifications and direction of E/I.					
<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
Unit :- Per Cum						
Taking Out put =28.32 Cum						
Unskilled mazdoor for cutting, carrying	9.09	nos	242.00	2199.78		
28.32 M <sup>3</sup>	0.5	nos	242.00	121.00		
				2320.78		
Add Overhead charge & C.P @15%				348.12		
				2668.90		
Add cess 1%				26.69		
				2695.59	95.18	
Add Royalty on Earth					22.00	
Rate per Cum					117.18	
				say, Rs	117.20	Per M <sup>3</sup>
5.1.8	Earth work in excavation of canals and dhars carrying minimum full supply discharge between 8.5 cumecs (300 cusecs ) and 0.14 cumecs (5 cusecs ) in ordinary soil (vide classification of soil item A ) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 10 M and lift of 1.5 M all complete as per specifications and direction of E/I.					
<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
Unit :- Per Cum						
Taking Out put = 28.32 Cum						
Unskilled mazdoor for cutting, carrying	9.09	nos	242.00	2199.78		
				2199.78		
Add Overhead charge & C.P@15%				329.97		
				2529.75		
Add cess@1%				25.30		
				2555.04	90.22	
Add Royalty on Earth					22.00	
Rate per Cum					112.22	
				say, Rs	112.20	Per M <sup>3</sup>
5.1.9	Earth work in filling for the maintenance of canals having minimum full supply discharge up to 28 cumecs (1000 cusecs ) and flood embankment in ordinary soil (vide classification of soil item A ) including clod breaking having earth in 225 mm layers and rough dressing of soil with all leads and lift all complete as per specifications and direction of E/I.					
<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
Unit :- Per Cum						
Taking Out put =28.32 Cum						

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	Unskilled mazdoor for cutting, carrying	9.09	nos	242.00	2199.78	
	Add Overhead charge & C.P @15%				2199.78	
					329.97	
					2529.75	
	Add cess @ 1%				25.30	
					2555.04	90.22
	Add Royalty on Earth					22.00
	Rate per Cum					112.22
				say,Rs	<b>112.20</b>	Per M <sup>3</sup>
5.1.10	Extra for earth work in hard soil (vide classification of soil item B ) all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting	2	nos	242.00	484.00	
					484.00	
	Add Overhead charge & C.P @15%				72.60	
					556.60	
	Add cess @1%				5.57	
	Rate Per Cum				562.17	19.85
				say,Rs	<b>19.90</b>	Per M <sup>3</sup>
5.1.11	Extra for earth work in marshy, slushy and daldal soil (vide classification of soil item F) all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put=28.32 Cum	28.32	Cum			
	Unskilled mazdoor for cutting	1.5	nos	242.00	363.00	
	Unskilled mazdoor for carrying	1.5	nos	242.00	363.00	
					726.00	
	Add Overhead charge & C.P @15%				108.90	
					834.90	
	Add cess @1%				8.35	
					843.25	29.78
	Rate Per Cum			say,Rs	<b>29.80</b>	Per M <sup>3</sup>
5.1.12.1	Earth work in excavation in soft rock or ordinary rock ( vide classification of soil item C )with initial lead of 10 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.(Soft rock where blasting is required and approved by concerned Chief Engineer )					
	Unit :- per Cum					
	Taking Out put =10 cum					
	<b>Labour</b>					
	Hammer man	2.75	nos	258.00	709.50	
	Unskilled mazdoor for all work	6.50	nos	242.00	1573.00	
	Mason Gr I	0.33	nos	330.00	108.90	
	Blaster	0.33	nos	408.00	134.64	
	<b>Materials</b>					
	Blasting material including excise, GST, carriage from Gomia to work site, storage etc.					

	Special Gelatin	2.00	Kg	1099.00	2198.00	M-104
	Detonator	10	nos	7.40	73.99	M-094
	Fuse coil	1	nos	15.61	15.61	sr.326
	<b>Tools and Plants</b>					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					4828.64	
	Add Overhead charge & C.P@15%				724.30	
					5552.94	
	Add cess @1%				55.53	
					5608.47	560.85
	Rate per Cum			say, Rs	560.80	
5.1.12.2	Earth work in excavation in soft rock or ordinary rock ( where blasting is not required ) ( vide classification of soil item C ) with initial lead of 10 M and lift of 1.5M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =10 Cum					
	<b>Labour</b>					
	Hammer man	2.75	nos	258.00	709.50	
	Unskilled mazdoor for all work	8.50	nos	242.00	2057.00	
	Mason Gr I	0.50	nos	330.00	165.00	
					2931.50	
	Add Overhead charge & C.P @15%				439.73	
					3371.23	
	Add cess @1%				33.71	
					3404.94	340.49
	Say	Rs		340.50	Per M <sup>3</sup>	
5.1.13.1	Earth work in excavation in soft rock or ordinary rock ( vide classification of soil item C )with initial lead of 300 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer )					
	Unit :- Per Cum					
	Taking Out put= 10 Cum					
	<b>Labour</b>					
	Hammer man	2.75	nos	258.00	709.50	
	Unskilled mazdoor for all work	7.00	nos	242.00	1694.00	
	Mason Gr I	0.33	nos	330.00	108.90	
	Blaster	0.33	nos	408.00	134.64	
	<b>Materials</b>					
	Blasting material including excise, GST, carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	1099.00	2198.00	M-104
	Detonator	10	nos	7.40	73.99	M-094
	Fuse coil	1	nos	15.61	15.61	Sr.326
	<b>Tools and Plants</b>					

	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					4949.64	
	Add Overhead charge & C.P @15%				742.45	
					5692.09	
	Add cess @1%				56.92	
					5749.01	574.90
		Say	Rs	574.90	Per M <sup>3</sup>	
5.1.13.2	Earth work in excavation in soft rock or ordinary rock ( where blasting is not required ) ( vide classification of soil item C )with initial lead of 30M and lift of 1.5M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =10 Cum					
	<b>Labour</b>					
	Hammer man	2.75	nos	258.00	709.50	
	Unskilled mazdoor for all work	9.00	nos	242.00	2178.00	
	Mason Gr I	0.50	nos	330.00	165.00	
					3052.50	
	Add Overhead charge & C.P@15%				457.88	
					3510.38	
	Add cess@1%				35.10	
					3545.48	354.55
		Say	Rs	354.50	Per M <sup>3</sup>	
5.1.14	Earth work in excavation in hard rock ( vide classification of soil item D ) where blasting is needed with initial lead of 10 M and lift of 1.5M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =10Cum					
	<b>Labour</b>					
	Hammer man	10.50	nos	258.00	2709.00	
	Unskilled mazdoor for all work	10.00	nos	242.00	2420.00	
	Mason Gr I	0.33	nos	330.00	108.90	
	Blaster	0.67	nos	408.00	272.00	
	<b>Materials</b>					
	Blasting material including excise, GST, carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	1099.00	2198.00	
	Detonator	10	nos	7.40	73.99	
	Fuse coil	1	nos	15.61	15.61	
	<b>Tools and Plants</b>					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					7812.50	
	Add Overhead charge & C.P@15%				1171.88	
					8984.38	

	Add cess @1%				89.84	
					9074.22	907.42
		Say	Rs	907.40	Per M <sup>3</sup>	
5.1.15	Earth work in excavation in hard rock ( vide classification of soil item D ) where blasting is needed with initial lead of 30 M and lift of 1.5M including dressing , making the sides in proper profile and dressing the bed in proper grade as well as fine dressing of side and slopes etc. all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =10 Cum					
	<b>Labour</b>					
	Hammer man	10.50	nos	258.00	2709.00	
	Unskilled mazdoor for all work	10.50	nos	242.00	2541.00	
	Mason Gr I	0.33	nos	330.00	108.90	
	Blaster	0.67	nos	408.00	272.00	
	<b>Materials</b>					
	<b>Blasting material including excise, GST, carriage from Gomia to work site, storage etc.</b>					
	Special Gelatin	2.00	Kg	1099.00	2198.00	
	Detonator	10	nos	7.40	73.99	
	Fuse coil	1	nos	15.61	15.61	
	<b>Tools and Plants</b>					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					7933.50	
	Add Overhead charge & C.P @15%				1190.03	
					9123.53	
	Add cess @1%				91.24	
					9214.76	921.48
		Say	Rs	921.50	Per M <sup>3</sup>	
5.1.16	Earth work in excavation of water course in ordinary soil with all lead and lift including clod breaking ,rough dressing all complete as per specifications and direction of E/I.					
	<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	242.00	2199.78	
					2199.78	
	Add Overhead charge & C.P @15%				329.97	
					2529.75	
	Add cess @1%				25.30	
					2555.04	90.22
	Add Royalty on Earth					22.00
						112.22
		Say	Rs	112.20	Per M <sup>3</sup>	

5.1.17	Earth work in maintenance of canals having discharge less than 28 cumecs (1000 cusecs ) in ordinary soil (vide classification of soil item A ) including clod breaking and rough dressing of soil with all leads and lift all complete as per specifications and direction of E/I.					
<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
Unit :- Per Cum						
Taking Out put = 28.32 Cum						
	Unskilled mazdoor for cutting, carrying	9.09	nos	242.00	2199.78	
					2199.78	
	Add Overhead charge & C.P @15%				329.97	
					2529.75	
	Add cess@1%				25.30	
					2555.04	90.22
	Add Royalty on Earth					22.00
						112.22
		Say	Rs	112.20	Per M <sup>3</sup>	
5.1.18	Earth work in bed clearance or desilting of canals carrying full supply discharge of 28 cumecs (1000 cusecs ) or more in dead courses of river etc, in ordinary soil and removing the excavated earth in proper profile in spoils etc.with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.					
Unit :-Per Cum						
Taking Out put =28.32 Cum						
	Unskilled mazdoor for cutting	5	nos	242.00	1210.00	
	Unskilled mazdoor for carrying	4	nos	242.00	968.00	
	Mate	0.25	nos	266.00	66.50	
					2244.50	
	Add Overhead charge & C.P @15%				336.68	
					2581.18	
	Add cess@1%				25.81	
					2606.99	92.05
	Add Royalty on Earth					22.00
						114.05
		Say	Rs	114.10	Per M <sup>3</sup>	
5.1.19	Earth work in bed clearance or desilting of canals having full supply discharge between of 28 cumecs (1000 cusecs ) and 8.5cumecs (300 Cusecs ) including rough dressing .with all lead and lift all complete as per specifications and direction of E/I.					
<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
Unit :- Per Cum						
Taking Out put=28.32 Cum						
	Unskilled mazdoor for cutting, carrying	9.09	nos	242.00	2199.78	
					2199.78	
	Add Overhead charge & C.P @15%				329.97	
					2529.75	
	Add cess @1%				25.30	
					2555.04	90.22

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	Add Royalty on Earth					22.00	
		Say	Rs	112.20	Per M <sup>3</sup>	112.22	
5.1.20	Earth work in bed clearance or desilting of canals having full supply discharge between 8.5 cumecs (300 cusecs ) and 0.14cumecs (5 Cusecs ) and renovation of pynes etc. in ordinary soil and disposal of excavated earth etc.including rough dressing .with all lead and lift all complete as per specifications and direction of E/I.						
	<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
	Unit :-Per Cum						
	Taking Out put=28.32 Cum						
	Unskilled mazdoor for cutting, carrying	9.09	nos	242.00		2199.78	
						2199.78	
	Add Overhead charge & C.P@15%					329.97	
						2529.75	
	Add cess@1%					25.30	
						2555.04	90.22
	Add Royalty on Earth						22.00
							112.22
		Say	Rs	112.20	Per M <sup>3</sup>		
5.1.21	Earth work in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30 M and lift of 1.5 M including the cost of formation of sub grade of canal lining,profiling, leveling,controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete as per approved design , specifications and direction of E/I.						
	Unit :-Per Cum						
	Taking Out put=28.32 Cum						
	Unskilled mazdoor for cutting	4	nos	242.00		968.00	
	Unskilled mazdoor for carrying	4	nos	242.00		968.00	
	Unskilled mazdoor for controlling slope and fine	2	nos	242.00		484.00	
	Skilled mazdoor	0.25	nos	307.00		76.75	
	Mate	1	nos	266.00		266.00	
						2762.75	
	Add Overhead charge & C.P@15%					414.41	
						3177.16	
	Add cess @1%					31.77	
						3208.93	113.31
		Say	Rs	113.30	Per M <sup>3</sup>		
5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.						
	Unit :-Per Cum						
	Taking Out put =28.32 Cum						
	Unskilled mazdoor	1	nos	242.00		242.00	
						242.00	
	Add Overhead charge & C.P@15%					36.30	
						278.30	
	Add cess @1%					2.78	
						281.08	9.93
		Say	Rs	9.90	Per M <sup>3</sup>		

5.1.23	Earth work in excavation of filling of E.R.P.set channels, tube well channels (lined or unlined ) in ordinary soil with all lead and lift including clod breaking, dressing of sides of banks etc. all complete as per specifications and direction of E/I.					
<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
Unit :-Per Cum						
Taking Out put=28.32 Cum						
	Unskilled mazdoor for cutting, carrying	9.09	nose	242.00	2199.78	
					2199.78	
	Add Overhead charge & C.P @15%				329.97	
					2529.75	
	Add cess@1%				25.30	
					2555.04	90.22
	Add Royalty on Earth					22.00
						112.22
		Say	Rs	112.20	Per M <sup>3</sup>	
5.1.24	Earth work in filling in flood embankment ,canal banks (canals discharge above 28 cumecs)as well as special repairs of embankment and canal banks in ordinary soil in proper profile (vide classification of soil item A) obtained from borrow area or any other source free from logs, roots or any other ingredients etc. with initial lead of 30 M and initial lift of 1.5M including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225 mm, thick all complete as per specifications and direction of E/I.( mode of measurement-sectional measurement of compacted earth )					
Unit :-Per Cum						
Taking Out put =28.32 Cum						
	Unskilled mazdoor for cutting	9	nos	242.00	2178.00	
	Skilled mazdoor	1	nos	307.00	307.00	
	Mate	0.25	nos	266.00	66.50	
					2551.50	
	Add Overhead charge & C.P@15%				382.73	
					2934.23	
	Add cess@1%				29.34	
					2963.57	104.65
	Add Royalty on Earth					22.00
						126.65
		Say	Rs	126.60	Per M <sup>3</sup>	
5.1.25	Earth work in filling in canal banks (canals discharge up to 28 cumecs ) as well as special repairs of canal banks in ordinary soil in proper profile (vide classification of soil item A ) obtained from borrow area or any other source, free from logs, roots or any other ingredients etc. with initial lead of 30M and initial lift of 1.5 M including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225mm, thick all complete as per specifications and direction of E/I. ( mode of measurement-sectional measurement of compacted earth )					
<b>As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94 )</b>						
Unit :- Per Cum						

