

Himachal Pradesh  
Public Works Department

No PWN/CB/G.A/E-27:-2017

1491

dated: 13.12.2017

To

The Engineer-in-Chief,  
HP PWD Nigam Bihar Shima.

**Subject:-**

**Contract package No./Title:** CLC/RLC-5; Construction of Government Polytechnic for Women at Rehan District Kangra (HP); (SH:- Construction of Building Portion including Water Supply, Sanitary Installation, Electrical Installation and Site Development, Boundary Walls & Rain Water Harvesting System).

R/Sir,

Enclosed please find herewith the Addendum I of the subject cited above is sent herewith for publishing the tender.

**DA/ Addendum I a/w Annexure-A**

Sd/-  
Executive Engineer,  
Nurpur Divn. HP PWD Nurpur

Office of the Chief Engineer, Kangra Zone  
Public Works Department, Government of Himachal Pradesh, Nurpur

## Addendum 1

**Date:** 13<sup>th</sup> December, 2017

**Loan No. and Title:** Loan No. -----IND/ Himachal Pradesh Skill Development Project.

**Invitation for Bids No.:** CLC/04/2017-18 dated 29<sup>th</sup> November, 2017

**Contract package No./Title:** CLC/RLC-5; Construction of Government Polytechnic for Women at Rehan District Kangra (HP); (SH:- Construction of Building Portion including Water Supply, Sanitary Installation, Electrical Installation and Site Development, Boundary Walls & Rain Water Harvesting System).

Pursuant to ITB 8, the Bidding documents for the aforementioned works stands amended as:

1. The date of Pre-bid meeting is rescheduled as 21<sup>st</sup> December, 2017 at 11:00 (IST);
2. The deadline for Bid submission is rescheduled as 19<sup>th</sup> January, 2018 at 11:00 hrs (IST);
3. The date of Bid opening (Technical) is rescheduled as 19<sup>th</sup> January, 2018 at 11:30 hrs (IST);
4. Bidding Document - Volume 2: Section 4- Price Bid – Bill of Quantities (BOQ): The Bill of Quantities (BOQ) stands replaces in its entirety with that enclosed herewith as “Annexure A”;
5. Qualification Requirements – para 4 (a) of published Invitation for Bids (IFB) – The requirement of “INR 155 million” stands corrected as “INR 160 million”;
6. Qualification Requirements – para 4 (b) of published Invitation for Bids (IFB) – The requirement of “INR 400 million” stands corrected as “INR 215 million”.

All other terms and conditions shall remain unchanged.

-sd-

Executive Engineer, Nurpur, HPPWD

For and on behalf of:

Chief Engineer, Kangra Zone

Public Works Department, Government of Himachal Pradesh, Nurpur

Himachal Pradesh, India

## Annexure -A

### Bill of Quantities

**Contract Package No. and Title:** CLC/RLC-5; **Construction of Government Polytechnic for Women at Rehan,** Tehsil Nurpur, District Kangra (HP) (SH: Construction of Administrative Block, Hostel Block, Workshop, Canteen, Dispensary, Open Air Theatre, Principal Residence, Type-I, II, III & IV Quarters, Site Development, Approach road, Earth work, C/O Bore Well, Water Supply & Sanitary Installation, Electrical Installation)

