

**Bharat Heavy Electricals Limited**  
**High Pressure Boiler Plant**  
**Tiruchirappalli – 620 014. India**  
**Civil Engineering Department (Township)**

**TENDER DOCUMENT (PRICE BID)**

Name of Work	Tender Notice No	Tender Schedule No	Estimate /Tender Value	EMD
<b>MAINTENANCE OF MASONRY WORKS AT BHEL TOWNSHIP-TRICHY-CT:TS:03/18-19 (PACKAGE-A)</b>	<b>CT:TN:003/18-19</b>	<b>CT:TS:003/18-19</b>	<b>₹ 80,00,000.00 (RUPEES EIGHTY LAKH ONLY)</b>	<b>Rs. 96,000.00 (RUPEES NINETY SIX THOUSAND ONLY)</b>
<b>CEILING LEAKAGE, WATER PROOFING AND DISMANTLING WORKS AT BHEL TOWNSHIP-TRICHY - CT:TS:04/18-19 (PACKAGE-B)</b>	<b>CT:TN:003/18-19</b>	<b>CT:TS:004/18-19</b>	<b>₹ 68,00,000.00 (RUPEES SIXTY EIGHT LAKH ONLY)</b>	<b>Rs. 81600.00 (RUPEES EIGHTY ONE THOUSAND SIX HUNDRED ONLY)</b>
<b>CONSTRUCTION AND MAINTENANCE OF CONCRETE WORKS AT BHEL TOWNSHIP, TRICHY - CT:TS:05/18-19 (PACKAGE-C)</b>	<b>CT:TN:003/18-19</b>	<b>CT:TS:005/18-19</b>	<b>₹ 20,00,000.00 (RUPEES TWENTY LAKH ONLY)</b>	<b>Rs. 40,000.00 (RUPEES FORTY THOUSAND ONLY)</b>
<b>MAINTENANCE OF TILES AND FLOORING REPAIR WORKS AT BHEL TOWNSHIP, TRICHY- CT:TS:06/18-19 (PACKAGE-D)</b>	<b>CT:TN:003/18-19</b>	<b>CT:TS:006/18-19</b>	<b>₹ 32,00,000.00 (RUPEES THIRTY TWO LAKH ONLY)</b>	<b>Rs. 38400.00 (RUPEES THIRTY EIGHT THOUSAND FOUR HUNDRED ONLY)</b>

**IMPORTANT NOTE:**

**EMD & Tender cost Exemption will not be allowed to MSME / NSIC vendors** for works contract. This tender is categorized as a works contract. Hence Tenderers are compulsorily need to remit the required EMD/EMDs & Tender cost in order to participate in the Tender. Tender without corresponding EMD /EMDs & Tender cost will be summarily rejected and will not be considered for any reasons. Split and award in the ratio of 60% : 40% respectively to L1 and L2 at the L1 quoted percentage is applicable to the packages A,B,D for those Estimate / Tender Value is more than Rs.25 Lakhs.

Price Bid for Package A-Page 2 to 8 of this document  
Price Bid for Package B-Page 9 to 23 of this document  
Price Bid for Package C-Page 24 to 44 of this document  
Price Bid for Package D-Page 45 to 67 of this document  
Tenderers are required to submit the separate packages in separate covers for which they want to participate.

**PART-II (PRICE BID) (PACKAGE-A)**

**SCHEDULE - A1**

**Name of Work:** MAINTENANCE OF MASONRY WORKS AT BHEL TOWNSHIP-TRICHY-14. CT:TS:03/18-19 Tender Value:Rs.80 Lakhs

I / We \_\_\_\_\_ have read the condition of tender attached hereto and agree to abide by such conditions. I/We offer to execute the works in **T.S No. CT:TS:003/18-19 for a period of 12 months** at the percentage below / at par / above the rates contained in BHEL applicable items of Schedule of Rates 2013-14 quoted in the schedule appended below:

I / We further agree to sign an Agreement Bond to abide by the General Conditions of Contract and to carryout all works according to the specifications for materials and works of Bharat Heavy Electricals Limited, Tiruchirapalli-620 014. In case of acceptance of the tender by the BHEL, I/We bind myself/ourselves to execute the contract documents within 7 days after notice that my/our tender has been accepted and this contract has been awarded to me/us and thus failing which I/We shall have no objection to the forfeiture of the Earnest Money amount to **Rs.96,000/-** lodged with Bharat Heavy Electricals Limited, Tiruchirapalli-620 014.

I / We further agree to include all tools & plants and consumables required for the work in my / our scope but required power and water will be provided at one point by BHEL at free of cost and based on this, we have quoted our percentage.

**Note:** Details of each item of work shown in the BILL OF QUANTITIES are only approximate and the same is appended below. They are given as a guide for the purpose of tendering only and are liable to variation and alteration of the Competent Authority. The work under each item as executed shall be measured and priced at the overall percentage quoted by the contractor **Below (100-X) % / At par (100%) / Above (100+X) %** of the rates provided in Bill of Quantities appended below from **Page 03 to 08**. **Eventhough the applicable items are provided, for the operational convenience the total tender value of RS.80 Lakh will be divided as required number of Sub Work orders with required items and value.**

Sl. No.	Approx. Value of work	Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % to be quoted with respect to the rates provided in Bill of Quantities appended below from Page 03 to 08 (The percentage is to be quoted here is GST excluded) (Applicable GST will be extra)	
		In Figures	In Words
1.	<b>Rs.80 Lakh</b>		

**Examples:**

- 1. If the vendor needs to quote 5% below the schedule of rates then vendor need to write 95% in figure column and Ninety Five percent in words.**
- 2. If the vendor needs to quote at par the the schedule of rates then vendor need to write 100% in figure column and One Hundred percent in words.**
- 3.If the vendor needs to quote 5% above the schedule of rates then vendor need to write 105% in figure column and One Hundred Five percent in words**

**Note: Applicable BHEL SR(13-14) item details are given below. Contractor has to quote Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % with respect to the rates provided in Bill of Quantities below at page 02 both in figures and in words**

**BILL OF QUANTITIES**

**PACKAGE-A (53 items) CT:TS:003/18-19**

**MAINTENANCE OF MASONRY WORKS AT BHEL TOWNSHIP-TRICHY-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
1	0301A	Random rubble masonry in foundation and basement in the mix given below including simultaneous flush pointing, all as per standard specifications. Cement mortar 1:5	M3	1775.55	102.30
2	0301B	Random rubble masonry in foundation and basement in the mix given below including simultaneous flush pointing, all as per standard specifications. In cement mortar 1:6	M3	1773.45	82.50
3	0302	Coursed rubble masonry (second sort) with hard stone in foundation and plinth with Cement mortar 1:6.	M3	2070.35	75
4	0303	Extra for random rubble masonry with hard stone curved on plan for a mean radius not exceeding 6 metre.	M3	301.80	
5	0304	Extra for random rubble and coursed rubble masonry with hard stone in superstructure above plinth level and upto floor five level.	M3	645.50	
6	0305	Extra for laying stone work in or under foul position.	M3	125.20	
7	0306	Labour charges for providing random rubble masonry in foundation and basement in the mixes specified including simultaneous flush pointing, all as per standard specifications. Rough stones and bond stones will be supplied by BHEL at free of cost, at site of work.	M3	544.80	
8	0307	Providing rough stone dry packing for aprons and revetments including filling interstices with spalls, wedging, consolidating and preparing the surface, all as per standard specifications.	M3	1287.00	

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**CIVIL ENGINEERING DEPARTMENT, BHEL, Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
9	0308	Labour charges for providing rough stone dry packing for aprons and revetments including filling interstices with spalls, wedging, consolidating and preparing the surface, all as per standard specifications. Rough stones will be supplied by BHEL at site at free of cost.	M3	884.40	
10	0309	Providing hollow block masonry in cement mortar 1:5 using hollow block of sizes 400 x 200 x 200 mm / 400 x 150 x 200 mm / 400 x 100 x 200 mm or thereabouts of approved good quality including simultaneous flush pointing, all as per standard specification. Rate includes cost of hollow blocks, conveying, leading, loading, unloading, labour, incidentals etc., complete. Upto 4.50 m height from plinth level.	M3	3111.15	23.77
11	0310A	Brick work with F.P.S bricks ( second class ground moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:3	M3	3725.30	127.5
12	0310B	Brick work with F.P.S bricks ( second class ground moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:4	M3	3721.90	95.00
13	0310C	Brick work with F.P.S bricks ( second class ground moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:5	M3	3720.10	77.50
14	0310D	Brick work with F.P.S bricks ( second class ground moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:6	M3	3718.50	62.50
15	0311A	Brick work with modular bricks ( second class table moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:3	M3	3899.00	112.2
16	0311B	Brick work with modular bricks ( second class table moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:4	M3	3896.05	83.6
17	0311C	Brick work with modular bricks ( second class table moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:5	M3	3894.45	68.2

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
18	0311D	Brick work with modular bricks ( second class table moulded chamber bricks ) of class designation 50/75 in foundation and plinth in: Cement mortar 1:6	M3	3893.05	55
19	0312	Extra for Brick work in superstructure above plinth upto floor three level in all shapes and sizes.	M3	271.25	
20	0313	Extra for brick work with bricks curved on plan upto a mean radius not exceeding 6 metre.	M3	473.90	
21	0314	Extra charges for providing half brick masonry, brick on edge walls, fins, balustrade etc.over and above the brick work rates of 0310 and 0311.	M3	297.60	
22	0315	Honey-comb brick work 10 / 11.40 cm thick with FPS bricks of class designation 50 in cement mortar 1:4.	M2	314.15	6.56
23	0316	Extra for laying brick work in or under foul position.	M3	125.20	
24	0317	Providing and filling with 20 mm brick jelly including filling the voids (max.of 10%) with river sand and compacted well with wooden hammer etc. complete.	M3	687.50	
25	0318	Rectifying the wall cracks by chipping off the existing plastered surfaces to the required width, depth and applying cement slurry in the cracks to the required depth, making good all damages and finishing to match with the existing one by plastering with C.M 1:5, 12/15mm thick and a coat of white wash / snowcem / distemper etc. as the case may be.	M2	93.30	
26	0319	Rectifying the wall cracks by chipping off the existing plastered surfaces to the required width, depth and applying cement slurry in the cracks to the required depth, making good all damages, providing chickenmesh and finishing to match with the existing one by plastering with C.M 1:5, 12/15mm thick and a coat of white wash / snowcem / distemper etc. as the case may be.	M2	133.70	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
27	0320	Brick work with mechanized autoclaved fly ash lime bricks made up of fly ash, lime, gypsum and coarse sand / stone dust to size 230 mm x 110 mm x 70 mm or thereabouts confirming to IS 12894 of class designation 50 (min) in foundation, plinth and superstructure above plinth up to floor V level as per standard specifications and instructions of Engineer in charge In cement mortar 1:5	M3	4320.70	77.5
28	0321	Brick work with non modular fly ash lime bricks (FALG Bricks) conforming to IS:12894, class designation 10 average compressive strength in foundation, plinth and superstructure above plinth up to floor V level as per standard specifications and instructions of Engineer in charge In cement mortar 1:5	M3	4160.00	95.00
29	0801A	Plastering with cement mortar as per standard specifications. In cement mortar 1:3, 12mm thick	M2	93.25	7.35
30	0801B	Plastering with cement mortar as per standard specifications. In cement mortar 1:4, 12mm thick	M2	93.05	5.47
31	0801C	Plastering with cement mortar as per standard specifications. In Cement mortar 1:5, 12mm thick	M2	92.95	4.46
32	0801D	Plastering with cement mortar as per standard specifications. In cement mortar 1:6, 12mm thick	M2	92.85	3.6
33	0801E	Plastering with cement mortar as per standard specifications. In cement mortar 1:3, 15mm thick	M2	107.30	8.77
34	0801F	Plastering with cement mortar as per standard specifications. In Cement mortar 1:4, 15mm thick	M2	107.05	6.54
35	0801G	Plastering with cement mortar as per standard specifications. In Cement mortar 1:5, 15mm thick	M2	106.90	5.33
36	0801H	Plastering with cement mortar as per standard specifications. In Cement mortar 1:6, 15mm thick	M2	106.80	4.3
37	0801I	Plastering with cement mortar as per standard specifications. In Cement mortar 1:3, 20mm thick	M2	125.20	11.42