		Taking Out put =28.32 Cum								
		Unskilled mazdoor for cutting, carrying	9.09	nos	242.00	2199.78				
		Add extra wag of 1/2 no unskilled labour per 28.32	0.5	nos	242.00	121.00				
						2320.78				
		Add Overhead charge & C.P@15%				348.12				
						2668.90				
		Add cess@1%				26.69				
						2695.59			05.18	
		Add Royalty on Earth							22.00	
									117.18	
			Say	Rs	117.20	Per M <sup>3</sup>				
5.1.26	Deleted									
5.1.27	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A ) and disposal of excavated earth so obtained to a distance up to 50 M and average lift of 1.5 M including leveling , ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.									
		Unit :- Per Cum								
		Taking Out put =28.32 Cum								
		Unskilled mazdoor for cutting and carrying etc.	11	nos	242.00	2662.00				
		Head mason	0.25	nos	330.00	82.50				
						2744.50			96.91	
		Add Overhead charge & C.P@15%				411.68				
						3156.18				
		Add cess@1%				31.56				
						3187.74			112.56	
			Say	Rs	112.60	Per M <sup>3</sup>				
5.1.28	Earth work in excavation of foundation trenches in soft rock or ordinary rock ( vide classification of soil item C)with initial lead of 300 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. ( Soft rock where blasting is required and approved by concerned Chief Engineer )									
		Unit :-Per Cum								
		Taking Out put=10.00 Cum								
		<b>Labour</b>								
		Hammer man	2.75	nos	258.00	709.50				
		Unskilled mazdoor for all work	7.00	nos	242.00	1694.00				
		Mason Gr I	0.33	nos	330.00	108.90				
		Blaster	0.33	nos	408.00	134.64				
		<b>Materials</b>								
		Blasting material including excise, GST, carriage from Gornia to work site, storage etc.								
		Special Gelatin	2.00	Kg	1099.00	2198.00				
		Delonator	10	nos	7.40	73.99				
		Fusc coil	1	nos	15.61	15.61				
		<b>Tools and Plants</b>								

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	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					4949.64	
	Add Overhead charge & C.P@15%				742.45	
					5692.09	
	Add cess@1%				56.92	
					5749.01	574.90
		Say	Rs	574.90		Per M <sup>3</sup>
5.1.29	Earth work in excavation of foundation trenches in proper section in hard rock (vide classification of soil item D) ( non- blasting zone ) with chisel and hammer with disposal of excavated rock to a distance up to 30 M and lifts of 1.5 M in proper stack including leveling, dressing of foundation trenches all complete as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =10 Cum					
	<b>Labour</b>					
	Hammer man	2.25	nos	258.00	580.50	
	Skilled mazdoor for all work	2.25	nos	307.00	690.75	
	Unskilled mazdoor for collecting the excavated materials and carrying the same beyond 50 metre and stacking properly	4	nos	242.00	968.00	
	Unskilled mazdoor for making the edges straight, dressing, profiling and final preparation of surface	3	nos	242.00	726.00	
	Blacksmith	1	nos	249.00	249.00	
	Mate	1	nos	266.00	266.00	
					3480.25	
	Add Overhead charge & C.P@15%				522.04	
					4002.29	
	Add cess@1%				40.02	
					4042.31	404.23
		Say	Rs	404.20		Per M <sup>3</sup>
5.1.30	Earth work in excavation of foundation trenches in hard rock ( vide classification of soil item D ) in proper section by blasting disposal of excavated rock in proper stack at places beyond working site with initial lead of 30 M and lift of 1.5M, including leveling, dressing of foundation trenches all complete as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =10 Cum					
	<b>Labour</b>					
	Hammer man	10.50	nos	258.00	2709.00	
	Unskilled mazdoor for all work	10.50	nos	242.00	2541.00	0
	Mason Gr I	0.33	nos	330.00	108.90	
	Blaster	0.67	nos	408.00	272.00	
	<b>Materials</b>					
	Blasting material including excise, GST, carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	1099.00	2198.00	
	Detonator	10	nos	7.40	73.99	
	Fuse coil	1	nos	15.61	15.61	

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<b>Tools and Plants</b>					
Cost of hire charge of compressor, drilling equipment and other accessories					
					15.00
					7933.50
Add Overhead charge & C.P@15%					
					1190.03
					9123.53
Add cess@1%					
					91.24
					9214.76
					921.48
		Say	Rs	<b>921.50</b>	Per M <sup>3</sup>
5.1.31	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30 M and lift of 1.5 M, all complete job as per specifications and direction of E/I.				
Unit :-Per Cum					
Taking Out put=28.32 Cum					
Unskilled mazdoor for cutting .		4.5	nos	242.00	1089.00
Unskilled mazdoor for carrying .		4	nos	242.00	968.00
Head mason		0.125	nos	330.00	41.25
					2098.25
Add Overhead charge & C.P@15%					
					314.74
					2412.99
Add cess@1%					
					24.13
					2437.12
					86.06
		Say	Rs	<b>86.10</b>	Per M <sup>3</sup>
5.1.32	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with semi-pervious or suitable earth obtained after cutting of borrow pits within a lead of 30M and lift of 1.5 M complete job as per specifications and direction of E/I.				
Unit :-Per Cum					
Taking Out put:= 28.32 Cum					
Unskilled mazdoor for cutting .		5.5	nos	242.00	1331.00
Unskilled mazdoor for carrying .		4	nos	242.00	968.00
Head mason		0.125	nos	330.00	41.25
					2340.25
Add Overhead charge & C.P@15%					
					351.04
					2691.29
Add cess@1%					
					26.91
					2718.20
					95.98
		Say	Rs	<b>96.00</b>	Per M <sup>3</sup>
5.1.33.1	Extra for earth work for ordinary or hard soil (vide classification of soil item-A and B ) in each additional lead up to 25 M beyond the initial lead of 30 M as per specifications and direction of E/I.				
Unit :-Per Cum					

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	Taking Out put=28.32 Cum									
	Unskilled mazdoor	1	nos	242.00	242.00					
	Add Overhead charge & C.P@15%				36.30					
					278.30					
	Add cess@1%				2.78					
					281.08				9.93	
		Say	Rs	9.90	Per M <sup>3</sup>					
5.1.33.2	Extra for earth work for ordinary or hard soil ( vide classification of soil item-C and D ) in each additional lead up to 25 M beyond the initial lead of 30 M as per specifications and direction of E/I.									
	Unit :-Per Cum									
	Taking Out put=28.32 Cum									
	Unskilled mazdoor	1.5	nos	242.00	363.00					
	Add Overhead charge & C.P@15%				54.45					
					417.45					
	Add cess@1%				4.17					
					421.62				14.89	
		Say	Rs	14.90	Per M <sup>3</sup>					
5.1.34.1	Extra for earth work for ordinary or hard soil ( vide classification of soil item-A and B) for each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.									
	Unit :-Per Cum									
	Taking Out put = 28.32 Cum									
	Unskilled mazdoor for cutting	1	nos	242.00	242.00					
	Add Overhead charge & C.P@15%				36.30					
					278.30					
	Add cess@1%				2.78					
					281.08				9.93	
		Say	Rs	9.90	Per M <sup>3</sup>					
5.1.34.2	Extra for earth work for ordinary soft or hard rock (vide classification of soil item-C and D ) for each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.									
	Unit :-Per Cum									
	Taking Out put=28.32 Cum									
	Unskilled mazdoor for cutting	1.5	nos	242.00	363.00					
	Add Overhead charge & C.P@15%				54.45					
					417.45					
	Add cess@1%				4.17					
					421.62				14.89	
		Say	Rs	14.90	Per M <sup>3</sup>					
5.1.35	Deleted									
5.1.36	Trimming and fine dressing the side slope of canal ( for preparation of soil for lining of precast P.C.C. slab ) to proper section and profile and disposal of soil at a suitable place complete job as per specifications and direction of E/I.									
	Unit :-Per Sqm									
	Taking Out put=100Sqm									
	Mason Gr II	0.25	nos	295.00	73.75					

	Unskilled mazdoor for cutting slope	3	nos	242.00	726.00	
	Unskilled mazdoor for carrying the spoils	2	nos	242.00	484.00	
	Unskilled mazdoor for making the seat of lining to proper profile	1.5	nos	242.00	363.00	
	Mate	0.25	nos	266.00	66.50	
					1713.25	
	Add Overhead charge & C.P@15%				256.99	
					1970.24	
	Add cess@1%				19.70	
					1989.94	19.90
		Say	Rs	19.90	Per M <sup>2</sup>	
5.1.37	Providing coarse clean local sand in filling in foundation trenches including ramming, watering, royalty and all other taxes complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Unskilled mazdoor for cutting	1	nos	242.00	242.00	
	Local Sand	2.832	Cum	122.80	347.77	
					589.77	
	Add Overhead charge & C.P@15%				88.47	
					678.24	
	Add cess@1%				6.78	
					685.02	241.88
		Say	Rs	241.90	Per M <sup>3</sup>	
5.1.38	Watering and consolidation of earth laid in 150 mm to 225 mm layers by manual labour with C.I hammer to achieve minimum 85 % of dry density including cost and carriage of water and necessary tools and plants with all leads and lifts all complete as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor	3	nos	242.00	726.00	
	Bhisti for carriage of water and sprinkling	3	nos	243.00	729.00	
	Cost of water				15.00	
					1470.00	
	Add Overhead charge & C.P@15%				220.50	
					1690.50	
	Add cess@1%				16.91	
					1707.41	60.29
		Say	Rs	60.30	Per M <sup>3</sup>	
5.1.39	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by sheep foot roller driven by tractor to achieve minimum 95 % of dry density including sprinkling the required quantity of water making arrangement for supply and carriage of water with all leads and lifts, finishing the surfaces plan and drawing including hire charge of compaction, machine and other tools and plants etc. for lined canal all complete as per specifications and direction of E/I. ( mode of measurement-sectional measurement of compacted earth )					

6

	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Bhisti for carriage of water and sprinkling	3	nos	243.00	729.00	
	Cost of water				15.00	
	Hire charge of seep foot roller assuming 1450 cum to be rolled in 8 hr vide item no 3.16	0.16	hr	#VALUE!	#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add cess@1%				#VALUE!	
					#VALUE!	#VALUE!
	Say	Rs	#VALUE!	Per M <sup>3</sup>		
5.1.40	Close timbering in trenches including strutting, shoring and packing cavities (wherever required) depth not exceeding 1.5 M, complete as per specifications and direction of E/I. ( measurement to be taken of the face area timbered ).					
	Unit :-Per Sqm					
	Taking Out put =90 Sqm					
	Assuming 30M long 1.5 M deep					
	Area= 2 x 30 x 1.5 = 90 sqm.					
	Poling Boards					
	Local wood planks 90 x 0.038= 3.42 cum	3.42	cum	33253.00	113725.26	
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	33253.00	39903.60	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long =2 x17x1.5=51 M	51	M	28.60	1458.60	
					155087.46	
	<b>Carriage</b>					
	Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				1550.87	
	Total				156638.33	
	Deduct credit for materials 75 % of the cost of material				116315.60	
					40322.74	a
	This can be used <b>four times</b> , therefore cost per use= a/4				10080.68	A
	<b>Labour</b>					
	Carpenter Gr II	0.50	nos	295.00	147.50	
	Unskilled mazdoor	1	nos	242.00	242.00	
					389.50	B
	Total A+B				10470.18	
	Add Overhead charge & C.P@15%				1570.53	
					12040.71	
	Add cess@1%				120.41	
					12161.12	135.12
	Say	Rs	135.10	Per Sqm		

5.1.41	Close timbering in trenches including strutting, shoring and packing cavities(whenever required) depth not exceeding 1.5 M, but up to 3.0 M complete as per specifications and direction of E/I. (measurement to be taken of the face area timbered).					
	Unit :-Per Sqm					
	Taking Out put=90 Sqm					
	Assuming 30 mtr long 1.5 mtr deep					
	Area= 2 x 30 x 1.5 = 90 sqm.					
	Poling Boards					
	Local wood planks 90 x 0.38= 3.42 cum	3.42	cum	33253.00	113725.26	
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	33253.00	39903.60	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51	mtr	28.60	1458.60	
					155087.46	
	<b>Carriage</b>					
	Cost of carriage of material including loading,				1550.87	
	<b>Total</b>				156638.33	
	Deduct credit for materials 75 % of the cost of				116315.60	
					40322.74	a
	This can be used four times, therefore cost per use a/4				10080.68	A
	<b>Labour</b>					
	Carpenter Gr II	0.75	nos	295.00	221.25	
	Unskilled mazdoor	2	nos	242.00	484.00	
					705.25	B
	<b>Total A+B</b>				10785.93	
	Add Overhead charge & C.P@15%				1617.89	
					12403.83	
	Add cess@1%				124.04	
					12527.86	139.20
	Say	Rs		139.20	Per Sqm	
5.1.42.1	Fine dressing of the canals banks or embankment and turfing with 75 mm thick grass sod obtained within a lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =100Sqm					
	Unskilled mazdoor for cutting	1.5	nos	242.00	363.00	
	Unskilled mazdoor for carrying	1.5	nose	242.00	363.00	
	Unskilled mazdoor for dressing, placing turf and	1	nos	242.00	242.00	
	Bhisti for carriage of water and sprinkling	3	nos	243.00	729.00	
	Cost of watering till the growth				15.00	
					1712.00	
	Add Overhead charge & C.P@15%				256.80	
					1968.80	
	Add cess@1%				19.69	
					1988.49	1988.49
	Say	Rs		1988.50	Per % M <sup>2</sup>	

5.1.42.2	Extra for each lead of 150 M over initial lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put=100 Sqm					
	Unskilled mazdoor for carrying	1.50	nos	242.00	363.00	
					363.00	
	Add Overhead charge & C.P@15%				54.45	
					417.45	
	Add cess@1%				4.17	
					421.62	421.62
		Say	Rs	421.60	Per % M <sup>2</sup>	
5.1.43	Jungle clearance in borrow area, building premises; flanks, slope of existing road and canal etc,embankment by removing the jungle , bushes from top including weeding out shrubs including roots and leveling complete job as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =92.94 Sqm					
	Unskilled mazdoor for carrying	0.75	nos	242.00	181.50	
					181.50	
	Add Overhead charge & C.P@15%				27.23	
					208.73	
	Add cess@1%				2.09	
					210.81	2.27
		Say	Rs	2.30	Per M <sup>2</sup>	