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
1.	Cutting in earth work in all kind of classification of soil such as pick work, pick jumper work,jumper blasting work , hard and soft blasting work ,conglomerates rocks chiseling of wedging out rocks where blasting work is prohibited or any other mixed classification of soil including removal of bushes ectetra including dewatering and pumping or bailing out water ( surface and sub soil water ) upto anyheight/ depths or any quantum of water including removal of slush which may arise during dewatering complete including filling of depression,where required including stacking the serviceable material and disposal of unserviceable materials as per HP.PWD. specifications ,approved drawings, designs as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals.	2422.20	Cubic meter			
2.	Earth work in excavation for all type of road structure such as retaining walls, breast walls, culverts , drains and parapets etcetra in all type of classification of soil comprising of ordinary soil, ordinary rock, hard rock chiseling /wedging out rocks ( Where blasting is prohibited) as per drawings and M.O.R.D. technical specification clause 305.1 and disposal of materials upto any lead, lift including dressing of sides and bottom and back filling in trenches with excavated suitable approved material to the original	1329.11	Cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	surface in layers not exceeding 150mm ( one hundred fifty millimeters ) compacted thickness including shoring and strutting and pumping and bailing out water (surface and sub soil water ) upto any depth of quantam of water including removal of slush which may arrise out during dewatering as per HP.PWD. specifications ,approved drawings, designs as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals					
3.	Excavation in foundation, trenches etcetera in earth work in all kinds of classification of soil such as pick work, jumper work, pick jumper work. blasting work , jumper blasting work,soft and hard blasting and doing work in saturated soil including chiseling or wedging out rock where blasting work is prohibited or any other mixed variety of soil including shoring, strutting dewatering and pumping or bailing out water ( surface and sub soil water ) upto any depth or any quantum of water including slush which may arise during dewatering, removal of slush and stacking the serviceable and unserviceable material clear from the edges of excavation and then returning the stacked soil in 15 cm ( fifteen centimeters ) layers when required into plinths and sides of foundation etcetera consolidating each deposited layer by ramming and watering and then disposing of all surplus unserviceable excavated earth as per HP.PWD. specifications,approved drawings, designs as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals	5353.29	Cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
4.	Excavation in drains and channels etcetera in earth work in all kinds of classification of soil such as pick work, jumper work, pick jumper work. blasting work , jumper blasting work,soft and hard blasting and doing work in saturated soil including chiseling or wedging out rock where blasting work is prohibited or any other mixed variety of soil including shoring, strutting dewatering and pumping or bailing out water ( surface and sub soil water ) upto any depth or any quantum of water including slush which may arise during dewatering, removal of slush and stacking the serviceable and unserviceable material clear from the edges of excavation and then returning the stacked soil in 15 cm ( fifteen centimeters ) layers when required into plinths and sides of foundation etcetera consolidating each deposited layer by ramming and watering and then disposing of all surplus unserviceable excavated earth as per HP.PWD. specifications,approved drawings, designs as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals	605.61	Cubic meter			
5.	Excavation in earth work in all kinds of classification of soil and banking in layers including breaking clods,ramming and dressing ground for the purpose of making embankment or filling up ground depressions. The excavated materials to be used in banking shall be free of logs, stumps, roots, rubbish or any other in gradient likely to deteriorate or effect the stability of embankment and it shall be laid/ deposited in layers not exceeding 20cm (Twenty centimeters) loose thickness and shall be thoroughly compacted as per HP.PWD. specifications,approved drawings, designs as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other	2513.28	Cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	incidentals.					
6.	Excavation in earth work in all kinds of classification of soil and filling in layers in foundation and plinth . The excavated materials to be used in filling shall be free of logs, stumps, roots, rubbish or any other in gradient likely to deteriorate or effect the stability of filling and it shall be laid/ deposited in layers not exceeding 15cm (fifteen centimeters) loose thickness and shall be thoroughly compacted as per HP.PWD. specifications, approved drawings, designs as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals.	148.65	Cubic meter			
7.	Filling in plinth with sand under floor including watering, ramming ,consolidating and dressing complete as per HP.PWD. specifications, approved drawings, designs as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals.	895.23	Cubic meter			
8.	Stone filling behind abutment, wing wall and return wall , retaining walls complete as per drawings and technical specification as per the entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	770.96	Cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
9.	Providing form work with steel plates 3.15mm(three point one five millimeters) thick, welded with angle iron in frame 30x30x5mm(thirty into thirty into five millimeters),so as to give a fair finish including centering ,shuttering, strutting and propping etcetera with wooden battens and ballies, height of propping and centering in all heights below supporting floor to ceiling and removal of the same for in situ reinforced concrete and plain concrete work in foundation, footing, basis of column etcetra . and mass concrete complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	3010.56	Square meter			
10.	Providing form work with steel plates 3.15mm(three point one five millimeters)thick welded with angle iron in frame 30x30x5mm(thirty into thirty into five millimeters),so as to give a fair finish including centering ,shuttering, strutting and propping etcetera with wooden battens and ballies, height of propping and centering in all heights below supporting floor to ceiling and removal of the same for in situ reinforced concrete and plain concrete work in flat surfaces such as soffits of suspended floors, roofs, landings , shelves and the like floor etcetra . upto any thickness upto all floor level as per HP.PWD. specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals.. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	12095.72	Square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
11.	Providing form work with steel plates 3.15mm(three point one five millimeters)thick welded with angle iron in frame 30x30x5mm(thirty into thirty into five millimeters),so as to give a fair finish including centering ,shuttering, strutting and propping etcetera with wooden battens and ballies, height of propping and centering in all heights below supporting floor to ceiling and removal of the same for in situ reinforced concrete and plain concrete work in Columns, pillars post and struts (square rectangular or polygonal in plain in any heights / thickness/depths etcetera upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	6632.58	square meter			
12.	Providing form work with steel plates 3.15mm(three point one five millimeters)thick welded with angle iron in frame 30x30x5mm(thirty into thirty into five millimeters),so as to give a fair finish including centering ,shuttering, strutting and propping etcetera with wooden battens and ballies, height of propping and centering in all heights below supporting floor to ceiling and removal of the same for in situ reinforced concrete and plain concrete work in Beams, cantilevers, girders and lintels, sides of soffits of beams, beams haunchings, girders, cantilevers, bressumers and lintels upto any depth /heights upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax,	10553.9	square meter			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	sale tax or other taxes imposed by the Government					
13.	Providing form work with steel plates 3.15mm(three point one five millimeters)thick welded with angle iron in frame 30x30x5mm(thirty into thirty into five millimeters),so as to give a fair finish including centering ,shuttering, strutting and propping etcetera with wooden battens and ballies, height of propping and centering in all heights below supporting floor to ceiling and removal of the same for in situ reinforced concrete and plain concrete work in stair cases with sloping or stepped soffits excluding landing upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	314.82	square meter			
14.	Providing form work with steel plates 3.15mm(three point one five millimeters)thick welded with angle iron in frame 30x30x5mm(thirty into thirty into five millimeters),so as to give a fair finish including centering ,shuttering, strutting and propping etcetera with wooden battens and ballies, height of propping and centering in all heights below supporting floor to ceiling and removal of the same for in situ reinforced concrete and plain concrete work in edges of slabs and breaks in floors and walls upto any width etcetera upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate	2590.44	Running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
15.	Providing form work with steel plates 3.15mm(three point one five millimeters)thick welded with angle iron in frame 30x30x5mm(thirty into thirty into five millimeters),so as to give a fair finish including centering ,shuttering, strutting and propping etcetera with wooden battens and ballies, height of propping and centering in all heights below supporting floor to ceiling and removal of the same for in situ reinforced concrete and plain concrete work in vertical surfaces such as walls (any thickness) partitions including attached pillasters, buttresses, plinth and string courses and the like etcetera upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	177.5	square meter			
16.	Providing and laying plain cement concrete 1:5:10 ( one cement; five sand; ten graded crushed stone aggregate 40mm (forty millimeter ) nominal size with 15% (fifteen percent ) plum and curing complete including cost of form work in Retaining walls, breast walls, the size of plum shall usually be 150mm to 300mm (one hundred fifty millimeters to three hundred millimeters ) as per drawings and HP.PWD. specifications as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other	170.07	cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	taxes imposed by the Government..					
17.	Providing and laying plain cement concrete 1:4:8 (one cement; four sand : eight graded crushed stone aggregate 40mm(forty millimeters) nominal size mixed and vibrated mechanically and curing complete in or under water including pumping or bailing out water / dewatering removal of slush which may arise at the time of laying under water complete excluding the cost of form work in foundation and plinth in all depths/ heights as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	1297.63	cubic meter			
18.	Providing and laying mechanically mixed and vibrated cement concrete for plain / reinforced concrete in open foundation for all type of structure complete of plain cement concrete grade M-10 ( M-ten ) nominal mix 1:3:6 ( one cement: three sand: six graded /crushed stone aggregate 40mm) ( forty millimeters ) nominal size in or under water and curing complete including pumping, or bailing out water , dewatering, removal of slush, as required at site which may arise at the time of laying under water complete for all heights / depths including cost of form work as per drawings and M.O.R.D. technical specifications clause 802, 803, 1202 and 1203, design and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the	175.00	cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Government..					
19.	Providing and laying mechanically mixed and vibrated reinforced cement concrete work for plain / reinforced concete in sub structure for all type of structure complete of plain cement concrete grade M-15 (M-fifteen ) nominal mix 1:2½:5 ( one cement; two and half sand : five graded creushed stone aggregate 20mm ( twenty millimeters ) including cost of form work as per drawings and M.O.R.D. technical specifications clause 802, 804, 805, 806 , 807 1202 and 1204 , designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	360.00	cubic meter			
20.	Providing and laying mechanically mixed and vibrated cement concrete for plain / reinforced concrete for all type of structure complete of plain cement concrete grade M-25 nominal mix ( 1:1½:3 (one cement; one and half sand : three graded /crushed stone aggregate 20mm ( twenty millimeters ) nominal size, and curing complete including cost of form work excluding cost of reinforcement in super structures as per drawing and technical specifications clause 800 and 1205.4, and 1205.5, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	218.75	cubic meter			
21.	Providing and laying damp proof course 100mm ( one hundred millimeters ) thick with cement concrete 1:2: 4 (one cement; two sand four graded /crushed stone aggregate 12.5mm (twenty point	503.20	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	five millimeter) nominal size and curing complete including the form work and as required at site as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..					
22.	Applying a coat of hot bitumen (mexphalt 80/100 ( eighty/ one hundred ) or equivalent) using 1.70 Kg(one point seven zero Kilogramme. )per square meter on damp proof course after cleaning the surface with a piece of cloth lightly soaked in kerosene oil complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	878.61	square meter			
23.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and vibrated including curing complete in or under water including pumping or bailing out water / dewatering removal of slush which may arise at the time of laying under water complete excluding cost of form work and reinforcement for reinforced concrete work in foundation, footings, bases of columns and the like in all depths/ thickness etcetra as per HP.PWD.	1882.78	cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..					
24.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and vibrated including curing complete excluding cost of form work and reinforcement for reinforced concrete work in suspended floors , floors roofs, landings, shelves their supports balconies, beams, girders, bressumers and cantilevers in all depths/ thickness upto all floor floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	3157.10	cubic meter			
25.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and vibrated including curing complete excluding cost of form work and reinforcement for reinforced concrete work in columns, pillars, posts and struts in all depths/ thickness up to all floor	673.46	cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..					
26.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and vibrated including curing complete excluding cost of form work and reinforcement for reinforced concrete work in stair cases ( except spiral stair cases) excluding landing but including preparing of top surfaces and finishing of nosing upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	48.6	cubic meter			
27.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and vibrated including curing complete excluding cost of form work and reinforcement for reinforced concrete work in walls ( any thickness ) but not less than 0.10 (zero point one zero ) metter thickness including attached buttresses, pilasters and their caps	21.28	cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	and basis and string course etcetera from top of foundation upto all floor level and curing complete excluding cost of reinforcement as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..					
28.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and vibrated including curing complete excluding cost of form work and reinforcement for reinforced concrete work in chajjas not exceeding 10cm ( ten centimeter ) any thickness upto all floor level including finishing the exposed surface with cement mortar 1:3 ( one cement: three sand ) to give a smooth and even surface as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	77.86	cubic meter			
29.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and	12.40	cubic meter			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	vibrated including curing complete excluding cost of form work and reinforcement for reinforced concrete work in moulding , cornics, etcetera not exceeding 15cm ( fifteen centimeter ) in girth upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..					
30.	Providing and laying cement concrete grade M-25(M-Twenty five) design mix to obtain the minimum compressive strength of 25 N/mm <sup>2</sup> (twenty five newton per square milimeters) with cement contents not less than 400 kg ( four hundred kilogramme) per cubic meter to give an smooth surfaces mechanically mixed and vibrated including curing complete excluding cost of form work and reinforcement for reinforced concrete work in moulding , plain window sills etcetera not exceeding 15cm ( fifteen centimeter ) in girth upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	26.87	cubic meter			
31.	Providing and laying tor steel reinforcement for reinforced cement concrete work including bending, binding, cutting ,straighting and placing in position including cost of binding wire complete upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the	1064613.18	Kilogram			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
32.	Supplying ,fitting and placing HYSD bar reinforcement in all type of structures complete as per drawing and technical specification clause 1002, 1010 and 1202 designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	26.25	Metric tonne			
33.	Brick masonry using second class common burnt clay building bricks in foundation and plinth in cement mortar 1:6 ( one cement: six sand ) and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	1181.98	cubic meter			
34.	Brick masonry using second class common burnt clay building bricks in super structure above plinth level in all heights / floor level in cement mortar 1;6( one cement; six sand)and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	2792.77	cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
35.	Second class half brick masonry in common burnt clay building bricks in super- structure above plinth level to upto all floor level in cement mortar 1:4 (One Cement : four sand ) and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	2652.02	square meter			
36.	Brick edging ( Brick laid on edge) to plinth protection with bricks including grouting with cement mortar 1:4 ( one cement: four sand ) with bricks size 22.9 x 11.2 x 7 cm ( twenty two point nine into eleven point two into seven centimeter ) and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	364.68	Square meter			
37.	Square rubble masonry coursed with hard stone of approved quality in foundation and plinth including racking out joints in cement mortar 1:4(one cement: four sand) and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	1460.84	cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
38.	Providing smooth finishing to exposed surface of reinforced cement concrete or cement concrete work with cement mortar 1:3 (one cement three sand)complete in all floor/heights and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	398.76	Square meter			
39.	Providing and fixing 35mm ( thirty five millimeters ) thick factory made flush door shutters commercial both side including non-decorated phenol bonded termite resistant and water proof core of block board construction with frame of first class hard wood and well matched first class Indian teak ply veneering with vertical grains of cross bands and face veneers on one face and commercial ply of shutters including black enamelled Mild steel butt hinges as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	1422.41	square meter			
40.	Providing and fixing 40mm(forty millimeters) thick second class deodar wood wire gauge shutters using galvanized Mild steel wire gauge of I.S. gauge designation 85-G ( eighty five-G )with wire of dia 0.56mm (zero point five six millimeters)for doors, windows, and clerestory windows including first class deodar wood ornamental beading 20mm x 12.5mm ( twenty millimeter into twelve point five millimeters ) bright finished / black	325.66	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	enamelled iron butt hinges with necessary screws as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
41.	Supplying and fixing rolling shutters having width below 3.5( Three point five ) metres. of approved make made of 80 mm X 1.25mm ( eighty millimeters into one point two five millimeters ) mild steel laths interlocked together through their entire length and joined together at the end by end locks mounted on specially designed pipe shaft ,with brackets side guides and arrangements for inside and outside locking with push pull operation complete but excluding the cost of cover etcetra as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	30.06	square meter			
42.	Providing and fixing top cover for rolling shutters. Shutters having width blow 3.5( three point five ) metre. complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	7	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
43.	Providing and fixing ball bearing for rolling shutters complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	25.80	Number			
44.	Providing and fixing 27.5cm ( twenty seven point five ) centimeter long wire spring grade No.2 (two ) for rolling shutters complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	7	Number			
45.	Providing and fixing Gear box including necessary screws complete in all respect, as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	25.20	Number			
46.	Providing and fixing Mild Steel plain grills of required pattern in angle iron frame of windows etcetra with Mild steel .flats and square or round bars with round headed bolts and nuts or by screws including welding with frame complete in all respect as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other	22885.36	kilogram			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
47.	Providing and fixing 50mm (Fifty milimetres) size bright finished brass cup board or ward rob knobs etcetera complete in all respectas per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	277	Number			
48.	Providing and fixing 65x35mm (Sixty five into thirty five milimetres) size bright finished aluminum cup board or ward rob lock with six leavers including necessary screws complete in all respect as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	217	Number			
49.	Providing and fixing chromium plated brass sliding door bolts with nuts and screws etcetra as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government 300x16mm.(Three hundred into sixteen milimetres )	181	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
50.	Providing and fixing chromium plated brass sliding door bolts with nuts and screws etcetra as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government 250x16mm.(Two hundred fifty into sixteen milimetres )	332	Number			
51.	Providing and fixing anodized aluminum tower bolts, (Barrel type)anodized transparent or dyed to required colour and shade with bolts and nuts/screws etcetra complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government . 250 x 10mm (two hundred fifty into ten millimeter).	1372	Number			
52.	Providing and fixing anodized aluminum tower bolts, (Barrel type)anodized transparent or dyed to required colour and shade with bolts and nuts/screws etcetra . complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Governmentl. 150 x 10mm (one hundred fifty into ten millimeter).	4374	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
53.	Providing and fixing aluminum handles anodized transparent or dyed to required colour and shade with necessary screws etcetra complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government. 125mm ( one hundred twenty five millimeters )	1492	Number			
54.	Providing and fixing aluminum handles anodized transparent or dyed to required colour and shade with necessary screws etcetra complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government 100mm ( one hundred millimeters )	3660	Number			
55.	Providing and fixing 12mm (twelve millimeters) thick and 150mm (one hundred fifty millimeters ) wide first class deodar wood pelmet with 25mm (twenty five millimeter ) dia meter wooden curtain rod and brackets including fixing with 25x3mm (twenty five into three millimeter ) mild steel flat 10 cm ( ten centimeters ) long and plugs with necessary screws complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	331.73	Running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
56.	Providing and fixing brass curtain rail with rollers stop ends and brackets in pelmets instead of wooden curtain rod 25 mm ( twenty five millimeters) dia and brackets of first class deodar wood (actual length) of rails of be measured as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	48.87	Running meter			
57.	Providing and fixing aluminium door stopper with rubber cushion etc. to suit shutter of any thickness complete with necessary screws as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	673	Number			
58.	Providing and fixing Hydraulic door closer ISI marked complete with necessary screws as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	241	Number			
59.	Providing and laying 40 mm (forty millimeter ) thick mirror polished 55x55 cm ( fifty five into fifty five centimeter ) Kota stone slab flooring with 20 mm (twenty millimeter ) (average) thick base of cement mortor 1:4 (1 cement :4 sand) laid over and	8179.78	Square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
60.	Kota stone slab 25mm ( twenty five millimeter) thick in risers of steps ,skirting dado and pillar laid on 12mm ( twelve millimeter) (average)thick cement mortar 1:3 (1cement :3 sand ) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs including rubbing and polishing complete upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	609.99	Square meter			
61.	Providing and laying granite stone in flooring 20mm (average)thickness base of cement mortar 1:3(one cement: three sand) laid over and jointed with grey cement slurry mixed with pigment to match the shade of granite stone including rubbing and polishing complete upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	85.07	Square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
62.	Providing and laying 40mm (forty millimeters) thick Cement concrete flooring 1:2:4 (one cement; two sand; four graded broken/ crushed stone aggregate 20mm (twenty millimeters) nominal size ) laid in one layer finished with a floating coat of neat cement upto all floor level and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	1429.49	Square meter			
63.	Providing and laying 50 mm (Fifty millimeters) thick cement concrete flooring with metallic concrete hardner topping and glass strips under layer of 35 mm ( thirty five millimeter )thick cement concrete 1:2:4 ( one cement: two sand: four graded stone aggregate 20 mm ( twenty millimeters) nominal size and top layer of 15 mm ( fifteen nmillimeters ) thick metallic concrete hardner consisting of mix 1:2 ( one cement hardner mix : two stone aggregate 6 mm ( six millimeters ) nominal size by volume with which metallic hardening compound of approved quality is mixed in the ratio 4:1 (four parts of cement: one part of metallic floor handening compound of approved quality by weight) including finishing complete. upto all floor level and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	706.92	Square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
64.	Providing and laying spartic ceramic tiles (non slippery ) of Kajaria./ nitco or its equivalent, size 300 x 300 mm ( three hundred into three hundred millimeters ) x 5.5mm ( five point five millimeters ) thick in treads of steps laid on a bed of 12mm ( twelve millimeters ) thick cement mortar 1:3 ( one cement : three sand ) finished with flush pointing in white cement complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	669.96	Square meter			
65.	White glazed tiles 6mm (six millimeters) thick 20x 30 cm ( twenty into thirty three centimeters ) of Kajaria/ Rak or its equivalent in skirting, risers of steps and dado for all heights on 12mm (twelve millimeter) thick cement mortar 1:3 ( one cement; three sand) and jointed with white cement slurry complete upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	2091.49	Square meter			
66.	Providing and laying heavy duty vitrified tiles of size 600x 600mmx10mm) ( six hundred into six hundred into ten millimeter ) of Nitco or its equivalent tiles in grey / coloured of required approved shade in flooring, treads of steps and landing laid on a bed of 12mm ( twelve millimeters ) thick cement mortar 1:3 ( one cement: three sand) laid over and jointed with neat cement	1062.57	Square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	slurry finished with flush pointing in white cement mixed with pigment in white cement shade to match the shade of tiles upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
67.	Providing and laying vitrified finished of Nitco or its equivalent tiles ( 600x600x8mm ) ( six hundred into six hundred into eight millimeters ) in grey /coloured or of required approved shade in skirting, risers of steps and dados laid on 12mm ( twelve millimeters ) thick cement mortar 1:3 ( one cement: three sand) laid over and jointed with neat cement slurry finished with flush pointing in white cement mixed with pigment in white cement shade to match the shade of tiles upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	45.71	Square meter			
68.	Providing and laying 300 x 300 x25 mm( three hundred into three hundred millimeters into twenty five millimeter) thick vibro hydraulic compressed and polished precast terrazzo tiles of ISI marked IS No. 1237 (one thousand two hundred thirty seven ) of NTC or its equivalent in 70% (seventy percent) white and 30% (thirty percent) grey cement The ratio of chips shall be 55%	1127.67	Square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	(fifty five percent) white chips, 15% (fifteen percent ) of each Mahroon, yellow and dark green , having chips size 0.B.2B laid in floor, treads of steps and landings on a bed of 25mm (twenty five millimeter) average thickness of cement mortar 1 : 6 (one cement : six sand) jointed with neat cement slurry mixed with pigment to match the shade of tiles (wherever required) including rubbing and polishing completed with tiles of Silver Grey shade upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
69.	Providing and laying 300 x 300 x25 mm( three hundred into three hundred millimeters into twenty five millimeter) thick vibro hydraulic compressed and polished precast terrazzo tiles of ISI marked IS No. 1237 (one thousand two hundred thirty seven ) of NTC or its equivalent in 70% (seventy percent) white and 30% (thirty percent) grey cement The ratio of chips shall be 55% (fifty five percent) white chips, 15% ( fifteen percent ) of each Mahroon, yellow and dark green , having chips size 0.B.2B laid in skirting, risers of steps not exceeding 30 cm ( thirty centimeter ) in height on 10mm (ten millimeter) average thickness of cement plaster 1 : 3 (one cement : three sand) jointed with neat cement slurry mixed with pigment to match the shade of tiles (wherever required) including rubbing and polishing completed with tiles of Silver Grey shade upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge	157.12	Square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
70.	Providing and laying Extra for making moulded nosing in terrazzo including returned moulded ends and angles to mouldings complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	92.00	Square meter			
71.	Providing and fixing 150mm (One hundred fifty milimtres) diameteres on wall face P.V.C. (polyvenyle chloride ) (D-plast) rain water pipes 2.2mm ( two point two millimeters) thick supreme or its equivalent conforming to IS NO. 13592-92 (thirteen thousand five hundred ninety two-ninety two ) type-A of working pressure not less than 4.50 kgs(Four decimal five zero kilograms) per square centi- metre including filling the joints with approved adhesive complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	862.30	running meter			
72.	Providing and fixing 75mm ( seventy five milimtres) diameteres on wall face P.V.C. (polyvenyle chloride ) (D-plast) rain water pipes 2.2mm thick supreme or its equivalent conforming to IS NO. 13592-92(thirteen thousand five hundred ninety two-ninety	8.00	Running meter			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	two ) type-A of working pressure not less than 4.50 kgs(Four decimal five zero kilograms) per square centimetre including filling the joints with approved adhesive complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
73.	Providing and fixing 100mm (One hundred milimtres) diameters on wall face P.V.C. (polyvenyle chloride ) (D-plast) rain water pipes 2.2mm thick supreme or its equivalent conforming to IS NO. 13592-92 (thirteen thousand five hundred ninety two-ninety two ) type-A of working pressure not less than 4.50 kgs(Four decimal five zero kilograms) per square centi- metre including filling the joints with approved adhesive complete and as directed by the Engineer- in-charge including carriage of materials within all leads, lifts of materials and other incidental charges and as per approved drawings/ design and as directed by the Engineer in charge.	44.00	Running meter			
74.	Providing and fixing on wall faces P.V.C. (polyvenyle chloride ) (D-plast) acessories for rain water pipes 2.2mm ( two point two millimeter ) thick supreme or its equivalent including filling the joints with approved adhesive complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government. 150mm (onr hundred fifty	108	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	millimeters)diameter Plain bend.					
75.	Providing and fixing on wall faces P.V.C. (polyvenyle chloride ) (D-plast) accessories for rain water pipes 2.2mm ( two point two millimeter ) thick supreme or its equivalent including filling the joints with approved adhesive complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government : 150mm (One hundred Fifty millimeters)diameter Plain shoe.	104	Numbers			
76.	Providing and fixing 110mm (One hundred ten milimtres) diameters P.V.C. (polyvenyle chloride ) (D-plast) pipe 2.2mm ( two point two millimeter ) thick suspreme or its equivalent for sockpit of working pressure not less than 4.50 kgs(Four decimal five zero kilograms) per square centi- metre including filling the joints with approved adhesive complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	17.00	Running meter			
77.	Providing and fixing 150mm (One Hundred fifty millimeters) dia meter P.V.C (polyvenyle chloride ) holder bats clamps of approved design to P .V.C. (polyvenyle chloride ) pipes embedded in and including cement concrete block 100 mm x 100	598	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	mm x 100mm ( one hundred millimeters into one hundred millimeters into one hundred millimeters of 1:2:4 ( one cement : two sand: four graded stone aggregate 20mm ( twenty millimeters ) nominal size ) mix including cost of cutting holes and making good the wall etcetera complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
78.	Painting top of roofs with over two coat bitumen of approved Quality at 17 kg ( seventeen kilogramme)for 10 sqm ( ten square meter) Impregnated with a coat of sand at 0.06cum ( zero point zero sixcubic meter ) per 10 sqm. ( tensquare meter ) Including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil Complete. With residual type petroleum bitumen of penetration 80/100 (eighty / hundred ) as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	5377.51	square meter			
79.	Providing and laying heat resistant terrace tiles 300mm X 300mm X20 mm) with SRI (Solar Refractive Index) over a 20 mm ( twelve millimeters ) layer of cement mortar 1 : 4 ( one Cement : four sand ) and grouting the joints with mix of white cement and mable powder in ratio of 1:1 including rubbing and polishing of the surface upto three cuts complete including providing skirting upto	5377.51	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	150 mm height along the parapet wall in the same manner cement concrete 100 mm ( one hundred millimeters ) thick plain cement concrete 1:4:8 (one cement/ four sand/ eight graded crushed stone aggregate 40mm (forty millimeter) nominal size over bitumen painted roof complete in all respect as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
80.	Making khurras 45x45cm ( forty five into forty five centimeters ) with average minimum thickness of 5 cm(five centimeter) cement concrete 1:2:4 (one cement :two sand: four graded crushed stone aggregate of 20 mm ( twenty millimeters) nominal size finished with 12 mm ( twelve millimeters ) cement plaster 1:3 ( one cement : three sand ) and coat of neat cement rounding the outlet complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	4	Numbers			
81.	Providing and fixing factory made double rebate steel shutters of windows side, top hung and fixed windows, (one side glazed and other wire gauged) standard rolled steel sections/steel Z-section and T-sections, T-hinges joints, metred and welded with manufactured relevant ISI standard specifications with 16x3.15mm ( sixteen into three point fifteen millimeters ) lugs 10	656.03	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	cm ( ten centimeter ) embedded in cement concrete block 15 x 10 x 10 cm ( fifteen into ten into ten centimeter ) of size in cement concrete 1:3:6 (one cement: three sand: six graded crushed stone aggregate 20mm ( twenty millimeters ) nominal size including handles with closing device and making provision of other windows fixtures, where required, including providing and fixing of 4mm (four millimeters) thick glass pans of Modi Guard with glazing clips and special metal sash putty of approved make for glazed shutters and metal beading with screws etcetera and including fixing of wire gauge using galvanized MS wire gauge of IS gauge designation 85-G (eighty five-G) with wire of 0.56mm (zero point five six millimeters) and for fixing wire mesh with MS flat 20x3mm (twenty into three millimeters) for beading and screws complete including frame with ISLC 75mmx40mm ( seventy five millimeter into forty millimeter ) including applying a priming coat of red lead paint after pretreatment of the surface as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
82.	Providing and fixing angle iron cupboard frames manufactured from Mild steel Angle iron section 25X25X5mm ( twenty five into twenty five into five millimeter ) thickness including hinges jamb,lock jamb,beed and if required angle thrashold of mild steel angle 25X25 mm ( twenty five into twenty five millimeter ) welded or rigidly fixed by mechanical means,lugs with split end tails to each jamb including steel butt hinges 2.5 mm (two point five millimeter ) thick with provision for locking arrangement and	1398.84	Running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	shock absorber as specified including and applying a priming coat of red lead paint after pretreatment of the surface as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
83.	Providing and fixing angle iron door frame double rebate manufacture for Mild steel angle iron 40x40x6 mm ( forty into forty into six millimeters ) and Mild steel flat 50x4 mm (fifty into four millimeter ) in combination as per drawing design including hings jambs lock jambs mild steel angle 50x25 mm ( fifty into twenty five millimeters ) welded or rigidly fixed by mechanical means lugs with split and tails to each jambs including steel butt hings 2.5 mm ( two point five millimeters ) thick with provision of locking arrangement and shock absorbers as specified and applying a priming coat of red lead paint after pretreatment of the surface as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	751.92	Running meter			
84.	Providing and fixing angle iron door frame single rebate manufacture for Mild steel angle iron 35x35x4 mm ( thirty five into thirty five into four millimeters and Mild steel flat 50x4 mm (fifty into four millimeter ) in combination as per drawing design including hings jambs lock jambs mild steel angle 50x25 mm (	2602.30	Running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	fifty into twenty five millimeters ) welded or rigidly fixed by mechanical means lugs with split and tails to each jambs including steel butt hinges 2.5 mm ( two point five millimeters ) thick with provision of locking arrangement and shock absorbers as specified and applying a priming coat of red lead paint after pretreatment of the surface as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
85.	Providing and fixing Aluminium frame for doors, windows and ventilators consisting of Aluminium style No-2443. (two thousand four hundred forty three ) 127x38.10x1.35 mm(One hundred twenty seven into Thirty eight decimal one zero into One decimal Three five milimetres) of Jindal aluminium extrusions powder coated teak wood shade or equivalent and shutters for door consisting of aluminium style No-4524 . (four thousand five hundred twenty four) 83.50 x44.45x3mm(Eighty three decimal five zero into Forty four decimal four five into Three milimetres) of Jindal aluminum extrusion anodized in suede coated shade or its equivalent for top and side style meeting style double hung doors of aluminum style 4526 (four thousand five hundred twenty six). 85x44.50x1.80mm (Eighty five into Forty four decimal five zero into One decimal eight zero millimeters) of Jindal aluminum extrusions or equivalent lock and bottom rail of aluminum style 4538 (four thousand five hundred thirty eight) 150x44.4x2.20 (One hundred fifty into Forty four decimal four zero into Two decimal two zero millimeters) of Jindal aluminum including infill	2069.30	kilogram			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	panels of 12mm(Twelve millimeters) thick phenol bounded preminated (Both sides) particle board. Panel ISI marked IS NO. 12823 (twelve thousand eight hundred twenty three) including tower bolts handles, hinges hydraulic door closer, sliding door bolts stoppers with necessary screws of appropriate size as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
86.	Providing and fixing shutters for doors, windows and ventilators consisting of Aluminium style NO-4531 (four thousand five hundred thirty one ) 47.62x44.45x3mm (Forty seven decimal six two into Forty four decimal four five into Three milimetres) for style of Jindal Aluminium extrusion anodized in suede coated shade or its equivalent including in fill panel of M.S. wire gauge of is gauge designation 85-G (eighty five-G) with wire of dia 0.56mm (zero point five six millimetres) Aluminium channel No-3055 (three thousand fifty five) for rebate of aluminium Jindal Aluminium extrusion including tower bolts, handles, hinges, hooks and eyes with necessary screws of appropriate size as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	2453.04	kilogram			
87.	Providing and fixing Glazing with glass panes of 4mm ( four millimeters ) thickness (weight not less than 10.00 kg/sqm. ( ten	775.27	square meter			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	kilogramme per square meter) as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..					
88.	Providing and fixing Glazing with glass panes of 6 mm ( six millimeters ) thickness (weight not less than 13.75 kg/ sqm. ( thirteen point seven five kilogramme per square meter ), as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	32.19	square meter			
89.	Providing and fixing aluminium anodised powder coated grill 8 mm (eight millimeter) thick to existing window/ventilator with 80mmx80mm ( eighty millimeter into eighty millimeters ) panels with 25x8mm ( twenty five into eight millimeter ) thick aluminium flat in windows and ventilators including fixing with aluminium screws or bolts and nuts complete in aluminium channels base frames (Aluminium channels base frames to be measured and paid for separately) as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	843.75	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
90.	Providing and fixing fly proof galvanised Mild steel wire gauge of I.S. gauge designation 85 g( eighty five-G ) with wire of dia 0.56 mm (zero point five six millimeter ) to windows and clerestory windows as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	409.15	square meter			
91.	Applying priming coat over new steel and other metal surfaces after and including preparing the surfaces by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes from steel wool scraper and sand papering complete with ready mixed priming paint brushing red lead oxide /zinc oxide chrome / wood primer pink as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	2647.72	square meter			
92.	Painting two or more coats (excluding priming coat) on new steel and other metal surfaces with enamel paint brushing to give an even shade including cleaning the surfaces of all dirt dust and other foreign matter with enamel paint other than white as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax,	4491.77	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	sale tax or other taxes imposed by the Government.					
93.	Applying priming coat over new wood and wood based surfaces after and including preparing the surfaces by thoroughly cleaning oil, grease dirt and other foreign matter sand papering and knotting with ready mixed paint brushing wood primer pink as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	6216.51	square meter			
94.	Painting two or more coats (excluding priming coat) on new wood and wood based surfaces with enamel paint to give an even shade including cleaning the surfaces of all dirt, dust and other foreign matters sand papering and stopping with enamel paint other then white as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government..	6235.33	square meter			
95.	22mm ( twenty two millimeters ) thick Cement plaster skirting or dado upto any height with cement mortar 1:3(one cement; three sand ) finished with a floating coat of neat cement including rounding of junction with floors and curing complete upto all floor level as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all	53.31	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
96.	6mm (six millimeter)thick cement plaster in ceiling with cement mortar 1:3(one cement; three sand) upto all floor level and curing complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	11399.99	square meter			
97.	10mm (ten millimeters) thick cement plaster with cement mortar 1:5(one cement; five sand) in single coat on fair side of brick/concrete/stone walls for interior plastering in all heights floor level including arises, internal rounded angles chamfers and/ or rounded angles not exceeding 80mm ( eighty millimeters ) in girth and finished even and smooth as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	979.20	square meter			
98.	15mm (fifteen millimeters) thick cement plaster with cement mortar 1:6(one cement; six sand) in single coat on fair side of brick/concrete/stone walls for interior plastering in all heights / floor level including arises, internal rounded angles, chamfers and/ or rounded angles not exceeding 80mm ( eighty millimeters ) in girth and finished even and smooth as per HP.PWD.	13212.60	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
99.	15mm (fifteen millimeters) thick cement plaster with cement mortar 1:6(one cement; six sand) in single coat on rough side of brick/concrete/stone walls for interior plastering in all heights / floor level including arises, internal rounded angles, chamfers and/ or rounded angles not exceeding 80mm ( eighty millimeters ) in girth and finished even and smooth as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	14565.01	square meter			
100.	15mm (fifteen millimeters) thick cement plaster with cement mortar 1:5(one cement; five sand) in single coat on rough side of brick/concrete/stone walls for interior plastering in all heights floor level including arises, internal rounded angles chamfers and/ or rounded angles not exceeding 80mm ( eighty millimeters ) in girth and finished even and smooth as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	1149.20	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
101.	15mm (fifteen millimeters) thick cement plaster with cement mortar 1:5(one cement; five sand) in single coat on fair side of brick/concrete/stone walls for interior plastering in all heights floor level including arises, internal rounded angles chamfers and/ or rounded angles not exceeding 80mm ( eighty millimeters ) in girth and finished even and smooth as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	8345.80	square meter			
102.	15mm (fifteen millimeters) thick cement plaster with cement mortar 1:4(one cement; four sand) in single coat on fair side of brick/concrete/stone walls for interior plastering in all heights floor level including arises, internal rounded angles chamfers and/ or rounded angles not exceeding 80mm ( eighty millimeters ) in girth and finished even and smooth as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	82.25	square meter			
103.	20mm ( twenty millimeters ) thick cement plaster with in two back coat 15mm ( fifteen millimeters ) and finishing coat 5mm ( ive millimeters ) thick on rough side of brick/concrete/stone walls for interior plastering upto all floor level including arises, internal rounded angles chamfers and/ or rounded angles in all girth and finished even and smooth in cement mortar 1:4( one	236.44	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	cement; four sand) as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
104.	Applying JK Birla white wall care putty over plastered surfaces after thoroughly brushing the surface free from mortar drops, dust, loose material and other foreign matter sand papered smooth to give final finish to the surfaces upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	45037.23	square meter			
105.	Finishing wall with weather proof exterior grade emulsion of approved design (Apexultima) of Asian paints/Nerolac paints or its equarlied brand and manufacture of approved shade on undecorated concrete / stone / plastered wall surfaces with two coats to give an even shade and final finish after thoroughly cleaning / brushing the surfaces free from all dirt , dust mortar dropping and other foreign matter and sand papered smooth including applying of putty as required for making the surfaces upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed	11441.96	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	by the Government.					
106.	Distempering ( two or more coats) with dry distemper of approved brand and manufacture and of required shade on undecorated wall surfaces to give an even shade over and including a priming coat with distemper primer of approved brand and manufacture after thoroughly brushing the surface free from mortar dropping and other foreign mater and also including preparing the surfaces even and sand papered smooth upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	10483.88	square meter			
107.	Distempering (two or more coats)with oil bound washable distemper of Asian /Nerolac approved brand and manufacture and of required shade on undecorated wall surfaces to give an even shade over and including priming coat of distemper primer of approved brand and manufacture after thoroughly brushing the surface free from mortar droppings and other foreign matter including preparing the surface even and sand papered smooth priming coat with distemper primer upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	5204.12	square meter			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
108.	Wall painting ( two or more coat ) with acrylic emulsion paint of asian/ Nerolac paint approved brand and manufacture of approved shade for interior grade on undecorated concrete / stone / plastered wall surfaces to give an even shade including thoroughly brushing the surfaces free from mortar dropping and other foreign matter and sand papered smooth including applying of putty as required for making the surfaces upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	19909.55	square meter			
109.	White washing with lime on undecorated wall surfaces ( two or more coats ) to give an even shade including thoroughly brooming the surface to remove all dirt, dust mortar drops and other foreign matter upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	1085.22	square meter			
110.	Providing plinth protection 50mm ( fifty millimeters) thick in cement concrete 1:3:6 ( one cement :three sand: six graded stone aggregate 20mm (twenty millimeters ) nominal size ) and curing complete including finishing the top surface of concrete smooth upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions	653.04	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
111.	Providing under layer for plinth protection of 75mm (seventy five millimeters ) thick ( unconsolidated ) bed of dry brick/stone broken/ crushed aggregate 40mm ( forty millimeters ) nominal size well rammed and consolidated and grouted with fine sand including preparation of ground upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	653.04	square meter			
112.	Constructing course rubble hammer dressed ‘U’ shape open surfaces drain with side wall 15x23cms (Fifteen into Twenty three centimeters) in cement mortar 1:6 (One cement :Six sand) and inside plastering with cement plaster 1:3(One cement :Three sand) including earth work and laying 10cm (Ten centimeters) cement concrete in 1:5:10 (One cement: Five sand: Ten graded) crushed stone aggregate 40mm(Forty millimeters) nominal size and 7.5cm (Seven decimal Five centimetres)cement concrete 1:2:4 (One cement: Two sand: Four graded) crushed stone aggregate 20mm(Twenty millimeters) nominal size and finished with a floating coat of neat cement complete upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other	1045.43	running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
113.	Providing and laying cement water proofing treatment indeoressed slab shall be done with Dr. FIXIT Pidilite water proof coating shallbedone in two coats apply first of Dr.Fixit –FAST FLEX to the clean and satutae surface maintaining acoverage of 6-7 sqft ( six dashseven square foot 0.60 sqm ( zero point six zero square meter ) per kilogramme to achieve 1mm ( one millimeters ) thickness. This coating shall also be exteded upto 300 mm ( three hundred millimeters ) vertically. The second coat shall be applied in opposit direction after 4 to 6 ( four to six ) hours of applicaton of first coat than sprinkle sand on top surface of applied Dr. FIXIT FAST FLEX while still tacky over floor with suitabale gradient towards drains water pipe while the second coat of Dr.FIXIT is till tacky including apply cement mortar 1 : 4 ( one cement : four sand) and admixed with 200 ml ( two hundred milileters ) of pidi proof LW @ 200 ml ( twohundred mililitre ) per 50 kg ( fifty kilogramme ) bag complete upto all floor level complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	168.76	square meter			
114.	Providing and fixing 19 mm ( nineteen millimeters ) thick water proof termite resistant commercial board ( Box type ) including shelves and shutters. Backside of cupboard shall be of 8 mm ( eight millimeter ) thick ply. All cut portion of the shelves and the	1093.48	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	shutters of cupboard from all side to be finished with hard wood edging including meget catcher and PTMT handle 125 mm ( one hundred twenty five millimeters ) size and polishing the internal surface with Malamine polish including 1 mm ( one millimeter ) thick sunmica on outer surface of the cupboard shutters including providing mortice lock as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
115.	Providing and filling bricks bats aggregate 40mm ( forty millimeters ) in soakage pit complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	761.44	cubic meter			
116.	Providing and fixing in position 12 mm ( twelve millimeter) thick impregnated fibre board in expension joints complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	20.86	running meter			
117.	Precast cement concrete chequered tiles 20 mm ( twenty millimeters ) thick with laid in floors, treads of steps and landings on a bed of 25 mm( twenty five millimeters ) average thickness of	16.08	square meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	cement mortar 1:6 (1 cement :6 sand) jointed with neat cement slurry mixed with pigment to match the shade of tiles (wherever required) as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
118.	Providing and laying 20 mm (twenty millimeters) thick pressed clay tiles as per approved pattern on roofs and window projections on cement mortar 1:4(one cement: four sand) mixed with 2% integral water proofing compound laid over a bed of 20 mm thick cement mortar 1:4 ( one cement : 4 coarse sand) complete and finished neat as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	783.64	square meter			
119.	Providing and fixing Mild steel hollow pipe of 50 mm ( fifty millimeter) dia Mild steel pipe hand rail slip resistant with round ends at two levels at 75 cm ( seventy five centimeters ) and 90 cm (ninety centimeter) height it should extended 30 cm (thirty centimeter ) beyond the top and bottom of the ramp complete as per architectural design welded with 25 mm ( twenty five millimeter ) dia Mild Steel pipe baluster to 50 mm ( fifty millimeter ) dia Mild Steel pipe embedded in cement concrete to parapet sat 60 cm ( sixty centimeter centre to centre interval with	524.08	Running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Polyvinyl chloride hand rail baluster dully welded/jointing with electric gas welding with top Mild steel flat complete as per architectural design and applying priming coat of red lead paint complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
120.	Providing and fixing 85 cm (eighty five centimeters)high railing with mild steel rectangular tube hand rail 40x40mm (forty into forty millimeter)( ISG-16) (sixteen ) gauge etcetera) supported on 40 mm(Forty millimeters) square hollow mild steel tubes balusters( ISG-16 (sixteen )-guage at 60 cm)(sixty centimeter)centre to centre duly welded with 2(two)Nos mild steel flat 50x5mm (fifty into five millimeters) and mild steel lugs lower end embedded in waste of reinforced cement concrete steps including applying a priming coat with steel primer and painting two or more coats with steel enamel paint other than white complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	201.41	Running meter			
121.	12 mm ( twelve millimeters ) thick green chalk board ( Non-Magnetic ) with superior quality framing specially anodized aluminium profile 20x15 mm ( twenty into fifteen millimeters )	19	Numbers			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	with corners of black plastic shall be provided the board surface shall be non porous ceramic particle on the top green surface for smooth writing with chalk over 11 mm ( eleven millimetres ) thick particle board which shall have backing material of galvanised sheet 0.28 mm ( zero point twenty eight millimeter ) thick approximate the board shall be fixed on the wall with specially designed "J" clump and square clumps with the help of Nylon sleeves and screws as per site requirement complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
122.	Providing and fixing grab bars with chromium plated steel pipe 40mm ( forty millimeters) dia at 78 cm ( seventy eight centimeter ) height with mild steel plate 4mm (four millimeters ) thick as per detail and position of seat wash basin with nuts ,bolts and clamps etc. including cutting holes and making good the walls complete in all respect as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	9.00	Running meter			
123.	Providing and fixing 40mm (forty millimeter )wide and 4mm ( four millimeters ) thick glass strips in joints of all types of floors complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-	1294.88	Per running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.					
124.	Spreading sludge damp manure or/ and good earth in required thickness ( cost of sludge , damp manure or /and good earth to be paid for seperately ) complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	278.37	cubic meter			
125.	Mixing earth and sludge or manure in proportion specified or directed complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	260.92	cubic meter			
126.	Grassing with 'Doob" grass including watering and maintenance of the lawn for for 30 days or more till the grass from a thick lawn free from weeds and fit for moving including supplying good earth if needed ( the cost for Doob grass earth shall be paid for seperately ) In row 15 cm ( fifteen centimeter ) apart in either direction complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty,	927.90	Square meter			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Malkana, toll tax, sale tax or other taxes imposed by the Government.					
127.	Applying cement slurry on Reinforcement cement concrete slab or cement concrete work using 2.75 kg. ( two point seven five kilogramme ) of cement per square metre of floor area before laying cement concrete flooring including roughening, cleaning of the concrete surfaces complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government	64.88	square meter			
128.	Supplying cast iron cover without frame for manholes For frame of 560mm ( five hundred sixty millimeters ) internal diameter Cast iron cover (heavy duty) the weight of cover to be not less than 140kg ( one hundred forty kiligramame) complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	15	Number			
129.	Supplying cast iron cover without frame for manholes For frame of 500mm ( five hundred millimeters )internal diameter cast iron cover (medium duty) the weight of cover to be not less than 58kg ( fifty eight kilogramme) complete as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within	10	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
130.	Preparation of sub grade by dressing to camber (Earth work for the cutting involved for sub-grade to be paid for separately depending upon the classification of soil completed as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	2573.00	square meter			
131.	Consolidation of sub grade with road roller including making good the undulation with earth or quarry soil etcetra and rerolling the sub-grade completed as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government .	2573.00	square meter			
132.	Providing, laying, spreading and compacting of stone aggregate of specific sizes to water bound Macadam specification including spreading in uniform thickness using template hand packing, rolling with three wheel 80-100 ( eighty / hundred ) K.N. static Road roller in stages to proper grade and camber, applying and brooming, with application of stone screening type-A of size 11.2mm ( eleven decimal two ) millimeters at the rate of 0.27 cum ( zero point two seven cubic metres) per ten square metres, and binding materials at the rate of 0.08 cum ( zero point zero eight	257.30	Per cubic meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	cubic meter ) to fill up the intersitices of coarse aggregate, watering and compacting to the required density grading –I, 90mm to 45mm ( ninety millimeters to forty five millimeters ) size, 100mm ( hundred millimeters ) compacted thickness as per technical specifications clause No. 405 including hauling of material as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
133.	Providing and laying heavy duty precast cement concrete inter locking paver blocks vibro compacted upto M-50 (M-Fifty) grade including border or kurb block grey or coloured over sub-base of concrete with 25mm ( twenty five millimeters ) thick average thickness of cement mortar 1:4 (one cement :four sand) laid over and jointed with neat cement slurry mixed with pigment to match the shade of blocks including curing rubbing and polishing complete (Sub base concrete floor to be paid for separately) 60mm ( sixty millimeters ) thick inter locking blocks as per HP.PWD. Specifications, approved drawings, designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government.	2573	square meter			
134.	Providing and laying 100mm ( One hundred millimeters ) dia A.C. pipe weep holes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall and	332	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	retaining wall/breast walls extending through the full width of the structures with slope of 1(one) (V):20( twenty )(H) towards drawing face complete as per drawing and M.O.R.D. technical specification Clauses 614, 709, 1204.3.7 designs and entire satisfaction and directions of the Engineer-in-charge including carriage of materials within all leads and lifts and other incidentals. The rate including of octroi, royalty, Malkana, toll tax, sale tax or other taxes imposed by the Government					
135.	Transportation of Rig along-with allied accessories etcetera .complete including erection and leveling at site through all kind of roads, approaches field etcetra in all leads and lifts upto site of work complete in all respect.	1	Number			
136.	Earth work in foundation for digging Tube-Well in all kinds of soils including dewatering, shoring, strutting from ground level upto 5.00 (five ) Metres including disposing excavated soil in all leads and lifts complete in all respect.	5	Per meter			
137.	Drilling of bore as per specifications laid down in IS-2800-1991(Part-I) with upto date amendments ,if any; with Percussion Rig or combination drilling Rig starting with 650-600mm (six hundred fifty dash six hundred millimeters ) dia M.S. Pipe reduced to 450-400mm (four hundred fifty dash four hundred millimeters.dia Mild steel pipe confirming to IS-4270-2001 with upto date ammendments, if any in all kinds of soils ,boulders, rocks, collapsible strata, saturated soil, artesian conditions including the cost of all consumables, stores, water, fuel, lubricants and other accessories etc.complete in all respect.	25	meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
138.	Drilling and lowering of M.S. casing pipes 600-550mm (six hundred dash five hundred fifty ) millimeters dia confirming to IS-4270-2001 with uptodate mendments, if any of suitable sizes as mentioned above from 30 (thirty )Metres to 60( sixty ) Metres below ground level.	30	meter			
139.	Drilling and lowering of Mild steel casing pipes 550-500mm (five hundred fifty dash five hundred millimeters) Dia confirming to IS-4270-2001 with uptodate amendments, if any of suitable sizes as mentioned above from 60 ( sixty )Metres to 90 ( ninety ) Metres below ground level.	30	meter			
140.	Drilling and lowering of M.S .casing pipes 500-450mm (five hundred dash four hundred fifty millimeters ) dia confirming to IS-4270-2001 with upto date amendments if any of suitable sizes as mentioned above from 90 ( ninety ) to 100 ( hundred ) Metres below ground level.	60	meter			
141.	Collection, preservations and display of suitable size sample box with top lid and locking arrangement till handing over of the Tube-Well to the Department complete in all respect.	1	Number			
142.	Supply and lowering of IS-Marked "Electric Resistance Welded Mild Steel Blind Pipe 300mm ( three hundred millimeters )nominal size housing, 8mm (eighty millimeters ) thick having outside diametre 323.9mm ( three hundredtwenty three point nine millimeters ) screwed and socket confirming to IS-4270-2001 with uptodate amendments, if any, about 4.00 ( four ) Metres to 7.00 ( seven ) Metres in length, welded without any circumferential joints into bore hole in vertical position including cost of all scaffolding derricks, poles clamps embedded in foundation etc. including cost of all cuttings, threading and	60	meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	welding of pipes etc.					
143.	Lowering at site electric resistance welded(ERW) Stainless Steel Cage type-'V' wire wound screens of size 300mm. 8.00m.thick,outer dia 322.00 load tensil 392.40 KN end Ring 8mm.with slot opening 1.00mm.as per IS-8110-2000 with uptodate ammendments, if any and material specifications as per AISI" American Steel Inst" Type Grade SS- 304 in suitable lengths as per conditions including the cost of SS socket 8mm.thickness of length 140mm (Supply by the Department) confirming to AISI grade 304, suitable to accommodate screen and ring including jointing screen with blind pipe complete in all respect including cost of all scaffolding derricks, poles, clamps embedding in foundation etc. including cost of all cuttings threading and welding of pipes etc. within all leads and lifts complete in all respect as per the directions of the Engineer-in-Charge. Screen will be of continuous trapezoidal wire spirally wound arround fabricated cage. The Wrapping wire having "V" shape (Wedge) profile wire with flat surface on the outside and producing expending slots on the inside of various dimensions, resistance welded to a cylindrical body made of number of longitudinal special high tensile support rods to provide smooth unrestricted bore which are interm welded into cylindrical ring couplings on both side of screens.	15	meter			
144.	Providing and fixing M .S .Taper /Reducer as per lengths approved by the Engineer-in-Charge. The material of M.S. taper/reducer shall be equivalent to prevent pipe material and shall conform to Chemical composition as per Clause-5.2 and Mechanical properties as per Clause-6.1 and Table-1 of IS:4270-2001 with	1	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	uptodate amendments, if any, complete in all respect.					
145.	Supply and lowering of IS-Marked Electric Resistance Welded Mild Blind Steel pipe 200mm.dia nominal size housing, 6.4mm.thick having outside diametre 219.1mm.screwed and socketted confirming to IS-4270-2001 with upto date amendments, if any, about 4.00 Metres to 7.00 Metres in length, welded without any circumferential joints into bore hole in vertical position including cost of all scaffolding derricks, poles, clamps embedded in foundation etc. including cost of all cuttings, threading and welding of pipes etc.	60	meter			