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
38	0801J	Plastering with cement mortar as per standard specifications. In Cement Mortar 1:4, 20mm thick	M2	124.90	8.51
39	0801K	Plastering with cement mortar as per standard specifications. In Cement mortar 1:5, 20mm thick	M2	124.70	6.94
40	0801L	Plastering with cement mortar as per standard specifications. In Cement mortar 1:6, 20mm	M2	124.60	5.6
41	0802	Damp proof course with cement mortar 1:3, 12 mm thick mixed with an admixture of crude oil at 5 % by weight of cement, all labour etc. complete as per standard specifications.	M2	108.85	7.35
42	0803	Damp proof course with cement mortar 1:3, 20 mm thick mixed with an admixture of crude oil at 5 % by weight of cement, all labour etc. complete as per standard specifications.	M2	149.35	11.42
43	0804	Damp proof course with cement mortar 1:3, 12 mm thick mixed with water proofing compound (Accoproof or Impermo or equivalent) at 1 Kg per 50 Kg of cement for water facing surfaces etc. complete., all as per standard specifications.	M2	99.05	7.35
44	0805	Damp proof course with cement mortar 1:3, 20 mm thick mixed with water proofing compound (Accoproof or Impermo or equivalent) at 1 Kg per 50 Kg of cement for water facing surfaces etc. complete., all as per standard specifications.	M2	134.15	11.42
45	0806	Ceiling plastering with cement mortar 1:3, 6mm thick as per standard specifications.	M2	82.10	3.67
46	0807	Plain cement mortar bands of 12 mm thick in cement mortar 1:4 to the specified width as per standard specifications.	M2	228.85	5.32
47	0808	Stucco plastering 12 mm thick with cement mortar 1:3 (1 cement and 3 coarse aggregate of 6 to 12 mm size) over a backing plastering, all as per standard specifications. (Backing plaster will be paid for separately)	M2	96.55	7.3

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
48	0809	Exposed aggregate plastering with crushed stone graded from 6 to 12 mm nominal size dashed over and including fresh plaster in cement mortar 1:3, 12mm thick over a backing coat of cement plaster (which will be paid separately), all as per standard specifications.	M2	128.15	7.3
49	0810	Finishing the plastered surfaces with a floating coat of cement (punning), all as per standard specifications.	M2	21.70	2.2
50	0811	Flush/Ruled pointing on stone work with cement mortar 1:3 as per standard specifications.	M2	114.05	1.17
51	0812	Pointing to rough stone dry packing in aprons and revetments including grouting to a depth of 40 mm with cement mortar 1:3, all as per standard specifications.	M2	62.90	1.84
52	0813	Flush pointing with cement mortar 1:3 for stone slab pavement or precast slab pavement or tiling works etc., all as per standard specifications.	M2	95.80	2.35
53	0814	Providing black board in walls in cement mortar 1:2 mixed with black oxide over rough plastered surface in cement mortar 1:4, 12 mm thick and providing 25 mm border around in cement mortar 1:3 neatly rounded including providing and fixing with teak wood beading 50 x 25 mm on top of board and hooks and chalk stand on the bottom of board etc., all as per standard specifications.	M2	836.30	13.20

**IF YOU ARE NOT WILLING TO QUOTE FOR THIS PACKAGE (A) YOU CAN IGNORE THE PAGES 2 to 8 OF THIS PRICE BID.**

**ELSE IF YOU ARE WILLING TO QUOTE FOR THIS PACKAGE(A) PLEASE ENCLOSE THE PAGES 2 to 8 ALONE IN A SEPERATE SEALED COVER**

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**PART-II (PRICE BID)(PACKAGE-B)**

**SCHEDULE - A2**

Name of Work: **CEILING LEAKAGE, WATER PROOFING AND DISMANTLING WORKS AT BHEL TOWNSHIP-TRICHY -14.**  
**CT:TS:04/18-19 Tender Value: Rs.68 Lakh**

I / We \_\_\_\_\_ have read the condition of tender attached hereto and agree to abide by such conditions. I/We offer to execute the works in **T.S No. CT:TS:004/18-19 for a period of 12 months** at the percentage below / at par / above the rates contained in BHEL applicable items of Schedule of Rates 2013-14 quoted in the schedule appended below:

I / We further agree to sign an Agreement Bond to abide by the General Conditions of Contract and to carryout all works according to the specifications for materials and works of Bharat Heavy Electricals Limited, Tiruchirapalli-620 014. In case of acceptance of the tender by the BHEL, I/We bind myself/ourselves to execute the contract documents within 7 days after notice that my/our tender has been accepted and this contract has been awarded to me/us and thus failing which I/We shall have no objection to the forfeiture of the Earnest Money amount to **Rs.81,600/-** lodged with Bharat Heavy Electricals Limited, Tiruchirapalli-620 014.

I / We further agree to include all tools & plants and consumables required for the work in my / our scope but required power and water will be provided at one point by BHEL at free of cost and based on this, we have quoted our percentage.

**Note:** Details of each item of work shown in the BILL OF QUANTITIES are only approximate and the same is appended below. They are given as a guide for the purpose of tendering only and are liable to variation and alteration of the Competent Authority. The work under each item as executed shall be measured and priced at the overall percentage quoted by the contractor **Below (100-X) % / At par (100%) / Above (100+X) %** of the rates provided in Bill of Quantities appended below from **Page 10 to 23**. **Eventhough the applicable items are provided, for the operational convenience the total tender value of RS.68 Lakh will be divided as required number of Sub Work orders.**

Sl. No.	Approx. Value of work	Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % to be quoted with respect to the rates provided in Bill of Quantities appended below from Page 10 to 23 (The percentage is to be quoted here is GST excluded) (Applicable GST will be extra)	
		In Figures	In Words
1.	<b>Rs.68 Lakh</b>		

**Examples:**

- 1. If the vendor needs to quote 5% below the schedule of rates then vendor need to write 95% in figure column and Ninety Five percent in words.**
- 2. If the vendor needs to quote at par the the schedule of rates then vendor need to write 100% in figure column and One Hundred percent in words.**
- 3.If the vendor needs to quote 5% above the schedule of rates then vendor need to write 105% in figure column and One Hundred Five percent in words**

**Note: Applicable BHEL SR(13-14) item details are given below. Contractor has to quote Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % with respect to the rates provided in Bill of Quantities below at page 09 both in figures and in words**

**BILL OF QUANTITIES**

**PACKAGE-B (71 items) CT:TS:004/18-19**

**CEILING LEAKAGE, WATER PROOFING AND DISMANTLING WORKS AT BHEL TOWNSHIP-TRICHY**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
1	0225	Labour charges for attending to spalling of concrete in ceiling of buildings. Scope of step by step activities are given:- i) Removing the loose concrete / plaster by knocking with a 2 lbs hammer, scrapping with steel wire brush and exposing the sound concrete. ii) Removing the rust in reinforcement by scraping with steel brush. iii) Washing the concrete surface and reinforcement. (By jetting water) iv) Applying passivator coat (2 K.G cement and 1 Lit. Roff bond repair) on rusted reinforcement and bond coat using CM 1:3 and Roff bond repair (5 K.G cement and 1 Lit. Roff bond repair) in layers of 6 mm thick to match with the existing surface. Roff bond repair mix shall be prepared in the proportion as directed by Engineer-in-charge. (or) Applying rust primer on the steel and maricrete mix to the surface to be attended to by adding water in proportion as directed by Engineer-in-charge in layers of 6 mm thick to match with the existing surface. v) Finishing the surface with clean trowel. Note:- i) Cement and the said chemicals will be supplied by BHEL at Stores at free of cost. ii) Rate includes scaffolding, tools, labour, incidentals etc. complete.	M2	115.50	
2	0712	Providing weathering course on top of roof slab with 20 mm size brick jelly and pure lime (no sand) in the proportion of 32 : 12.5 to the required thickness, well beaten with wooden battens, so as to secure adequate slope, all as per standard specifications and instructions of Engineer-in-charge.	M3	3061.05	
3	0713	Providing weathering course on top of roof slab with one course of split tiles or pressed flat tiles of 17 to 20 mm thick and of approved brand and size, set in cement mortar 1:3 with an admixture of crude oil at 10% by weight of cement, 12 mm thick bedding layer including pointing the tiles with the same oiled mortar etc., complete, all as per standard specifications.	M2	373.30	9.13