5.1.44.	Earth work by tractor ( Rajastham) with bucket (Doil) with spreader ( Tractor leveler or Tractor Dozer) in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers and construction & removal of dhallas properly with lead of ..... meter (lead will be considered as perpendicular distance from C.G. of Pit to C.G. of banks or embankment ) and with all lifts all complete as per specifications and direction of E/I. measurement-sectional measurement of compacted earth )(Lead should be taken C.G to C.G.perpendicular to the bank Maximum Lead Up to -150 mtr. ( mode of Note:- Track Path may not be taken as lead )																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	For C.G to C.G Lead in K.M (L)	Speed (km/hr) ( V )	Time for loading, Unloading etc (hr) ( 1 )=1 min.	Spacing of Dhallas (km) (S)	Capacity Per Trip Cum (e)	Haulage Path (Distance travelled in one cycle) = 2(L+S)	Time of run per trip = 2(L+S)/ V	Time per cycle (hr) = 2(L+S) / V + t	No of trips , N = 8V/ (2L+2S+V)	Output per day with 80% efficiency = 0.80XNxe	Use Rate of Tractor Per Day (Tr)	Cost per Cubic Metre = T/Ne	Proportional Cost of Dhala (10% only)	Cost of Dhala Per cubic metre	Add for cutting (Use rate of tractor / Capacity of cutting 324 cum per day) = Tr/324	Add for spreading cost = (Use rate of D-80 Dozer Per hr / Capacity of D-80 Dozer per hr 300 cum)	Add for finishing and dressing =one mazdoor/100M <sup>3</sup>	Total cost ( 12+14+15+16+17 )	Add Overhead charge & C.P 15%	Rate Per M <sup>3</sup>	Add 1% karmkar cess	Total
5.1.44.1	0.015	5.000	0.0167	0.03	0.60	0.09	0.018	0.035	230.55	110.66	4136	37.37	0.10	3.74	12.77	16.92	2.06	72.85	15	83.80	0.84	84.60
5.1.44.2	0.03	5.670	0.0167	0.04	0.60	0.14	0.025	0.041	193.23	92.77	4136	44.58	0.10	4.46	12.77	16.92	2.06	80.78	15	92.90	0.93	93.80
5.1.44.3	0.055	6.330	0.0167	0.05	0.60	0.21	0.033	0.050	160.40	76.89	4136	53.72	0.10	5.37	12.77	16.92	2.06	90.83	15	104.50	1.03	105.50
5.1.44.4	0.08	7.000	0.0167	0.06	0.60	0.28	0.040	0.057	141.09	67.72	4136	61.07	0.10	6.11	12.77	16.92	2.06	98.92	15	113.80	1.14	114.90
5.1.44.5	0.1	7.670	0.0167	0.07	0.60	0.34	0.044	0.061	131.09	62.92	4136	65.73	0.10	6.57	12.77	16.92	2.06	104.05	15	119.70	1.20	120.90
	NOTE :- Add Royalty of Earth Rs 22.00 Where needed without overhead charge & C.P																					
5.1.45	Deleted																					

5.1.46	Earth work by Mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhari all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhari in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, silt-breaking and laying in layers properly with lead of ..... metre (lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of haulage path from pit to bank or embankment. Pit will be beyond 150 meter from centre of bank i.e. half perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 meter) and with all lifts all complete job as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Lead in KM (L)	Cost of cutting & Loading by Excavator one M3 Capacity = Use rate of Excavator / Capacity of Excavator (60M <sup>3</sup> )	Average Speed on Kucha track Km / hr = (V)	Average haulage path (Distance) in one cycle (D) in Km	Haulage Time in minute (Time taken in one cycle of run) = 60D/V	Loading Time one minute Per M <sup>3</sup> For 5.5 M <sup>3</sup>	Unloading & Turning Time in minute	Total Time Per trip in minute Col (5+6+7) = (T)	No. of Trip per hour taken as 50 minute N = 50/T	Output per hour with 80 % efficiency Q = 0.8 X N X 50	Use Rate per hour of Tipper 5.5 M <sup>3</sup> capacity = (Tr)	Carriage Cost per M <sup>3</sup> = Tr/Q	Add for spreading cost = (Use rate of D-80 Dozer Per hr / Capacity of D-80 Dozer = 3000/300)	Add 5 % for haul road maintenance, 5 % for processing and 2 % for extra labour for finishing = 12 % of column (2+12+13)	Total Cost per M3 col (2+12+13+14)	Add Overhead charge & C.P 15%	Rate Per M <sup>3</sup>	Add 1% cess	Total Rate per Cum	
5.1.46.1	0.15-0.50	29.58	10.00	0.65	3.90	5.50	3.30	12.70	3.937	17.323	957	65.25	16.92	12.21	113.95	15	131.00	1.31	132.30	
5.1.46.2	0.50-1.0	29.58	10.00	1.50	9.00	5.50	3.30	17.80	2.809	12.360	957	77.43	16.92	14.87	138.80	15	159.60	1.596	161.20	
5.1.46.3	1.0-1.50	29.58	10.00	2.50	15.00	5.50	3.30	23.80	2.101	9.244	957	103.53	16.92	18.00	168.03	15	193.20	1.932	195.10	
5.1.46.4	1.50-2.00	29.58	10.00	3.50	21.00	5.50	3.30	29.80	1.678	7.383	957	129.63	16.92	21.14	197.26	15	226.80	2.269	229.20	
5.1.46.5	2.00-2.50	29.58	10.00	4.50	27.00	5.50	3.30	35.80	1.397	6.145	957	155.73	16.92	24.27	225.49	15	260.50	2.605	263.10	
5.1.46.6	2.50-3.00	29.58	10.00	5.50	33.00	5.50	3.30	41.80	1.196	5.283	957	181.83	16.92	27.40	255.73	15	294.10	2.941	297.00	
5.1.46.7	3.00-3.50	29.58	10.00	6.50	39.00	5.50	3.30	47.80	1.046	4.60	957	207.93	16.92	30.53	284.96	15	327.70	3.277	331.00	

NOTE :- Add Royalty of Earth Rs 22.00 Where needed without overhead charge & C.P




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5.1.47	Earth work by excavator and spreader or tractor-leveler in lower level canal or flood embankment or dhar ( Like Minor, Sub -minor, Jamindari bundh, Pynes etc where tipper is not needed ) all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers properly with lead below 15 metre and with all lifts all complete job as per specifications and direction of E/I. ( mode of measurement-sectional measurement of compacted earth )					
	Unit:-Per Cum					
	(A) Cost of cutting, loading , unloading & placing by excavator 1 M <sup>3</sup> capacity					
	Use rate of Excavator(Rupees per hour)			1775.00		
	Output of Excavator =60 Cum per hour					
	Cost				29.58	
	(B) Cost of spreading by D-80 Dozer					
	Use rate of D-80 Dozer(Rupees per hour)			5075.00		
	Output of D-80 Dozer =300 Cum per Hour					
	Cost				16.92	
	( C ) For dressing & finishing one labour for 100 M <sup>3</sup>					
	Unskilled labour	0.01	no	242.00	2.42	
					48.92	
	Add Overhead charge & C.P@15%				7.34	
					56.26	
	Add 1% Cess				0.56	
					56.82	56.82
		Say	Rs	56.80	Per M <sup>3</sup>	

NOTE :- Add Royalty of Earth Rs 22.00 Where needed without overhead charge & C.P

## 5.2 CANAL LINING

Sr.No	Item	Rate	Unit
5.2.1	Providing compacted 75 mm thick sand filter of required F.M as per design on slopes and in bed of canal with local sand including cost of water, ramming, leveling and dressing etc. all complete as per specification and direction of E/I	92.70	Per M <sup>3</sup>
5.2.2	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, rains including hand packing etc . all complete as per specification and direction of E/I	1131.70	Per M <sup>3</sup>
5.2.3	Providing intake wells with P.C.C M 150 with nominal mix of (1:2:4) using stone chips 20 mm and down and sand of F.M. not less than 2 including cost of form work, making space for under drainage pipes, fixing bolts, curing and placing in position all complete as per specification and direction of E/I		
	Patna Urban	1519.80	Each
	Rural Patna	1519.80	Each
	Muzaffarpur	1519.80	Each
	Darbhanga	1519.80	Each
	Bhagalpur	1516.80	Each
	Munger	1516.80	Each
	Saharsa	1519.80	Each
	Purnea	1519.80	Each
	Gaya	1510.30	Each
	Saran	1516.80	Each
5.2.4	Providing single brick tile 300 mm x 150 mm x 50 mm lining in canal bed laid on 10 mm thick cement mortar in (1:5) base coarse and 5 mm vertical joints all round filled with the mortar of the same mix and top finished with 20 mm thick cement plaster in (1:3) washed, screened sand having F.M not less than 2 including all taxes and royalty etc. all complete as per specification and direction of E/I		
	Patna Urban	601.50	Per M <sup>2</sup>
	Patna	601.50	Per M <sup>2</sup>
	Muzaffarpur	602.30	Per M <sup>2</sup>
	Darbhanga	602.30	Per M <sup>2</sup>
	Bhagalpur	600.50	Per M <sup>2</sup>
	Munger	592.30	Per M <sup>2</sup>
	Saharsa	602.30	Per M <sup>2</sup>
	Purnea	610.50	Per M <sup>2</sup>
	Gaya	588.30	Per M <sup>2</sup>
	Saran	592.30	Per M <sup>2</sup>
5.2.5	Providing double brick tile 300 mm x 150 mm x 50 mm lining on canal side slopes with top layer of tile and laid on 5 mm thick green cement mortar ( 1:3 ) over hardened surface of 15 mm thick cement plaster (1:3 ) on top of bottom layer of brick tiles, laid on 10 mm thick cement mortar in (1:5) as base coarse over sand filter 5 mm vertical joints all round of top layer of brick tiles filled with cement mortar (1:3) and that of bottom layers with C.M. (1:5) with washed and screened sand F.M. not less than 2 including cost of scaffolding staging, curing etc. all taxes and royalty etc. all complete as per specification and direction of E/I		
	Patna Urban	1169.00	Per M <sup>2</sup>
	Patna	1169.00	Per M <sup>2</sup>
	Muzaffarpur	1170.90	Per M <sup>2</sup>
	Darbhanga	1170.90	Per M <sup>2</sup>

		Bhagalpur	1168.60	Per M <sup>2</sup>
		Munger	1148.50	Per M <sup>2</sup>
		Saharsa	1170.90	Per M <sup>2</sup>
		Purnea	1191.00	Per M <sup>2</sup>
		Gaya	1143.50	Per M <sup>2</sup>
		Saran	1148.50	Per M <sup>2</sup>
5.2.6	Supplying and laying jhama khoa(metal) filter of 20 to 25 mm size in under drainage of canal lining including royalty, all taxes etc. . all complete as per specification and direction of E/I			
		Patna Urban	2104.80	Per M <sup>3</sup>
		Patna	2045.60	Per M <sup>3</sup>
		Muzaffarpur	1968.90	Per M <sup>3</sup>
		Darbhanga	2023.50	Per M <sup>3</sup>
		Bhagalpur	2023.50	Per M <sup>3</sup>
		Munger	2023.50	Per M <sup>3</sup>
		Saharsa	2023.50	Per M <sup>3</sup>
		Purnea	2023.50	Per M <sup>3</sup>
		Gaya	1968.90	Per M <sup>3</sup>
		Saran	1968.90	Per M <sup>3</sup>
5.2.7	Supplying and laying stone metal graded filter of size 90 mm to 45 mm size in slope and bed of canal below lining including royalty, all taxes etc. . all complete as per specification and direction of E/I (where depth of cutting is more than 6M )		1014.60	Per M <sup>3</sup>
5.2.8	Supplying and laying sand filter free from clay and other organic materials ( F.M-2.5 to 3.0 ) in slope and bed of the canal, below lining including the cost of watering, compaction, including royalty, all taxes etc. . all complete as per specification and direction of E/I (where depth of cutting is more than 6 M )		890.70	Per M <sup>2</sup>
5.2.9	Providing junction lining over one layer of brick tiles, laid on 10 mm thick cement mortar ( 1:5) joints filled with mortar of the same mix by laying cement concrete M150 with nominal mix of (1:2:4) with well graded stone metal 20 mm and down washed and screened sand having F.M not less than 2 including curing, royalty . all taxes and royalty etc. all complete as per specification and direction of E/I			
		Patna Urban	900.50	Per M <sup>2</sup>
		Patna	900.50	Per M <sup>2</sup>
		Muzaffarpur	901.30	Per M <sup>2</sup>
		Darbhanga	901.30	Per M <sup>2</sup>
		Bhagalpur	899.00	Per M <sup>2</sup>
		Munger	890.80	Per M <sup>2</sup>
		Saharsa	901.30	Per M <sup>2</sup>
		Purnea	909.50	Per M <sup>2</sup>
		Gaya	885.80	Per M <sup>2</sup>
		Saran	890.80	Per M <sup>2</sup>
5.2.10	Providing 10 mm thick vertical joints at suitable intervals, filled with bituminous materials of approved quality including royalty all taxes and royalty etc. all complete as per specification and direction of E/I			
5.2.10.1	For canal side slope per 30.50 M		101.10	Per M
5.2.10.2	For canal bed for 30.50M		65.60	Per M
5.2.11	Supplying and laying 150 mm dia R.C.C NP2 perforated pipe in under drainage of canal lining as per specification and direction of E/I		256.30	Per M