146.	Lowering at site electric resistance welded(ERW) Stainless Steel Cage type-'V' wire wound screens of size 200mm. 6.30m.thick,outer dia 217.50 load tensil 186.39 KN end Ring 7.00mm.with slot opening 1.00mm.as per IS-8110-2000 with uptodate ammendments, if any and material specifications as per AISI" American Steel Inst" Type Grade SS- 304 in suitable lengths as per conditions including the cost of SS socket 8mm.thickness of length 140mm (Supply by the Department) confirming to AISI grade 304, suitable to accommodate screen and ring including jointing screen with blind pipe complete in all respect including cost of all scaffolding derricks, poles, clamps embedding in foundation etc. including cost of all cuttings threading and welding of pipes etc .within all leads and lifts complete in all respect as per the directions of the Engineer-in-Charge. Screen will be of continuous trapezoidal wire spirally wound arround fabricated cage. The Wrapping wire having "V" shape (Wedge) profile wire with flat surface on the outside and producing expending slots on	15	meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	the inside of various dimensions, resistance welded to a cylindrical body made of number of longitudinal special high tensile support rods to provide smooth unrestricted bore which are interim welded into cylindrical ring couplings on both side of screens.					
147.	Providing and fixing of M.S. centralized guides at suitable spacing for each Tube-Well as per IS-226-1991 with uptodate amendments, if any complete in all respect.	4	Number			
148.	Supply, lowering, fixing and lowering in position IS-Marked Mild Steel bail plug of 200mm/330mm. Diametres with 'U' hooks as per IS-2800-1991 with uptodate amendments ,if any complete in all respect.	1	Number			
149.	Providing, , fixing and lowering in position threaded iron cap with locking arrangements of approved design to prevent foreign matter from getting into bore hole as required complete in all respect.	1	Number			
150.	Supply and packing of gravel consisting of hard quartz or other suitable material with an average specific gravity of not less than 2.5, not containing more than 2% by weight of thin flat or stangated pieces shall be of sub rounded grains with minimum anuglar features of size 2-3.35mm.shall be free from impurities such as; shafe, shale mica, feldspar, clay, sand, dit loam hematite and organic materials as per IS-4097-1967 with uptodate amendments, if any around intake of Tube-Well with minimum thickness of shroud around screen generally 100mm. to the entire depth of the bore as per IS-2800(Part-I):1991 with uptodate amendments, if any, complete in all respect.	150	Meter			
151.	Extraction of all sizes blind/casing pipes with Machine starting from the bottom of the bore hole complete in all respect of followings:- (a). In contact with soil.	150	meters			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
152.	Extraction of all sizes blind/casing pipes with Machine starting from the bottom of the bore hole complete in all respect of followings:- (b). Freely hangings.	175	meters			
153.	Development of Tube-Well by backwashing method with Air Compressor of minimum 750CFM capacity Pumping pipe of 200mm. Size and Air line of minimum 65mm size or with other suitable method, till the Well is thoroughly developed as per Clause-4.2 of IS-11189:1985, with upto date amendments, if any; complete in all respect.	30	Hours			
154.	Development of Tube-Well by continuous over Pumping method with V.T.Pumps /Submersible Pumps of suitable capacity not less than double the discharge established by the Compressor method/design discharge, untill the well sand free as per IS-11189:1985 with upto date amendments, if any; complete in all respect as per the directions of the Engineer-in-Charge. The draw-down and discharge to be established by running the VT/Submersible pump continuously for 8 Hours in the presence of the officer not less than the rank of the Assistant Engineer.	20	Hours			
155.	Testing the verticality of the Tube-Well as per Clause-4.3 of IS-2800(Part-II)-1979 with uptodate amendments, if any, using plumb or plunger 6mm.smaller in dia within the inside diameter of the Well casing. The result of the verticality test shll be recorded on proforma shown in Appendix-A of IS:2800(Part-II)-1979 with uptodate ammdments, if any.	1	Number			
156.	Dismantalling of Rig or other allied, accessories after completion of job complete in all respect.	1	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
157.	<p>Supply of Submersible Pumping Set of Calama/KSB/Crompton/SU/Johnston /BS/Sabar make conforming to BIS-8034-1979 (Latest) suitable for clear cold water fitted with bronze Impellers or suitable alloys directly coupled to squirrel cage electric Induction Motor of same make as that of Pump conforming to BIS:9238-1979(Latest with upto date ammendments) and totally water proof for Submersible duty, inisolated from the pump by intermediate casing with double Mechanical seal in oil chamber ,grease packed lubricated bearings and provided with stainless steel thrust bearing plate to withstand non-vertical loads with minimum wear and tear. It should also be fitted with a device to take-up expansion of water with the heating of motor including water level guard ,erection clamps, cable clips and depth gauge etc. The Pump shall be sui-table for operation on data given below:-</p> <p>i) Location of site Rehan</p> <p>:-The site is located at a distance of 15 Kms .from Nurpur Road Railway Station.</p> <p>ii) The altitude of place in which :- Altitude of place is 500 Metres above Mean Sea Level. the Motor is intended to work :-</p> <p>iii) Type of current :-A.C.Three phase supply with frequency 50 cycles per second.</p> <p>iv) Rated Voltage :-415 Vvolts (+/-) 10% v)</p> <p>Characterstics of water :-(a).Temperature 20°C</p> <p>(f) PH =_7 to 8_____ vi) (b).Turbidity =Upto 50NTU</p> <p>(g) Total solids____Mg/Litre</p> <p>(d).Alkalinity =__Mg/Litre(as CaCo3) vi)</p> <p>Depth of Well Assembly :- 48.00 Metres. vii) L.W.L.in Tube Well viii) Maximum draw down level :- 10.00 Metres :- Metres ix) Centre line level of Pump :-48.00 Metres x) Discharge level of highest point</p>	30	2 set of 15 H P B H P			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	:-119.82 Metres      xi) Nos.of Pumps required      :- 1No.Pump.      xii) Capacity      :- 9.09 L.P.S.      xiii ) Total head in Metres      :-81.28 Metres      xiv) Length of Rising Main      :-480.00 Metres      xv) Dia of Rising Main      :-125mm.dia G.I.pIpe.      xvi) No.of working hours per day      :-20.00 Hours.      xvii ) Limits of pump operation      :- ( - ) 25% ( + ) 10% of total head. xviii ) H.P.of Motor/Drive unit      :-Required 40H.P.of Pump at ( + ) 10% and ( - ) 25% of total head.      BHP.with following margins/multiplying factor at duty point,whichever is higher.      a).Upto 2 H.P.      =1.5      (d) 10 to 20 H.P. =1.2      b).2 to 5 H.P.      =1.4      (e) 20 to 100 H.P.      =1.15 c) 5 to 10 H.P.      =1.3      (f) Above 100 H.P.      =1.10 xix) Test Run      :-16 Hours continuously for 7 days.					
158.	Providing and fixing automatic panel board including auto start,auto stop and restart facility single phase preventer ,3 phases indicator, timer, relay, selector switch, auto and manually start stop facility, prevention of phase reversal, imbalance and overload and fixed with compatible starter in sheet enclosure with cabling complete in all respect to deliver result.	1	Number			
159.	Providing Cast iron double flanged sluice valve of Kirloskar/ Kilburn/IVC. /Fouress/Gled/BHEL/Leader make of size mm.and Class PN 1.0 having one size higher to delivery size of Pump and capable of withstanding nominal seat pressure of 16.00Kgs/Cm <sup>2</sup> .confirming to BIS 780-1984 (The size of valve shall be specified by the tenderer).	1	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
160.	Supply of Kirloskar/Kilburn/IVC/Fouress/Gled/BHEL/Leader make Cast iron double flanged swing Check type Reflux Valve having bye pass arrangement and one size higher to delivery size of pump(size mm.dia and class PN 1.0 and shall be suitable for withstanding nominal seat pressure of 10Kgs./cm <sup>2</sup> confirming to BIS 5312-1984 Part-II )(The size of valve shall be specified by the tenderer).	1	Number			
161.	Supply of Kirloskar/Kilburn/IVC/Foluress/Gled/BHEL/Leader make Cast Iron double flanged Swing Check Type Reflux Valve having bye pass arrangement and of size equal to dia of Rising Main i.e. 125mm. class PN 1.0 shall be suitable for withstanding nominal seat pressure of 10.20Kgs./Cm <sup>2</sup> ).confirming to BIS 5312-1984	1	Number			
162.	Providing and laying suitable size copper PVC. insulated armoured power 3.5 core cable of size 25 mm <sup>2</sup> conforming to BIS-1554-Part-I -1988 or latest with upto date ammendments Siemen/Gloster/ICC/Finolex make from Meter of HPSEB. to MCB/OCB from OCB to Busbar Switch Starter(One cable carrying all three phases) including all other elecrc equipments/accessories such as thimbles,flexible pipe,solder,nuts bolts,cable glands etc.laid in pipers or trenches size and make will be subject to approval of HPSEB.authorities. In case of non-acceptance by HPSEB. authority shall have to be replaced by the tenderer free of cost. Suppply side 25mm Square (The size of cable shall be specified by the tenderer).	10	meter			
163.	Providing and laying PVC.jointless flat water proof copper cable 16mm <sup>2</sup> as per BIS-694-1990(Latest with uptodate ammend-ments) suitable for the pump set offered from OCB to Motor, Motor to	165	Meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Starter including all other electric equipment such as;thimbles,flexible pipe,solder,nuts bolts,cable glands etc.laid in pipes or trenches under floor. The type and make will be subject to approval of HPSEB.authorities. In case of non-acceptance by HPSEB.authoirity,it shall have to be replaced by the tenderer free of cost. (The size of cable shall be specified by the tenderer). ii) Motor side 16 mm Square					
164.	Providing and laying double loop earthing with copper plate 600x600 x 3mm.thick electrode complete with material such as;char coal,common salt, G.I.Pipes, thimbles, nuts bolts,digging of pits,G.I.wiring and 25x5mm.copper strips of required capacity conforming to BIS-3043-1987 latest with upto date amendments for above motors and other electrical equipments.	1	Job			
165.	Supply and erection of floor/wall mounted power factor shunt capacitor conforming to BIS-2834-1986 latest with upto-date amendments BHEL /GEC/Machneil/Mager/Bajaj make to raise the prevailing power factor at site to 0.95 for direct connection to Induction Motor individually of required KVAR according to H.P.of Motor offered including Siemens/Gloster/ICC make from Busbar chamber to capacitor and also including LT/LK/Kilburn make ICTP.Switches conforming to BIS-4064-1978 or latest with HRC fuses(Range to be specified by the tenderer).	4	KVAR			
166.	Supply of standard make circular dial pressure gauge of suitable range of Fiebeg/Bourden/Precision make with all accessories such as;stop cock,copper tubing etc.conforming to BIS-3624-1987 latest with upto date amendments.	1	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
167.	Providing and laying of column assembly of suitable dia and making connection with Rising Main(125mm dia)G.I.pipe Conforming to IS-1239 or MSERW.Pipe 4.8mm thick conforming to BIS 1978-82 considering site requirement duly flanged at every 3 Metre length with flanges conforming to BIS-6392-1971 (Table-5 )including tapers,flanges,rubber gaskets 3 mm thick as per BIS-2712-1978 ,nuts bolts as per 1364-1983 as per direction of Engineer-in-Charge or as per layout approved by the Engineer-in-Charge.The pipes shall be capable of withstanding 1.5 times the total pressure indicated in item No.1(xiii) column pipe 100mm-dia (size to be specified by the tenderer).	110	Meter			
168.	Erection of all equipments from S.No. 1 to 4 and 6 including cost of tees, bends,tapers and any other fittings required as per conditions and as per directions of the Engineer-in-Charge.	1	Job			
169.	Providing and fixing HIND WARE/CERA MAKE orrisa pattern vitreous china water closet squatting pan No. 20042 (Indian type W.C. pan) size 580mm (Five hundred eighty millimeters) white shade (Earth work, bed concrete, foot rest and trap to be measured and paid for separately) including carriage of materials within all leads, lifts and other incidentals and as per directions of Engineer-in- charge. The rate including Sales tax, Toll tax or any other taxes imposed by the Government .	22	Number			
170.	Providing and fixing vitreous China wash down water closet (European Type WC pan) of approved make (HIND WARE/CERAMAKE) and of approved shade, with integral 'P' or 'S' trap including jointing the trap with soil pipe in cement mortar 1:1 (one cement isto one sand) complete (seat cover to be measured and paid for separately ) Universal closet	88	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	NO.20041/21028 of Hindware size 530x410mm (five hundred thirty into four hundred ten millimeter ) as per HPPWD specifications or as directed by the Engineer-in-Charge, including carriage of materials within all leads, lifts and other incidental. The rate inclusive of Royalty, Malkhana, Octroi, Toll Tax Sales tax or any other taxes imposed by the Government.					
171.	Providing and fixing in position with clamps etcetera 32mm (thirty two millimeter ) nominal internal diameter galvanised steel tube flush pipe for high level flushing cistern including connecting the flush pipe with cistern and closet and making good the walls and floors complete or as directed by the Engineer-in-Charge, including carriage of materials within all leads, lifts and other incidental. The rate inclusive of Royalty, Malkhana, Octroi, Toll Tax Sales tax or any other taxes imposed by the Government.	110	Number			
172.	Providing and fixing G.I. inlet connection for flush pipe with W.C. pan complete in all respects as per HPPWD specifications or as directed by the Engineer-in-Charge, including carriage of materials within all leads, lifts and other incidental. The rate inclusive of Octroi, Toll Tax Sales tax or any other taxes imposed by the Government.	110	Number			
173.	Providing and fixing plastic seat (solid/Hollow type) and cover for wash down water closet with CP brass hinges end rubber buffers solid type a white plastic seat and cover of Hindware or its equivalent. including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge.	88	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
174.	Providing and fixing vitreous china HIND WARE No.102012 (clair ) /CERA MAKE wash basin with single hole for pillar tap with CI or MS brackets painted white including cutting holes and making good the same but excluding fittings flat back size 550mmx400mm ( five hundred fifty into four hundred millimeters ) complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	104	Number			
175.	Providing and fixing CP brass waste for wash basin or sink 32mm ( thirty two millimeters ) dia meter complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	141	Number			
176.	Providing and fixing 600mm x 450mm (six hundred millimeters into four hundred fifty millimeters) bevelled edge mirror of superior glass mounted on 6mm ( six millimeters) thick asbestos cement sheet or ply wood sheet and fixed to wooden plugs with chromium plated Brass screws and washers complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge	104	Number			
177.	Providing and fixing 750x20mm.(Seven hundred fifty into twenty millimeter) chromium plated brass towel rail of Prayag/ Hindware/ Cera complete with chromium plated brass brackets fixed to wooden plugs with chromium plated brass screws including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge .	73	Number			
178.	Providing and fixing 600x120mm(Six Hundred into One Hundred twenty millimeter ) glass shelf with Chromium plated brass bracket of Prayag/ Hindware/ Cera and guard rail complete fixed	104	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	to wooden plugs with Chromium plated brass screws including carriage of materials within all leads and lifts or as directed by the Engineer-in-Charge					
179.	Providing and fixing Plastic container liquid soap with Chromium plated brass lid of Prayag/ Hindware/ Cera brackets fixed to wooden plugs with Chromium plated brass screws including carriage of materials within all leads and lifts or as directed by the Engineer-in-Charge.	84	Number			
180.	Providing and fixing chromium plated brass soap dish of Prayag/ Hindware/ Cera with Chromium plated brass brackets fixed to wooden cleats with Chromium plated brass screw complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	93	Number			
181.	Providing and fixing 15mm (fifteen millimeters )diamete chromium plated brass bib tap of Prayag/ Hindware/ Cera with capstan head complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	214	Number			
182.	Providing and fixing15mm (fifteen millimeter)diameters chromium plated brass pillar tap of Prayag/ Hindware/ Cera with capstan head complete including carriage of materials with in all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	115	Number			
183.	Providing and fixing chromium plated brass angle valve of Prayag/ Hindware/ Cera 15mm (fifteen millimeter)diameters without nuts and pipe complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	99	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
184.	Providing and fixing chromium plated 15mm (fifteen millimeters) diameter brass stop cock of Prayag/ Hindware/ Cera with necessary fitting including carriage of materials within all leads and lifts or as directed by the Engineer-in-Charge.	317	Number			
185.	Providing and fixing P.V.C. Connection pipe with brass unions 300/450mm ( three hundred / four hundred fifty millimeter ) long and 15mm (fifteen millimeters) nominal bore including carriage of materials within all leads and lifts or as directed by the Engineer-in-Charge.	346	Number			
186.	Providing and fixing PVC ( poly vinyl chloride) tee ISI marked including fixing with approved adhesive etc. Complete , 150mm (one hundred fifty millimeter) dia including carriage of materials within all leads, lifts and other incidental.	1	Number			
187.	Providing and fixing 15mm ( fifteen milimetre)nominal bore brass full way valve with wheel complete including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge.	112	Number			
188.	Providing and fixing plytheline aluminum polythylene (PE-AL-PE) composite pressure pipe U.V.stabilized with carbon black confrming to IS- 15450-2004 kitee or its equivalent water supply including clamp at one metre spacing cutting fixing and making good the wall etcetera but excluding the cost of fittings (internal work ) pipes exposed on wall internal work Exposed on wall 1216 (one thousand two hundred sixteen ) (16mm O.D. pipe ) (sixteen millimeter outer dia )including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge.	4290	Running meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
189.	Providing and fixing plytheline aluminum polythylene (PE-AL-PE) composite pressure pipe U.V.stabilized with carbon black confirming to IS- 15450-2004 of kitee or its equivalent water supply including clamp at one metre spacing cutting fixing and making good the wall etcetera but excluding the cost of fittings (internal work ) pipes exposed on wall internal work Exposed on wall 1620 (one thousand six hundred twenty)(20 mm OD pipe) (twenty millimeter outer dia ) including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge.	6325.40	Running meter			
190.	Providing and fixing plytheline aluminum polythylene (PE-AL-PE) composite internal seal compressing fittings as per IS-15450-2004 of kitee or its equivalent for hot water supply such as tees elbows reducers connectors couplers and clamps with jointing tersting and fixing including cutting and making good the walls etc. ( This type of fitting to be used for hot water supply only ) Equal tees 1216mm (one thousand two hundred sixteen millimeters ) including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	370	Number			
191.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Equal tees 1620 (one thousand six hundred twenty millimeters ) including carriage of materials within all leads, lifts and other incidentals incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	370	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
192.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Reducing Tee 1620 (one thousand six hundred twenty millimeters ) all branches including carriage of materials within all leads, lifts and other incidentals incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	370	Number			
193.	Providing and fixing plytheline aluminium polythylene (PE-AL-PE) Reducing Tee 2025 ( two thousand twenty five ) with all branches including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	370	Number			
194.	Providing and fixing plytheline aluminum polyethylene (PE-AL-PE) Female branch Tee 1216x1216x15mm ( one thousand two hundred sixteen into one thousand two hundred sixteen into fifteen millimeter) thread including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government	370	Number			
195.	Providing and fixing plytheline aluminum polyethylene (PE-AL-PE) Female branch Tee 1620x1620x20mm ( one thousand six hundred twenty into one thousand six hundred twenty into twenty millimeter) thread including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government	370	Number			
196.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Female elbows 1216x15mm ( one thousand two hundred sixteen into fifteen millimeter) thread including	370	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.					
197.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Female elbows 1620x15mm ( one thousand six hundred twenty into fifteen millimeter) thread including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	370	Number			
198.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Male thread connector 1216x15mm ( one thousand two hundred sixteen into fifteen millimeter) thread including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	370	Number			
199.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) male thread connector 1620x15mm one thousand six hundred twenty into fifteen millimeter) thread including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..	370	Number			
200.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Fe-male thread connector 1216x15mm ( one thousand two hundred sixteen into fifteen millimeter) thread including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and type of taxes imposed by the Government and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..	370	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
201.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Fe-male thread connector 1620x15mm ( one thousandsix hundred twenty into fifteen millimeter) thread including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and type of taxes imposed by the Government and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..	370	Number			
202.	Providing and fixing plytheline aluminium polythylene (PE-AL-PE) Couplers 1216 ( one thousand two hundred sixteen ) including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government. .	370	Number			
203.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Couplers 1620 ( one thousand six hundred twenty including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government. .	370	Number			
204.	Providing and fixing plytheline aluminium polythylene (PE-AL-PE) Reducers 1620x1216 ( one thousand six hundred twenty into one thousand two hundred sixteen ) including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government. .	370	Number			
205.	Providing and fixing plytheline aluminium polyethylene (PE-AL-PE) Reducers 2025x1216 ( two thousand twenty five into one thousand two hundred sixteen ) including carriage of materials within all leads, lifts and other incidentals and or as directed by the Engineer-in-Charge and all type of taxes	370	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	imposed by the Government..					
206.	Providing and fixing 1000(one thousand ) liter net capacity tank P.V.C.(poly vinyl chloride) water storage tank cylindrical shape ( ISI :12701 marked / Treepal layer ) universal or equivalent make ) including providing and fixing 15mm ( fifteen millimeters) nominal bore galvanized mild steel tube over flow pipes, inlet and out let with fitting of suitable size along with ball valve and floating valve and P.V.C.( poly vinyl chloride) mosquito proof cover with locking arrangement including providing suitable base pad and hoisting in all heights including carriage of materials within all leads and lift and or as directed by the Engineer-in-Charge and type of taxes imposed by the Government and or as directed by the Engineer-in-Charge and type of taxes imposed by the Government.	40	Number			
207.	Providing and fixing 2000(two thousand ) liter net capacity tank P.V.C.(poly vinyl chloride) water storage tank cylindrical shape ( ISI :12701 marked / Treepal layer ) universal or equivalent make ) including providing and fixing 15mm (fifteen millimeters) nominal bore galvanized mild steel tube over flow pipes, inlet and out let with fitting of suitable size along with ball valve and floating valve and P.V.C.( poly vinyl chloride) mosquito proof cover with locking arrangement including providing suitable base pad and hoisting in all heights including carriage of materials within all leads and lifts and or as directed by the Engineer-in-Charge and type of taxes imposed by the Government.	35	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
208.	Providing and fixing P V C .( poly vinyl chloride) floor trap ISI marked of self cleaning design with iron screwed down or hinged grating without vent arm complete including cost of cutting and making good the walls and floors 110mm x 90mm (one hundred ten millimeter into ninty millimeters) nominal size or as directed by the Engineer-in-Charge, including carriage of materials within all leads, lifts and other incidental. The rate inclusive of Octroi, Toll Tax Sales tax or any other taxes imposed by the Government.	237	Number			
209.	Providing and fixing high pressure P V C ( poly vinyl chloride) spigot and socket waste ventilating pipes ISI marked including fixing with approved adhesive complete 150mm (one hundred fifty millimeters) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	3720	Running meter			
210.	Providing and fixing high pressure P V C ( poly vinyl chloride) spigot and socket waste ventilating pipes ISI marked including fixing with approved adhesive complete 110mm (one hundred ten millimeters) diameter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..	375.70	Running meter			
211.	Providing and fixing PVC ( poly vinyl chloride) single equal branch with oval access door, ISI marked insertion rubber washer 3mm (three millimeter ) thick bolts and nuts complete including fixing with approved adhesive complete 150mm (one hundred fifty millimeter) diameter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government...	315	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
212.	Providing and fixing PVC ( poly vinyl chloride) single equal branch with oval access door, ISI marked insertion rubber washer 3mm ( three millimeter ) thick bolts and nuts including fixing with approved adhesive etc. complete 110mm (one hundred ten millimeter) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government...	153	Number			
213.	Providing and fixing PVC ( poly vinyl chloride) door bend with oval access door, insertion rubber washer 3mm ( three millimeter ) thick bolts and nuts ISI marked complete including fixing with approved adhesive etcetera complete : 110mm (one hundred ten millimeters) including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..	153	Number			
214.	Providing and fixing PVC ( poly vinyl chloride) single equal branch plain ISI marked including fixing with approved adhesive etcetera complete 110mm (one hundred ten millimeters) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..	153	Number			
215.	Providing and fixing PVC ( poly vinyl chloride) collars ISI marked including fixing with approved adhesive etcetera complete , 150mm (one hundred fifty millimeter) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	153	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
216.	Providing and fixing PVC ( poly vinyl chloride) collars ISI marked including fixing with approved adhesive etcetera complete , 110mm (one hundred ten millimeter) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government...	201	Number			
217.	Providing and fixing PVC ( poly vinyl chloride) plain bend ISI marked including fixing with approved adhesive etcetera complete 110mm (one hundred ten millimeter) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	153	Number			
218.	Providing and fixing PVC ( poly vinyl chloride) off set 45° (forty five Degree ) ISI marked including fixing with approved adhesive etcetera . complete 110mm (one hundred ten millimeter) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government...	153	Number			
219.	Providing and fixing PVC ( poly vinyl chloride) clamps ISI marked of approved design with steel screws and rawl plugs etcetera . complete .150mm (one hundred fifty millimeter) dia meter including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	153	Number			
220.	Providing and fixing PVC ( poly vinyl chloride) 'Y' junction with oval access door, insertion rubber washer 3mm (three millimeter ) thick bolts and nuts ISI marked complete including fixing with approved adhesive etcetera complete 110 mm (one	153	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	hundred ten millimeter ) diameters including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..					
221.	Providing and fixing PVC ( poly vinyl chloride) plain 'Y' junction ISI marked including fixing with approved adhesive etcetera. complete 110 mm (one hundred ten millimeter ) diameters including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government..	154	Number			
222.	Providing and fixing PTMT coloured/ white high density polyethylene / polypropylene HIND WARE/CERA MAKE poly Venyl Chloride 10 liters (ten) capacity (full flush )European standard control low level flushing cistern with a pair of CI or MS brackets complete with fittings such as lead valves syphon, 15mm (fifteen millimeter) nominal size PVC ball valve with polythene float, CP brass handles, unions and couplings for connection with inlet, outlet and over flow pipes 40mm (forty millimeters) dia meter including Chromium plated flush bend and cutting holes in walls and making good the same and connecting the flush bend with cistern and closet ( over flow pipe to be measured and paid for separately ) complete including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	109	Number			
223.	Providing and fixing PTMT coloured/ white high density polyethylene/ polypropylene HIND WARE/CERA MAKE poly Venyl Chloride 5 liters ( five ) capacity (full flush )European standard control low level flushing cistern with a pair of CI or MS	4	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	brackets complete with fittings such as lead valves syphon, 15mm (fifteen millimeter) nominal size PVC ball valve with polythene float, CP brass handles, unions and couplings for connection with inlet, outlet and over flow pipes 40mm (forty millimeters) diameter including Chromium plated flush bend and cutting holes in walls and making good the same and connecting the flush bend with cistern and closet ( over flow pipe to be measured and paid for separately ) complete including carriage of materials within all leads, lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.					
224.	Providing and fixing PTMT bib cock of approved quality and colour fancy 15mm (fifteen milimeter) with flange including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government	181	Number			
225.	Providing and fixing PTMT reducer for push cock of approved quality and colour (20mm x15mm ) (twenty milimeters into fifteen milimeters) including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	121	Number			
226.	Providing and fixing PTMT push cock of approved quality and colour 15mm (fifteen milimeter) female thread including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	45	Number			
227.	Providing and fixing chromium plated grating of superior quality for floor, gully , or Nahni trap complete including carriage of materials with in all leads and lifts . 100mm ( one hundred	99	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	millimeter)dia meter size including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.					
228.	Constructing manhole with reinforced cement concrete top slab in cement concrete 1:2:4 ( one cement; two sand; four graded / crushed stone aggregate 20mm ( twenty millimeters ) nominal size), in foundation concrete 1:4:8 ( one cement : four sand: eight graded / crushed stone aggregate 40mm(forty millimeters) nominal size in side plastering 15mm ( fifteen millimeters) thick with cement mortar 1:3 (one cement; three sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 ( one cement ; two sand; four graded / crushed stone aggregate 20mm ( twenty millimeters ) nominal size finished smooth complete including curing and testing a) inside size 800mmx800mmx500mm (eight hundred millimeters into eight hundred millimeters into five hundred millimeters) including cast iron cover with frame (light duty single seal pattern-I ) 455 x 610mm( four hundred fifty five into six hundred ten millimeters) internal dimension total weight of cover and frame to be not less than 38 kg. ( thirty eight kilogramme ) (Weight of cover 23 kg. (twenty three kilogramme) and weight of frame 15 kg.)(fifteen kilogramme) with 200mm (two hundred millimeters ) thick walls of brick masonry using common burnt clay building bricks in cement mortar 1:3(one cement; three sand) complete including carriage of material within all leads and lifts and other incidentals or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government	29	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
229.	Constructing manhole with reinforced cement concrete top slab in cement concrete 1:2:4 ( one cement; two sand; four graded / crushed stone aggregate 20mm ( twenty millimeters ) nominal size, in foundation concrete 1:4:8 ( one cement : four sand: eight graded / crushed stone aggregate 40mm(forty millimeters) nominal size in side plastering 15mm ( fifteen millimeters) thick with cement mortar 1:3 (one cement; three sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 ( one cement ; two sand; four graded / crushed stone aggregate 20mm ( twenty millimeters ) nominal size finished smooth complete including curing and testing a) inside size 1200mmx900mmx1000mm (one thousand two hundred millimeters into nine hundred millimeters into one thousand millimeters) including cast iron cover with frame (medium duty ) 500mm( five hundred millimeters) internal dia meter total weight of cover and frame to be not less than 116 kg. ( one hundred sixteen kilogramme ) (Weight of cover 58 kg. (fifty eight kilogramme) and weight of frame 58 kg.)(fifty eight kilogramme) with 200mm (two hundred millimeters ) thick walls of brick masonry using common burnt clay building bricks in cement mortar 1:3(one cement; three sand) complete including carriage of material within all leads and lifts and other incidentals or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.	196	Number			
230.	Constructing manhole with reinforced cement concrete top slab in cement concrete 1:2:4 ( one cement; two sand; four graded / crushed stone aggregate 20mm ( twenty millimeters ) nominal size, in foundation concrete 1:4:8 ( one cement : four sand: eight graded / crushed stone aggregate 40mm(forty millimeters) nominal	42	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	size in side plastering 15mm ( fifteen millimeters) thick with cement mortar 1:3 (one cement; three sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 ( one cement ; two sand; four graded / crushed stone aggregate 20mm ( twenty millimeters ) nominal size finished smooth complete including curing and testing a) inside size 1200mmx900mmx1500mm (one thousand two hundred millimeters into nine hundred millimeters into one thousand five hundred millimeters) including cast iron cover with frame ( medium duty ) 500mm( five hundred millimeters) internal diameter total weight of cover and frame to be not less than 116 kg. ( one hundred sixteen kilogramme ) (Weight of cover 58 kg. (fifty eight kilogramme) and weight of frame 58 kg.)(fifty eight kilogramme) with 300mm (three hundred millimeters ) thick walls of brick masonry using common burnt clay building bricks in cement mortar 1:3(one cement; three sand) complete including carriage of material within all leads and lifts and other incidentals or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government.					
231.	Providing and fixing 32mm (thirty two millimeters) diameter PVC waste pipe flexible (Coil Type) length not less than 800 mm (eight hundred milimeters)for wash basin or sink complete including carriage of materials within all leads and lifts and other incidentals.	70	Number			
232.	Providing and fixing 110mm ( one hundred ten milimeters ) diameter PVC ( poly vinyl chloride) cowl complete including carriage of materials within all leads and lifts and other incidental.	26	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
233.	Providing and fixing PVC or cast iron cowl 100mm (one hundred millimeters) nominal diameter for soakpit and including carriage of material within all leads and lifts and other incidental	8	Number			
234.	Providing and fixing vitreous china (Hindware/Cera Make ) pedestal for wash basin complete including carriage of materials within all leads, lifts and other incidentals.	70	Number			
235.	Providing and fixing Jet spray 1.5 m ( one point five meter (PTMT ) including carriage of material with in all leads and lifts and other incidentals.	88	Number			
236.	Providing and fixing vitreous china (Hindware/Cera make )division plate for Urinals size 600mmx300 mm ( six hundred millimeter into three hundred millimeters ) complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	4	Number			
237.	Providing and fixing vitreous China bowl pattern urinal including connection the urinal with waste pipe by means of white lead mixed with chopped hemp (waste pipe to be measured and paid for separately. : Flat back type of size 430mm x 260 mm x 350mm( four hundred thirty millimeter into two hundred sixty into three hundred fifty millimeters ) complete including carriage of materials within all leads and lifts and other incidental or as directed by the Engineer-in-Charge.	4	Number			
238.	Providing and fixing PVC ( poly vinyl chloride)110mm ( one Hundred ten millimeters) size “P” or “S” trap for water closet (squatting pan) ISI marked including jointing the trap with pan and PVC( poly vinyl chloride) pipe with approved adhesive etcetera complete including carriage of materials within all leads, lifts and other incidental. The rate inclusive of Octroi, Toll Tax Sales tax or	42	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	any other taxes imposed by the Government or as directed by the Engineer-in-Charge and all type of taxes imposed by the Government...					
239.	Providing and fixing chromium plated brass shower 100mm ( One hundred millimeters ( dia with 15mm ( fifteen millimeters ) or 20mm ( twenty millimeters ) in let with C.P. brass screws complete as per HPPWD specifications or as directed by the Engineer-in-Charge, including carriage of materials within all leads, lifts and other incidentals. The rate including Sales tax, Toll tax or any other taxes imposed by the Government.	21	Number			
240.	Providing and fixing 650 x 450 x 150 mm (six hundred fifty into four hundred fifty into one hundred fifty millimeter) size vitreous china kitchen sink with cast iron or Mild steel brackets painted white including cutting holes in walls and making good the same but excluding the cost of fitting as per HPPWD specifications or as directed by the Engineer-in-Charge, including carriage of materials within all leads, lifts and other incidental. The rate inclusive of Octroi, Toll Tax Sales tax or any other taxes imposed by the Government.	1	Number			
241.	Providing and fixing 200mm (two hundred millimeter) wide cast iron rungs with chequered or ribbed non slip surfaces including fixing in manhole with 200x200x100mm (two hundred into two hundred into one hundred millimeter cement concrete 1:3:6 (one cement; three sand six graded /crushed stone aggregate 20mm (twenty millimeter) nominal size) and curing complete including carriage of materials within all leads and lifts.	4	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
242.	Providing and fixing to wall ceiling and floor ISI marked 32mm( thirty two millimeters) nominal bore galvanized mild steel tubes ( medium grade ) tube fittings with clamps including making good the wall, ceiling and floor (Earth work in trenches to be measured and paid for separately) including carriage of materials with in all leads and lifts of materials.	146	Running meter			
243.	Providing and fixing to wall ceiling and floor ISI marked 25mm( twenty five millimeters) nominal bore galvanized mild steel tubes ( medium grade ) tube fittings with clamps including making good the wall, ceiling and floor (Earth work in trenches to be measured and paid for separately) including carriage of materials with in all leads and lifts of materials.	1256	Running meter			
244.	Providing and fixing to wall ceiling and floor ISI marked 50mm( fifty millimeters) nominal bore galvanized mild steel tubes ( medium grade ) tube fittings with clamps including making good the wall, ceiling and floor (Earth work in trenches to be measured and paid for separately) including carriage of materials with in all leads and lifts of materials.	22	Running meter			
245.	Providing and fixing to wall ceiling and floor ISI marked 40mm( forty millimeters) nominal bore galvanized mild steel tubes ( medium grade ) tube fittings with clamps including making good the wall, ceiling and floor (Earth work in trenches to be measured and paid for separately) including carriage of materials with in all leads and lifts of materials.	20	Running running			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
246.	Providing and fixing to wall ceiling and floor ISI marked 65mm( sixty five millimeters) nominal bore galvanized mild steel tubes ( medium grade ) tube fittings with clamps including making good the wall, ceiling and floor(Earth work in trenches to be measured and paid for separately) including carriage of materials with in all leads and lifts of materials.	116	Running meter			
247	Wiring for light point / fan point / exhaust fan / call bell point with 1.5 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit with modular switch, modular plates, suitable G.I. box and earthing the light point with 1.5 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable as required. Make:-Anchor, Plaja, Hevels and Grandlay ( At par Grandlay Price list w.e.f. 01.11.2017)					
I	Group A	96	Points			
Ii	Group B	102	Points			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
Iii	Group C	2180	Points			
248	Wiring for twin control light point with 1.5 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit with 2-way, 5/6 amps. modular switch, modular plates, suitable G.I. box and earthing the light point with 1.5 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable as required. Make:-Anchor, Plaja, Hevells and Grandlay ( At par Grandlay Price list w.e.f. 01.11.2017)					
	Group C.	8	Points			
249	Wiring for circuit/sub-main with following size PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 1 No.HRFRLS/PVC insulated single core copper conductor cable of same size for earthing as required. Make:- Anchor, Plaja, Hevells and Grandlay ( At par Grandlay Price list w.e.f. 01.11.2017)					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
I	2 x 1.5 Sq. mm.	3484	Meter			
Ii	2 x 4 Sq. mm.	3112	Meter			
Iii	2 x 10 Sq. mm.	323	Meter			
Iv	2 x 16 Sq. mm.	535	Meter			
250	Wiring for circuit / sub-main with 4x4 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 2 No.4 Sq.mm. (4X4+2X4)HRFRLS/PVC insulated single core copper conductor cable for earthing as required.Make:- Anchor, Plaja, Hevells and Grandlay ( At par Grandlay Price list w.e.f. 01.11.2017)	2289	Meter			
251	Wiring for circuit / sub-main with 4x16 Sq. mm. PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 2 No.16 Sq.mm. (4x16+2x16) HRFRLS/PVC insulated single core copper conductor cable for earthing as required.Make:- Anchor, Plaja, Hevells and Grandlay ( At par Grandlay Price list w.e.f. 01.11.2017)					
i	4x10 Sq. mm.	250	Meter.			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
ii	4x16 Sq. mm.	225	meter			
252	Supplying and drawing following size of PVC insulated, heat resistant, flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in existing surface / recessed, Steel/PVC conduit as required.Make:-Anchor, Plaja, Hevells and Grandlay ( At par Grandlay Price list w.e.f. 01.11.2017)					
	3 x 1.5 Sq. mm.	2456	Meter			
253	Supplying and fixing of following sizes of PVC conduit along with the accessories in surface / recess including cutting the wall and making good the same in case of recessed conduit as required:- Make:- Deplast, BEC (At par BEC price list w.e.f. 01.04.2012					
i	25 mm. dia	2960	Meter			
ii	50 mm. dia	80	Meter			
254	S/F of 75/ 110 mm dia PVC-U rigid pipes 6 KGF/CM along with the accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. Make:- Deplast, BEC (At par BEC price list w.e.f. 01.04.2012					
i	75 mm. dia	40	Meter.			
ii	110 mm. dia	50	Meter			
255	Supplying and fixing G.I. Modular box of (140mmx78mmx50mm) size with modular plate and cover in recess including providing and fixing 5 pin 5/6 amps modular socket outlet and 5/6 amps,	515	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	modular switch, connections etc. as required.Make:-Havells, T& T and Roma ( At par Roma Cat no. 35661)					
256	Supplying and fixing G.I. Modular box of (140mmx78mmx50mm) size with modular plate and cover in recess including providing and fixing 6 pin 15/16 amps modular socket outlet and 15/16 amps, modular switch, connections etc. as required.Make:-Havells, T& T and Roma ( At par Roma Cat no. 35661)	365	Number			
257	Supplying and fixing bakelite batten/angle holder including connections etc. as required:- Make:- L&T Larson & Toubro (At par Cat. No. OA03W03 Price list w.e.f. 01.01.2017	22	Number			
258	Supplying and fixing Ding-Dong / Electronic musical bell, suitable for D.C./A.C. single phase,230 volts complete as required:- Make:- Havells, Legrand (At par Legrand Price list w.e.f. Feb. 2017)	10	Number			
259	Supplying and erection of 6 amps. to 32 amps. rating, 10 KA breaking capacity, 240 volts, 'C' curves, miniature circuit breaker of following poles in the existing MCB DB complete with connections etc. as required:-Make:- Anchor,Legrand,L&T(At par L&T Cat No. DHMGBSPF006-032, price list w.e.f. 01.12.2015),					
( i )	Single pole. Cat-A	556	Number			
260	Supplying and erection of 40/50/63 amps rating, 10 KA breaking capacity, 240 volts, 'C' curves, miniature circuit breaker of following poles in the existing MCB DB complete with connections etc. as required:-Make:- Anchor,Legrand,L&T(At par					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	L&T Cat No. DHMGBSPF006-032, price list w.e.f. 01.12.2015),					
i	40/50/63 Amp. Double pole. Cat-A.	58	Number			
ii	100 Amp Double pole. Cat-A.	3	Number			
261	Supplying and fixing single pole, blanking plate in the existing MCB DB complete as required.Make:- Anchor,Legrand,L&T(At par L&T Cat No. DHMGBSPF006-032, price list w.e.f. 01.12.2015),	77	Number			
262	Supplying and fixing following rating, double pole (single phase & neutral) 240 volts, residual current circuit breaker (RCCB), having a sensitivity current up to 300 miliampers in the existing MCB DB complete with connections, testing and commissioning etc. as required. Make:- Anchor,Legrand,L&T(At par L&T Cat No. DHMGBSPF006-032, price list w.e.f. 01.12.2015),					
i	40Amps. Cat-A.	2	Number			
ii	63Amps. Cat-A.	56	Number			
iii	100Amps. Cat-A.	3	Number			
263	Supplying and fixing 20 Amps, 415 volts, TPN industrial socket outlet, 4-pole & earth, metal enclosed plug top, sheet steel enclosure, suitable to accommodate a 20 Amp TPN-MCB, on surface or in recess, with chained metal cover for the socket outlet, complete with connections, testing and commissioning etc. as required. Make:- Anchor,Legrand,L&T(At par Legrand price list	20	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	w.e.f. Feb. 2017),					
264	Supplying and fixing 32 Amps, 415 volts, TPN industrial socket outlet, 4-pole & earth, metal enclosed plug top, sheet steel enclosure, suitable to accommodate a 30 Amp TPN-MCB, on surface or in recess, with chained metal cover for the socket outlet, complete with connections, testing and commissioning etc. as required. Make:- Anchor,Legrand,L&T(At par Legrand price list w.e.f. Feb. 2017),	18	Number			
265	Supplying and fixing of following way, single pole and neutral sheet steel MCB distribution board, 240 volts, on surface / recess, complete with tinned copper bus- bar, wire-set, neutral link, earth bar, din-bar, detachable gland plate, blanking plate, cable, identification labels interconnections, phosphatized and powder painted, including earthing etc. as required:- Anchor,Legrand,L&T(At par L&T price list w.e.f. 01.01.2016),					
i	Double door-4 way	4	Number			
ii	Double door-6way	1	Number			
iii	Double door-8 way	16	Number			
iv	Double door-12 way	52	Number			
v	Double door-16 way	34	Number			
266	Supplying and fixing following rating Modular switch /socket in the existing switch box / cover plate including connections etc. as					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	required. Make:- Anchor Roma Plus,Hevells , Panasonic and L&T					
i	25 Amps. Modular Switch	48	Number			
ii	25 Amps. Modular Socket	48	Number			
267	Providing, laying of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 volts grade in ground to be laid 1 meter below the ground level including excavation sand cushioning , protective covering and refilling the trench etc. the etc. of the required size:- Make:- National, Gloter and Grandlay (At par Grandlay price list w.e.f. 24.10.2017					
i	Armoured cable 630sq. mm (3.5 core)	30	Meter.			
ii	Armoured cable 185sq. mm (3.5 core)	100	Meter.			
iii	Armoured cable 95sq. mm (3.5 core)	50	Meter.			
268	Providing, laying and fixing of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 volts grade on surface etc. of the required size:- Make:- National, Gloter and Grandlay (At par Grandlay price list w.e.f. 24.10.2017					
i	Armoured cable 630sq. mm (3.5 core)	50	Meter.			
ii	Armoured cable185sq. mm (3.5 core)	65	Meter.			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
iii	Armoured cable 95sq. mm (3.5 core)	40	Meter			
269	Supply,Erection,Installation and Commissioning of Early Streamer Emission Air terminal FRANCE PARATONNERRES Ioniflash Mach NG 60 compliant to the last NFC 17-102:2011 standard. The unit should be autonomous, with an electrostatic activation adapted to the earth electric field, warranted for 7 years by the manufacturer.The air terminal shall be made of non-corrosive materials. It shall be equipped with a central rod made of Stainless Steel 316L for a better conduction and a low corrosion factor. Performances of the unit should be certified in High Voltage and High Current Laboratory (CPRI and GERAC) as well as in real lightning conditions. The unit should have been tested in rain condition in order to insure the good insulation of the emission device (the insulation shouldn't be lower than 97%). The unit should have passed electrical test at 200kA in 10/350µs waveform.(Level-1 Protection in 79 Meters Radius) Make:- UNi Earth, Arico	2	Number			
270	Supply, Erection,Installation and Commissioning of Elevation pole made of G.I of 5 meter height with a dia of 50mm with a M20 thread at the top to fix the unit. Base plate, clamps and all required fixings should also be supplied. Guy wires may be used in order to ensure the stability of the installation.Make:- UNi Earth, Arico	2	Number			
	Down Conductor - 2 downconductors per ESE terminal.;					
271	Supply,Erection,Installation and Commissioning of Down conductor made of Copper for lower impedance. It should be a single core cable of minimum cross sectional area of 70mm²	140	Meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Make:- UNi Earth, Arico					
272	Supply,Erection,Installation and Commissioning of A Test Link Box (IP-55 enclosure) should be installed approximately at 2 meters above the ground, in order to realize independent measurement of the earthing system. Make:- UNi Earth, Arico	4	Number			
273	Installations of a lightning strike counter I FLASH REPORT or equivalent on the down-conductor. The unit should be compliant to the IEC 62561-6. The counter should be able to register the lightning events from 1 kA to 100kA and should be able to register the date, the hour and the intensity of the lightning event. The counter should be able to communicate lightning events to the concerned person via bluetooth transmission to the smartphone. Its corresponding app should be available on Android and Apple App stores. The counter should be at least with the index protection IP67.Make:- UNi Earth, Arico	1	Number			
	Performance Recording Equipment					
274	Installations of a lightning strike counter I FLASH REPORT or equivalent on the down-conductor. The unit should be compliant to the IEC 62561-6. The counter should be able to register the lightning events from 1 kA to 100kA and should be able to register the date, the hour and the intensity of the lightning event. The counter should be able to communicate lightning events to the concerned person via bluetooth transmission to the smartphone. Its corresponding app should be available on Android and Apple App stores. The counter should be at least with the index protection	4	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	IP67.Make:- UNi Earth, Arico					
	Advanced Earthing System					
275	Supply,Erection,Installation and Commissioning of UniEarth ‘Tripolar’ model Maintenance free chemical earthing system consisting of environment friendly ground enhancing compound ‘G.E.C’ 80 kg or as required at site having anticorrosive and hygroscopic properties to replace excavated soil. It should consist of triple “Uniearth” Copper bonded extendable both sided top and bottom ribbed electrodes enabling rod to be extendable, as per site conditions and soil resistivity at various depth levels and different terrains. The electrodes should have coating of 250 microns of molecularly bonded pure electrolytic copper (99.9%) in 3 metre length, 15 mm diameter separated from each other with a span of 127 mm and interconnected amongst each other by another triple copper bonded steel flange of 4mm thickness, hence achieving 150mm outer diameter, 110mm inner diameter. The final connection to be provided with ‘Rod to conductor connector’ made of high quality brass with SS 304 bolts of 25mm length and 10 mm diameter. The electrode should be duly tested and certified by CPRI for 30 kA short time current test for 1 sec rms.Make:- UNi Earth, Arico	3	Number			
276	Providing and fixing 6 SWG (4 mm dia.) G.I. wire on surface or in recess for loop earthing as required.	83	Meter			
277	SITC of "Uniearth" ‘Tripolar’ model Maintenance free chemical earthing system consisting of environment friendly ground enhancing compound ‘G.E.C’ 100 kg at site having anticorrosive	14	Set			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	and hygroscopic properties to replace excavated soil. It should consist of “Uniearth” Cu Bonded Flat in Pipe electrode; outer pipe should have coating of 100 microns of molecularly bonded pure electrolytic copper (99.9%) in 3 metre length of 50 mm diameter and pipe thickness 2.9 mm. The internal conductor should consist of 32 x 6 mm G.I. flat running throughout the length of electrode having 2 holes of 12 mm dia at the terminal for connection purpose. . The annular space in between the flat and pipe should consist of “Uniearth” Electrofill – highly conductive compound facilitating faster dissipation of fault current. It should consist of triple “Uniearth” Copper bonded extendable both sided top and bottom ribbed electrodes enabling rod to be extendable, as per site conditions and soil resistivity at various depth levels and different terrains. The electrodes should have coating of 250 microns of molecularly bonded pure electrolytic copper (99.9%) in 3 metre length, 15 mm diameter separated from each other with a span of 127 mm and interconnected amongst each other by another triple copper bonded steel flange of 4mm thickness, hence achieving 150mm outer diameter, 110mm inner diameter. The final connection to be provided with ‘Rod to conductor connector’ made of high quality brass with SS 304 bolts of 25mm length and 10 mm diameter. The electrode should be duly tested and certified by CPRI.Make:-					
278	Supplying and laying 8 SWG Copper wire at 0.50 mtr. below ground level for earth electrode conductor, including soldering etc. as required.	170	Meter			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
279	Providing and installation of exhaust fan of following sizes in the existing opening, including making the hole to suit the size of the above fan, making good the damages, connections, testing and commissioning etc. as required:- Make:- Havells Price list 01.10.2014, Bajaj and Havells					
i	Exhaust Fan, Light duty, 225 mm sweep	5	Number			
ii	Exhaust Fan, Light duty, 300 mm sweep	54	Number			
iii	Exhaust Fan, Heavy duty, 300 mm sweep	14	Number			
280	Providing and installation of stationary storage type Electric water heater (Geyser) of various sizes by means of Expansion-bolts with nuts and washers, including embedding of expansion-bolts in the wall, providing and fixing of Non-return valve, Dead weight safety valve, 2 No C.P. connection rods 18" long, making good the damages, electrical connections, safety valve connections, testing and commissioning etc. as required:- Make- Havalls, Recold, Bajaj.					
i	35 Liter capacity water heater (Cat-A)	22	Number			
ii	50 Liter capacity water heater (Cat-A)	16	Number			
281	Supplying and fixing pendent luminiare light silver colour complete with connections etc. as required.Make: Philips, Bajaj, Havells, GE, Panasonic	43	Number			
282	Supplying and fixing of fancy wall bracket containing thread type					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	CFL lamp holder (s) of all sizes and shapes, complete with all accessories but excluding CFL lamp including making connections, testing etc. as required. Decon At par Cat No. 05 ZO, Panasonic					
i	Long neck wall bracket 150 dia, single lamp.(Category-A)	77	Number			
ii	Mirror Light single lamp holder	16	Number			
iii	Bed/ Study Light	109	Number			
283	Providing and installation of following type of Brass Chandelier with 3 Nos. LED lamp 7 watt with anti glare polycarbonate diffuser and seprated energy efficient constant current, non-integral, electronic driver; suitable for input voltage: AC 220-240 V, 50/60Hz, complete with all accessories, including making suitable cut-out in the existing ceiling, connections, testing and commissioning etc. as required. Make:- Philips, Havells, GE, Panasonic.	4	Number			
284	Supplying and fixing of bulk head fitting of all sizes and shapes, containing one No. thread type LED lamp holder (s), complete with all accessories LED lamp including making connections, testing etc. as required. Make:- Philips, Havells, GE, Panasonic. (At par Havells price Cat. No LHEOAOP7UZ6W010 w.e.f. 2017					
i	Bulk head fitting, LED 10 watt type (Category-A)	88	Number			
ii	Bulk head fitting, LED 24 watt type (Category-A)	33	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
285	Supplying and fixing electrical switch board having 4 Nos. of 5 Amps. switches and sockets on suitable size metal box of 200mm x 250mm x 100mm deep (nominal size) on surface or in recess with suitable size phenolic laminated sheet cover in the front i/c providing and fixing 4 Nos. 5 pin 5/6 amp. socket outlet and piano type switch, connection, painting etc. as required. Make:-Anchor, Plaja, Hevels and Grandlay ( At par Grandlay Price list w.e.f. 01.11.2017)	74	Number			
286	Providing, installation, testing and commissioning of ceiling fan with step type electronic fan regulator piano type, including wiring the down rods of standard length (up to 30 cm) with 16/0.20 mm twin twisted flexible, cotton braided, copper cable, including providing and fixing phenolic laminated sheet cover on the fan box and earthing etc. as required:-					
i	Ceiling Fan 1200 mm sweep, Category-A					
	Makes:- Panasonic (At par Panasonic Cat No ADLO4R153)Bajaj (Ultima) / Usha (Ultimate) /Anchor FLOGS	509	Number			
ii	Ceiling Fan 1400 mm sweep, Category-A					
	Makes:- Panasonic (At par Panasonic Cat No ADLO4R153)Bajaj (Ultima) / Usha (Ultimate) / Anchor FLOGS	61	Number			
287	Providing, Installation, testing and commissioning of Turbo Force Air-circulator 450mm wall mounted fan as required complete in all respects.Havells (AT Par Havells )	2	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
288	Supplying & fixing following type of Recess/surface mounted luminaires, white power coated CRCA housing diffuser to avoid glare, pre-wired with stater, trigger circuit ,surge protection circuit lumen output of 100 lumens per watt complete with all accessories, connections , testing and commissioning etc. as required.					
i	LED 15 watt surface type (Make:- Panasonic Cat No. ADL04 R 153 Equivalent Havells , GE , Phillips	441	Number			
ii	LED 1x20 watt,4 FEET Long LED (Make:- Panasonic ) EquivalentHavells , GE , Phillips	565	Number			
iii	LED 2x40 watt,4 FEET Long LED (Make:- Panasonic) Equivalent Havells , GE , Phillips	129	Number			
iv	LED 24 watt,4 FEET Long LED (Make:- Jaguar Cat No. LGLZO1X024XN) EquivalentHavells , GE , Phillips	21	Number			
289	Supplying and fixing Indoor Commercial suspended surface mounted Luminaire LED 20 watt Smart Bright is a reliable and afforsaid system Cat. No. BNO21CLED20SPSUNWGR complete with connections etc. as required . Make :- Havells, Bajaj,Panasonic	22	Number			
290	Providing and installation of following type of recess mounting slim square type LED panel 40 watt in white finish with anti glare polycarbonate diffuser and seprated energy efficient constant current, non-integral, electronic driver; suitable for input voltage: AC 220-240 V, 50/60Hz, complete with all accessories, including	55	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	making suitable cut-out in the existing ceiling, connections, testing and commissioning etc. as required. Philips, Havells, GE, Panasonic.					
291	Supplying, installation, testing and commissioning of 1.5 Ton (Hot & Cold) Split type Air-Conditioning unit of following make confirming to I.S.I.-1391 PART-1992 with ammendment No. 1 (expect power consumption norms) fitted with hermetically shielded air-compressor as required complete in all respects.					
i	A.C. Unit 1.5 Ton capacity					
	Makes:- Voltas or equivalent /LG/Blue star.	31	Number			
292	Supplying and fixing wall mounting voltage stabilizer of following rating with output 240 volts with voltage regulation range from 170 volt to 250 volt and auto cut off beyond this range and time delay operation for the surges and fluctuations suitable for 1.5/2.0 TR capacity split type Air-Conditioner including making connections etc. as required complete in all respects.					
	Automatic Voltage Stabilizer 4 KVA					
	Makes:- Whirlpool/V-Guard/Elincon/Godrej or equivalent.	31	Number			
293	Providing & fixing of M.S. Outdoor heavy duty stand powder coated suitable suitable to hang 1.5/2.0 TR Split type AC with six nos. anchor bolts as required complete in all respects and as per direction of Engineer in charge. Make:-	31	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
294	Providing & fixing of extra copper tubes for refrigerant and condensate (1/4" & 1/2") for 1.5 T.R. split type A.C. units and wiring with suitable size of HRFRLS copper conductor single core cables, including the cost of insulation etc. as required complete in all respects.Carrire, , Total Line malasya	155	Metres			
295	Supplying and fixing of 25mm dia of PVC drain pipe along with the accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. VEC,Deplast	155	Metres			
296	Providing and installation of following type of surface mounting LED Suspended Bay Light IP-65 90 watt with white powder coated and energy efficient constant current, non-integral, electronic driver; suitable for input voltage: AC 220-240 V, 50/60Hz, complete with all accessories, including making suitable cut-out in the existing ceiling, connections, testing and commissioning etc. as required.Make: Philips, Havells, GE, Panasonic.( At par Panasonic )					
	LED Suspended Bay Light IP-65 90 watt	4	Number			
297	Supplying, Installation, Testing and Commissioning of indoor s/door,Cubical type L.T. main panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame75X40X3MM angle duly					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	<p>           painted with Siemens Grey Powder Coated paint, Assembly Charges of 250A 4 strip Copper Busbar ( Vertical) &amp; Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Copper shall be Electric Grade E-91E, Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue &amp; Black. Approximate Size of Panel H- 1500 X W-2050 X D-400MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to ACB/ SWITCH &amp; ACB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue &amp; Black. All Interconnections of fields side are supported by conical, L &amp; Finger type insulators of adequate size to support &amp; sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit &amp; 1.0 sq. mm for Control &amp; 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie &amp; belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh         </p>					
	MATERIAL:					
	<p>           MAIN INCOMER :- MCCB 250A, 3P 50 kA MPR with O/L &amp; S/C protection with RHOM Ext. 1 No. Spreder Terminal MCCB 250A 3P 2 Nos., RHOM Et. 1 No., Digital Metering , Amp. Meter 96x96 MM-1 No., Volt Meter 96x96 MM-1 No., Current transformer-3 No, Phase indicating Lamp-3 No, Control SP MCB -         </p>					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	3No,Terminal switch -1No.Make:- L&T, AAB, Schleider					
	MAIN INCOMER (POWER):-MCCB 160A, 3P 36 kA with O/L & S/C protection, Spreder Terminal for MCCB 160A C83P= 2 Nos, RHOM Ext. = 1 No., In Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCCB 63A 3P-25 KA with O/L & S/C protection -3 Nos., Spreder terminal MCCB 63 A 3P =6 Nos.Make:- L&T, AAB, Schleider					
	MAIN INCOMER (LIGHT):- MCCB 160A 1 No., 3P 36 kA= 1 No. TMR with O/L & S/C protection, Spreader terminal MCCB 160A 3P 2 Nos., RHOM Ext. 1 No., Onload change over switch 160A 4P 1 No., Indication lamp LED type R Y B= 6 Nos., Control SP MCB 6A=6Nos.					
	OUTGOING :					
	MCCB 63A 3P-25 KA with O/L & S/C protection -3 Nos., Spreder terminal MCCB 63 A 3P =6 Nos., RHOM Ext. = 3 NOS.					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,	1	Job.			
298	Supplying, Installation, Testing and Commissioning of indoor s/door, Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame 75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 100A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-450 X D-200MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER :- MCCB 63 A 3P 25 kA with O/L & S/C Protection-1 No., Spreader Link 63 A 3P-2 Nos., Indicating Lamp LED type R Y B -3 No, Control SP MCB -3No.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCB 63 A DP 10 TMR with O/L & S/C protection for S.F. 3 Nos., Spreader terminal MCCB 63 amp. DP = 3 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;Make:- L&T, AAB, Schleider					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be	6	Job.			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,					
299	Supplying, Installation, Testing and Commissioning of indoor s/door, Cubical type L.T. main panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame 75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 1200A 4 strip Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.66 Amp.) Copper shall be Electric Grade E-91E, Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 2000 X W-3000 X D-800MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to ACB/ SWITCH & ACB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0 sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	Incomer (A) ACB 1250A 3P 50 KA MDO type MPR with O/L & S/C protection with RHOM Ext.					
	MAIN INCOMER (POWER):-MCCB 630A, 3P 50 kA TMR with O/L & S/C protection, Digital Metering , Amp. Meter 96x96 MM-1 No., Volt Meter 96x96 MM-1 No., Ampere Selector Switch-1 No. Voltmeter Selector Switch-1 No., Current transformer-3 No,Phase indicating Lamp-3 No, Control SP MCB -3No,Terminal switch -1No.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCCB 630A 3P-36 KA with O/L & S/C protection -2 Nos., Spreader link 630A 3P 2Nos. ,RHOM Ext. 1 No., MCCB 40 amp. 3P 63 KA TMR with O/L & S/C protection,Spreader terminal MCCB 400 A 3P 2 Nos., RHOM Ext. 1 No., MCCB 100 amp. 3P 36 KA TMR with O/L & S/C protection, Spreader terminal MCCB 100 amp. 3P 2 Nos., RHOM EXt. 1 No. Indication lamp LED type R Y B 3 Nos, Control SP MCB 6A MCCB 250A 3P-50 KA TMR with O/L & S/C Protection-1 No., Spreader link 250 A 4P-2 Nos.Make:- L&T, AAB, Schleider					
	MAIN INCOMER (LIGHT):- MCCB 400A 1 No., 3P 50 kA TMR with O/L & S/C protection, Spreader terminal MCCB 400A 3P 2					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Nos., RHOM Ext. 1 No., Onload change over switch 400A 4P 1 No., Indication lamp LED type R Y B 6 Nos., Control SP MCB 6A=6Nos. Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCCB 100A 3P-36 KA with O/L & S/C protection -3 Nos., Spreder terminal MCCB 100 A 3P =6 Nos., RHOM Ext. 3 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc; Make:- L&T, AAB, Schleider					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,	1	Job.			
300	Supplying, Installation, Testing and Commissioning of indoor s/door,Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame 75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 63A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-450 X D-200MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER :- MCCB 100 A 3P 25 kA with O/L & S/C Protection-1 No., Spreader Link 100 A 4P-2 Nos., Indicating Lamp LED type R Y B -3 No, Control SP MCB -3No.Make:-					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	L&T, AAB, Schleider					
	OUTGOING :					
	MCB 100 A DP 10 TMR with O/L & S/C protection for Ground floor 3 Nos., Spreder terminal MCCB 100 amp. DP = 6 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,	3	Job.			
301	Supplying, Installation, Testing and Commissioning of indoor s/door,Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Charges of 100A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-1050 X D-200MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER :- MCCB 100 A 3P 25 kA with O/L & S/C Protection-1 No., Spreader Link 100 A 4P-2 Nos., Indicating Lamp LED type R Y B -3 No, Control SP MCB -3No Make:- L&T, AAB, Schleider.					
	OUTGOING :					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	3P Plug & socket 25 KA 8 Nos., MCB 25A TP 10 KA 8 Nos.					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,	1	Job.			
302	Supplying, Installation, Testing and Commissioning of indoor s/door,Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 400A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 1850 X W-1500 X					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	D-400MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER :- MCCB 400 A 3P 25 kA with O/L & S/C Protection-1 No., Spreader Link 400 A 4P-2 Nos., RHOM Ext. 1 NO., Indicating Lamp LED type R Y B -3 No, Control SP MCB 6A -3No.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCCB 100 A 3P 36 KA TMR with O/L & S/C protection for F.F. 4 Nos., Spreder terminal 100A DP 8 Nos., RHOM Ext. 4 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire					