**CIVIL ENGINEERING DEPARTMENT, BHEL, Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
4	0714	Labour charges for repairing the weathering course tiles. Scope includes cleaning the surfaces by removal of vegetation growth, dry leaves etc., racking out the tile joints, replacing the damaged tiles wherever necessary with new ones supplied by department, pointing the tiles with cement mortar 1:3 and applying mendo non-tar plast cement over the pointed surfaces. (Tiles and mendo non tar plast cement will be supplied by BHEL at stores at free of cost.)	M2	118.60	
5	0715	Labour charges for repairing the weathering course tiles. Scope includes cleaning the surfaces by removal of vegetation growth, dry leaves etc., racking out the tile joints, replacing the damaged tiles wherever necessary with new ones supplied by department, pointing the tiles with cement mortar 1:3 and applying mendo non-tar plast cement over the pointed surfaces. (Only Tiles will be supplied by BHEL at stores at free of cost).	M2	110.90	
6	0716	Attending to leak at roof slab and wall joint, all as per instructions of Engineer-in-charge. Rate includes dismantling the weathering course tiles, brick jelly lime concrete etc. for a width of minimum 100 mm at wall and slab joint for required depth so as to reach the top surface of roof slab, finishing with cement concrete in the proportion of one part of cement and three parts of 6 mm stone chips in the dismantled portion with bitumen compound filler at joint and top, finished with tiles at 1 : 1 slope along with walls including hacking walls, replacing the damaged tiles, pointing with CM 1:3 etc. complete. Cement, tiles and bitumen compound will be supplied by BHEL at stores at free of cost.	RM	176.40	
7	0717	Attending to leak at roof slab and wall joint, all as per instructions of Engineer-in-charge. Rate includes dismantling the weathering course tiles, brick jelly lime concrete etc. for a width of minimum 100 mm at wall and slab joint for required depth so as to reach the top surface of roof slab, finishing with cement concrete in the proportion of one part of cement and three parts of 6 mm stone chips in the dismantled portion with bitumen compound filler at joint and top, finished with tiles at 1 : 1 slope along with walls including hacking walls, replacing the damaged tiles, pointing with CM 1:3 etc. complete. Cement and bitumen compound will be supplied by BHEL at stores at free of cost.	RM	205.20	
8	0718	Providing weathering course on top of roof slab with one course of split tiles or pressed flat tiles of 17 to 20 mm thick of approved brand and size set in CM 1:3 with Roff plaster master plus solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per std. specifications. Roff plaster master only will be supplied by BHEL at Stores at free of cost.	M2	354.05	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
9	0719	Providing weathering course on top of roof slab with one course of split tiles or pressed flat tiles of 17 to 20 mm thick of approved brand and size set in CM 1:3 with Roff plaster master plus solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per std. specifications. Roff plaster master and required tiles will be supplied by BHEL at Stores at free of cost.	M2	85.25	
10	0720A	Labour charges for removing the damaged weathering course tiles and laying with new tiles set in CM 1:3 with Roff plaster master water solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per std. specifications. Tiles and Roff plaster master will be supplied by BHEL at Stores at free of cost. 1 to 5 tiles at one spot.	EA	37.40	
11	0720B	Labour charges for removing the damaged weathering course tiles and laying with new tiles set in CM 1:3 with Roff plaster master water solution (100 ml of plaster master liquid to be mixed with required quantity of water for one bag of cement), 12 mm thick bedding layer including pointing the tiles with same mortar etc. complete, all as per std. specifications. Tiles and Roff plaster master will be supplied by BHEL at Stores at free of cost. Beyond 5 but upto 10 tiles at one spot.	EA	63.85	
12	0721	Rectifying to the weathering course tile joints by scraping the old mortar joints to a minimum depth of 12 mm with wire brush and cleaning the surface of all dirt, loose mortar etc., pointing the grooved joints with CM 1:3 thoroughly mixed with Roff plaster master solution (100 ml. of plaster master liquid to be mixed with not more than 40 litre of water for one bag of cement), finishing the pointed joints smoothly, proper curing etc. complete. Roff plaster master liquid will be supplied by BHEL at Stores at free of cost.	M2	101.30	
13	0722	Rectifying to the corners between wall and roof slab by removing the brick work and concrete at least to a depth of 25 mm along the corners horizontally, clearing the opened corners off all dirt and filling with roofing bituminous compound pressed gently to form smooth concaved corners and finishing the surface with CM 1:3, 12 mm thick for a maximum width of 25 cm, thoroughly mixed with Roff plaster master solution (100 ml Roff plaster master liquid to be mixed with not more than 40 litre of water for one bag of cement) to a neat finish. Bituminous compound and Roff plaster master liquid will be supplied by BHEL at Stores at free of cost.	RM	50.80	
14	1001A1	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Brick work in cement mortar	M3	530.25	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
15	1001A2	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge.Stone rubble masonry in cement mortar	M3	632.70	
16	1001A3	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge.Old plastering / skirting raking out joints / chipping the concrete and roughening the surface.	M2	14.15	
17	1001A4	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge.Plain Cement Concrete.	M3	387.15	
18	1001A5	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge.RCC works including stacking of steel bars by manual / mechanical means.	M3	916.95	
19	1001A6	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge.RCC or PCC (Using jack hammer only for pockets)	M3	1599.85	
20	1001A7(i)	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge.Precast concrete or stone slabs in walls, partition walls etc. Thickness upto 40 mm	M2	78.00	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
21	1001A7(ii)	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Precast concrete or stone slabs in walls, partition walls etc. Thickness above 40 mm upto 75 mm	M2	116.80	
22	1001A8	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. RCC louvers / RCC jally	M2	152.85	
23	1001A9	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Ellis pattern finish / Insitu mosaic.	M2	27.95	
24	1001A10	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Tile work in floors and roofs laid in cement mortar.	M2	27.70	
25	1001A11	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Brick jelly lime concrete.	M3	219.15	
26	1001A12	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Doors / Windows / Ventilators (steel or wood) including frame and shutters, holdfasts, hinges, fastenings etc. of area 3 sqm and below.	EA	110.15	

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
27	1001A13	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Only shutters of Doors / Windows / Ventilators (steel or wood) including hinges, fastenings etc.	M2	20.00	
28	1001A14	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. IWC with 'P' trap and foot rests	SET	240.20	
29	1001A15	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. EWC (excluding flushing cistern) / Urinal (earthenware) of any size including foot rests / Wash basin with connected fittings / RCC precast sink or other ready made sinks with connected fittings/ Nahani trap.	EA	144.10	
30	1001A16	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Flushing cistern of any size	EA	272.45	
31	1001A17	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. G.I / PVC pipe lines of various dia including all specials.	RM	10.80	
32	1001A18	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. A.C / C.I rain water pipes upto 150 mm dia with fittings and clamps.	RM	20.15	

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
33	1001A19	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. S.W pipe lines upto 225 mm dia.	RM	30.25	
34	1001A20(i)	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. C.I pipes including earthwork excavation, breaking lead caulked joints, melting of lead and making into blocks, refilling trenches after taking out the pipes etc. Upto 150 mm dia	RM	127.60	
35	1001A20(ii)	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. C.I pipes including earthwork excavation, breaking lead caulked joints, melting of lead and making into blocks, refilling trenches after taking out the pipes etc. Above 150 upto 300 mm dia	RM	169.60	
36	1001A20(iii)	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. C.I pipes including earthwork excavation, breaking lead caulked joints, melting of lead and making into blocks, refilling trenches after taking out the pipes etc. Above 300 mm dia	RM	220.10	
37	1001A21(i)	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. C.I sluice valve Upto 150 mm dia	EA	100.45	
38	1001A21(ii)	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. C.I sluice valve Above 150 mm dia	EA	349.15	

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
39	1001A22	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. A.C sheets from roofs and side cladding including ridges, valleys, gutters etc.	M2	22.90	
40	1001A23	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. G.I / Aluminium sheets / Aluminium Zinc alloy coated sheets from roofs and side cladding including ridges, valleys, gutters etc.	M2	49.30	
41	1001A24	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Steel structures / steel works in built up sections including bolts, nuts, cutting rivets, welding, dismembering, preparation of DODL etc.	MT	1549.00	
42	1001A25	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Steel partitions including bolts, nuts, cutting rivets, welding etc. and dismembering	M2	68.00	
43	1001A26	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. North light glasses at various levels ranging from 9 to 24 metre	M2	77.55	

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**CIVIL ENGINEERING DEPARTMENT, BHEL, Trichy-14**

Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
44	1001A27	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. False ceiling / partitions / fixed glazing, all in A.C sheet or hard board or aluminium or gypsum or other materials including connected frame works .	M2	17.50	
45	1001A28	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Rough stone dry packing for apron, revetments etc.	M3	219.60	
46	1001A29	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. R.C.C fencing post including all earthwork, dismantling base concrete etc.	EA	87.80	
47	1001A30	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Barbed wire / flexible wire rope in fencing.	KG	9.45	
48	1001A31	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. R.C.C pipes upto 450 mm dia	RM	183.55	
49	1001A32	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Kerb stone	RM	17.85	

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
50	1001A33	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. Bituminous road.	M3	376.20	
51	1001A34	Dismantling / removing / demolishing as the case may be of the following by manually/mechanical means and carefully stacking the serviceable materials at site of work or conveying and handing over the same at BHEL stores and disposal of unserviceable materials by transporting and dumping in the near by low level areas within a lead of 100 metres. All as per instructions of Engineer-in-charge. W.B.M /W.M.M road.	M3	233.20	
52	1509A	Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements. 0 - 1 Km	M3	114.00	
53	1509B	Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements. Beyond 1 Km but upto 2 Km	M3	121.65	
54	1509C	Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements.Beyond 2 Km but upto 3 Km	M3	130.25	
55	1509D	Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements. Beyond 3 Km but upto 4 Km	M3	138.80	
56	1509E	Conveyance of earth, sand, gravel, rough stone, broken stone, brick bats (debris) etc. by contractor's own lorry including loading, leading, unloading, stacking or spreading, all as per instructions of Engineer-in-charge. Payment for conveyance of earth will be made based on pit measurement and for other items based on stack measurements. Beyond 4 Km but upto 5 Km	M3	147.40	

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
57	1511A	Conveyance of debris generated by dismantling and other modification works by various departments, factory wastes discarded cotton waste, slag, cut tree branches, dried leaves, abandoned broken glass, water closets, urinals, flush tanks, broken furniture, broken refractory bricks, AC materials, hedge cuttings and all other debris and waste materials from various places of factory premises where they are stacked / accumulated and transporting the same by contractor's lorry and disposing off at the specified places, all as per the instructions of Engineer-in-charge. Rate includes labour for collection of the said debris from various places, loading, leading, unloading, spreading, leveling etc. complete. Rate also includes for safe burning of dried leaves, cut pieces of tree branches, wood, waste paper etc., all by following safety precautions. Payment will be made on trip basis with a lorry load of minimum 300 cft./Trip. 0-1 K.M	Each	774.75	
58	1511B	Conveyance of debris generated by dismantling and other modification works by various departments, factory wastes discarded cotton waste, slag, cut tree branches, dried leaves, abandoned broken glass, water closets, urinals, flush tanks, broken furniture, broken refractory bricks, AC materials, hedge cuttings and all other debris and waste materials from various places of factory premises where they are stacked / accumulated and transporting the same by contractor's lorry and disposing off at the specified places, all as per the instructions of Engineer-in-charge. Rate includes labour for collection of the said debris from various places, loading, leading, unloading, spreading, leveling etc. complete. Rate also includes for safe burning of dried leaves, cut pieces of tree branches, wood, waste paper etc., all by following safety precautions. Payment will be made on trip basis with a lorry load of minimum 300 cft./Trip. 1-2 K.M	Each	826.40	
59	1511C	Conveyance of debris generated by dismantling and other modification works by various departments, factory wastes discarded cotton waste, slag, cut tree branches, dried leaves, abandoned broken glass, water closets, urinals, flush tanks, broken furniture, broken refractory bricks, AC materials, hedge cuttings and all other debris and waste materials from various places of factory premises where they are stacked / accumulated and transporting the same by contractor's lorry and disposing off at the specified places, all as per the instructions of Engineer-in-charge. Rate includes labour for collection of the said debris from various places, loading, leading, unloading, spreading, leveling etc. complete. Rate also includes for safe burning of dried leaves, cut pieces of tree branches, wood, waste paper etc., all by following safety precautions. Payment will be made on trip basis with a lorry load of minimum 300 cft./Trip. 2-3 K.M	Each	878.10	