5.2.12	Supplying and laying 150 mm dia open jointed 1220 mm long P.C.C (1:1:2) pipes in under drainage of canal lining including the cost of curing, royalty all taxes etc. as per specification and direction of E/I	#VALUE!	Per M
5.2.13	Supplying and laying 150 mm dia open jointed 610 mm long earthen ware pipe in under drainage of canal lining including the cost of curing, royalty all taxes etc. as per specification and direction of E/I	#VALUE!	Per M
5.2.14	Providing 150 mm dia vertical non return valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I	#VALUE!	Each
5.2.15	Providing 50 mm dia non return pocket valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I	#VALUE!	Each
5.2.16	Providing safety valve in lined section of canal with M.S rod embedded in cement concrete (1:3:6) all complete as per specification and direction of E/I		
	Patna Urban	#VALUE!	Each
	Patna	#VALUE!	Each
	Muzaffarpur	#VALUE!	Each
	Darbhanga	#VALUE!	Each
	Bhagalpur	#VALUE!	Each
	Munger	#VALUE!	Each
	Saharsa	#VALUE!	Each
	Purnea	#VALUE!	Each
	Gaya	#VALUE!	Each
	Saran	#VALUE!	Each
5.2.17	Providing safety ladder in lined section of canal with M.S rod embedded in cement concrete (1:3:6) in accordance with I.S.S 3812-1966 including royalty, all taxes etc. all complete as per specification and direction of E/I		
	Patna Urban	#VALUE!	Each
	Patna	#VALUE!	Each
	Muzaffarpur	#VALUE!	Each
	Darbhanga	#VALUE!	Each
	Bhagalpur	#VALUE!	Each
	Munger	#VALUE!	Each
	Saharsa	#VALUE!	Each
	Purnea	#VALUE!	Each
	Gaya	#VALUE!	Each
	Saran	#VALUE!	Each
5.2.18	Laying of 600 mm x 525 mm x 55 mm, 600 mm x 450 mm x 55 mm, 600 mm x 425 mm x 55 mm size precast P.C.C. slab in side slopes and berm of canal with groove of the slab and lug slab set in C.M. ( 1 : 3 ) and flush pointing ( 1 : 2 ) including royalty, all taxes etc. but excluding the cost of precast slabs all complete as per specification and direction of E/I		
	Patna Urban	326.70	Per M <sup>2</sup>
	Patna	326.70	Per M <sup>2</sup>
	Muzaffarpur	326.70	Per M <sup>2</sup>
	Darbhanga	326.70	Per M <sup>2</sup>
	Bhagalpur	326.50	Per M <sup>2</sup>
	Munger	326.50	Per M <sup>2</sup>
	Saharsa	326.70	Per M <sup>2</sup>
	Purnea	326.70	Per M <sup>2</sup>
	Gaya	326.20	Per M <sup>2</sup>
	Saran	326.50	Per M <sup>2</sup>

*[Handwritten signatures and marks]*

5.2.19	Providing 100 mm thick P.C.C lining in M-100 with nominal mix of (1:3:6) with well graded stone chips ( 20 mm & down and coarse sand of approved quality and of requisite F.M. in side and bottom curved portion of the canal in panels with construction joints including cost of form work and its removal, curing, royalty and all other taxes complete job as per specification and direction of E/I		
	Patna Urban	7102.30	Per M <sup>3</sup>
	Patna	7102.30	Per M <sup>3</sup>
	Muzaffarpur	7102.30	Per M <sup>3</sup>
	Darbhanga	7102.30	Per M <sup>3</sup>
	Bhagalpur	7075.60	Per M <sup>3</sup>
	Munger	7075.60	Per M <sup>3</sup>
	Saharsa	7102.30	Per M <sup>3</sup>
	Purnea	7102.30	Per M <sup>3</sup>
	Gaya	7016.70	Per M <sup>3</sup>
	Saran	7075.60	Per M <sup>3</sup>
5.2.20	Providing 30 mm internal dia burnt clay pipe for providing holes in concrete section of slab, cross and longitudinal sleepers including sand packing in holes in lining work of canals all complete job as per specification and direction of E/I	#VALUE!	Per M <sup>2</sup>
5.2.21	Providing 100/75mm thick P.C.C lining in M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requirement 5M in side and bottom common portion of the canal in panels with construction joints including cost of form work and its removal,curing,all taxes etc, all complete job as per specification & direction of E/I.		
	Patna Urban	7732.20	Per M <sup>2</sup>
	Patna	7732.20	Per M <sup>2</sup>
	Muzaffarpur	7732.20	Per M <sup>2</sup>
	Darbhanga	7732.20	Per M <sup>2</sup>
	Bhagalpur	7693.80	Per M <sup>2</sup>
	Munger	7693.80	Per M <sup>2</sup>
	Saharsa	7732.20	Per M <sup>2</sup>
	Purnea	7732.20	Per M <sup>2</sup>
	Gaya	7609.10	Per M <sup>2</sup>
	Saran	7693.80	Per M <sup>2</sup>
5.2.22	Providing and laying P.C.C M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requisite F.M in lug slab,cross and longitudinal sleeper for lining canal including cost of form work and its removal,curing, royalty and all taxes etc all complete job as per specification & direction of E/I.		
	Patna Urban	7732.20	7732.20
	Patna	7732.20	Per M <sup>2</sup>
	Muzaffarpur	7732.20	Per M <sup>2</sup>
	Darbhanga	7732.20	Per M <sup>2</sup>
	Bhagalpur	7693.80	Per M <sup>2</sup>
	Munger	7693.80	Per M <sup>2</sup>
	Saharsa	7732.20	Per M <sup>2</sup>
	Purnea	7732.20	Per M <sup>2</sup>
	Gaya	7609.10	Per M <sup>2</sup>
	Saran	7693.80	Per M <sup>2</sup>
5.2.23	Providing and laying LDPE film of 250 micron or kg/sqm in the bed of canal and side slope as per specification and direction of E/I	54.60	Per M <sup>2</sup>

## 5.2 CANAL LINING

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
5.2.1	Providing compacted 75 mm thick sand filter of required F.M as per design on slopes and in bed of canal with local sand including cost of water, ramming, leveling and dressing etc. all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	( Assuming 9.3 sqm area with 75 mm thickness sand layer )					
	Cost of local sand as per design & specification	0.70	cum	122.80	85.96	
	Skilled labour	0.167	nos	307.00	51.27	
	Unskilled mazdoor	1.5	nos	242.00	363.00	
	Unskilled mazdoor for watering and ramming	1	nos	242.00	242.00	
					742.23	
	Add Overhead charge & C.P @15%				111.33	
					853.56	
	Add 1% Cess				8.54	
					862.10	92.70
	Say		Rs	92.70	Per M <sup>2</sup>	
5.2.2	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, rains including hand packing etc . all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =2.832 Cum					
	Stone chips (M-040+M-045)/2	2.832	cum	629.35	1782.32	
	Skilled mazdoor for screening and grading filter	2	nos	307.00	614.00	
	Unskilled mazdoor for laying and hand packing	1.5	nos	242.00	363.00	
					2759.32	
	Add Overhead charge & C.P@15%				413.90	
					3173.22	
	Add 1% Cess				31.73	
					3204.95	1131.69
	Say		Rs	1131.70	Per M <sup>3</sup>	
5.2.3	Providing intake wells with P.C.C M 150 with nominal mix of (1:2:4) using stone chips 20 mm and down and sand of F.M. not less than 2.00 including cost of form work, making space for under drainage pipes, fixing bolts, curing and placing in position all complete as per					
	Unit :-Each					
	Volume of one intake well					
	$\frac{\pi}{4} \times (0.650)^2 \times 0.075 = 0.025$					
	$\frac{\pi}{4} \{ (0.65)^2 - (0.5)^2 \} \times 0.42 = 0.052$					
	Total = 0.077 cum					
	P.C.C (1:2:4) vide item 5.3.4(without C.P.etc)	0.077	cum	4106.44	316.20	

	Detail of side shuttering= 22/7x0.65x0.495+22/7x0.50x0.42=1.67 sqm Shuttering vide item 5.3.18(without C.P etc)	1.67	sqm	505.56	844.28	
	Bolts 20 mm dia 25 cm long	4	nos	37.00	148.00	
					1308.47	
	Add Overhead charge & C.P@15%				196.27	
					1504.75	
	Add 1% Cess				15.05	
					1519.79	1519.79
	Say		Rs	1519.80	Each	
5.2.4	Providing single brick tile 300 mm x 150 mm x 50 mm lining in canal bed laid on 10 mm thick cement mortar in (1 : 5) base coarse and 5 mm vertical joints all round filled with the mortar of the same mix and top finished with 20 mm thick cement plaster in (1 : 3) washed screened sand having F.M not less than 2 including all taxes and royalty etc. all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
i.	Brick tiles 1 st class including 5 % wastage	198	nos	7222.00	1429.96	
ii.	Volume of (1:5) mortar					
	(a). Base course 10 mm thick $10/1000 \times 9.3 = 0.0930$					
	(b) Vertical longitudinal joints 5 mm thick $21 \times 5/1000 \times 50/1000 \times 3.05 = 0.016$					
	(c). Vertical transverse joints 5 mm thick $11 \times 5/1000 \times 50/1000 \times 3.05 = 0.008$					
	Total= 0.117					
	Add 20% extra for undulation of sub grade and wastage of mortar etc.= 0.023					
	Total 0.140 cum					
	Cement	0.028	cum	9118.00	255.30	
	Sand	0.140	cum	145.20	20.33	
	Mason Gr I	1.5	nos	330.00	495.00	
	Unskilled mazdoor	3	nos	242.00	726.00	
iii.	Volume of (1:3) mortar					
	$20/1000 \times 3.05 \times 3.05 = 0.186$					
	Add 5% wastage =0.009					
	Total= 0.195 say 0.2 cum					
	Cement	0.07	cum	9118.00	638.26	
	Sand	0.21	cum	145.20	30.49	
	Mason Gr I	1.5	nos	330.00	495.00	
	Unskilled mazdoor	3	nos	242.00	726.00	
					4816.34	
	Add Overhead charge & C.P @15%				722.45	
					5538.79	
	Add 1% Cess				55.39	
					5594.18	601.52
	Say Rs			601.50	Per M <sup>2</sup>	

5.2.5	Providing double brick tile 300 mm x 150 mm x 50 mm lining on canal side slopes with top layer of tile and laid on 5 mm thick green cement mortar (1:3) over hardened surface of 15 mm thick cement plaster (1 : 3) on top of the bottom layer of brick tiles, laid on 10 mm thick cement mortar in (1: 5) as base coarse over sand filter 5 mm vertical joints all round of top layer of brick tiles filled with cement mortar (1:3) and that of the bottom layers with C.M. (1:5) with washed and screened sand F.M. not less than 2 including cost of scaffolding staging, curing etc. all taxes and royalty etc. all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put= 9.3 Sqm					
	(Assuming 9.3 sqm =3.05mx3.05m )					
	<b>A. Bottom layer of tile lining</b>					
i	Brick tiles	198	nos	7222.00	1429.96	
ii.	Volume of (1:5) mortar with 20 % extra for foundation of sub grade and wastage of cement mortar vide item no 5.2.4=0.14 cum					
	Cement	0.028	cum	9118.00	255.30	
	Sand	0.140	cum	145.20	20.33	
	Mason Gr I	0.5	nos	330.00	165.00	
	Unskilled mazdoor	3	nos	242.00	726.00	
	Total				2596.59	
iii.	Add 25 % For working in slope				649.15	
					3245.74	(A)
	<b>B. Top layer of lining volume of (1:3) mortar with 10 % wastage 1 st class brick tiles</b>					
	a. 15 mm thick cement plaster = 15/1000x9.3=0.14					
	5 mm thick C.P= 5/1000x9.3=0.047					
	Total=0.211					
	Add 10 % wastage=0.021					
	Total=0.232 cum					
	Brick tiles	198	nos	7222.00	1429.96	
	Cement	0.077	cum	9118.00	702.09	
	Sand	0.232	cum	145.20	33.69	
	Mason Gr I	1.5	nos	330.00	495.00	
	Unskilled mazdoor	3	nos	242.00	726.00	
	Total				3386.73	
	Add 25 % on labour for working in slope				305.25	
					3691.98	(B)
	<b>C. Labour for laying tiles including mortar jointing</b>					
	Mason Gr I	2	nos	330.00	660.00	
	Unskilled mazdoor	4	nos	242.00	968.00	
	Total				1628.00	
	Add 25 % on labour for working in slope				407.00	
	Total				2035.00	(C)
	<b>D. Cost of scaffolding</b>					
	Add 10 % of cost of cement, sand and bricks tiles				387.13	(D)

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	<b>Total</b>				9359.85	
	<b>Add Overhead charge &amp; C.P@15%</b>				1403.98	
					10763.83	
	<b>Add 1% Cess</b>				107.64	
					10871.46	1168.97
		Say Rs		<b>1169.00</b>	Per M <sup>2</sup>	
5.2.6	Supplying and laying jhama metal filter of 20 to 25 mm size in under drainage of canal lining including royalty, all taxes etc. all complete as per specification and direction of E/I					
	Unit :-Per Cum					
	Taking Out put= 2.832 Cum					
	Jhama metal	2.832	cum	1684.00	4769.09	
	Unskilled mazdoor	1.5	nos	242.00	363.00	
					5132.09	
	<b>Add Overhead charge &amp; C.P@15%</b>				769.81	
					5901.90	
	<b>Add 1% Cess</b>				59.02	
					5960.92	2104.84
	Say		Rs	<b>2104.80</b>	Per M <sup>3</sup>	
5.2.7	Supplying and laying stone metal graded filter of size 90 mm to 45 mm size in slope and bed of canal below lining including royalty, all taxes etc. all complete as per specification and direction of E/I (where depth of cutting is more than 6 M)					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Stone metal	2.832	cum	422.80	1197.37	M-039
	Mate	0.25	nos	266.00	66.50	
	Unskilled mazdoor for carrying metal	3.5	nos	242.00	847.00	
	Unskilled mazdoor for spreading	1.5	nos	242.00	363.00	
					2473.87	
	<b>Add Overhead charge &amp; C.P@15%</b>				371.08	
					2844.95	
	<b>Add 1% Cess</b>				28.45	
					2873.40	1014.62
	Say		Rs	<b>1014.60</b>	Per M <sup>3</sup>	
5.2.8	Supplying and laying sand filter free from clay and other organic materials ( F.M 2.5 to 3.0 ) in slope and bed of the canal, below lining including the cost of watering, compaction, including royalty, all taxes etc. all complete as per specification and direction of E/I (where depth of cutting is more than 6M)					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Sand	2.832	cum	145.20	411.21	
	Mate	0.25	nos	266.00	66.50	
	Unskilled mazdoor for carrying and placing	3.5	nos	242.00	847.00	
	Unskilled mazdoor for spreading	1.5	nos	242.00	363.00	