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,	1	Job.			
303	Supplying, Installation, Testing and Commissioning of indoor s/door, Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame 75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 100A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-450 X D-200MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red,					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER :- MCCB 100 A 3P 25 kA with O/L & S/C Protection-1 No., Spreader Link 100 A 4P-2 Nos., Indicating Lamp LED type R Y B -3 No, Control SP MCB -3No.					
	OUTGOING :					
	MCB 63 A DP 10 TMR with O/L & S/C protection for S.F. 3 Nos., Spreader terminal MCCB 63 amp. DP = 3 Nos.					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,	1	Job.			
304	Supplying, Installation, Testing and Commissioning of indoor s/door, Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame 75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 63A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-450 X D-200MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER :- MCCB 63 A 3P 25 kA with O/L & S/C Protection-1 No., Spreader Link 63 A 3P-2 Nos., Indicating Lamp LED type R Y B -3 No, Control SP MCB -3No.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCB 63 A DP 10 TMR with O/L & S/C protection for S.F. 3 Nos., Spreder terminal MCCB 63 amp. DP = 3 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,	7	Job.			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
305	<p>Supplying, Installation, Testing and Commissioning of indoor s/door,Cubical type L.T. main panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 800A 4 strip Copper Busbar ( Vertical) &amp; Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Aluminium shall be Electric Grade E-91E, Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue &amp; Black. Approximate Size of Panel H- 1850 X W-2850 X D-500MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to ACB/ SWITCH &amp; ACB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue &amp; Black. All Interconnections of fields side are supported by conical, L &amp; Finger type insulators of adequate size to support &amp; sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit &amp; 1.0 sq. mm for Control &amp; 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie &amp; belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power</p>					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Associates Chandigarh					
	MATERIAL:					
	Incomer (A) MCCB 800A 3P 50 KA MDO type MPR with O/L & S/C protection with RHOM Ext.					
	MAIN INCOMER (POWER):-MCCB 630A, 3P 50 kA TMR with O/L & S/C protection, Digital Metering , Amp. Meter 96x96 MM-1 No., Volt Meter 96x96 MM-1 No., Ampere Selector Switch-1 No. Voltmeter Selector Switch-1 No., Current transformer-3 No,Phase indicating Lamp-3 No, Control SP MCB 6A =3No,Speridal Terminal switch -2No.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCCB 200A 3P-36 KA with O/L & S/C protection -2 Nos., ,RHOM Ext. 1 No., MCCB 160 amp. 3P= 3 Nos. ,Spreader terminal MCCB 160 A 3P 6 Nos., RHOM Ext. 3 Nos.Make:- L&T, AAB, Schleider,					
	MAIN INCOMER (LIGHT):- MCCB 160A 1 No., 3P 50 kA TMR with O/L & S/C protection, Spreader terminal MCCB 160A 3P 2 Nos.,, RHOM Ext. 1 No., Onload change over switch 160A 4P 1 No., Indication lamp LED type R Y B =6 Nos., Control SP MCB 6A=6Nos. Make:- L&T, AAB, Schleider					
	OUTGOING :					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	MCCB 63A 3P-25 KA with O/L & S/C protection -3 Nos., Spreder terminal MCCB 63 A 3P =6 Nos., RHOM Ext. 3 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,	1	Job.			
306	Supplying, Installation, Testing and Commissioning of indoor s/door,Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 63A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-450 X D-200MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER (POWER):-MCCB 200A, 3P 36 kA TMR with O/L & S/C protection.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCB 63 A DP 10 TMR with O/L & S/C protection for S.F. 3 Nos., Spreder terminal MCCB 63 amp. DP = 3 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire					