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
60	1513	Cleaning and removing all unwanted things from the roof terrace of various buildings at an elevated level of 12 to 20 metre from FFL. Rate includes labour, tools, wire brush, brooms, baskets etc., sweeping and clearing off all dirt, silt, dust, leaves and other foreign matters etc. without damaging the terrace treatment and thereby collecting all the wastes in bags/baskets, lowering to ground floor without affecting the working environment and dumping the same in the near by dust bins/earmarked areas/low lying areas etc.complete. Sweeping has to be done only as and when necessary. Payment will be made only for the areas where actually the job was carried out.	HundredM2	15.60	
61	1532	Removing beehive of any size carefully in all levels at stage beams, columns, slabs, ladders etc., in the overhead tank or other buildings/structures etc. While removing beehive, the contractor should follow all safety rules and regulations, all as per instructions of Engineer-in-charge.	EA	330.00	
62	1538	Attending to leak at roof slab and wall joint. The scope of work includes clearing the tiled terrace surfaces to be free of dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with CERAFIL 45/ TEC TILE 12/ Sika Grout/NACC Tile Grout/Dr. Fixit Crack-X and providing primer and top coat of CERAFLEX/TEC WAVE 3000/Sika Raingard/NACC High Flex single component/Dr. Fixit New Coat highly flexible membrane coating including curing adequately .All as per manufacture's recommendation/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges, conveyance,tools and all other incidental charges etc.complete -for In accessible areas One Primer and one top coat	M2	335.50	
63	1539	Attending to leak at roof slab and wall joint. The scope of work includes clearing the tiled terrace surfaces to be free of dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with CERAFIL 45/ TEC TILE 12/ Sika Grout/NACC Tile Grout/Dr. Fixit Crack-X and providing primer and top coat of CERAFLEX/TEC WAVE 3000/Sika Raingard/NACC High Flex single component/Dr. Fixit New Coat highly flexible membrane coating including curing adequately .All as per manufacture's recommendation/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges, conveyance,tools and all other incidental charges etc.complete -for In accessible areas. One primer and two top coats.	M2	518.30	
64	1540	Providing two coats of CERALASTIC/TEC WAVE 2000/Sika raingard/NACC roof coating /Dr. FIXIT PIDIFIN 2K water proofing membrane coating followed by one bond coat of CERA BOND SBR/TEC BOND SBR/Sika latex/NACC Latex / Dr. FIXIT PIDICRETE URP SBR LATEX over the membrane coating and providing cement plastering 6mm thick in CM 1:4 admixed with general purpose water proofing compound of respective products and curing adequately.All as per manufacturer's recommendation / standard specifications and instructions of Engineer-in-charge.The scope of work includes dismantling the existing damaged weathering course and tiles to expose to the RCC slab and finishing to match with the existing weathering course.. Rate quoted includes cost of all materials except cement which will be issued free of cost at BHEL stores, labour charges, conveyance, tools and all other incidental charges etc., complete. Replacing the damaged tiles and re-pointing where ever required which will be paid under separate item.- for-accessible areas.	M2	338.25	2.74

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
65	1541	Attending crack filling at parapet level with pressure grouting: The scope of work includes routing out the cracks with a mechanically operated groove cutter and sealing the groove with flexible sealant - CERA CRACK FILLER/TEC KRACK FILLER/Sika CRACK SEAL/NACC CRACK FILLER/Dr. FIXIT CRACK-X PASTE and allowing the sealant to set overnight, driving grouting nozzles at intervals of 1M and grouting neat cement slurry admixed with expansive grouting additive CERA EXPAN 250/TEC SWELL/Sika INTRA PLAST/NACC EXPAN/Dr. FIXIT PIDICRETE AM 250 and providing two coats of CERAFLEX/TEC WAVE 3000/Sika RAINGARD/NACC HIGH FLEX /Dr. FIXIT NEW COAT roof coating single component flexible membrane for a width of 15cms aligned to the centre of the crack. All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges etc., complete,but excluding cost of cement which will be issued free of cost at BHEL stores.	M	151.25	0.35
66	1542	Attending Crack filling at parapet level without pressure gouting. The scope of work includes routing out the cracks with a mechanically operated groove cutter and sealing the groove with flexible sealant - CERA CRACK FILLER/TEC KRACK FILLER/Sika CRACK SEAL/NACC CRACK FILLER/Dr. FIXIT CRACK-X PASTE and providing two coats of CERAFLEX/TEC WAVE 3000/Sika RAIN GARD/NACC ROOF COATING/Dr. FIXIT NEW COAT highly flexible membrane for a width of 10cms aligned to the centre of the crack. All as per manufacturers recommendations/ standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges,conveyance, tools and all other incidental charges ,etc. complete.	RM	112.75	
67	1543	Drilling pockets and fixing PVC Nipples in position along weak concrete junctions and leakage points in walls/floor and pressure grouting CERA EXPAN 250 / TEC SWELL/Sika INTRA PLAST/NACC EXPAN / Dr. FIXIT PIDICRETE AM 250 expansive grouting additive admixed with cement slurry using hand operated grouting pump. The scope also includes plugging the grout hole with CERA PLUG/TEC STOP / Sika HYDRO PLUG / NACC PLUG / Dr. FIXIT INSTANT LEAK PLUG .All as per manufacturer's recommendations/ standard specifications and instructions of Engineer- in-charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges except cement which will be issued free of cost at BHEL stores.	POINT	145.75	0.35
68	1544	Providing one coat of Antifungal coating - tec touch /Cera re-played/Sika Multi guard or Sika gard 67/NACC acrylic/Dr. FIXIT DAMPGAURD - protective and decorative coating system as per manufacturer's recommendations/ standard specifications and instructions of Engineer-in-charge.The scope of work includes surface preparation including cleaning the wall surfaces to be free of previous coatings, dust, loose particles, algae growth and atmospheric deposits, filling small blow holes if any with putty. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges etc., complete.	M2	203.20	

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Sl.No.	Item No.	Description	Unit	Rate (Rs.P)	Cement in KG
69	1545	Arresting leakage through RCC Construction joints The scope of work includes routing out the horizontal cracks along /construction joints to expose the RCC joint and applying CERA SEAL / TEC POLYSEAL G / Sika Crack Seal / NACC poly seal gun grade polysulphide sealant / Dr.FIXIT PU SEALANT. The scope also includes application of CERAFLEX / TEC WAVE 3000/Sika Rain Gard/NACC Roof Coating / Dr. FIXIT NEW COAT single component flexible membrane with intermediate layer of cloth over the exposed area after allowing the PS(polysulphide sealant) to cure for 72 hours. All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and all other incidental charges etc., complete.	M2	499.10	
70	1546	Arresting leakage through Masonry construction joints. The scope of work includes routing out the vertical cracks along construction joints and providing a bond coat of CERA BOND SBR / TEC BOND SBR /Sika Latex Power/NACC latex/ Dr. FIXIT PIDICRETE URP SBR LATEX followed by filling the cracks with repair mortar admixed with CERA EXPAN 250 / TEC SWELL/Sika Intra Plast/NACC Expan/Dr. FIXIT PIDICRETE AM 250. The scope also includes placing of grouting nipples on the neatly finished surface at adequate spacing and grouting cement slurry admixed with CERA EXPAN 250 / TEC SWELL/Sika Intra Plast/NACC Expand/Dr. FIXIT PIDICRETE AM 250 using hand operated grouting pump. The treated surface shall then be finished with two coats of CERAFLEX / TEC WAVE 3000 / Sika Rain gard/NACC Roof Coating/ Dr. FIXIT NEW COAT. All as per manufacturers recommendations / standard specifications and instructions of Engineer-in-charge.Rate quoted includes cost of all materials , labour charges, conveyance, tools and other incidental charges etc.complete but excluding cost of cement which will be issued free of cost at BHEL stores.	RM	262.20	0.40
71	1547	Providing aluminum Sheet Flashing. The scope of work includes cutting a neat groove along the brick wall and fixing Aluminum sheet flashing of 1' to 1'6" as required including re-filling the grooves and sealing the joints with CERA SEAL / TEC POLYSEAL G /Sika Polysulphide/NACC poly seal gun grade polysulphide sealant/Dr. FIXIT PU SAEALANT.All as per Manufacturer's recommendations / standard specifications and instructions of Engineer-in-Charge. Rate quoted includes cost of all materials, labour charges, conveyance, tools and other incidental charges etc., complete.	RM	479.80	

**IF YOU ARE NOT WILLING TO QUOTE FOR THIS PACKAGE (B) YOU CAN IGNORE THE PAGES 9 to 23 OF THIS PRICE BID.**

**ELSE IF YOU ARE WILLING TO QUOTE FOR THIS PACKAGE(B) PLEASE ENCLOSE THE PAGES 9 to 23 ALONE IN A SEPERATE SEALED COVER**

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**PART-II (PRICE BID) (PACKAGE-C)**

**SCHEDULE - A3**

Name of Work: **CONSTRUCTION AND MAINTENANCE OF CONCRETE WORKS AT BHEL TOWNSHIP,TRICHY.**  
**CT:TS:05/18-19 Tender Value: Rs.20 Lakh**

I / We \_\_\_\_\_ have read the condition of tender attached hereto and agree to abide by such conditions. I/We offer to execute the works in **T.S No. CT:TS:005/18-19 for a period of 12 months** at the percentage below / at par / above the rates contained in BHEL applicable items of Schedule of Rates 2013-14 quoted in the schedule appended below:

I / We further agree to sign an Agreement Bond to abide by the General Conditions of Contract and to carryout all works according to the specifications for materials and works of Bharat Heavy Electricals Limited, Tiruchirapalli-620 014. In case of acceptance of the tender by the BHEL, I/We bind myself/ourselves to execute the contract documents within 7 days after notice that my/our tender has been accepted and this contract has been awarded to me/us and thus failing which I/We shall have no objection to the forfeiture of the Earnest Money amount to **Rs.40,000/-** lodged with Bharat Heavy Electricals Limited, Tiruchirapalli-620 014.

I / We further agree to include all tools & plants and consumables required for the work in my / our scope but required power and water will be provided at one point by BHEL at free of cost and based on this, we have quoted our percentage.

**Note:** Details of each item of work shown in the BILL OF QUANTITIES are only approximate and the same is appended below. They are given as a guide for the purpose of tendering only and are liable to variation and alteration of the Competent Authority. The work under each item as executed shall be measured and priced at the overall percentage quoted by the contractor **Below (100-X) % / At par (100%) / Above (100+X) %** of the rates provided in Bill of Quantities appended below from **Page 25 to 44**.Eventhough the applicable items are provided, for the operational convenience the total tender value of **RS.20 Lakh** will be divided as required number of Sub Work orders with required items.