	Unskilled mazdoor for loading and ramming	2	nos	242.00	484.00	
					2171.71	
	Add Overhead charge & C.P@15%				325.76	
					2497.46	
	Add 1% Cess				24.97	
					2522.44	890.69
	Say		Rs	890.70	Per M <sup>3</sup>	
5.2.9	Providing junction lining over one layer of brick tiles, laid on 10 mm thick cement mortar ( 1:5) joints filled with mortar of the same mix by laying cement concrete M150 with nominal mix of (1:2:4) with well graded stone metal 20 mm and down washed and screened sand having F.M not less than 2.00 including curing, royalty . all taxes and royalty etc. all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	<b>A. Bottom layer of tile lining</b>					
	Brick tiles	198	nos	7222.00	1429.96	
	<b>B. Volume of (1:5) mortar with 20 % extra for foundation of sub grade and wastage of cement mortar vide item no 5.2.4=0.14 cum</b>					
	i.Cement	0.028	cum	9118.00	255.30	
	ii.Sand	0.140	cum	145.20	20.33	
	<b>iii. Labour for laying tiles including mortar jointing</b>					
	Mason Gr I	1.5	nos	330.00	495.00	
	Unskilled mazdoor	3	nos	242.00	726.00	
	<b>iv.Labour charge for 10 mm thick base course</b>					
	Mason Gr I	1.5	nos	330.00	495.00	
	Unskilled mazdoor	3	nos	242.00	726.00	
	<b>C. Quantity of (1:2:4) concrete in 9.3 sqm of junction lining= (20 mm +70 mm )x 0.30/(2x1000)=0.42 cum</b>					
	Stone chips (M-040+M-045)/2	0.38	cum	629.35	239.15	
	Cement	0.095	cum	9118.00	866.21	
	Sand	0.190	cum	145.20	27.59	
	Mason Gr I	0.25	nos	330.00	82.50	
	Mason Gr II	1.75	nos	295.00	516.25	
	Unskilled mazdoor	5.5	nos	242.00	1331.00	
	Total				7210.29	
	Add Overhead charge & C.P@15%				1081.54	
					8291.83	
	Add 1% Cess				82.92	
					8374.75	900.51
	Say Rs			900.50	Per M <sup>2</sup>	
5.2.10	Providing 10 mm thick vertical joints at suitable intervals, filled with bituminous materials of approved quality including royalty all taxes and royalty etc. all complete as per specification and					
	Unit :- Per Metre					
	Taking Out put =30.50M					

<b>5.2.10.1</b>	<b>For canal side slope per 30.50M</b>					
	Volume of bitumen $30.5 \times 0.010 \times 0.130 = 0.04$ cum @ 1440 kg per cum = $0.04 \times 1440 = 57.6$ kg					
	Bitumen	57.6	kg	33.13	1908.35	
	Semi Skilled labour	2	nos	252.00	504.00	
	Unskilled mazdoor	1	nos	242.00	242.00	
					2654.35	
	Add Overhead charge & C.P@15%				398.15	
					3052.50	
	Add 1% Cess				30.52	
					3083.02	101.08
	Say		Rs	101.10	Per M	
<b>5.2.10.2</b>	<b>For canal bed per 30.50M</b>					
	Volume of bitumen = $30.5 \times 10 \times 80 / (1000 \times 1000) = 0.0244$ cum @ 1440 kg per cum = $0.0244 \times 1440 = 35.13$ kg					
	Bitumen	35.13	kg	33.13	1163.89	
	Semi Skilled labour	1.5	nos	252.00	378.00	
	Unskilled mazdoor	0.75	nos	242.00	181.50	
					1723.39	
	Add Overhead charge & C.P@15%				258.51	
					1981.90	
	Add 1% Cess				19.82	
					2001.72	65.63
	Say		Rs	65.60	Per M	
<b>5.2.11</b>	<b>Supplying and laying 150 mm dia R.C.C NP<sub>2</sub> perforated pipe in under drainage of canal lining as per specification and direction of E/I</b>					
	Unit :-Per Metre					
	Taking Out put=1 M					
	Cost of pipe	1	M	218.52	218.52	
	Cost of laying @ 10% of above				2.19	
					220.71	
	Add Overhead charge & C.P@15%				33.11	
					253.81	
	Add 1% Cess				2.54	
					256.35	256.35
	Say		Rs	256.30	Per M	
<b>5.2.12</b>	<b>Supplying and laying 150 mm dia open jointed 1220 mm long P.C.C (1:1:2) pipes in under drainage of canal lining including the cost of curing, royalty all taxes etc. as per specification and direction of E/I</b>					
	Unit :-Per Metre					
	Taking Out put=1.22 M					
	Taking pipe length as 1.22 m					
	Cost of 150 mm dia P.C.C.pipe	1.22	M	INPUT	#VALUE!	
	Cost of laying @ 10% of above				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P @15%				#VALUE!	

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				#VALUE!	
	Add 1% Cess			#VALUE!	
				#VALUE!	#VALUE!
	Say		Rs	#VALUE!	Per M
5.2.13	Supplying and laying 150 mm dia open jointed 610 mm long earthen ware pipe in under drainage of canal lining including the cost of curing, royalty all taxes etc. as per specification and direction of E/I				
	Unit :-Per Metre				
	Taking Out put =0.61M				
	Taking pipe length as 0.61 m				
	Cost of 150 mm dia P.C.C.pipe	0.61	M	INPUT	#VALUE!
	Cost of laying @ 10% of above				#VALUE!
					#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
	Add 1% Cess				#VALUE!
					#VALUE!
	Say		Rs	#VALUE!	Per M
5.2.14	Providing 150 mm dia vertical non return valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I				
	Unit :-Each				
	Cost of pressure release valves	1	nos	#VALUE!	#VALUE!
	Cost of laying @ 10% of above				#VALUE!
					#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
	Add 1% Cess				#VALUE!
					#VALUE!
	Say		Rs	#VALUE!	Each
5.2.15	Providing 50 mm dia non return pocket valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I				
	Unit :-Each				
	Cost of pocket valves	1	nos	#VALUE!	#VALUE!
	Cost of laying @ 10% of above				#VALUE!
					#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
	Add 1% Cess				#VALUE!
					#VALUE!
	Say		Rs	#VALUE!	Each
5.2.16	Providing safety valve in lined section of canal with M.S rod embedded in cement concrete (1:3:6) all complete as per specification and direction of E/I ( Vide I.S.I 3872-1966 )				
	Unit :-Each				

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	Volume of concrete	0.74	cum			
	M.S. rods 10 mm dia	25	kg			
	25 mm dia 10.5 m @ 3.87 kg / mtr=40.63 kg	40.63	kg			
	<b>Cost of concrete (1:3:6) mix vide item no 5.3.3 ( Modify the rates for the quality of aggregate )</b>	0.74	cum	3344.66	2475.05	
	<b>Providing M.S bars Vide item no 5.3.22</b>					
	10 mm dia	25	kg	65.20	1630.08	
	25 mm dia	40.63	kg	65.20	2649.20	
	Cost of safety valve	1	nos	#VALUE!	#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P (Safety valve only)@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
				Rs	#VALUE!	Each
5.2.17	Providing safety ladder in lined section of canal with M.S rod embedded in cement concrete (1:3:6) in accordance with I.S.S 3812-1966 including royalty, all taxes etc. all complete as per specification and direction of E/I. (Vide I.S.I 3872-1966 )					
	Unit :-Each					
	Volume of concrete	0.74	cum			
	M.S. rods 10 mm dia	25	kg			
	25 mm dia 10.5 m @ 3.87 kg / m=40.63 kg	40.63	kg			
	<b>Cost of concrete (1:3:6) mix vide item no 5.3.3 ( Modify the rates for the quality of aggregate )</b>	0.74	cum	3884.80	2874.75	
	<b>Providing M.S bars Vide item no 5.3.22</b>					
	10 mm dia	25	kg	65.20	1630.08	
	25 mm dia	40.63	kg	65.20	2649.20	
	Cost of safety ladder	1	nos	INPUT	#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P (Safety ladder only)@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
				Rs	#VALUE!	Each
5.2.18	Laying of 600 mm x 525 mmx 55 mm; 600 mm x450 mmx55 mm; 600 mmx425 mmx55 mm size precast P.C.C. slab in side slopes and berm of canal with groove of the slab and lug slab set in C.M. (1: 3) and flush pointing (1 : 2) including royalty, all taxes etc. but excluding the cost of precast slabs all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Laying of precast slab					
	Mason Gr II	0.5	nos	295.00	147.50	
	Unskilled mazdoor	1	nos	242.00	242.00	

<b>Jointing pre cast slab</b>					
Cement	0.006	cum	9118.00	54.71	
Sand	0.018	cum	145.20	2.61	
Mason Gr II	3	nos	295.00	885.00	
Unskilled mazdoor	3	nos	242.00	726.00	
Bhisti	1.5	nos	243.00	364.50	
<b>Flush pointing of joints</b>					
Cement	0.003	cum	9118.00	27.35	
Sand	0.010	cum	145.20	1.45	
Mason Gr II	0.25	nos	295.00	73.75	
Unskilled mazdoor	0.25	nos	242.00	60.50	
Bhisti	0.125	nos	243.00	30.38	
				2615.75	
Add Overhead charge & C.P@15%				392.36	
				3008.12	
Add 1% Cess				30.08	
				3038.20	326.69
			Rs	326.70	Per M <sup>2</sup>
5.2.19	Providing 100 mm thick P.C.C lining in M-100 with nominal mix of (1:3:6) with well graded stone chips (20 mm & down) and coarse sand of approved quality and of requisite F.M. in side and bottom curved portion of the canal in panels with construction joints including cost of form work and its removal, curing, royalty and all other taxes complete job as per specification and direction of E/I				
	Unit :- Per Cum				
	Taking Out put =2.832 Cum				
<b>A. Materials</b>					
Stone chips	2.66	M <sup>3</sup>	691.30	1838.86	
Sand	1.33	M <sup>3</sup>	145.20	193.12	
Cement	0.443	M <sup>3</sup>	9118.00	4039.27	
<b>B. HIRE CHARGES OF MACHINE</b>					
(i) Concrete mixer (10 H.P.) To be calculated taking 2 cum of concrete per hr ) for 1.42 hr	1.42	hr	80.00	113.60	
(ii) Vibrator	1.42	hr	107.27	152.32	
<b>C. Shuttering</b>					
I. Form work for curved portion for 2.832 cum of concrete assuming 14 sqm Vide item no 5.3.18(without C.P.etc.)	14	sqm	505.56	7077.79	
<b>D. Labour</b>					
Head mason	0.5	nos	330.00	165.00	
Mason Gr II	2	nos	295.00	590.00	
Unskilled mazdoor	12	nos	242.00	2904.00	
Bhisti	1	nos	243.00	243.00	
Total				17316.96	
Add Overhead charge & C.P@15%				2597.54	
				19914.50	
Add 1% Cess				199.14	
				20113.64	7102.28

		Say Rs		7102.30	Per M <sup>3</sup>	
5.2.20	Providing 30 mm internal dia burnt clay pipe for providing holes in concrete section of slab, cross and longitudinal sleepers including sand packing in holes in lining work of canals all complete job as per specification and direction of E/I					
	Unit :-Each					
	Assuming 100 mm long hole=139 Nos.					
	and 225 mm long holes=222 Nos.					
	<b>Materials</b>					
	i. Cost of burnt clay pipe of internal dia 31.75 mm . 1-1/4' External dia 38.00 mm 1-1/2'					
	(a). 100 mm long	139	nos	#VALUE!	#VALUE!	
	(b) 225 mm long	222	nos	#VALUE!	#VALUE!	
	ii. Sand	0.07	cum	145.20	10.16	
	<b>Labour</b>					
	Head mason	1	nos	330.00	330.00	
	Mason Gr II	0.5	nos	295.00	147.50	
	Unskilled mazdoor	1	nos	242.00	242.00	
	Unskilled mazdoor for sand packing	1	nos	242.00	242.00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
	Say		Rs	#VALUE!	Per M <sup>2</sup>	
5.2.21	Providing 100/75mm thick P.C.C lining in M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requirement 5M in side and bottom common portion of the canal in panels with construction joints including cost of form work and its removal, curing, all taxes etc, all complete job as per specification & direction of E/I.					
	Unit- Per Cum					
	Taking output 2.832 cum					
A	<b>Material</b>					
	Stone chips (20mm & down)	2.548	M <sup>3</sup>	691.30	1761.43	
	Sand	1.274	M <sup>3</sup>	145.20	184.98	
	cement	0.637	M <sup>3</sup>	9118.00	5808.17	
B	<b>Hire charge of Machine</b>					
	Concrete Mixer( taking 2cum per hr )	1.42	hr	80.00	113.60	
	Vibrator	1.42	hr	107.27	152.32	
C.	<b>Shuttering</b>					
	Form work for curved portion for 2.832 cum of concrete assuming 14sqm vide item no -5.3.19	14	sqm	505.56	7077.79	
D.	<b>Labour</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr-II	1.5	nos	295.00	442.50	
	Unskilled Mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
	Total				18852.79	

	Add Overhead charge & C.P@15%				2827.91865	
					21680.71	
	Add 1% Cess				216.807097	
					21897.52	
	Rate per sqm				7732.20	
5.2.22	Providing and laying P.C.C M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requisite F.M in lug slab, cross and longitudinal sleeper for lining canal including cost of form work and its removal, curing, royalty and all taxes etc all complete job as per specification & direction of E/I.					
	Unit- per cum					
	Out put = 2.832 cum					
	<b>Material</b>					
	Stone chips( 20mm & down)	2.548	M <sup>3</sup>	691.30	1761.43	
	sand	1.274	M <sup>3</sup>	145.20	184.98	
	Cement	0.637	M <sup>3</sup>	9118.00	5808.17	
	Hire charge of Machine					
	Concrete Mixer( taking 2cum per hr )	1.42	hr	80.00	113.60	
	Vibrator	1.42	hr	107.27	152.32	
	<b>Shuttering</b>					
	Form work for curved portion for 2.832 cum of concrete assuming 14sqm vide item no -5.3.19	14	sqm	505.56	7077.79	
	<b>Labour</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr-II	1.5	nos	295.00	442.50	
	Unskilled Mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
					18852.79	
	Add Overhead charge & C.P@15%				2827.92	
					21680.71	
	Add 1% Cess				216.81	
					21897.52	
	Rate per Sqm				7732.20	
5.2.23	Providing and laying LDPE film of 250 micron or kg/sqm in the bed of canal and side slope as per specification and direction of E/I					
	Unit- per Sqm					
	Taking output =10 Sqm					
	<b>Materials</b>					
	250 micron LDPE film @ 230 gm/sqm( including 5%v for overlap and wastage)	2.415	kg	141.42	341.53	
	Adhesive and cello Tape		LS		20.00	
	<b>Labour</b>					
	Mate	0.02	nos	266.00	5.32	
	Unskilled labour	0.30	nos	242.00	72.60	
	skilled labour	0.1	nos	307.00	30.70	
					470.15	
	Add Overhead charge & C.P@15%				70.52	
					540.67	
	Add 1% Cess				5.41	
					546.08	