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,	3	Job.			
307	Supplying, Installation, Testing and Commissioning of indoor s/door, Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame 75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 200A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-600 X D-250MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red,					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T. Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER (POWER):-MCCB 200A, 3P 36 kA TMR with O/L & S/C protection, Spreder terminal MCCB 200 amp. 3P = 2 Nos., Indicator lamp LED type R Y B= 3 Nos., Control SP MCB 6A=3 Nos.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCB 100A DP 10 TMR with O/L & S/C protection 6 Nos., Spreder terminal MCCB 100 amp. DP = 12 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass, wooden, copper flexible door earth, legend plates etc,	1	Job.			
308	Supplying, Installation, Testing and Commissioning of indoor s/door, Cubical type L.T. Panel. The Panel shall be compartmentalized type having space and arrangement for incoming and outgoing cables/bus ducting, switchgear, insulated and properly supported compartmentalized bus-bars, interconnection between bus bars and switchgear with auxiliary bus bars/insulated conductors/strips etc. It shall be fabricated in 14G/16G CRCA sheet, base frame 75X40X3MM angle duly painted with Siemens Grey Powder Coated paint, Assembly Charges of 160A Copper Busbar ( Vertical) & Earth strip throughout the length of Panel (current density of Copper Busbar shall be 1mmx1mm=1.0 Amp.) Busbar supports shall be DMC epoxy Insulators. All Busbars Links shall be covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. Approximate Size of Panel H- 900 X W-600 X D-250MM. Assembly Charges of Copper solid/ Copper flexible wire interconnection Busbar to MCCB/ SWITCH & MCCB/ SWITCH to field side for Cable termination duly covered/ insulated with Heat Shrinkable sleeves of coloured coded Red, Yellow, Blue & Black. All Interconnections of fields side are supported by conical, L & Finger type insulators of adequate size to support & sustain the weight of cables. Control Wiring with Copper Flexible Wire (size of control wire shall be 2.5 sq. mm copper flexible for C.T.					