Sl. No.	Approx. Value of work	Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % to be quoted with respect to the rates provided in Bill of Quantities appended below from Page 25 to 44(The percentage is to be quoted here is GST excluded) (Applicable GST will be extra)	
		In Figures	In Words
1.	<b>Rs.20 Lakh</b>		

**Examples:**

- 1. If the vendor needs to quote 5% below the schedule of rates then vendor need to write 95% in figure column and Ninety Five percent in words.**
- 2. If the vendor needs to quote at par the the schedule of rates then vendor need to write 100% in figure column and One Hundred percent in words.**
- 3.If the vendor needs to quote 5% above the schedule of rates then vendor need to write 105% in figure column and One Hundred Five percent in words**

**Note: Applicable BHEL SR(13-14) item details are given below. Contractor has to quote Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % with respect to the rates provided in Bill of Quantities below at page 24 both in figures and in words**

**BILL OF QUANTITIES**

**PACKAGE-C (126 items) CT:TS:005/18-19**

**CONSTRUCTION AND MAINTENANCE OF CONCRETE WORKS AT BHEL TOWNSHIP, TRICHY.**

Sl.No	Item No.	Description	Unit	Rate (Rs.P)	Cement in Kg
1	0101A	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. All kinds of soil except rock	M3	125.80	
2	0101B	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Ordinary rock	M3	201.70	
3	0101C	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Hard rock (requiring blasting)	M3	363.55	
4	0101D	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Hard rock (blasting prohibited)	M3	410.75	

**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
5	0102A	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Rate also includes bailing or pumping out water during excavation due to subsoil water, rain etc. All kinds of soil except rock.	M3	138.40	
6	0102B	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Rate also includes bailing or pumping out water during excavation due to subsoil water, rain etc. Ordinary rock.	M3	221.85	
7	0102C	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Rate also includes bailing or pumping out water during excavation due to subsoil water, rain etc. Hard rock (requiring blasting).	M3	399.90	
8	0102D	Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Rate also includes bailing or pumping out water during excavation due to subsoil water, rain etc. Hard rock (blasting prohibited)	M3	451.80	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
9	0103A	Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. All kinds of soil except rock	M3	178.10	
10	0103B	Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Ordinary rock	M3	188.55	
11	0103C	Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Hard rock (requiring blasting)	M3	334.30	
12	0103D	Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Hard rock (blasting prohibited)	M3	400.90	
13	0104	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed All kinds of soil	M2	35.40	
14	0105	Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.	M2	8.70	
15	0106A	Open timbering in trenches including strutting and shoring complete. (Measurements to be taken of the face area timbered) Depth not exceeding 1.5 metre	M2	52.25	

**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
16	0106B	Open timbering in trenches including strutting and shoring complete. (Measurements to be taken of the face area timbered) Depth exceeding 1.5 metre but not exceeding 3 metre	M2	55.20	
17	0106C	Open timbering in trenches including strutting and shoring complete. (Measurements to be taken of the face area timbered) Depth exceeding 3 metre but not exceeding 4.5 metre	M2	60.10	
18	0107A(i)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. All kinds of soil except rock in or under water and/ or liquid mud, including pumping out water as required	M3	25.15	
19	0107A(ii)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Ordinary rock in or under water and/ or liquid mud, including pumping out water as required.	M3	40.35	
20	0107A(iii)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Hard rock (requiring blasting) in or under water and/ or liquid mud, including pumping out water as required	M3	72.70	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
21	0107A(iv)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Hard rock (blasting prohibited) in or under water and/ or liquid mud, including pumping out water as required	M3	82.15	
22	0107A(v)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. All kinds of soil except rock in or under water and/ or liquid mud, including pumping out water as required	M3	35.60	
23	0107A(vi)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Ordinary rock in or under water and/ or liquid mud, including pumping out water as required	M3	37.70	
24	0107A(vii)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Hard rock (requiring blasting) in or under water and/ or liquid mud, including pumping out water as required	M3	66.85	
25	0107A(viii)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Hard rock (blasting prohibited) in or under water and/ or liquid mud, including pumping out water as required	M3	80.20	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
26	0107A(ix)	Extra for Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed All kinds of soil in or under water and/ or liquid mud, including pumping out water as required	M2	7.10	
27	0107A(x)	Extra for Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m in or under water and/ or liquid mud, including pumping out water as required.	M2	1.75	
28	0107B(i)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. All kinds of soil except rock in or under foul position, including pumping out water as required.	M3	31.45	
29	0107B(ii)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Ordinary rock in or under foul position, including pumping out water as required.	M3	50.45	
30	0107B(iii)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Hard rock (requiring blasting) in or under foul position, including pumping out water as required.	M3	90.90	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
31	0107B(iv)	Extra for Earthwork excavation (TRENCHES) in soils given below by mechanical means (Hydraulic excavator)/manual means and depositing the excavated earth at suitable places within the initial lead of 50 meter and initial lift of 1.5 meter for foundation in building works, roads, narrow drains, sewers, bridges, pipe lines etc., sectioning the subgrade to proper level and grade, watering and consolidating the subgrade to receive concrete bed, all as per standard specifications and instructions of Engineer-in-charge. Hard rock (blasting prohibited) in or under foul position, including pumping out water as required.	M3	102.70	
32	0107B(v)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. All kinds of soil except rock in or under foul position, including pumping out water as required.	M3	44.55	
33	0107B(vi)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Ordinary rock in or under foul position, including pumping out water as required.	M3	47.15	
34	0107B(vii)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Hard rock (requiring blasting) in or under foul position, including pumping out water as required.	M3	83.60	
35	0107B(viii)	Extra for Earth work for Open excavation ( exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) in soils given below by mechanical means (Hydraulic excavator)/manual means including disposal of earth at suitable places within a lead upto 50 metres and lift upto 1.5 metre, sectioning the subgrade to proper level and grade. Disposed soil are to be leveled and neatly dressed. Hard rock (blasting prohibited) in or under foul position, including pumping out water as required.	M3	100.25	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
36	0107B(ix)	Extra for Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed All kinds of soil in or under foul position, including pumping out water as required.	M2	8.85	
37	0107B(x)	Extra for Surface dressing of the ground in all kinds of soil (excluding rock) including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m in or under foul position, including pumping out water as required. .	M2	2.20	
38	0108A	Extra for every additional lift of 1.5 metre or part thereof in : All kinds of soil excluding rock.	M3	32.45	
39	0108B	Extra for every additional lift of 1.5 metre or part thereof in : Ordinary or hard rock	M3	58.20	
40	0109	Extra for every additional lead of 10 metre or part thereof over the initial lead for all kinds of soil.	M3	32.45	
41	0110	Supply and filling with river sand in foundation, plinth, under floor etc. including watering, ramming, consolidating and dressing complete.	M3	502.95	
42	0111	Supply and spreading/filling with stone dust complying with standard specifications.	M3	250.40	
43	0112	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift up to 1.5 m etc. complete.	M3	78.90	
44	0113	Labour charges for mixing the earth, red earth, sand, manure, coconut waste etc. thoroughly to the required proportion and carrying the same and filling it in the excavated pits/areas at various locations with all leads and lifts. Rate excludes cost of materials.	M3	85.90	
45	0114	Ploughing the existing ground in all kinds of soil to a depth of 15 to 25 cm and watering the same.	M2	8.85	
46	0115	Labour charges for breaking clods, consolidating, sectioning etc.	M3	2.90	
47	0116	Forming turfing in slopes with initial watering, all as per instructions of Engineer-in-charge.	M2	16.15	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
48	0117A	Extra rate for consolidation of bunds etc. by means of the following, including watering. Hand roller	M3	9.65	
49	0117B	Extra rate for consolidation of bunds etc. by means of the following, including watering. Power roller including hire charges.	M3	16.15	
50	0118	Benching hard rock upto an aveage 10 cm depth	M2	315.70	
51	0119A	Drilling holes in hard granite/RCC structure: 45 mm dia	RM	123.70	
52	0119B	Drilling holes in hard granite/RCC structure: 50 mm dia	RM	147.35	
53	0119C	Drilling holes in hard granite/RCC structure: 75mm dia	RM	167.35	
54	0120	Bailing or pumping out water from trenches, foundations etc., at all depths wherever necessary as per standard specifications.	Hour	65.05	
55	0121	Clearing grass and removal of rubbish upto a distance of 50 metre.	M2	2.30	
56	0122	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 metre above ground level and removal of rubbish upto a distance of 50 metre.	M2	4.50	
57	0123A	Felling trees of girth (measured at a height of 1 metre above ground level) including cutting of trunks and branches, removing the roots from the soil and then filling the pit and depression, stacking of serviceable materials and disposal of unserviceable materials. Beyond 30 cm girth upto and including 60 cm girth	Each	139.20	
58	0123B	Felling trees of girth (measured at a height of 1 metre above ground level) including cutting of trunks and branches, removing the roots from the soil and then filling the pit and depression, stacking of serviceable materials and disposal of unserviceable materials. Beyond 60 cm girth upto and including 120 cm girth	Each	613.65	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
59	0123C	Felling trees of girth (measured at a height of 1 metre above ground level) including cutting of trunks and branches, removing the roots from the soil and then filling the pit and depression, stacking of serviceable materials and disposal of unserviceable materials. Beyond 120 cm girth upto and including 240 cm girth	Each	2831.15	
60	0123D	Felling trees of girth (measured at a height of 1 metre above ground level) including cutting of trunks and branches, removing the roots from the soil and then filling the pit and depression, stacking of serviceable materials and disposal of unserviceable materials. Above 240 cm girth	Each	5682.55	
61	0124	Supplying Chlorpyrifos / Lindane emulsifiable concentrate of 20 % (chemical emulsion) in sealed containers at site of work.	L	176.10	
62	0125	Labour charges for pre-constructional anti-termite treatment by diluting and injecting chemical emulsion which will be supplied by BHEL at free of cost and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth, surrounding of pipes and conduits etc. complete , all as per standard specification. (Plinth area of building at ground floor only shall be measured for payment)	M2	142.65	
63	0126	Diluting and injecting pre-constructional anti-termite treatment by chemical emulsion and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth, surrounding of pipes and conduits etc. complete , all as per standard specification. (Plinth area of building at ground floor only shall be measured for payment). Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge.	M2	477.25	
64	0127A	Labour charges for post-constructional anti-termite treatment by diluting and injecting chemical emulsion (will be supplied by BHEL at free of cost), all as per standard specification. Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall and rodding etc. complete.	RM	11.35	

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**CIVIL ENGINEERING DEPARTMENT, BHEL, Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
65	0127B	Labour charges for post-constructural anti-termite treatment by diluting and injecting chemical emulsion (will be supplied by BHEL at free of cost), all as per standard specification. Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.	RM	17.40	
66	0127C	Labour charges for post-constructural anti-termite treatment by diluting and injecting chemical emulsion (will be supplied by BHEL at free of cost), all as per standard specification. Treatment of soil under existing floors, using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm dia holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 5 litre / 9 SQM)	M2	90.60	
67	0127D	Labour charges for post-constructural anti-termite treatment by diluting and injecting chemical emulsion (will be supplied by BHEL at free of cost), all as per standard specification. Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 1.70 litre / 10 RM)	RM	13.50	
68	0127E	Labour charges for post-constructural anti-termite treatment by diluting and injecting chemical emulsion (will be supplied by BHEL at free of cost), all as per standard specification. Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos/Lindane (in oil or kerosene based solution) @ 0.50 litre per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same. Rate includes cost of kerosene but excludes chemical. (Requirement of chemical emulsion - Chlorpyriphos/Lindane E.C 20 % with 1 % concentration - 1.70 litre / 10 RM)	RM	123.80	
69	0128A	Diluting and injecting chemical emulsion (BIFLEX T.C 2.5 EC in 20 L/Equivalent) for post-constructural anti-termite treatment, all as per standard specification. Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge. Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall and rodding etc. complete.	RM	66.30	

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<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
70	0128B	Diluting and injecting chemical emulsion (BIFLEX T.C 2.5 EC in 20 L/Equivalent) for post-constructional anti-termite treatment, all as per standard specification. Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge. Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.	RM	72.35	
71	0128C	Diluting and injecting chemical emulsion (BIFLEX T.C 2.5 EC in 20 L/Equivalent) for post-constructional anti-termite treatment, all as per standard specification. Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge. Treatment of soil under existing floors, using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm dia holes and plugging with cement mortar 1:2 (1 cement : 2 coarse sand) to match the existing floor.	SQM	361.95	
72	0128D	Diluting and injecting chemical emulsion (BIFLEX T.C 2.5 EC in 20 L/Equivalent) for post-constructional anti-termite treatment, all as per standard specification. Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge. Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole.	RM	96.55	
73	0128E	Diluting and injecting chemical emulsion (BIFLEX T.C 2.5 EC in 20 L/Equivalent) for post-constructional anti-termite treatment, all as per standard specification. Rate includes cost of Chemical emulsion, labour charges and all other incidentals etc as per instructions of Engineer in charge. Treatment at points of contact of wood work by chemical emulsion (in oil or kerosene based solution) @ 0.50 litre per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same. Rate includes cost of kerosene, chemical emulsion.	RM	206.80	
74	0201A	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:1:2 with graded stone aggregate 20 mm nominal size.	M3	2019.90	610