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Rate per Sqm				54.61	
			say, Rs	54.60	

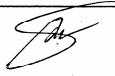




## 5.3. CONCRETE WORK

Sr.No.	Item	Rate	Unit
5.3.1	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6 ) with approved quality of graded stone chips ( 20 mm and down )and coarse granular sand of requisite F.M in lug slab, cross and longitudinal sleepers for lining of canals including cost of form work and its removal, curing, royalty and all other taxes etc all complete job as per specifications and direction of E/I.		
	Patna Urban	8618.40	Per M <sup>3</sup>
	Patna	8618.40	Per M <sup>3</sup>
	Muzaffarpur	8618.40	Per M <sup>3</sup>
	Darbhanga	8618.40	Per M <sup>3</sup>
	Bhagalpur	8591.70	Per M <sup>3</sup>
	Munger	8591.70	Per M <sup>3</sup>
	Saharsa	8618.40	Per M <sup>3</sup>
	Purnea	8618.40	Per M <sup>3</sup>
	Gaya	8532.80	Per M <sup>3</sup>
	Saran	8591.70	Per M <sup>3</sup>
5.3.2	Providing and laying P.C.C.M-75 with nominal mix of (1:4:8) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates Gr III Taken)		
	Patna Urban	3488.70	Per M <sup>3</sup>
	Patna	3488.70	Per M <sup>3</sup>
	Muzaffarpur	3488.70	Per M <sup>3</sup>
	Darbhanga	3488.70	Per M <sup>3</sup>
	Bhagalpur	3468.20	Per M <sup>3</sup>
	Munger	3468.20	Per M <sup>3</sup>
	Saharsa	3488.70	Per M <sup>3</sup>
	Purnea	3488.70	Per M <sup>3</sup>
	Gaya	3423.00	Per M <sup>3</sup>
	Saran	3468.20	Per M <sup>3</sup>
5.3.3	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design )( Rate of Coarse aggregates Gr IV Taken)		
	Patna Urban	3884.80	Per M <sup>3</sup>
	Patna	3884.80	Per M <sup>3</sup>
	Muzaffarpur	3884.80	Per M <sup>3</sup>
	Darbhanga	3884.80	Per M <sup>3</sup>

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		Bhagalpur	3858.10	Per M <sup>3</sup>
		Munger	3858.10	Per M <sup>3</sup>
		Saharsa	3884.80	Per M <sup>3</sup>
		Purnea	3884.80	Per M <sup>3</sup>
		Gaya	3799.30	Per M <sup>3</sup>
		Saran	3858.10	Per M <sup>3</sup>
5.3.4	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates 20 mm To 10 mm Taken )			
		Patna Urban	4769.60	Per M <sup>3</sup>
		Patna	4769.60	Per M <sup>3</sup>
		Muzaffarpur	4769.60	Per M <sup>3</sup>
		Darbhanga	4769.60	Per M <sup>3</sup>
		Bhagalpur	4731.20	Per M <sup>3</sup>
		Munger	4731.20	Per M <sup>3</sup>
		Saharsa	4769.60	Per M <sup>3</sup>
		Purnea	4769.60	Per M <sup>3</sup>
		Gaya	4646.60	Per M <sup>3</sup>
		Saran	4731.20	Per M <sup>3</sup>
5.3.5	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates 20 mm To 10 mm Taken)			
		Patna Urban	5389.00	Per M <sup>3</sup>
		Patna	5389.00	Per M <sup>3</sup>
		Muzaffarpur	5389.00	Per M <sup>3</sup>
		Darbhanga	5389.00	Per M <sup>3</sup>
		Bhagalpur	5340.00	Per M <sup>3</sup>
		Munger	5340.00	Per M <sup>3</sup>
		Saharsa	5389.00	Per M <sup>3</sup>
		Purnea	5389.00	Per M <sup>3</sup>
		Gaya	5232.10	Per M <sup>3</sup>
		Saran	5340.00	Per M <sup>3</sup>
5.3.6	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1.:2) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )			

	Patna Urban	6828.70	Per M <sup>3</sup>
	Patna	6828.70	Per M <sup>3</sup>
	Muzaffarpur	6828.70	Per M <sup>3</sup>
	Darbhanga	6828.70	Per M <sup>3</sup>
	Bhagalpur	6756.30	Per M <sup>3</sup>
	Munger	6756.30	Per M <sup>3</sup>
	Saharsa	6828.70	Per M <sup>3</sup>
	Purnea	6828.70	Per M <sup>3</sup>
	Gaya	6596.80	Per M <sup>3</sup>
	Saran	6756.30	Per M <sup>3</sup>
5.3.7	Providing and laying P.C.C. M-75 with nominal mix of (1:4:8) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates Gr III Taken )		
	Patna Urban	3518.90	Per M <sup>3</sup>
	Patna	3518.90	Per M <sup>3</sup>
	Muzaffarpur	3518.90	Per M <sup>3</sup>
	Darbhanga	3518.90	Per M <sup>3</sup>
	Bhagalpur	3498.40	Per M <sup>3</sup>
	Munger	3498.40	Per M <sup>3</sup>
	Saharsa	3518.90	Per M <sup>3</sup>
	Purnea	3518.90	Per M <sup>3</sup>
	Gaya	3453.30	Per M <sup>3</sup>
	Saran	3498.40	Per M <sup>3</sup>
5.3.8	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6 ) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design )( Rate of Coarse aggregates Gr IV Taken)		
	Patna Urban	3915.10	Per M <sup>3</sup>
	Patna	3915.10	Per M <sup>3</sup>
	Muzaffarpur	3915.10	Per M <sup>3</sup>
	Darbhanga	3915.10	Per M <sup>3</sup>
	Bhagalpur	3888.40	Per M <sup>3</sup>
	Munger	3888.40	Per M <sup>3</sup>
	Saharsa	3915.10	Per M <sup>3</sup>
	Purnea	3915.10	Per M <sup>3</sup>
	Gaya	3829.50	Per M <sup>3</sup>
	Saran	3888.40	Per M <sup>3</sup>




5.3.9	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing,, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	4799.90	Per M <sup>3</sup>
	Patna	4799.90	Per M <sup>3</sup>
	Muzaffarpur	4799.90	Per M <sup>3</sup>
	Darbhanga	4799.90	Per M <sup>3</sup>
	Bhagalpur	4761.50	Per M <sup>3</sup>
	Munger	4761.50	Per M <sup>3</sup>
	Saharsa	4799.90	Per M <sup>3</sup>
	Purnea	4799.90	Per M <sup>3</sup>
	Gaya	4676.80	Per M <sup>3</sup>
	Saran	4761.50	Per M <sup>3</sup>
5.3.10	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing,, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	5419.20	Per M <sup>3</sup>
	Patna	5419.20	Per M <sup>3</sup>
	Muzaffarpur	5419.20	Per M <sup>3</sup>
	Darbhanga	5419.20	Per M <sup>3</sup>
	Bhagalpur	5370.30	Per M <sup>3</sup>
	Munger	5370.30	Per M <sup>3</sup>
	Saharsa	5419.20	Per M <sup>3</sup>
	Purnea	5419.20	Per M <sup>3</sup>
	Gaya	5262.40	Per M <sup>3</sup>
	Saran	5370.30	Per M <sup>3</sup>
5.3.11	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )		
	Patna Urban	6811.20	Per M <sup>3</sup>
	Patna	6811.20	Per M <sup>3</sup>
	Muzaffarpur	6811.20	Per M <sup>3</sup>
	Darbhanga	6811.20	Per M <sup>3</sup>
	Bhagalpur	6739.50	Per M <sup>3</sup>
	Munger	6739.50	Per M <sup>3</sup>

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		Saharsa	6811.20	Per M <sup>3</sup>
		Purnea	6811.20	Per M <sup>3</sup>
		Gaya	6581.50	Per M <sup>3</sup>
		Saran	6739.50	Per M <sup>3</sup>
5.3.12	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in deck slab with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )			
		Patna Urban	4800.20	Per M <sup>3</sup>
		Patna	4800.20	Per M <sup>3</sup>
		Muzaffarpur	4800.20	Per M <sup>3</sup>
		Darbhanga	4800.20	Per M <sup>3</sup>
		Bhagalpur	4761.80	Per M <sup>3</sup>
		Munger	4761.80	Per M <sup>3</sup>
		Saharsa	4800.20	Per M <sup>3</sup>
		Purnea	4800.20	Per M <sup>3</sup>
		Gaya	4677.10	Per M <sup>3</sup>
		Saran	4761.80	Per M <sup>3</sup>
5.3.13	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3 ) in deck slab with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 20 mm To 10 mm Taken )			
		Patna Urban	5419.20	Per M <sup>3</sup>
		Patna	5419.20	Per M <sup>3</sup>
		Muzaffarpur	5419.20	Per M <sup>3</sup>
		Darbhanga	5419.20	Per M <sup>3</sup>
		Bhagalpur	5370.30	Per M <sup>3</sup>
		Munger	5370.30	Per M <sup>3</sup>
		Saharsa	5419.20	Per M <sup>3</sup>
		Purnea	5419.20	Per M <sup>3</sup>
		Gaya	5262.40	Per M <sup>3</sup>
		Saran	5370.30	Per M <sup>3</sup>
5.3.14	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 10 mm To 5 mm Taken )			
		Patna Urban	4700.60	Per M <sup>3</sup>
		Patna	4700.60	Per M <sup>3</sup>
		Muzaffarpur	4700.60	Per M <sup>3</sup>
		Darbhanga	4700.60	Per M <sup>3</sup>

		Bhagalpur	4662.20	Per M <sup>3</sup>
		Munger	4662.20	Per M <sup>3</sup>
		Saharsa	4700.60	Per M <sup>3</sup>
		Purnea	4700.60	Per M <sup>3</sup>
		Gaya	4577.60	Per M <sup>3</sup>
		Saran	4662.20	Per M <sup>3</sup>
5.3.15	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:1.5:3) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)( Rate of Coarse aggregates 10 mm To 5 mm Taken )			
		Patna Urban	5325.40	Per M <sup>3</sup>
		Patna	5325.40	Per M <sup>3</sup>
		Muzaffarpur	5325.40	Per M <sup>3</sup>
		Darbhanga	5325.40	Per M <sup>3</sup>
		Bhagalpur	5276.40	Per M <sup>3</sup>
		Munger	5276.40	Per M <sup>3</sup>
		Saharsa	5325.40	Per M <sup>3</sup>
		Purnea	5325.40	Per M <sup>3</sup>
		Gaya	5168.50	Per M <sup>3</sup>
		Saran	5276.40	Per M <sup>3</sup>
5.3.16	Providing and laying dry pitching with precast cement concrete block of size 600 mm x 600 mm x 300 mm in M-75 with nominal mix of (1:4:8) in floor and flank wall with approved quality of graded coarse aggregate of required grade ( as per design ) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well royalty and all taxes complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design )( Rate of Coarse aggregates Gr III Taken)			
		Patna Urban	5935.40	Per M <sup>3</sup>
		Patna	5935.40	Per M <sup>3</sup>
		Muzaffarpur	5935.40	Per M <sup>3</sup>
		Darbhanga	5935.40	Per M <sup>3</sup>
		Bhagalpur	5914.90	Per M <sup>3</sup>
		Munger	5914.90	Per M <sup>3</sup>
		Saharsa	5935.40	Per M <sup>3</sup>
		Purnea	5935.40	Per M <sup>3</sup>
		Gaya	5869.80	Per M <sup>3</sup>
		Saran	5914.90	Per M <sup>3</sup>
5.3.17	Providing and laying dry pitching with precast cement concrete blocks of size 600 mm x 600 mm x 300 mm in M-100 with nominal mix of (1:3:6) in floor and flank wall with approved quality of graded coarse aggregate of required grade ( as per design ) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well royalty and all taxes complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) ( Rate of Coarse aggregates Gr III Taken )			
		Patna Urban	6357.80	Per M <sup>3</sup>
		Patna	6357.80	Per M <sup>3</sup>

	Muzaffarpur	6357.80	Per M <sup>3</sup>
	Darbhanga	6357.80	Per M <sup>3</sup>
	Bhagalpur	6330.70	Per M <sup>3</sup>
	Munger	6330.70	Per M <sup>3</sup>
	Saharsa	6357.80	Per M <sup>3</sup>
	Purnea	6357.80	Per M <sup>3</sup>
	Gaya	6270.90	Per M <sup>3</sup>
	Saran	6330.70	Per M <sup>3</sup>
5.3.18	Providing shuttering including strutting,propping etc. and its removal after use in foundation as per specifications and direction of E/I.	587.20	Per M <sup>2</sup>
5.3.19	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	587.20	Per M <sup>2</sup>
5.3.20	Providing centering including strutting, propping etc. and removing after use in deck slab as per specifications and direction of E/I.	689.60	Per M <sup>2</sup>
5.3.21	Providing M.S reinforcement( Plain steel ) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
	(a).Dia of bar 6 mm	65203.00	Per M.T
	(B).Dia of bar above 6 mm to 12 mm	65203.00	Per M.T
	(B).Dia of bar above 14 mm to 50 mm	65203.00	Per M.T
5.3.22	Providing M.S reinforcement ( Tor steel ) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
(a)	T.M.T.GRADE Fe-415- 8 mm	#VALUE!	Per M.T
(b)	T.M.T.GRADE Fe-415- 10 mm	#VALUE!	Per M.T
(c)	T.M.T.GRADE Fe-415- 12 mm	#VALUE!	Per M.T
(d)	T.M.T.GRADE Fe-415- 16 mm	#VALUE!	Per M.T
(e)	T.M.T.GRADE Fe-415- 20 mm	#VALUE!	Per M.T
(f)	T.M.T.GRADE Fe-415- 25 mm	#VALUE!	Per M.T
(g)	T.M.T.GRADE Fe-415- 28 mm	#VALUE!	Per M.T
(h)	T.M.T.GRADE Fe-415- 32 mm	#VALUE!	Per M.T
(i)	T.M.T.GRADE Fe-500- 8 mm	58358.10	Per M.T
(j)	T.M.T.GRADE Fe-500- 10 mm	57077.60	Per M.T
(k)	T.M.T.GRADE Fe-500- 12 mm	56430.00	Per M.T
(l)	T.M.T.GRADE Fe-500- 16 mm	56819.00	Per M.T
(m)	T.M.T.GRADE Fe-500- 20 mm	56430.00	Per M.T
(n)	T.M.T.GRADE Fe-500- 25 mm	56430.00	Per M.T
(o)	T.M.T.GRADE Fe-500- 28 mm	56430.00	Per M.T
(p)	T.M.T.GRADE Fe-500- 32 mm	56430.00	Per M.T
(q)	T.M.T.GRADE Fe-500- 36 mm	#VALUE!	Per M.T