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Circuit & 1.0 sq. mm for Control & 1.0sq. mm for Scada Wiring) with thimbles printed sleeves, tie & belt etc. Assembly Charges of Accessories like Gasket, Doorlocks, Copper Flexible door earth, legend plates etc. Make:- Dhiman Switch gear Chandigarh, Power Associates Chandigarh					
	MATERIAL:					
	MAIN INCOMER (POWER):-MCCB 160A, 3P 36 kA TMR with O/L & S/C protection= 1 No., Spreder terminal MCCB 160 amp. 3P = 2 Nos., Indicator lamp LED type R Y B= 3 Nos., Control SP MCB 6A=3 Nos.Make:- L&T, AAB, Schleider					
	OUTGOING :					
	MCB 100A DP 10 TMR with O/L & S/C protection 5 Nos., Spreder terminal MCCB 100 amp. DP = 10 Nos.Make:- L&T, AAB, Schleider					
	All interconnections of fields side are supported by conical, L & finger type insulators of adequate size to support & sustain the weight of cables, Control wiring with copper flexible FRLS wire with thimbles, printed sleeves, tie & belt etc;					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper flexible door earth, legend plates etc,					
	The prices of complete job as per the specifications above shall be inclusive of gasket, doorlocks, reading glass,wooden, copper	3	Job.			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	flexible door earth, legend plates etc,					
309	Supplying, installation, testing and commisioning of Digital EPABX syatem configure with 06 Trunk Lines,10 Digital Extn & 80 Extensions, with 01 KTS expandable upto 128 ports compleate in all respect. Makes: Coral,Unify, NEC, SiemensHipath, Panasonic, Matrix telecom.	1	Number			
310	Providing and fixing of digital key telephone on line LCD display with 8 programmable keys complete in all respect as directed by Engineer-in-charge. Make Panasonic, Samsung, Beetal.	10	Number			
311	Providing and fixing of Analog key telephone on line LCD display with 8 programmable keys complete in all respect as directed by Engineer-in-charge. Make Panasonic, Samsung, Beetal.	58	Number			
312	supply and fixing (Krone or standred make as aprooved by the engg. Incharge) MDF with Intoel IPM - 100 pairs including punching and identification as required compleate in all respect.	1	Number			
313	supply and fixing (Krone or standred make as aprooved by the engg. Incharge) IDF with Module - 100 pairs including punching and identification as required compleate in all respect.	1	Number			
314	supply and fixing (Krone or standred make as aprooved by the engg. Incharge) IDF with Module - 10 pairs including punching and identification as required compleate in all respect.	4	Number			
315	supply and fixing (Krone or standred make as aprooved by the engg. Incharge) IDF with Module - 50 pairs including punching	2	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	and identification as required complete in all respect.					
316	supply and laying of PVC insulated Telephone cable – 2 pair 0.5sq.mm including connections etc as reqd complete in all respects. Makes:Finolex,Delton,Polycab,National.	4080	meter			
317	supply and laying of PVC insulated Telephone cable – 10 pair 0.5sq.mm including connections etc as reqd complete in all respects. Makes:Finolex,Delton,Polycab,National.	250	meter			
318	supply and laying of PVC insulated Telephone cable –50 pair 0.5sq.mm including connections etc as reqd complete in all respects. Makes:Finolex,Delton,Polycab,National.	140	meter			
319	supply and laying of Jumper wire for connectiion of above modules including connections etc as reqd complete in all respects. Makes:Finolex,Delton,Polycab,National.	200	meter			
320	Providing and fixing of 15 U Rack wall mounting of standard design as approved and complete in all respect as directed by Engineer-in-Charge.Makes: President, Valrack, Comrack.	1	Number			
321	Supplying and fixing PVC Modular box of (85 mm x 85mm x 40mm) size in white with modular plate and cover in recess including providing and fixing modular Telephone Sockets, RJ11 telephone Jack single with shutter (At par Code:21780 Roma, Code: 20857. ROMA, Make, L&T, Havelles, Anchor or standred make as aprooved by the Engg. Incharge) with Deko single mounting plates 1 module (code : 21317WH) complete	68	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	connections etc. as required.					
322	Supplying & fixing of 2 kVA On-line UPS with maximum 2 hours backup VAH 4032 complete in all respect as directed by Engineer-in-charge. Make: Emersion, Voltas, Excide.	1	Number			
323	Supply Installation testing and Comissioning of UTP Cat 6 UTP Cable, Transmission frequency of 250 MHz (Minimum),cable Should be 4 pair and Cable should be Fire Retardant.(R&M/Systimax/Seimon)	20800	meter			
324	Supply Installation testing and Comissioning of Square plate, 86mmx86mm with dimension, Write on labels in transparent plastic window – supplied with plate, face plate should be of ABS Plastic material.Make: (R&M/Systimax/Seimon)	460	Number			
325	Supply Installation testing and Comissioning of information outlet belongs to Category 6, EIA/TIA 568-C.2 Information outlets Should accept cables from 22-24 AWG copper,Should be PCB free and Tool less will be added advantage, Information outlet should be of Halogen Free material,Should be Certified by independent labs like ETL/GHMT/3P for compliance Make:(R&M/Systimax/Seimon)	460	Number			
326	Supply Installation testing and Comissioning of 24-port 19" 1 U jack panel which Should Be made of sheet steel 1.5 mm, Should be 19" 1U straight Patch Panel, 24-port, Should have integral cable management Metal shelf,Should accept Shielded as well as Unshielded jacks, Should have rear cable management shelf	27	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	metallic powder coated. Make: (R&M/Systimax/Seimon)					
327	Supply Installation testing and Comissioning of PVC 3X3 inch wall mount gang box for fixing of face plate	475	Number			
328	Supply Installation testing and Comissioning of 1 Mtr UTP Cat6 cable which Should be Compliant with Cat.6 requirements of ISO/IEC 11801, EN 50173, EN 50168 and EIA/TIA 568.C.2, Should be stranded bare copper, Should be unshielded. Make:(R&M/Systimax/Seimon)	530	Number			
329	Supply Installation testing and Comissioning of 2 Mtr UTP Cat6 cable which Should be Compliant with Cat.6 requirements of ISO/IEC 11801, EN 50173, EN 50168 and EIA/TIA 568.C.2, Should be stranded bare copper, Should be unshielded. Make:(R&M/Systimax/Seimon)	530	Number			
330	Supply Installation testing and Comissioning of OFC Armoured outdoor SINGLE MODE 6/12 CORE - OS2 . Should be ISO.IEC 11801 - 2nd Edition, type OS2 and ITU-T REC G 652D. Tube Idenification :Single tube/Multiple tube. Fibre protection (Tube) : Polybutylene Terephthalate (PBT). Water Blocking :Thixotropic Gel (Tube) and Petroleum Jelly (Interstices). Core Wrapping : Polyethylene Terephthalate . Armouring : Corrugated Steel Tape Armour (ECCS Tape). Strength Member: Two Steel wires on periphery/Two FRP rods on periphery /Central Strength Member FRP. Sheath : UV Stabilized Polyethylene (HDPE). Maximum. Tensile Strength-Short Term : 1500N or better. Mass (Nominal) : minimum 95 kg/km Make:(R&M,Siemon, Systimax)	200	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
331	Supply Installation testing and Comissioning of 12 Port fiber LIU which have sufficient slots to accommodate 24/12 Duplex LC/SC Ports ,Should have fiber management provision inside with splice tray and other accessories, Should be rack mountable 1U,Should have Splice holder for minimum 24 Fiber cores ,Should be made of Cold Rolled Steel ,Material Should steel: 1.5 mm, powder-coated Make:(R&M,Siemon,Systimax)	4	Number			
332	Supply Installation testing and Comissioning of fiber pigtail which have Connector type LC, Fiber Type SM OS2,Compact design (SFF). 1.25 mm ferrule technology, Length 1meter/1.5 meter.Make:(R&M,Siemon,Systimax)	24	Number			
333	Supply Installation testing and Comissioning of optical fiber patch leads shall comprise of Singlemode category Jacket should be LSZH sheath,Connector: Zirconia ceramic ferrule,Conector type Duplex LC-LC with length of 3 mtr.Make:(R&M,Siemon,Systimax)	4	Number			
334	Supply Installation testing and Comissioning of fiber adaptor which have LC Duplex singlemode adapter with Quick mounting clip integrated.Protection class of IP-20 rated with Material :fiber-(halogen-free )Make:(R&M,Siemon,Systimax)	24	Number			
335	Supply Installation testing and Comissioning of splicing and Optical connectivity test report for per core of OFC complete in all respect as directed by Engineer-in-Charge.	24	Number			
336	Supply Installation testing and Comissioning of 3 KVA UPS ONLINE Fully Microprocessor Controlled, Double Conversion,	3	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	IGBT Inverter. UPS should have Intelligent LCD Display to show all the parameters with Inbuilt Isolation Transformer. Input Voltage Range 320-480VAC (Three Phase). Input Power Factor Up to 0.95, THD <4%. . Output Power factor 0.7., Efficiency >92% . Cold Start UPS should be capable of switching on directly on Batteries. Output Voltage 220/230/240 VAC+/-2% (Selectable) . Battery Back up 60 Minutes . Battery Configuration Minimum 7680VAH with Batteries Rack. Make Libert/APC/ Numeric					
337	Supply Installation testing and Comissioning of Layer -2 switch 24-port Gigabit managed switch with 4 SFP combo Port.Switch should support Web based authentication provides network admission control through web browser to any host devices and operating systems. The features (DHCP Snooping, IP Source Guard, and Dynamic ARP Inspection) above work together to prevent DOS attacks in the network, thereby increasing network availability. PVE (also known as protected ports) provides Layer 2 isolation between devices in the same VLAN, supports multiple uplinks. The ability to lock Source MAC addresses to ports, and limits the number of learned MAC addresses. Support for up to 512 rules Make Cisco/Juniper/Allied Telesis	22	Number			
338	Supply Installation testing and Comissioning of 22 U Racks manufactured out of steel sheet punched, formed, welded and Powder coated with Adjustable, 19" verticals with Punched 9mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, It should be 600MM Wide,800MM Deep and Overall height 1160 MM and maximizes usable mounting space including accessories 4	2	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Fan and 6X5 AMP power Strip, PDU, Hardware Mounting Kit.(For all Floors) Make: President/Netrack /Valrack					
339	Supply Installation testing and Comissioning of 42 U manufactured out of steel sheet punched, formed, welded and Powder coated with adjustable, 19” verticals with Punched 9mm Square Hole and Universal 12.7mm-15.875mm-15.875mm alternating hole pattern offers greater mounting flexibility, It should be 600MM Wide,800MM Deep, front Glass door with side metal panels including accessories 4 Fan and 2nos of 10X5AMP power Strip with vertical mounting, Hardware Mounting Kit.(For Data Centre) Make: President/Netrack /Valrack	1	Number			
340	Supply Installation testing and Comissioning of Single mode fiber module with with 1000 base ( Module should be of same OEM as quoted for switch)	4	Number			
341	Supply Installation testing and Comissioning of MK Channel NCT ( 50mm x 50mm ) Complete the job in all respect upto entire satisfaction of the Engineer -in-charge of work	1000	meter			
342	Supply Installation testing and Comissioning of PVC pipe25mm dia ISI marked ( Medium ) recessed in wall / ceiling etc. including the cost of PVC bends , inspection boxes , iron hooks and cement concrete etc. complete in all respect upto the entire satisfaction of Engineer-in-charge of work Make: BEC, AKG, Polyplast / Diplast	3000	meter			
343	Supply Installation testing and Comissioning of Wireless access point 802.11ac Wave 1 support with 3x3 MIMO and two spatial streams,AP have system memory of 512 MB DRAM 64 MB flash	1	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	support to Optimized AP Roaming, AP support to 20-, 40-, and 80-MHz EAP-Transport Layer Security (TLS), EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol Version 2 (MSCHAPv2) Protected EAP (PEAP) v0 or EAP-MSCHAPv2, EAP-Flexible Authentication via Secure Tunneling (FAST), PEAP v1 or EAP-Generic Token Card (GTC) device has 2.4 GHz, gain 4 dBi, internal omni, horizontal beamwidth 360°, 5 GHz, gain 4 dBi, internal omni, horizontal beamwidth 360° EAP-Subscriber Identity Module (SIM), Multimedia: Wi-Fi Multimedia (WMM) Other: FCC Bulletin OET-65C and RSS-102 Operating temperature for device: 32° to 104°F (0° to 40°C) All devices should included support and warranty for 1 years. Make: Cisco/HP/Alcatel					
344	Supply Installation testing and Comissioning of wireless hardware controllor which Support for up to 50 access points and 500 clients 802.11n ready support up to 500 Mbps.Full Control and Provisioning of Wireless Access Points (CAPWAP) access point to controller encryption. Allows access points to dynamically establish wireless connections without the need for a physical connection to the wired network.It supports rogue access point detection and detection of denial-of-service attacks.Management frame protection detects malicious users and alerts network administrators. It should be work on CleanAir® Technology Detects, classifies, locates, and mitigates RF interference to provide performance protection for 802.11n networks. All devices should included support and warranty for 1 years. Make: Cisco/HP/Juniper	42	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
345	Supply Installation testing and Comissioning of licenses for contollor integration and application manageability for wireless network. Make: Cisco/HP/Juniper	48	Number			
346	Supply Installation testing and Comissioning of E UTM Firewall shall support at least 600-800 Users/Nodes & there should be unrestricted user licensing,UTM/Full DPI Firewall throughput shall be 700 Mbps,IPS throughput should be 1.7 Gbps,Minimum Antivirus throughput shall be 1 Gbps,Minimum IMIX throughput shall be 1.5 Gbps ,Firewall/UTM shall support minimum 400000 or more concurrent sessions/ connections,Firewall/UTM shall be MultiCoreNetworking Specific processor[s] based, hardened appliance with minimum 8 Cores, 2 GB RAM & Flash based Configuration storage,Firewall/UTM shall have minimum 10 x 1GbE Copper, 6 x 1GbE SFP and 2 x 10 GbE SFP+ Interfaces, with 1 each of Console interface & USB interface from Day One,UTM/Firewall shall be part of Challengers/Leaders Magic Quadrant of Gartner for the Year 2015 and shall have achieved at Leaders status for atleast 3 Consecutive years.The UTM should support 802.IQ Trunking and should support minimum 128 Vlans.UTM/Firewall OEM shall be Recommended OEM by NSS Labs for atleast 3 consecutive years including 2016.Gateway Antivirus should be able to scan the 50+ Protocols including HTTP, FTP, SMTP, POP3 and IMAP.Should support Clean Virtual Private Network (VPN) technology. Offer will be quoted with 1 year subscription. Make Sonicwall/Cisco/Watchguard	1	Number			
347	Supply Installation testing and Comissioning of Layer -2 switch 24-port Gigabit managed switch POE with SFP combo Port.Switch	2	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	should support Web based authentication provides network admission control through web browser to any host devices and operating systems. The features (DHCP Snooping, IP Source Guard, and Dynamic ARP Inspection) above work together to prevent DOS attacks in the network, thereby increasing network availability. PVE (also known as protected ports) provides Layer 2 isolation between devices in the same VLAN, supports multiple uplinks. The ability to lock Source MAC addresses to ports, and limits the number of learned MAC addresses. Support for up to 512 rules Make : Cisco/Juniper/Allied Telesis					
348	Supply Installation testing and Comissioning of Layer -2 switch 8-port Gigabit managed POE switch with 2 SFP combo Port.Switch should support Web based authentication provides network admission control through web browser to any host devices and operating systems. The features (DHCP Snooping, IP Source Guard, and Dynamic ARP Inspection) above work together to prevent DOS attacks in the network, thereby increasing network availability. PVE (also known as protected ports) provides Layer 2 isolation between devices in the same VLAN, supports multiple uplinks. The ability to lock Source MAC addresses to ports, and limits the number of learned MAC addresses. Support for up to 512 rules Make : Cisco/Juniper/Allied Telesis	3	Number			
349	Supplying, installation, testing and commissioning of 1080p vandal-resistant IP micro dome camera with 1/2.7-inch CMOS, Sensor pixels 1920 x 1080, 2.5 mm fixed lens, Dynamic range, Automatic Electronic Shutter (AES), Video compression H.264 MP (Main Profile); M-JPEG, White	57	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	balance, Backlight Compensation, Privacy Mask, Motion detection, Tamper alarm, Supports up to 32 GB microSDXC / 2 TB microSDXC card., ONVIF Profile S, 3-axis adjustment (pan/tilt/rotation), IP66, IK08.FCC, EN, UL certified. Make:- Pelco/Bosch/Axis/Sony/Mobotix/Avigilon.					
350	Supplying, installation, testing and commissioning of 1080p Indoor Dome camera with 1/2.9-inch CMOS, Effective pixels 1920 (H) x 1080 (V); 2MP (approx.), Sensitivity - (3100K, reflectivity 89%, 1/25, F1.3, 30IRE)- Color 0.12 lx, Mono 0.02 lx With IR 0.0 lx, 85 dB Dynamic range, Electronic Day/Night, Automatic Electronic Shutter (AES), H.265, H.264 MP (Main Profile); M-JPEG Video compression, White balance, Backlight Compensation, Privacy Mask, Essential Video Analytics, 3 to 10 mm Automatic Varifocal (AVF) lens, MicroSD card slot for edge recording, Motion, tamper and audio detection, FTP, IR Range upto 30mtr, Dropbox and e-mail applications, 3 axis adjustment, ONVIF Profile S, PoE, Housing, Mounting, Lens, IR Illuminator Should be of Same Make / OEM as of Camera. CE, FCC, UL certified. Make:- Pelco/Bosch/Axis/Sony/Mobotix/Avigilon.	17	Number			
351	Supplying, installation, testing and commissioning of 1080p IR Box camera with 1/2.8 -inch CMOS, Active pixels 1920 (H) x 1080 (V); approximately 2 MP, Sensitivity - (3200K, reflectivity 89%, F1.4, 30IRE) Color 0.052 lux, Mono 0.008 lux, With IR 0.0 lx, 85 dB Wide Dynamic Range (WDR), H.265; H.264; M- JPEG, Multiple configurable streams in H.264 or H.265 and M-JPEG, White Balance, Day/Night,	2	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	Automatic Electronic Shutter (AES);, Intelligent Dynamic Noise Reduction, Essential Video Analytics, Privacy Masking Eight independent areas, fully programmable, Memory card slot, IR Range upto 60mtr, Automatic Varifocal 2.8 to 12 mm, ONVIF Profile S; ONVIF Profile G; IP67 & 1K10. Housing, Mounting, Lens, IR Illuminator Should be of Same Make OEM as of Camera. Make:- Pelco/Bosch/Axis/Sony/Mobotix/Avigilon.					
352	Supplying, installation, testing and commissioning of 1080p HD IR PTZ Camera with 1/2.8" progressive scan CMOS, Effective pixels 1945 (H) x 1097 (V) (approximately 2.13M pixels), 30x Optical Zoom (4.5 mm-135 mm), 16X Digital Zoom, Minimum Illumination- Color: 0.05 Lux , B/W: 0.01 lux, IR: 0 lux; IR distance 180 in (590 ft) (Detection); 94dB WDR, H.265, H.264, MJPEG streams, Intelligent Dynamic Noise Reduction, BLC, White Balance, Pan Range 360° continuous, Tilt Range 0°±90°, Pan/Tilt Modes - Pan: 0.1°/s _ 240°/s; Tilt: 0.1°/s - 120°/s, Presets 256, Tours, Audio- 1/1 Channel In/Out, Micro SD card support, 24 individually configurable privacy masks, Alarm inputs/outputs - 2/1, Dual Power options, Essential Video Analytics in-built, IP66 , ONVIF Profiles S & G, FCC, CE, UL Certified. Housing, Mounting, Lens, IR Illuminator Should be of Same Make / OEM as of Camera. Make:- Pelco/Bosch/Axis/Sony/Mobotix/Avigilon.	1	Number			
353	Supplying, installation, testing and commissioning of network recorder to a maximum of 32 IP cameras with 24 TB	3	Number			



Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
	HD,The recorders can be installed with a maximum of 4 internal HDDs for video storage. Option of a 2 HDDs for storage, plus a DVD burner for video export. Max. capacity per HDD: 6 TB. 1 no. E-SATA supported. The recorders comes with a built-in PoE+ switch as an option. 16 alarm i/p & 6 relay o/p. Simultaneous 1/4/9/16 channels playback. H.265/H.264/MJPEG supported. iPhone/Android support. Maximum incoming bandwidth of 320 Mbps. Maximum recording bandwidth of 320 Mbps. 11/0 for audio. 1 VGA & 2 HDMI output Make: Certification FCC, EN, UL certified. Make:- Pelco/Bosch/Axis/Sony/Mobotix/Avigilon.					
354	Supplying, installation, testing and commissioning of Layer -2 Switch with Power on Ethernet (PoE) enabled, with 24 nos. 10/100 base Tx PoE port, 1 no. dual personality Gbe Port for copper/fiber uplink, 3.7 Gbps switching capacity, 2.7 MPPS forwarding rate, maximum power consumption 185 watt. (For All Floors) Make:- Cisco/Juniper/Ericsson.	5	Number			
355	Supplying, installation, testing and commissioning of Layer -2 Switch with Power on Ethernet (PoE) enabled, with 24 nos. 10/100/100 base Tx PoE port, 1 no. dual personality Gbe Port for copper/fiber uplink, 3.7 Gbps switching capacity, 2.7 MPPS forwarding rate, maximum power consumption 185 watt. (For All Floors) Make:- Cisco/Juniper/Ericsson.	1	Number			
356	Supplying, installation, testing and commissioning of 6U rack for switch Mounting with Fan and power Strip, PDU, Hardware Mounting Kit Make: Comrack/HCL/Valrack.	5	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
357	Supplying, installation, testing and commissioning of 22U Equipment Rack with provision for housing all control equipment with front & rear door, Blower for cooling and proper locking arrangements and as per the specifications, complete in all respect upto the entire satisfaction of Engineer-in-Charge of the work. Make: Comrack/HCL/Valrack.	1	Number			
358	Supplying, installation, testing and commissioning of 43" LED Monitor, Full HD, HDMI Port, Component Video Inputs, 1 Digital Audio Out, Make: Panasonic/Sony/Samsung.	3	Number			
359	Supplying, installation, testing and commissioning of 3 Core Power Cable 1.5 sqmm. Make: Finolex/Polycab/Havells.	300	Meters			
360	Supplying, installation, testing and commissioning of CAT 6 UTP Cable. Make: Panduit/R&M/Systimax.	5900	Meters			
361	Supply and erection of PVC pipe 25mm dia ISI marked (Medium) recessed in wall/ceiling etc. including the cost of PVC bends , inspection boxes , iron hooks and cement concrete etc. complete in all respect upto the entire satisfaction of Engineer-in-charge of work Make: BEC/AKG Kalinga/Diplast.	3500	Meters			
362	Supplying, installation, testing and commissioning of 5 KVA UPS On Line With 1 hour Backup Make:- APC/Libert Einova/Emerson.	1	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
363	Supplying, installation, testing and commissioning of OFC Armoured outdoor SINGLE MODE 6/12 CORE - 0S2. Should be ISO: IEC 11801 - 2nd Edition, type 0S2 and ITU-T REC G 652D. Tube Identification: Single tube/Multiple tube. Fibre protection (Tube): Polybutylene Terephthalate (PBT). Water Blocking :Thixotropic Gel (Tube) and Petroleum Jelly (Interstices). Core Wrapping : Polyethylene Terephthalate Armouring . Corrugated Steel Tape Armour (ECCS Tape). Strength Member: Two Steel wires on peripheryiTwo FRP rods on periphery /Central Strength Member FRP. Sheath: UV Stabilized Polyethylene (HDPE). Maximum. Tensile Strength-Short Term : 1500N or better. Mass (Nominal) : minimum 95 kg/km Make:- R&M/Siemon/Systimax.	150	Meters			
364	Supplying, installation, testing and commissioning of HDPE 32 MM inner dia with ISI mark with digging of soft soil work laying scope as required complete in all respects.	150	Meters			
365	Supplying, installation, testing and commissioning of SFP 1000 Base fiber module of same OEM as required complete in all respects.	6	Number			
366	Supplying, installation, testing and commissioning of CAT6 UTP 24 AWG Patch Cord - 1 mtr with cross separator, Manufactured from stranded wires for longer fex-life , Minimum length of 1m, and maximum length of 5m onforming to the following standards like EN 50173, ISO/IEC 60603-7 & 11801/IEC 60332-1, UL VW-1 Make:- R&M/Siemon/Systimax.	65	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
367	Supplying, installation, testing and commissioning of 24-port 19" 1 U jack panel which Should Be made of sheet steel 1.5 mm, Should be 19" 1U straight Patch Panel, 24-port,Should have integral cable management Metal shelf,Should accept Shielded as well as Unshielded jacks, Should have rear cable management shelf metallic powder coated as required complete in all respects. Make:- R&M/Siemon/Systimax.	6	Number			
368	Supplying, installation, testing and commissioning of Lan convertor for OFC signal connectivity with 10/100 mbps throghput rate as required complete in all respects. Make:- D-Link/Digisol/Zyxel.	2	Number			
369	Supplying, installation, testing and commissioning of single mode fiber adaptor should be from same OEM quoted for Passive brand as required complete in all respects. Make:- R&M/Siemon/Systimax.	48	Number			
370	Supplying, installation, testing and commissioning of MS Pole 32 mm dia 5 mtr Pole mount rack and fiber kit box with all accessories as required complete in all respects.	1	Number			
371	Supplying, installation, testing and commissioning of OPTICAL FIBER EQUIPMENT CORDS (MINIMUM 3 METER) SC-LC /SC-SC . All optical fiber patch leads shall comprise of Single-mode 9/125pm fiber OS2 Jacket should be LSZH . Connector: Zirconia ceramic ferrule. Cable: 9/125, MM OS2 Strength member: Aramid Yarn as required complete in all respects. Make:- R&M/Siemon/Systimax.	9	Number			