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
75	0201B	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:1.5:3 with graded stone aggregate 20 mm nominal size.	M3	1972.65	400
76	0201C	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:2:4 with graded stone aggregate 20 mm nominal size.	M3	2043.75	320
77	0201D	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:2:4 with graded stone aggregate 40 mm nominal size.	M3	1866.15	320
78	0201E	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:3:6 with graded stone aggregate 40 mm nominal size.	M3	1913.70	220
79	0201F	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:4:8 with graded stone aggregate 40 mm nominal size.	M3	1908.50	170
80	0201G	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:5:10 with graded stone aggregate 40 mm nominal size.	M3	1904.35	130
81	0201H	Providing and laying in position plain cement concrete of specified grade including consolidation, curing etc. complete, all as per standard specifications. All works upto plinth level. Rate excludes cost of centring and shuttering. 1:4:8 with graded stone aggregate 20 mm nominal size.	M3	2117.30	170

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
82	0202A	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement. 1:1:2 with graded stone aggregate 20 mm nominal size - All works upto plinth level.	M3	2211.60	610
83	0202B	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement.1:1.5:3 with graded stone aggregate 20 mm nominal size - All works upto plinth level.	M3	2164.35	400
84	0202C	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement. 1:2:4 with graded stone aggregate 20 mm nominal size - All works upto plinth level.	M3	2235.45	320
85	0202D	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement. 1:1:2 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level.	M3	2822.35	610
86	0202E	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement.1:1.5:3 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level.	M3	2775.10	400
87	0202F	Providing and laying in position specified grade of reinforced cement concrete including vibration charges, curing etc. complete but excluding cost of centring, shuttering, finishing and reinforcement.1:2:4 with graded stone aggregate 20 mm nominal size - Above plinth to floor five level.	M3	2846.20	320
88	0203	Straightening, cutting, bending, placing in position of MS/CTD bars and binding with MS binding wires of 18/20 gauge etc. for reinforcement of RCC works. Rate includes cover blocks, cost of binding wire , conveyance of MS/ CTD bars from BHEL stores to site of work, labour etc. complete. MS/CTD bars will be supplied by BHEL at Stores at free of cost.	MT	7439.40	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
89	0204A	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Foundations, footings, bases of columns, equipment foundations, precast slabs, kerbs etc. for mass concrete.	M2	167.30	
90	0204B	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Walls (any thickness) including attached pilasters, plinth, stairs, chimney, shafts and string courses etc.	M2	291.65	
91	0204C	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Suspended floors, roofs, landings, balconies, access platform and sunshades.	M2	323.65	
92	0204D	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Lintels, beams, plinth beams, girders, bressumers and cantilevers	M2	253.50	
93	0204E	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Columns, pillars, piers, abutments, posts and struts.	M2	371.70	
94	0204F	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Arches, domes, vaults upto 6 m span	M2	783.80	
95	0204G	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Well steining	M2	465.50	
96	0204H(i)	Extra for Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Foundations, footings, bases of columns, equipment foundations, precast slabs, kerbs etc. for mass concrete in circular work.	M2	33.45	

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
97	0204H(ii)	Extra for Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Lintels, beams, plinth beams, girders, bressumers and cantilevers in circular work.	M2	50.70	
98	0204H(iii)	Extra for Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Columns, pillars, piers, abutments, posts and struts in circular work.	M2	74.35	
99	0204I	Centring and shuttering including strutting, propping, assembling etc. and removal of form work. Upto a maximum height of 4.50 metre of each floor and also upto floor five level. Pockets or holes in foundations for holding down bolts.	M2	679.25	
100	0205	Extra for additional height in centring, shuttering wherever required with adequate bracing, propping etc. including cost of de-shuttering and de-centring at all levels, over a height of 4.5 metre for every additional height of 1 metre or part there of. For suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	M2	165.25	
101	0206	Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforced cement concrete of specified grade for structural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge. M-20 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	M3	2728.60	383
102	0207A	Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforced cement concrete of specified grade for structural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge. M-25 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	M3	2737.05	410

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<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
103	0207B	Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforced cement concrete of specified grade for structural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge. M-30 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	M3	2740.15	420
104	0207C	Providing and laying in position machine batched, machine mixed and machine vibrated design mix of reinforced cement concrete of specified grade for structural elements using 10 to 20 mm hard broken granite stone jelly, excluding cost of centring, shuttering, finishing and reinforcement but including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, all as per directions of Engineer-in-charge. M-35 Grade reinforced cement concrete. All work in foundation, basement and upto Floor V level.	M3	2742.70	428
105	0208	Extra for laying plain / reinforced concrete in or under foul conditions.	M3	125.20	
106	0209A	Providing vertical drops, fins, facias etc., for the following thickness with 1:2:4 cement concrete using 6 mm granite stone chips for inner core applied on chickenmesh and neatly plastered with cement mortar 1:4, 12mm thick on both faces, finishing, curing etc., complete. Rate includes cost of all materials and labour but excluding fabrication charges for reinforcement. 75mm thick	M2	842.60	24.76
107	0209B	Providing vertical drops, fins, facias etc., for the following thickness with 1:2:4 cement concrete using 6 mm granite stone chips for inner core applied on chickenmesh and neatly plastered with cement mortar 1:4, 12mm thick on both faces, finishing, curing etc., complete. Rate includes cost of all materials and labour but excluding fabrication charges for reinforcement. 60 mm thick	M2	830.55	20.68

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**CIVIL ENGINEERING DEPARTMENT,BHEL,Trichy-14**

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
108	0210	Providing, hoisting and fixing upto floor five level precast reinforced cement concrete elements like slabs etc. of 25 to 150 mm thick in required sizes with mix 1:2:4 using 10 to 20 mm size hard broken granite stone jelly for cupboards, shelves etc. including setting in cement mortar 1:3, cost of centring, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement and fabrication charges.	M3	6332.65	320
109	0211	Providing, hoisting and fixing upto floor V level plain cement concrete elements like slabs etc. of 25 to 150 mm thick of required sizes in mix 1:2:4 using 10 to 20 mm size hard broken granite stone jelly. Rate includes centring, shuttering and finishing with neat cement punning on exposed surfaces but excluding pointing.	M3	5228.55	320
110	0212	Carrying from departmental stores / stack yard and fixing in position of 25 to 150 mm thick Plain / R C C precast elements like slabs etc. to the correct line, level, plumb and alignment, all as per standard specifications. Rate excludes cost of precast slabs and pointing.	M3	506.60	
111	0213A	Providing precast cement concrete Jali 1:2:4 using graded stone aggregate 6 mm nominal size with suitable reinforcement including centring and shuttering, roughening, cleaning, fixing and finishing in cement mortar 1:3 etc.complete. Rate excludes reinforcement steel and fabrication charges. 50 mm thick	M2	538.75	12.80
112	0213B	Providing precast cement concrete Jali 1:2:4 using graded stone aggregate 6 mm nominal size with suitable reinforcement including centring and shuttering, roughening, cleaning, fixing and finishing in cement mortar 1:3 etc.complete. Rate excludes reinforcement steel and fabrication charges. 40 mm thick	M2	461.70	10.24
113	0214A	Providing and fixing RCC precast perforated lawn drain cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 10 mm nominal size including moulding, shuttering, finishing, carrying and fixing in position etc., complete. Rate excludes reinforcement steel and fabrication charges. 75 mm thick	M2	264.95	19.84
114	0214B	Providing and fixing RCC precast perforated lawn drain cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 10 mm nominal size including moulding, shuttering, finishing, carrying and fixing in position etc., complete. Rate excludes reinforcement steel and fabrication charges. 50 mm thick	M2	161.60	12.80

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<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
115	0215	Precasting, carrying and fixing in position of RCC louvers including 60 mm thick side posts, 60 mm thick intermittent lintel and 100 mm thick top lintel, 40 mm thick louver slabs lintels etc. (all precast) in cement concrete 1:2:4 using graded stone aggregate 10 mm nominal size with specified reinforcement, all as per standard drawing and instructions of Engineer-in-charge. Rate includes supply and fixing of holdfasts, moulding, scaffolding for fixing at specified levels, finishing and also filling the gap between precast lintels with insitu cement concrete of mix 1:2:4 using 10 mm and down graded hard broken granite stone jelly and filling the gap recesses of side walls with C.M 1:5, cutting and forming chases in brick masonry, finishing jambs wherever necessary and making good all damages to suit the existing work but excluding cost of fabrication charges for reinforcement steel.	M2	772.80	34.73
116	0216A	Precasting and fixing in position of RCC cable trench cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 12 mm nominal size with top 15 mm thick finished with hardening compound of proportion one part of ironite or equivalent, four parts of cement and eight parts of 6 mm gauge hard granite stone chips (the proportion being by weight) including welding reinforcement rods to the frame work, all as per drawing, specifications and instructions of Engineer-in-charge but excluding cost of M.S frame work which will be paid separately. Reinforcement rods and M.S frames will be supplied by BHEL at stores at free of cost. 69mm thick slab	M2	543.65	26.03
117	0216B	Precasting and fixing in position of RCC cable trench cover slabs of following thickness in mix 1:2:4 using graded stone aggregate 12 mm nominal size with top 15 mm thick finished with hardening compound of proportion one part of ironite or equivalent, four parts of cement and eight parts of 6 mm gauge hard granite stone chips (the proportion being by weight) including welding reinforcement rods to the frame work, all as per drawing, specifications and instructions of Engineer-in-charge but excluding cost of M.S frame work which will be paid separately. Reinforcement rods and M.S frames will be supplied by BHEL at stores at free of cost. 150mm thick slab	M2	736.75	52.00
118	0217	Encasing rolled steel sections in beams and columns in cement concrete 1:2:4 using graded stone aggregate 12.50 mm nominal size including centering, shuttering etc. complete but excluding cost of reinforcement and fabrication charges.	M3	4078.50	320

<b>Sl.No</b>	<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate (Rs.P)</b>	<b>Cement in Kg</b>
119	0218	Providing balustrade for an overall thickness of 100 mm with cement concrete 1:2:4 using 12 to 20 mm size hard broken granite stone jelly for 75 mm thick inner core applied on chickenmesh and neatly plastered with cement mortar 1:4 on both faces and hand rail plastered in CM 1:4 with an admixture of red oxide including finishing, polishing curing etc., complete. Rate includes cost of all materials and labour but excluding cost of reinforcement and fabrication charges.	M2	994.70	32.92
120	0219	Extra for providing and fixing expanded metal mesh of size 20 x 60 mm and strands 3.25 mm wide 1.6 mm thick weighing 3.64 kg. per sqm for encasing of rolled steel sections in beams, columns and grillage excluding cost of hangers.	M2	355.85	
121	0220	Providing and fixing in position of copper plate as per design for expansion joints.	KG	306.05	
122	0221	Providing and filling in position of blown bitumen in expansion joints.	Hundred M3	5.00	
123	0222	Providing and filling in position of bitumen mix filler of proportion 80 Kg of hot bitumen, 1 Kg of cement and 0.25 cubicmetre of coarse sand for expansion joints.	Hundred M3	1.55	
124	0223	Providing and fixing in position of 12 mm thick bitumen impregnated fibre board conforming to IS:1838 including cost of primer, sealing compound in expansion joints.	Hundred M2	4.10	
125	0224	Extra for providing and mixing water proofing material 'Impermo' or equivalent in cement concrete work at 1 Kg per 50 Kg of cement.	KG	42.00	
126	0226	Providing and placing in position PVC water stops serrated with central bulb, 225 mm wide and 8-11 mm thick for construction / expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete.	RM	462.05	

