

BHARAT SANCHAR NIGAM LIMITED
(A Government of India Enterprise)

TENDER DOCUMENT

Name of work:

**“Repair & Renovation works for 24 nos. Staff Quarters of OFDC Ltd including electrical works at Kharavel Nagar, Unit – III, Bhubaneswar”
(Balance work for 8 Nos. Quarters).**

NIT No: - 61/2018-19/BCD/EP/BBSR

Total Estimated Cost:-

Rs. 43,00,546.00(Rupees Forty Three Lakh Five Hundred Forty Six Only)

(Civil Part - Rs.39,43,029.00)

(Electrical Part - Rs. 3,57,517.00)

E.M.D. - Rs. 86,011.00 (Rupees Eighty Six Thousand Eleven Only)

Completion Period – 04(Four) Months

**O/o CHIEF ENGINEER (CIVIL)
BSNL CIVIL ODISHA ZONE
BHUBANESWAR**

I N D E X

Sl.No.	Details	Page		
		From		To
01.	Cover page	01	-	01
02.	Index	02	-	02

PART-A.

03.	Information and Instructions to bidders for e-tendering	03	-	05
04.	Declarations to be given by the tenderers	06	-	06
05.	BSNL. W-6: -----	07	-	16
06.	BSNL W-7/8 (Abridged form): -----	17	-	19

PART-B (FOR CIVIL WORK COMPONENT)

07.	a) Proforma of Schedule A to F for civil work --	20	-	24
	b) Schedule " D" for civil work -----	25	-	43
	c) Schedule "A" for civil work-----	44	-	64

PART-C (FOR ELECTRICAL WORK COMPONENT)

08.	a) Proforma of Schedule A to F of Electrical work	65	-	68
	b) Schedule " D" for Electrical work -----	69	-	81
	c) Schedule "A" for Electrical work-----	82	-	84

The D.N.I.T. contains 84 (Eighty Four) pages.

PART – A

INFORMATION AND INSTRUCTIONS TO BIDDERS FOR e-TENDERING

The Executive Engineer(Civil),BSNL Civil Division, Bhubaneswar invites item rate e-tenders on behalf of **Odisha Forest Development Corporation Ltd** from approved and eligible contractors of BSNL (Civil Wing) and non-BSNL registered contractors of appropriate class of Public Works Organizations like CPWD, DOP, MES, Railways and State PWD (R&B), Odisha for the following work:

Sl.No. Description Details

NIT No: - 61/2018-19/BCD/EP/BBSR

- i. Name of Work:-**Repair & Renovation works for 24 nos Staff Quarters of OFDC Ltd including electrical works at Kharavel Nagar, Unit–III, Bhubaneswar”(Balance work for 8 Nos Quarters).**
- ii. Estimated Cost: **Rs. 43,00,546.00 (Rupees Forty Three Lakh Five Hundred Forty Six) Only**
[Rs 39,43,029(Civil part)+Rs.3,57,517(Electrical part)]
- iii. Earnest Money (In Rs.) Rs. **86,011.00 (Rupees Eighty Six Thousand Eleven Only)**
- iv. Period of Completion : **4 (Four) months.**
- v. Last date and time of online submission of tender: **18.00 hours on 12.01.2019**
- vi. Time and date of online opening of Documents : **11.30 hours on 14.01.2019**
- vii. Time and date of Online Opening of Financial Bids : **15.30 hours on 15.01.2019**
- viii. Period during which hard copies of EMD, Registration Certificates, opening Undertaking and other Documents to be submitted to Division office by only the lowest Tenderer. To be submitted during office hours within a week from the date of of Financial Bid. In case the last day happens to be closed holiday, these Documents shall be submitted on the next working day.
1. The intending bidder must read the terms and conditions of Tender document carefully. He should submit his bid if he considers himself eligible and he is in possession of all the certificates / documents required.
2. Information and Instructions for bidders for e-tendering posted on website shall form part of bid document.