Sl. No.	Description of work	No.or Qty.	Unit	Rate		Amount
				In Figure	In Words	
372	Supplying, installation, testing and commissioning of OPTICAL FIBER PIGTAILS, 1.5 MTR SM OS2. Precision ferrule end face geometry SC Type SM. Factory polished, tested and serialized. Buffer Diameter 900um tight bufer.Minimum bend radius: install: 30 mm .Retention Strength: 100N. Cable: 900um Buffered. Sheath:LSZH as required complete in all respects. Make:- R&M/Siemon/Systimax.	48	Number			
373	Supplying, installation, testing and commissioning of 12 Port fiber LIU which have sufficient slots to accommodate 24/12 Duplex LC/SC Ports ,Should have fiber management provision inside with splice tray and other accessories, Should be rack mountable 1U,Should have Splice holder for minimum 24 Fiber cores ,Should be made of Cold Rolled Steel, Material Should steel: 1.5 mm, powder-coated as required complete in all respects. Make:- R&M/Siemon/Systimax.	6	Number			
<b>Total Bid Price</b>						

Sd/-

Executive Engineer,

Nurpur Division HP PWD Nurpur

For & on behalf of

Chief Engineer(KZ)

Public Works Department Govt Himachal Pradesh, Nurpur

Himachal Pradesh ,India.