**IF YOU ARE NOT WILLING TO QUOTE FOR THIS PACKAGE (C) YOU CAN IGNORE THE PAGES 24 to 44 OF THIS PRICE BID. ELSE IF YOU ARE WILLING TO QUOTE FOR THIS PACKAGE(C) PLEASE ENCLOSE THE PAGES 24 to 44 ONLY IN A SEALED COVER**

**PART-II (PRICE BID) (PACKAGE-D)**

**SCHEDULE - A4**

Name of Work: **MAINTENANCE OF TILES AND FLOORING REPAIR WORKS AT BHEL TOWNSHIP, TRICHY**  
**CT:TS:06/18-19 Tender Value: Rs.32 Lakh**

I / We \_\_\_\_\_ have read the condition of tender attached hereto and agree to abide by such conditions. I/We offer to execute the works in **T.S No. CT:TS:006/18-19 for a period of 12 months** at the percentage below / at par / above the rates contained in BHEL applicable items of Schedule of Rates 2013-14 quoted in the schedule appended below:

I / We further agree to sign an Agreement Bond to abide by the General Conditions of Contract and to carryout all works according to the specifications for materials and works of Bharat Heavy Electricals Limited, Tiruchirapalli-620 014. In case of acceptance of the tender by the BHEL, I/We bind myself/ourselves to execute the contract documents within 7 days after notice that my/our tender has been accepted and this contract has been awarded to me/us and thus failing which I/We shall have no objection to the forfeiture of the Earnest Money amount to **Rs.38,400/-** lodged with Bharat Heavy Electricals Limited, Tiruchirapalli-620 014.

I / We further agree to include all tools & plants and consumables required for the work in my / our scope but required power and water will be provided at one point by BHEL at free of cost and based on this, we have quoted our percentage.

**Note:** Details of each item of work shown in the BILL OF QUANTITIES are only approximate and the same is appended below. They are given as a guide for the purpose of tendering only and are liable to variation and alteration of the Competent Authority. The work under each item as executed shall be measured and priced at the overall percentage quoted by the contractor **Below (100-X) % / At par (100%) / Above (100+X) %** of the rates provided in Bill of Quantities appended below from **Page 46 to 67**. **Eventhough the applicable items are provided, for the operational convenience the total tender value of RS.32 Lakh will be divided as required number of Sub Work orders with required items.**

Sl. No.	Approx. Value of work	Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % to be quoted with respect to the rates provided in Bill of Quantities appended below from Page 46 to 67 (The percentage is to be quoted here is GST excluded) (Applicable GST will be extra)	
		In Figures	In Words
1.	<b>Rs.32 Lakh</b>		

**Examples:**

- 1. If the vendor needs to quote 5% below the schedule of rates then vendor need to write 95% in figure column and Ninety Five percent in words.**
- 2. If the vendor needs to quote at par the the schedule of rates then vendor need to write 100% in figure column and One Hundred percent in words.**
- 3.If the vendor needs to quote 5% above the schedule of rates then vendor need to write 105% in figure column and One Hundred Five percent in words**

**Note: Applicable BHEL SR(13-14) item details are given below. Contractor has to quote Common single percentage rate, Below (100-X) % / At par (100%) / Above (100+X) % with respect to the rates provided in Bill of Quantities below at page 45 both in figures and in words**

**BILL OF QUANTITIES**

**PACKAGE-D (90 items) CT:TS:006/18-19**

**MAINTENANCE OF TILES AND FLOORING REPAIR WORKS AT BHEL TOWNSHIP,TRICHY**

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
1	0601	Finishing the top of all floors with 20 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips and finishing the top surface smooth, rounding of corners, curing etc., complete, all as per standard specifications. (Ellis pattern I sort)	M2	190.70	11.7
2	0602	Finishing the top of all floors with 20 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips including mixed well with red oxide powder of approved quality of weight equal to one tenth of the weight of cement used. and finishing the top surface smooth, rounding of corners, curing etc., complete, all as per standard specifications. (Ellis pattern I sort).	M2	383.75	11.7
3	0603	Finishing the top of all floors with 25 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to 10 mm gauge hard broken granite stone chips, finishing the surfaces smooth, rounding of corners, curing, providing borders etc., complete, all as per standard specifications. (Ellis pattern flooring)	M2	235.10	14.6

<u>Sl.No.</u>	<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Rate (Rs.P)</u>	<u>Cement in Kg</u>
4	0604	Finishing the top of all floors with 25 mm thick cement concrete (without using sand) in the proportion of one part of cement and three parts of 3 to10 mm gauge hard broken granite stone chips including mixed well with red oxide powder of approved quality of weight equal to one tenth of the weight of cement used. , finishing the surfaces smooth, rounding of corners, curing, providing borders etc. complete, all as per standard specifications. (Ellispattern flooring).	M2	476.00	14.6
5	0605	Providing red oxide skirting for walls, etc. with cement mortar 1:3, 12 mm thick, well mixed with red oxide powder of approved quality of 3.50 K.G per 50 K.G of cement used, finishing, polishing the surfaces smooth, curing etc., complete, all as per standard specifications.	M2	161.45	7.35
6	0606	Flooring with reinforced cement concrete of mix 1:2:4 using 40 mm and down graded hard broken granite stone jelly for thickness varying from 100 to 500 mm laid in panels not exceeding 6 x 30 m between expansion joints, including necessary vibration using needle / board / screed vibrators, all as required including necessary shuttering, painting the sides with bitumen, but excluding fabrication charges for reinforcement, all as per standard specifications.	M3	1942.05	320
7	0607	Floor finish with 40 mm thick granolithick flooring over the concrete base while it is wet for proper bonding, the bottom 25 mm thick consisting of one part of cement and one part of 6 mm gauge hard broken granite stone chips (the proportion being by volume) and the top 15 mm finished with hardening compound of proportion one part of hardonate (ironite or equivalent) four parts of cement and eight parts of 6 mm gauge blue granite stone chips (the proportion being by weight) including finishing and painting the sides with bitumen etc., complete, all as per standard specifications.	M2	425.15	40

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
8	0608	Floor finish with 40 mm thick over concrete base while it is wet for proper bonding. 40 mm thick finish consists of one part of cement and one part of 6 mm gauge hard broken granite stone chips (the proportion being by volume) and finished smooth including painting the sides with bitumen etc., complete, all as per standard specifications.	M2	333.70	57.6
9	0609A	Providing, laying and finishing the top of floor / side walls with 20 mm thick mosaic tiles of approved make and quality over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm thick and tiles being joined, polished and finished smooth with necessary borders etc., complete including thorough cleaning of the surface before and after laying the tiles. All as per standard specifications. (Cost of tile shall include cost of cement for casting.) For gray colour	M2	472.70	12.9
10	0609B	Providing, laying and finishing the top of floor / side walls with 20 mm thick mosaic tiles of approved make and quality over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm thick and tiles being joined, polished and finished smooth with necessary borders etc., complete including thorough cleaning of the surface before and after laying the tiles. All as per standard specifications. (Cost of tile shall include cost of cement for casting.) For colours other than gray	M2	527.75	12.9
11	0610A	Finishing the top of floors / sides of walls with insitu mosaic comprising of a bedding layer of cement mortar 1:4, 12 mm thick followed by 20 mm thick mosaic wearing layer comprising of cement and mosaic chips of 6 mm and down graded in proportion of 1:2, laid, polished and finished with necessary borders etc., complete including thorough cleaning the surfaces before and after laying the finish, all as per standard specifications. Gray colour	M2	465.55	5.11

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
12	0610B	Finishing the top of floors / sides of walls with insitu mosaic comprising of a bedding layer of cement mortar 1:4, 12 mm thick followed by 20 mm thick mosaic wearing layer comprising of cement and mosaic chips of 6 mm and down graded in proportion of 1:2, laid, polished and finished with necessary borders etc., complete including thorough cleaning the surfaces before and after laying the finish, all as per standard specifications. For colours other than gray	M2	520.55	5.11
13	0611	Grinding and wax polishing of old mosaic floors, dado, skirting etc. in gray and all colours and finishing the surfaces smooth including filling the joints and voids by matching pigments, chips etc., complete, all as per standard specifications. Rate includes cost of materials, hire and running charges of machines, labour etc., complete.	M2	77.25	
14	0612A	Providing and laying Ceramic tiles of required size and minimum thickness of 6 mm in flooring, treads of steps and landings laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 10 mm thick cement mortar 1:3, finished with flush pointing in white cement etc.complete, all as per standard specifications. For Plain Ceramic tile of Size 305mm X 305mm X 6mm of all Colours	M2	1035.20	9.42
15	0612B	Providing and laying Ceramic tiles of required size and minimum thickness of 6 mm in flooring, treads of steps and landings laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 10 mm thick cement mortar 1:3, finished with flush pointing in white cement etc.complete, all as per standard specifications. For Plain Ceramic tile of Size 200mm X 200mm X 6mm of all Colours	M2	1053.70	9.42

<u>Sl.No.</u>	<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Rate (Rs.P)</u>	<u>Cement in Kg</u>
16	0612C	Providing and laying Ceramic tiles of required size and minimum thickness of 6 mm in flooring, treads of steps and landings laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 10 mm thick cement mortar 1:3, finished with flush pointing in white cement etc.complete, all as per standard specifications. For First Quality Design Ceramic tile of Size 305mm X 305mm X 6mm of all Colours.	M2	1215.40	9.42
17	0612D	Providing and laying Ceramic tiles of required size and minimum thickness of 6 mm in flooring, treads of steps and landings laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 10 mm thick cement mortar 1:3, finished with flush pointing in white cement etc.complete, all as per standard specifications. For First Quality Design Ceramic tile of Size 200mm X 200mm X 6mm of all colours.	M2	1299.90	9.42
18	0613	Providing and laying minimum 5 mm thick ceramic glazed floor tiles of first quality approved make confirming to IS:15622 and in all colours of required sizes in flooring, treads of steps, landings etc., laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 12 mm thick cement mortar 1:3, finished with flush pointing in white cement using appropriate colour pigment etc. complete, all as per standard specifications.	M2	672.55	12.42
19	0614	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades as approved by Engineer-in- Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete	M2	672.55	12.42

20	0615	Providing and laying ceramic glazed floor tiles (of required thickness) of first quality approved make confirming to IS:15622 and in all colours of required sizes in flooring, treads of steps, landings etc., laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 20 mm thick cement mortar 1:4, finished with flush pointing in white cement using appropriate colour pigment etc. complete, all as per standard specifications.	M2	678.65	12.42
21	0616	Providing and laying ceramic glazed wall tiles (of required thickness) of first quality of approved make confirming to IS:15622 and in all colours of required sizes in skirting, walls, risers of steps and dado laid over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of 12 mm thick cement mortar 1:3 plaster and joined with white cement using appropriate colour pigment etc.complete, all as per standard specifications.	M2	745.80	12.42
22	0617	Fixing glazed/ceramic/vitrified floor tiles with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness.	M2	367.60	
23	0618A	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Kota stone slabs 20 to 25 mm thick polished	M2	1151.40	14.91
24	0618B	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Cuddappah slabs 20 to 25 mm thick single side polished	M2	879.20	14.91