3. The bid document consisting of NIT, plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from <http://www.tenderwizard.com/BSNL> or www.odisha.bsnl.co.in free of cost.
4. But the bid can be submitted only after depositing e-tender Processing Fee in favour of ITI Limited and uploading the mandatory scanned documents as specified. The scanned copy of Demand Draft or Pay order or Banker's Cheque or Deposit at call Receipt or Fixed Deposit Receipts or Bank Guarantee of any Scheduled Bank towards EMD in favour of **Accounts Officer (A&P), O/o CGM, BSNL, Bhubaneswar** is also to be uploaded.
5. Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website.
6. The intending bidder must have valid class-III digital signature to submit the bid. After submission of the bid online the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
7. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
8. Contractor can upload documents in the form of JPG format, PDF format and any other format as permissible by the e-tendering portal.
9. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in dark yellow colour and the moment rate is entered, it turns sky blue.
In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0".
Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).
10. If the contractor is found ineligible after opening of bids, his bid shall become invalid and e-Tender Processing Fee shall not be refunded.
11. For the Eligibility Documents uploaded online, if any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the contractor the bid shall become invalid and e-Tender Processing Fee shall not be refunded.
12. Copy of Enlistment Order and certificate of work experience and other eligibility documents as specified in the Notice Inviting Tender shall be scanned and uploaded to the e-tendering website within the period of tender

submission. However, certified copy of all the scanned and uploaded documents as specified shall have to be submitted by the lowest bidder along with physical EMD (of the scanned copy of EMD) uploaded within ONE WEEK physically in the office of tender opening authority.

List of eligibility Documents to be scanned and uploaded within the period of bid submission:

- a) Certificate of registration / enlistment order.
- b) Treasury Challan/Demand Draft/Pay order or Banker`s Cheque /Deposit at Call Receipt/FDR/ Bank Guarantee of any Scheduled Bank against EMD.
- c) Certificate of GST registration.
- d) Certificates of Work Experience (for non BSNL registered contractors).
- e) If the bidder is a firm in partnership/ company, then the hard copies of **Form "A" and partnership deed in case of partnership firms /memorandum of articles of association and power of attorney or authorization to the person who signs the tender in case of companies.**
- f) **An undertaking that "The Physical EMD shall be deposited by me/us with the EE calling the bid in case I/we become the lowest bidder within ONE WEEK of the opening of financial bid otherwise BSNL may reject the bid and also take action to withdraw my/our enlistment/debar me/us from tendering in BSNL."**

Note:- The tenderers are requested not to upload any other certificates or documents. Also only the required experience certificates are to be uploaded.

DECLARATIONS TO BE GIVEN BY THE TENDERERS

It is to certify that

- a) I /We have gone through BSNL W-8 amended up to correction Slip No.6 as available on website www.odisha.bsnl.co.in or in the office of Executive Engineer(c) and I/We agree with the terms and conditions of it and understood that it will form part of the agreement.

**Date: -
Tenderer**

Signature of the

- b) "I,S/o Shri resident of hereby certify that none of my relative(s) as defined in para 15 of BSNL W-6 is/are employed in BSNL Civil Zone, Odisha. In case at any stage, it is found that the information given by me is false/incorrect, BSNL shall have the absolute right to take any action as deemed fit without any prior intimation to me".

NOTE: - (To be certified by all the partners in case of partnership firms, by all the directors in case of companies).

**Date: -
Tenderer**

Signature of the

1. Other partners 2. Sri _____ S/o Sri _____ Signature:
3. Sri _____ S/o Sri _____ Signature:
4. Sri _____ S/o Sri _____ Signature:

- c) **"The Physical EMD shall be deposited by me/us with the EE calling the bid in case I/we become the lowest bidder within ONE WEEK of the opening of financial bid, otherwise BSNL may reject the bid and also take action to withdraw my/our enlistment/debar me/us from tendering in BSNL."**

Signature of the Tenderer

**BHARAT SANCHAR NIGAM LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)****NOTICE INVITING e-TENDER**

The Executive Engineer (Civil),BSNL Civil Division, Bhubaneswar invites Item rate e-tenders on behalf of [Odisha Forest Development Corporation Ltd](#) from approved and eligible contractors of BSNL(Civil Wing) and non-BSNL registered contractors of appropriate class of Public Works Organizations like CPWD, State PWD (B&R) of Government of Odisha, DOP, MES and Railways for the work of **Repair & Renovation works for 24 nos Staff Quarters of OFDC Ltd including electrical works at Kharavel Nagar , Unit -III Bhubaneswar” (Balance works for 8 nos Quarters).**