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## 5.3. CONCRETE WORK

Sr.No.	Description	Quantity	Unit	Rate	Amount	
5.3.1	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) with approved quality of graded stone chips (20 mm and down) and coarse granular sand of requisite F.M in lug slab, cross and longitudinal sleepers for lining of canals including cost of form work and its removal, curing, royalty and all other taxes etc all complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
A.	<b>Materials</b>					
	Stone chips (20 mm & down))	2.66	M <sup>3</sup>	691.30	1838.86	
	Sand	1.330	M <sup>3</sup>	145.20	193.12	
	Cement	0.443	M <sup>3</sup>	9118.00	4039.27	
B.	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer	1.42	hr	80.00	113.60	
	(ii) Vibrator vide 3.22	1.42	hr	107.27	152.32	
C.	<b>Shuttering</b>					
	I. Form work for curved portion for 2.832 cum of concrete assuming 18.6sqm Vide item no 5.3.18	18.6	sqm	587.20	10921.92	
D.	<b>Labour</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1.5	nos	295.00	442.50	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
	<b>Total</b>				21013.59	
	Add Overhead charge & C.P@15%				3152.04	
					24165.63	
	Add 1% Cess				241.66	
					24407.28	8618.39
		Say Rs		<b>8618.40</b>	Per M <sup>3</sup>	
5.3.2	Providing and laying P.C.C. M-75 with nominal mix of (1:4:8) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M, washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
A.	<b>MATERIALS</b>					

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	Coarse aggregates Gr III (Rate of approved quality of aggregate as per Design)	2.718	M <sup>3</sup>	490.30	1332.64	
	Sand	1.368	M <sup>3</sup>	145.20	198.63	
	Cement	0.34	M <sup>3</sup>	9118.00	3100.12	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i) Concrete mixer (10 H.P.) for 2.832 cum consists on the basic of mixer production capacity 1.98 m <sup>3</sup> per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
	Total				8506.24	
	Add Overhead charge & C.P@15%				1275.94	
					9782.18	
	Add 1% Cess				97.82	
					9880.00	3488.70
		Say Rs		3488.70	Per M <sup>3</sup>	
<b>5.3.3</b>	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates Gr IV (Rate of approved quality of aggregate as per Design)	2.66	M <sup>3</sup>	513.10	1364.85	
	Sand	1.33	M <sup>3</sup>	145.20	193.12	
	Cement	0.443	M <sup>3</sup>	9118.00	4039.27	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i) Concrete mixer (10 H.P.) for 2.832 cum consists on the basic of mixer production capacity 1.98 m <sup>3</sup> per hour. Used rate per hourx2.832/1.98	80.00			114.42	

	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour.	107.27				
	Used rate per hourx2.832/1.98				153.43	
	<b>Total</b>				9472.09	
	Add Overhead charge & C.P@15%				1420.81	
					10892.90	
	Add 1% Cess				108.93	
					11001.83	3884.83
		Say Rs		3884.80	Per M <sup>3</sup>	
5.3.4	Providing and laying P.C.C. M-150 with nominal mix of (1:2:4 ) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put= 2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates (20 mm To 10 mm) (Taking Rate of approved quality of aggregate as per Design)	2.548	M <sup>3</sup>	691.30	1761.43	
	Sand	1.274	M <sup>3</sup>	145.20	184.98	
	Cement	0.637	M <sup>3</sup>	9118.00	5808.17	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour.	107.27			153.43	
	Used rate per hourx2.832/1.98				153.43	
	<b>Total</b>				11629.43	
	Add Overhead charge & C.P@15%				1744.42	
					13373.85	
	Add 1% Cess				133.74	
					13507.59	4769.63
		Say Rs		4769.60	Per M <sup>3</sup>	

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5.3.5	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	2.436	M <sup>3</sup>	691.30	1684.01	
	Sand	1.218	M <sup>3</sup>	145.20	176.85	
	Cement	0.812	M <sup>3</sup>	9118.00	7403.82	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i) Concrete mixer (10 H.P.) for 2.832 cum consists on the basic of mixer production capacity 1.98 m <sup>3</sup> per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
	Total				13139.53	
	Add Overhead charge & C.P@15%				1970.93	
					15110.46	
	Add 1% Cess				151.10	
					15261.56	5388.97
		Say Rs		5389.00	Per M <sup>3</sup>	
5.3.6	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1.:2) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
						Unit-per M <sup>3</sup>

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	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	2.40	M <sup>3</sup>	691.30	1659.12	
	Sand	1.20	M <sup>3</sup>	145.20	174.24	
	Cement	1.20	M <sup>3</sup>	9118.00	10941.6	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i) Concrete mixer (10 H.P.) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27				
	Total				153.43	
	Add Overhead charge & C.P@15%				16649.81	
					2497.47	
	Add 1% Cess				19147.28	
					191.47	
					19338.76	6828.66
		Say Rs		6828.70	Per M <sup>3</sup>	
5.3.7	Providing and laying P.C.C. M-75 with nominal mix of (1:4:8) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates Gr III (Rate of approved quality of aggregate as per Design)	2.718	M <sup>3</sup>	490.30	1332.64	
	Sand	1.368	M <sup>3</sup>	145.20	198.63	
	Cement	0.34	M <sup>3</sup>	9118.00	3100.12	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1.25	nos	295.00	368.75	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i) Concrete mixer (10 H.P.) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the	107.27				

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	basic of vibrator capacity 1.98 cum per hour.					
	Used rate per hourx2.832/1.98				153.43	
	<b>Total</b>				8579.99	
	<b>Add Overhead charge &amp; C.P@15%</b>				1287.00	
					9866.99	
	<b>Add 1% Cess</b>				98.67	
					9965.66	3518.95
		Say Rs		<b>3518.90</b>	Per M <sup>3</sup>	
5.3.8	Providing and laying P.C.C. M-100 with nominal mix of (1:3.:6 ) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing., royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates Gr IV (Cost of coarse aggregate as per Design)	2.66	M <sup>3</sup>	513.10	1364.85	
	Sand	1.33	M <sup>3</sup>	145.20	193.12	
	Cement	0.443	M <sup>3</sup>	9118.00	4039.27	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1.25	nos	295.00	368.75	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
	<b>Total</b>				9545.84	
	<b>Add Overhead charge &amp; C.P@15%</b>				1431.88	
					10977.71	
	<b>Add 1% Cess</b>				109.78	
					11087.49	3915.07
		Say Rs		<b>3915.10</b>	Per M <sup>3</sup>	

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5.3.9	Providing and laying P.C.C. M-150 with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates ( 20 mm to 10 mm ) (Cost of coarse aggregate as per Design)	2.548	M <sup>3</sup>	691.30	1761.4324	
	Sand	1.274	M <sup>3</sup>	145.20	184.98	
	Cement	0.637	M <sup>3</sup>	9118.00	5808.166	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1.25	nos	295.00	368.75	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basis of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. to vibrate 2.832 cum on the basis of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
	<b>Total</b>				11703.1844	
	Add Overhead charge & C.P@15%				1755.48	
					13458.66	
	Add 1% Cess				134.59	
					13593.25	4799.88
		Say Rs		4799.90	Per M <sup>3</sup>	
5.3.10	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates ( 20 mm to 10 mm ) (Cost of coarse aggregate as per Design)	2.436	M <sup>3</sup>	691.30	1684.01	

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	Sand	1.218	M <sup>3</sup>	145.20	176.85	
	Cement	0.812	M <sup>3</sup>	9118.00	7403.82	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1.25	nos	295.00	368.75	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
	Add Overhead charge & C.P@15%				13213.28	
					1981.99	
	Add 1% Cess				15195.27	
					151.95	
					15347.22	5419.22
		Say Rs		5419.20	Per M <sup>3</sup>	
5.3.11	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1:2 ) superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates ( 20 mm to 10 mm ) (Cost of coarse aggregate as per Design)	2.379	M <sup>3</sup>	691.30	1644.60	
	Sand	1.189	M <sup>3</sup>	145.20	172.64	
	Cement	1.189	M <sup>3</sup>	9118.00	10841.30	
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1.25	nos	295.00	368.75	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
					16007.15	

	Add Overhead charge & C.P@15%				2491.07	
					19098.22	
	Add 1% Cess				190.98	
					19289.20	6811.16
		Say Rs		<b>6811.20</b>	Per M <sup>3</sup>	
5.3.12	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in deck slab with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M, washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
A.	<b>MATERIALS</b>					
	Coarse aggregates ( 20 mm to 10 mm ) (Cost of coarse aggregate as per Design)	2.549	M <sup>3</sup>	691.30	1762.1237	
	Sand	1.274	M <sup>3</sup>	145.20	184.98	
	Cement	0.637	M <sup>3</sup>	9118.00	5808.17	
B.	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr !!	1.25	nos	295.00	368.75	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
C.	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
					11703.88	
	Add Overhead charge & C.P@15%				1755.58	
					13459.46	
	Add 1% Cess				134.59	
					13594.05	4800.16
		Say Rs		<b>4800.20</b>	Per M <sup>3</sup>	
5.3.13	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3 ) in deck slab with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					

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Taking Out put=2.832 Cum					
<b>A. MATERIALS</b>					
Coarse aggregates ( 20 mm to 10 mm ) (Cost of coarse aggregate as per Design)	2.436	M <sup>3</sup>	691.30	1684.01	
Sand	1.218	M <sup>3</sup>	145.20	176.85	
Cement	0.812	M <sup>3</sup>	9118.00	7403.82	
<b>B. LABOUR</b>					
Head mason	0.5	nos	330.00	165.00	
Mason Gr II	1.25	nos	295.00	368.75	
Unskilled mazdoor	12	nos	242.00	2904.00	
Bhisti	1	nos	243.00	243.00	
<b>C. HIRE CHARGES OF MACHINE</b>					
(i) Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
Add Overhead charge & C.P@15%				13213.28	
				1981.99	
Add 1% Cess				15195.27	
				151.95	
				15347.22	5419.22
	Say Rs		5419.20	Per M <sup>3</sup>	
5.3.14 Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
Unit :-Per Cum					
Taking Out put=2.832 Cum					
<b>A. MATERIALS</b>					
Coarse aggregates ( 10 mm to 5 mm ) (Cost of coarse aggregate as per Design)	2.548	M <sup>3</sup>	567.40	1445.74	
Sand	1.274	M <sup>3</sup>	145.20	184.98	
Cement	0.637	M <sup>3</sup>	9118.00	5808.17	
<b>B. LABOUR</b>					
Head mason	0.5	nos	330.00	165.00	
Mason Gr II	1.5	nos	295.00	442.50	
Unskilled mazdoor	12	nos	242.00	2904.00	
Bhisti	1	nos	243.00	243.00	
<b>C. HIRE CHARGES OF MACHINE</b>					
(i) Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
(ii) Vibrator 1no. To vibrate 2.832 cum on the	107.27				

	basic of vibrator capacity 1.98 cum per hour.					
	Used rate per hourx2.832/1.98				153.43	
					11461.24	
	Add Overhead charge & C.P@15%				1719.19	
					13180.42	
	Add 1% Cess				131.80	
					13312.23	4700.65
		Say Rs		4700.60	Per M <sup>3</sup>	
5.3.15	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design ) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty and all taxes etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
A.	<b>MATERIALS</b>					
	Coarse aggregates ( 10 mm to 5 mm ) (Cost of coarse aggregate as per Design)	2.435	M <sup>3</sup>	567.40	1381.62	
	Sand	1.217	M <sup>3</sup>	145.20	176.71	
	Cement	0.812	M <sup>3</sup>	9118.00	7403.82	
B.	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1.5	nos	295.00	442.50	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
C.	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists	80.00				
	on the basic of mixer production capacity 1.98 m3					
	per hour. Used rate per hourx2.832/1.98				114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the	107.27				
	basic of vibrator capacity 1.98 cum per hour.					
	Used rate per hourx2.832/1.98				153.43	
					12984.49	
	Add Overhead charge & C.P@15%				1947.67	
					14932.17	
	Add 1% Cess				149.32	
					15081.49	5325.39
		Say Rs		5325.40	Per M <sup>3</sup>	

5.3.16	Providing and laying dry pitching with precast cement concrete blocks of size 600 mm x 600 mm x 300 mm in M-75 with nominal mix of (1:4:8) in floor and flank wall with approved quality of graded coarse aggregate of required grade (as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well royalty and all taxes complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
<b>A.</b>	<b>MATERIALS</b>					
	Coarse aggregates Gr III (Cost of coarse aggregate as per Design)	2.720	M <sup>3</sup>	490.30	1333.62	
	Sand	1.360	M <sup>3</sup>	145.20	197.47	
	Cement	0.34	M <sup>3</sup>	9118.00	3100.12	
					4631.21	A
<b>B.</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
	Unskilled mazdoor for placing blocks in position	4	nos	242.00	968.00	
					4575.00	B
<b>C.</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists	80.00				
	on the basic of mixer production capacity 1.98 m3					
	per hour. Used rate per hourx2.832/1.98				114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the	107.27				
	basic of vibrator capacity 1.98 cum per hour.					
	Used rate per hourx2.832/1.98				153.43	
					267.85	C
<b>D.</b>	<b>SHUTTERING CHARGES</b>					
	Shuttering 25 blocks 25 mm thick mango planks					
	with 10 % wastage 20.45 sqm 20.45X25/1000	0.51	M <sup>3</sup>	33253.00	17000.5963	
	Add 1 % for cost of nails and spikes				170.01	
	<b>LABOUR</b>					
	Carpenter Gr II	3	Rs	295.00	885.00	
	Unskilled mazdoor	8	Rs	242.00	1936.00	
	Assuming 4 uses to calculate				19991.60	a
	Cost of shuttering for 2.832 cum = a/4				4997.90	D
	<b>TOTAL(A+B+C+D)</b>				14471.96	
	Add Overhead charge & C.P@15%				2170.79	
					16642.75	
	Add 1% Cess				166.43	
					16809.18	5935.45
		Say Rs		5935.40	Per M <sup>3</sup>	

5.3.17	Providing and laying dry pitching with precast cement concrete blocks of size 600 mm x 600 mm x 300 mm in M-100 with nominal mix of (1:3:6) in floor and flank wall with approved quality of graded coarse aggregate of required grade( as per design ) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well royalty and all taxes complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
<b>A</b>	<b>MATERIALS</b>					
	Coarse aggregates Gr IV (Cost of coarse aggregate as per Design)	2.66	M <sup>3</sup>	513.10	1364.85	
	Sand	1.33	M <sup>3</sup>	145.20	193.12	
	Cement	0.45	M <sup>3</sup>	9118.00	4103.10	
					5661.06	A
<b>B</b>	<b>LABOUR</b>					
	Head mason	0.5	nos	330.00	165.00	
	Mason Gr II	1	nos	295.00	295.00	
	Unskilled mazdoor	12	nos	242.00	2904.00	
	Bhisti	1	nos	243.00	243.00	
	Unskilled mazdoor for placing blocks in position	4	nos	242.00	968.00	
					4575.00	B
<b>C</b>	<b>HIRE CHARGES OF MACHINE</b>					
	(i)Concrete mixer (10 H.P ) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	80.00			114.42	
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	107.27			153.43	
					267.85	C
<b>D</b>	<b>SHUTTERING CHARGES</b>					
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20.45X25/1000 0.51	0.51	PerM <sup>3</sup>	33253.00	17000.5963	
	Add 1 % for cost of nails and spikes				170.01	
	<b>LABOUR</b>					
	Carpenter Gr II	3	Rs	295.00	885.00	
	Unskilled mazdoor	8	Rs	242.00	1936.00	
	Assuming 4 uses to calculate				19991.60	a
	Cost of shuttering for 2.832 cum = a/4				4997.90	D
	<b>TOTAL=A+B+C+D</b>				15501.81	
	Add Overhead charge & C.P@15%				2325.27	
					17827.09	
	Add 1% Cess				178.27	
					18005.36	6357.82
		Say Rs		6357.80	Per M <sup>3</sup>	
5.3.18	Providing shuttering including strutting, propping etc. and its removal after use in foundation as per specifications and direction of E/I.					