25	0618C	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Shahabad slabs 20 to 25 mm thick single side polished - Tandur Gray	M2	851.95	14.91
26	0618D	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Shahabad slabs 20 to 25 mm thick single side polished - Tandur Green	M2	838.35	14.91
27	0618E	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Marble slabs 16 to 18 mm thick, polished - Rajnagar plain white	M2	1219.90	13.51
28	0618F	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Marble slabs 16 to 18 mm thick, polished - Green (Udaipur) colour	M2	1333.75	13.51

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
29	0618G	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Marble slabs 16 to 18 mm thick, polished - Pink colour	M2	1276.85	13.51
30	0618H	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Marble slabs 16 to 18 mm thick, polished - Black (Zebra/Galaxy) colour	M2	1093.40	13.51
31	0618I	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - S.White	M2	1440.95	13.51
32	0618J	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Black (Andhra) Colour	M2	2298.45	13.51

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
33	0618K	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Gray Colour	M2	2026.20	13.51
34	0618L	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Green Colour	SQM	1958.15	13.51
35	0618M	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Sweet Green Colour	M2	2434.55	13.51
36	0618N	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Red (Gem) Colour	M2	1958.15	13.51

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
37	06180	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Blue (Lavender) Colour	M2	2230.40	13.51
38	0618P	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Lakha red Colour	M2	3659.60	13.51
39	0618Q	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 4.40 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite slabs 16 to 18 mm thick, polished - Steel grey Colour	M2	1754.00	13.51
40	0618R	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Vitrified Tiles of required thickness and 60 x 60 cm size.	M2	1228.35	12.42

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
41	0618S	Providing, laying and finishing the top of floor with the following best quality slabs of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Precast cement Concrete Tiles of approved make of minimum thickness 22mm and required size and pattern.	M2	495.50	12.42
42	0619A	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra)	M2	800.95	12.42
43	0619B	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - P White	M2	873.75	12.42
44	0619C	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Gray (Steel) Colour	M2	837.35	12.42

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
45	0619D	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour	M2	934.40	12.42
46	0619E	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour	M2	970.80	12.42
47	0619F	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Sweet Green Colour	M2	1261.95	12.42
48	0619G	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour	M2	970.80	12.42

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
49	0619H	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Lakha Red Colour	M2	1541.00	12.42
50	0619I	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Raw Silk Colour	M2	873.75	12.42
51	0619J	Providing, laying and finishing the top of floor with the following best quality tiles of required sizes over a bed of cement slurry @ 3.30 Kg/SQM and a backing layer of cement mortar 1:4, 20 mm (average) thick, finished with flush pointing in white cement using appropriate colour pigment including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour	M2	837.35	12.42
52	0620A	Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. Granite tiles (Polished) - Jet Black	M2	1691.95	10.44
53	0620B	Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour	M2	1342.20	10.44

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
54	0620C	Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour	M2	1378.60	10.44
55	0620D	Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour	M2	1378.60	10.44
56	0620E	Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour	M2	1245.15	10.44
57	0620F	Stone tile work of 8 mm thick (mirror polished and machine cut edge). for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra)	M2	1208.75	10.44
58	0621A	Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following Granite tiles (Polished), 8 to 10 mm thick (approx.) - Jet Black.	M2	1855.75	10.44

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
59	0621B	Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following Granite tiles (polished), 8 to 10 mm thick (approx.) - Red (Gem) Colour	M2	1506.00	10.44
60	0621C	Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following Granite tiles (polished), 8 to 10 mm thick (approx.) - Green Colour	M2	1542.40	10.44
61	0621D	Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following Granite tiles (polished), 8 to 10 mm thick (approx.) - Black (Galaxy) Colour	M2	1542.40	10.44
62	0621E	Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following. Granite tiles (polished), 8 to 10 mm thick (approx.) - Steel Grey Colour	M2	1408.95	10.44
63	0621F	Stone tile (polished) work of 8mm thick for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete with the following Marble tiles (polished), 8 mm thick (approx.) - Rajnagar plain white/Green (Udaipur)/Black (Zebra)	M2	1372.55	10.44
64	0622	Mirror polishing on marble work/granite work/stone work wherever required to give high gloss finish etc.complete.	M2	162.20	
65	0623	Extra for prefinished nosing to treads of steps of marble stones.	RM	219.00	
66	0624	Extra for prefinished nosing in treads of steps of kota stones.	RM	70.90	

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
67	0625A	Supply and fixing homogeneous PVC sheets / tiles of approved brand, pattern, colour, shade and manufacture in flooring / skirting on a smooth and damp proof base using rubber based adhesives of approved quality including rolling with light wooden roller weighing about 5 K.G. etc.complete, all as per standard specifications.1.5 / 1.6 mm thick	M2	422.05	
68	0625B	Supply and fixing homogeneous PVC sheets / tiles of approved brand, pattern, colour, shade and manufacture in flooring / skirting on a smooth and damp proof base using rubber based adhesives of approved quality including rolling with light wooden roller weighing about 5 K.G. etc.complete, all as per standard specifications. 2 mm thick	M2	618.40	
69	0626	Supply and laying roughly dressed cut stone slabs of required sizes and thickness over sand bed or mortar bed, excluding pointing, all as per standard specifications. Rate excludes cost of sand bed/mortar bed.	M3	4330.90	
70	0627	Labour charges for edge preparation (NOZING) and polishing of the laid granite slab on the working platform, table etc. , The rate includes charges for required grinding machine, labour etc., complete. All as per the instructions of Engineer-in-charge	RM	181.95	
71	0628	Flooring with reinforced cement concrete of mix 1:2:4 using 20 mm and down graded hard broken granite stone jelly for thickness varying from 100 to 500 mm laid in panels not exceeding 6 x 30 m between expansion joints, including necessary vibration using needle / board / screed vibrators, all as required including necessary shuttering, painting the sides with bitumen, but excluding fabrication charges for reinforcement, all as per standard specifications.	M3	2119.70	320

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72	1536A	Drilling holes for the following diameter in Industrial Reinforced cement concrete floor or in machine foundation using power drilling machine in proper manner to a maximum depth of 200 mm as per standard specification and fixing the anchor bolts through the holes provided in the machine with the drilled holes in the shop floor as per the instructions of Engineer in charge. The power and compressed air required for drilling holes will be supplied by BHEL at free of cost. The quoted rate shall include all labour charges for drilling holes only and also include hire and running charges for machineries, tools and plants , loading, leading , conveyance and cleaning the debris etc complete. 10- 14 mm diameter	EA	65.00	
73	1536B	Drilling holes for the following diameter in Industrial Reinforced cement concrete floor or in machine foundation using power drilling machine in proper manner to a maximum depth of 200 mm as per standard specification and fixing the anchor bolts through the holes provided in the machine with the drilled holes in the shop floor as per the instructions of Engineer in charge. The power and compressed air required for drilling holes will be supplied by BHEL at free of cost. The quoted rate shall include all labour charges for drilling holes only and also include hire and running charges for machineries, tools and plants , loading, leading , conveyance and cleaning the debris etc complete. 15 - 18 mm diameter	EA	76.85	
74	1536C	Drilling holes for the following diameter in Industrial Reinforced cement concrete floor or in machine foundation using power drilling machine in proper manner to a maximum depth of 200 mm as per standard specification and fixing the anchor bolts through the holes provided in the machine with the drilled holes in the shop floor as per the instructions of Engineer in charge. The power and compressed air required for drilling holes will be supplied by BHEL at free of cost. The quoted rate shall include all labour charges for drilling holes only and also include hire and running charges for machineries, tools and plants , loading, leading , conveyance and cleaning the debris etc complete. 19 - 23 mm diameter	EA	88.70	

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75	1536D	Drilling holes for the following diameter in Industrial Reinforced cement concrete floor or in machine foundation using power drilling machine in proper manner to a maximum depth of 200 mm as per standard specification and fixing the anchor bolts through the holes provided in the machine with the drilled holes in the shop floor as per the instructions of Engineer in charge. The power and compressed air required for drilling holes will be supplied by BHEL at free of cost. The quoted rate shall include all labour charges for drilling holes only and also include hire and running charges for machineries, tools and plants , loading, leading , conveyance and cleaning the debris etc complete. 24 - 28 mm diameter	EA	100.50	
76	629	Providing and laying 7 mm thick (approximate) ceramic glazed floor/wall tiles of first quality approved make and in all colours of required sizes in flooring, treads of steps, landings, skirting, walls, risers of steps and dado etc., laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment by placing 2 mm spacers, tile mat for joints filling etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matter etc	sqm	790.80	
77	630A	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Marble slabs 16 to 18 mm thick, polished - Rajnagar plain white	sqm	1285.60	

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
78	630B	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Marble slabs 16 to 18 mm thick, polished - Green (Udaipur) colour	sqm	1399.45	
79	630C	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Marble slabs 16 to 18 mm thick, polished - Pink colour	sqm	1342.55	
80	630D	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Marble slabs 16 to 18 mm thick, polished - Black (Zebra / Galaxy) colour	sqm	1159.10	

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
81	630E	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - S.White	sqm	1323.20	
82	630F	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Black (Andhra) colour	sqm	2106.15	
83	630G	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly, chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Grey colour.	sqm	1857.60	

<b><u>Sl.No.</u></b>	<b><u>Item No.</u></b>	<b><u>Description</u></b>	<b><u>Unit</u></b>	<b><u>Rate (Rs.P)</u></b>	<b><u>Cement in Kg</u></b>
84	630H	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Green colour	sqm	1795.45	
85	630I	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Sweet Green colour	sqm	2230.40	
86	630J	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Red (Gem) colour	sqm	1795.45	
87	630K	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Blue (Lavender) colour	sqm	2044.00	

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88	630L	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Lakha Red Colour	sqm	3348.90	
89	630M	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Granite slabs 16 to 18 mm thick, polished - Steel Grey Colour	sqm	1609.05	
90	630N	Providing, laying and finishing the top of floor/wall with the following best quality slabs / tiles of required sizes laid with cement based high polymer modified quick set tile adhesive (water based conforming to IS 15477, using 5 K.G adhesive per SQM of tile area, in average 3 mm thickness and finishing to the required line, level & alignment, tile mat for joints filling, including rubbing and polishing wherever necessary etc. complete, all as per instructions of Engineer in charge and standard specifications. Rate also includes removing the white wash/distemper/paint thoroughly chipping or hacking to make the levelled surface, cleaning the surface free from dirt and other foreign matters etc Vitrified tiles or equivalent, 8.50 mm thick (approx.) & 60 x 60 cm size	sqm	1371.45	

**IF YOU ARE NOT WILLING TO QUOTE FOR THIS PACKAGE (D) YOU CAN IGNORE THE PAGES 45 to 67 OF THIS PRICE BID. ELSE IF YOU ARE WILLING TO QUOTE FOR THIS PACKAGE(D) PLEASE ENCLOSE THE PAGES 45 to 67 ONLY IN A SEALED COVER**