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		Unit :-Per Sqm					
		Taking Out put=9.30 Sqm					
<b>A</b>	<b>MATERIALS</b>						
	Local wood planks 38 mm thick =9.3 x 38 / 1000	0.353	cum				
	Add 5 % wastage	0.017	cum				
	Cost of 0.37 cum lock wood planks	0.37	cum	33253.00	12303.61		
	Add cost for strutting and propping @ 10 % of above				1230.36		
	Total cost of wood				13533.97		
	Assuming 4 uses to calculate	4	use				
	Cost of shuttering for 2.832 cum total cost/4				3383.49		
	Add 1 % for cost of nails and spikes on total cost of wood				135.34		
					3518.83		A
<b>B</b>	<b>LABOUR</b>						
	Carpenter Gr II	1.5	nos	295.00	442.50		
	Unskilled mazdoor	2.5	nos	242.00	605.00		
					1047.50		B
<b>C</b>	<b>Carriage of materials</b>						
	Cost of the carriage of materials from Godown and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materials				135.34		C
	TOTAL cost per 9.3 sqm =A+B+C				4701.67		
	Add Overhead charge & C.P@15%				705.25		
					5406.92		
	Add 1% Cess				54.07		
					5460.99	587.20	
		Say Rs		587.20	Per M <sup>2</sup>		
5.3.19	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.						
		Unit :-Per Sqm					
		Taking Out put=9.30 Sqm					
<b>A</b>	<b>MATERIALS</b>						
	Local wood planks 38 mm thick 9.3 x 38 / 1000 =0	0.353	cum				
	Add 5 % wastage	0.017	cum				
	Cost of 0.37 cum lock wood planks	0.37	cum	33253.00	12303.61		
	Add cost for strutting and propping @ 10 % of above				1230.36		
	Total cost of wood				13533.97		
	Assuming 4 uses to calculate	4	use				
	Cost of shuttering for 2.832 cum total cost/4				3383.49		
	Add 1 % for cost of nails and spikes on total cost of wood				135.34		
					3518.83		A
<b>B</b>	<b>LABOUR</b>						
	Carpenter Gr II	1.5	nos	295.00	442.50		
	Unskilled mazdoor	2.5	nos	242.00	605.00		
					1047.50		B
<b>C</b>	<b>Carriage of materials</b>						

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CV

	Cost of the carriage of materials from Godown and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materials				135.34	C
	TOTAL cost per 9.3 sqm =A+B+C				4701.67	
	Add Overhead charge & C.P@15%				705.25	
					5406.92	
	Add 1% Cess				54.07	
					5460.99	587.20
		Say Rs		587.20	Per M <sup>2</sup>	
5.3.20	Providing centering including strutting,propping etc. and removing after use in deck slab as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =22.326 Sqm					
	(Assuming size in slab 7.32 x 3.05 =22.326 sqm )					
<b>A.</b>	<b>MATERIALS</b>					
	a. 40 mm thick local wood planks 22.326 x40 / 1000					
	=0.85					
	Add 5 % for wastegcs					
	=0.04					
	=0.89	0.89	cum	33253.00		
	Assuming 4 uses to calculate					
	Cost of planks per use =0.89 x rate of local wood /4				7398.79	
	b. Assuming av. Height of slab from G.L=3.66 M					
	150 mm sal bullah required =78 nos					
	Length of sal bullah =78 x3.66 =285.48 Mtr	285.48	M	38.40		
	(Assuming sal bullah to be used 10 times for centerins					
	=285.48 x Rate per Mtr / 10				1096.24	
	c. Salwood scanting required (75 mm x 63 mm size) =0.311 cum	0.311	cum	54109.00		
	( Assuming 10 uses )					
	Cost per use =0.311 x Rate per Mtr/10				1682.79	
					10177.83	
	Add 1 % for cost of nails and spikes				101.78	
					10279.60	( A )
<b>B.</b>	<b>LABOUR</b>					
	Carpenter Gr II	4	nos	295.00	1180.00	
	Unskilled mazdoor	7	nos	242.00	1694.00	
<b>C.</b>	<b>Carrage of matters</b>				2874.00	( B )
	Cost of the carriage of materials from Godown and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materials ( A )				101.78	( C )
	TOTAL cost per 22.326 sqm =A+B+C				13255.38	
	Add Overhead charge & C.P@15%				1988.31	
					15243.69	
	Add 1% Cess				152.44	
					15396.13	689.61
		Say Rs		689.60	Per M <sup>2</sup>	

5.3.21	Providing M.S reinforcement( Plain steel ) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.					
		Unit :-Per M.T				
		Assumng 1.00M.T				
	<b>(a).Dia of bar 6mm</b>					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage )	1.05	M.T	46947.50	49294.88	A
(B).	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
					6842.00	B
	Total of A+B				56136.88	
	Add Overhead charge & C.P@15%				8420.53	
					64557.41	
	Add 1% Cess				645.57	
					65202.98	65203.00
		Say Rs		65203.00	Per M.T	
	<b>(b)Dia. of bar above 6 mm to 12 mm</b>					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage )	1.05	M.T	46947.50	49294.88	A
(B).	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
					6842.00	B
	Total of A+B				56136.88	
	Add Overhead charge & C.P@15%				8420.53	
					64557.41	
	Add 1% Cess				645.57	
					65202.98	65203.00
		Say Rs		65203.00	Per M.T	
	<b>(c)Dia of bar above 14 mm to 50 mm</b>					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage )	1.05	M.T	46947.50	49294.88	A
(B).	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
					6842.00	B
	Total of A+B				56136.88	
	Add Overhead charge & C.P@15%				8420.53	
					64557.41	
	Add 1% Cess				645.57	

				65202.98	65202.98
		Say Rs		65203.00	Per M.T
5.3.22	Providing M.S reinforcement ( Tor steel ) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.				
	Unit :-Per M.T				
	Assuming 1.00 M.T				
(a).	<b>T.M.T Fe-415 8 mm</b>				
(A).	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	#VALUE!	#VALUE!
(B).	i. Annealed wire	14	Kg	65.50	917.00
	ii Black smith Gr II	9	nos	295.00	2655.00
	iii. Head black smith	1	nos	330.00	330.00
	iv. Skilled mazdoor	8	nos	307.00	2456.00
	v Unskilled mazdoor	2	nos	242.00	484.00
	Add Overhead charge & C.P@15%			#VALUE!	#VALUE!
	Add 1% Cess			#VALUE!	#VALUE!
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M.T
(b).	<b>T.M.T Fe-415 10 mm</b>				
(A).	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	#VALUE!	#VALUE!
(B).	i. Annealed wire	14	Kg	65.50	917.00
	ii Black smith Gr II	9	nos	295.00	2655.00
	iii. Head black smith	1	nos	330.00	330.00
	iv. Skilled mazdoor	8	nos	307.00	2456.00
	v Unskilled mazdoor	2	nos	242.00	484.00
	Add Overhead charge & C.P@15%			#VALUE!	#VALUE!
	Add 1% Cess			#VALUE!	#VALUE!
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M.T
(c).	<b>T.M.T Fe-415 12 mm</b>				
(A).	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	#VALUE!	#VALUE!
(B).	i. Annealed wire	14	Kg	65.50	917.00
	ii Black smith Gr II	9	nos	295.00	2655.00
	iii. Head black smith	1	nos	330.00	330.00
	iv. Skilled mazdoor	8	nos	307.00	2456.00
	v Unskilled mazdoor	2	nos	242.00	484.00
	Add Overhead charge & C.P@15%			#VALUE!	#VALUE!
	Add 1% Cess			#VALUE!	#VALUE!
				#VALUE!	#VALUE!

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		Say Rs		#VALUE!	Per M.T	
<b>(d).</b>	<b>T.M.T Fe -415 16 mm</b>					
<b>(A).</b>	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	#VALUE!	#VALUE!	
<b>(B).</b>	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M.T	
<b>(e).</b>	<b>T.M.T Fe -415- 20 mm</b>					
<b>(A).</b>	Providing M.S reinforcement Plain (including 5% wastage)	1.05	M.T	#VALUE!	#VALUE!	
<b>(B).</b>	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
	Add Overhead charge & C.P@15%				6842.00	
					1026.30	
					7868.30	
	Add 1% Cess				78.68	
					7946.98	7946.98
		Say Rs		7947.00	Per M.T	
<b>(f).</b>	<b>T.M.T Fe -415- 25 mm</b>					
<b>(A).</b>	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	#VALUE!	#VALUE!	
<b>(B).</b>	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
	Add Overhead charge & C.P@15%				#VALUE!	
	Add 1% Cess				#VALUE!	
					#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M.T	
<b>(g).</b>	<b>T.M.T Fe-415 28 mm</b>					
<b>(A).</b>	Providing M.S reinforcement Plain(including 5% wastage)	1.05	M.T	#VALUE!	#VALUE!	
<b>(B).</b>	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	

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	v Unskilled mazdoor	2	nos	242.00	484.00		
					6842.00		
	Add Overhead charge & C.P@15%				1026.30		
					7868.30		
	Add 1% Cess				78.68		
					7946.98	7946.98	
				Say Rs	7947.00	Per M.T	
(h).	<b>T.M.T Fe -415 32 mm</b>						
(A).	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	#VALUE!	#VALUE!		
(B).	i. Annealed wire	14	Kg	65.50	917.00		
	ii Black smith Gr II	9	nos	295.00	2655.00		
	iii. Head black smith	1	nos	330.00	330.00		
	iv. Skilled mazdoor	8	nos	307.00	2456.00		
	v Unskilled mazdoor	2	nos	242.00	484.00		
					#VALUE!		
	Add Overhead charge & C.P@15%				#VALUE!		
					#VALUE!		
	Add 1% Cess				#VALUE!		
					#VALUE!	#VALUE!	
				Say Rs	#VALUE!	Per M.T	
(i).	<b>T.M.T Fe -500 8 mm</b>						
(A).	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	41335.00	43401.75		
(B).	i. Annealed wire	14	Kg	65.50	917.00		
	ii Black smith Gr II	9	nos	295.00	2655.00		
	iii. Head black smith	1	nos	330.00	330.00		
	iv. Skilled mazdoor	8	nos	307.00	2456.00		
	v Unskilled mazdoor	2	nos	242.00	484.00		
					50243.75		
	Add Overhead charge & C.P@15%				7536.56		
					57780.31		
	Add 1% Cess				577.80		
					58358.12	58358.12	
				Say Rs	58358.10	Per M.T	
(j).	<b>T.M.T Fe -500 10 mm</b>						
(A).	Providing M.S reinforcement Plain (including 5 % wastage )	1.05	M.T	40285.00	42299.25		
(B).	i. Annealed wire	14	Kg	65.50	917.00		
	ii Black smith Gr II	9	nos	295.00	2655.00		
	iii. Head black smith	1	nos	330.00	330.00		
	iv. Skilled mazdoor	8	nos	307.00	2456.00		
	v Unskilled mazdoor	2	nos	242.00	484.00		
					49141.25		
	Add Overhead charge & C.P@15%				7371.19		
					56512.44		
	Add 1% Cess				565.12		
					57077.56	57077.56	
				Say Rs	57077.60	Per M.T	
(k).	<b>T.M.T Fe -500 12 mm</b>						

(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage )	1.05	M.T	39754.00	41741.70	
(B).	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
					48583.70	
	Add Overhead charge & C.P@15%				7287.56	
					55871.26	
	Add 1% Cess				558.71	
					56429.97	56429.97
		Say Rs		56430.00	Per M.T	
(l).	T.M.T Fe -500 16 mm					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage )	1.05	M.T	40073.00	42076.65	
(B).	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
					48918.65	
	Add Overhead charge & C.P@15%				7337.80	
					56256.45	
	Add 1% Cess				562.56	
					56819.01	56819.01
		Say Rs		56819.00	Per M.T	
(m).	T.M.T Fe -500 20 mm					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage )	1.05	M.T	39754.00	41741.70	
(B).	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
					48583.70	
	Add Overhead charge & C.P@15%				7287.56	
					55871.26	
	Add 1% Cess				558.71	
					56429.97	56429.97
		Say Rs		56430.00	Per M.T	
(n).	T.M.T Fe -500 25 mm					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage )	1.05	M.T	39754.00	41741.70	
(B).	i. Annealed wire	14	Kg	65.50	917.00	
	ii Black smith Gr II	9	nos	295.00	2655.00	
	iii. Head black smith	1	nos	330.00	330.00	
	iv. Skilled mazdoor	8	nos	307.00	2456.00	
	v Unskilled mazdoor	2	nos	242.00	484.00	
					48583.70	