The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

The intending bidder eligible to submit bid has to scan and upload the following documents within the period of bid submission:

- a) Certificate of registration / enlistment order.
- b) Treasury Challan /Demand Draft / Pay order or Banker`s Cheque / Deposit at Call Receipt / FDR/ Bank Guarantee of any Scheduled Bank against EMD.
- c) Certificate of GST registration.
- d) Certificates of Work Experience (for non- BSNL registered contractors) issued by not below the rank of Executive Engineer in charge of the work.
- e) If the bidder is a firm in partnership/ company then the hard copies of **Form “A” and partnership deed in case of partnership firms /memorandum of articles of association and power of attorney or authorization to the person who signs the tender in case of companies.**
- f) **An undertaking that "The Physical EMD shall be deposited by me/us with the EE calling the bid in case I/we become the lowest bidder within ONE WEEK of the opening of financial bid otherwise BSNL may reject the bid and also take action to withdraw my/our enlistment/debar me/us from tendering in BSNL."**

Note : - The tenderers are requested not to upload any other certificates or documents. Also only the required experience certificates are to be uploaded.

1.1 The work is estimated to cost **Rs . 43,00,546.00** (Part A: Major component-Civil Portion: Rs. 39,43,029.00 + Part B: Minor component - Electrical Portion: Rs.3,57,517.00) This estimate, however, is given merely as a rough guide.

1.2 Intending bidder is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:

1.2.1 Criteria of eligibility for submission of bid document for non-BSNL registered contractors of Public Works Organizations like CPWD, State PWD (B&R) of Government of Odisha , DOP, MES, Railways.

1.2.1.1 for works up to Rs.7 lakhs : ----NIL----

1.2.1.2 for works above Rs 7 lakhs and up to Rs. 5 Cr:

The applicant should have completed works as per details below during the last seven years ending last day of the month previous to the one in which the tenders are invited.

a) Three similar completed works each costing not less than the amount equal to **40% of estimated cost.**

or

b) Two similar completed works each costing not less than the amount equal to **50% of estimated cost.**

or

e) One similar completed works costing not less than the amount equal to **80% of estimated cost.**

Similar work means **‘Building works or repair/Renovation of buildings’** The value of executed works shall be brought to current costing level by enhancing the actual value of executed work at simple rate of 7% per annum; calculated from the date of completion to last date of submission of tenders and shall be rounded off to the nearest hundred rupees. **Above works should have been carried out in Central Govt/Central PSUs/Central Govt Organisations.** The experience certificate given by an officer not below the rank of Executive Engineer shall indicate clearly the nature of the work and the satisfactory completion of the work along with value of work done and actual date of completion and shall be in original / attested. Certificates indicating annual turnover or different works done under a rate contract /annual contract shall not be considered as one work. *Certificates without satisfactory completion and/ or actual date of completion will be considered as invalid.*

2. Agreement shall be drawn with the successful tenderer on prescribed Form No.BSNL W-7/8 amended up to correction slip no.6, which is available on BSNL website : www.odisha.bsnl.co.in or in the office of the **Executive Engineer (Civil) BSNL Civil Division Bhubaneswar.** Tenderer shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

3. The time allowed for carrying out the work will be **04 (Four)** months and shall be reckoned from **7th day** after the date of issue of work order or from the First day of the handing over of the site whichever is later, in accordance with phasing, if any, indicated in the tender document.
4. The site for the work is available.
5. The bid document consisting of NIT, plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from [http:// www.tenderwizard.com/BSNL](http://www.tenderwizard.com/BSNL) and the NIT & General conditions of contract upto Correction Slip No.6 can be seen from BSNL website www.odisha.bsnl.co.in or in the office of the **Executive Engineer (Civil) BSNL Civil Division Bhubaneswar**.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last date and time of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last date and time of submission of bid as notified.
8. **Earnest Money in the form of Treasury Challan or Demand Draft or Pay order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt drawn in favour of Accounts Officer (A&P), O/o CGM, BSNL, Bhubaneswar shall be scanned and uploaded to the e-Tendering website within the period of bid submission.**

A part of earnest money is acceptable in the form of bank guarantee also. When amount of earnest money is more than Rs. 5 lakhs, part of the earnest money is acceptable in the form of Bank Guarantee also. In such case, minimum 50% of earnest money (but not less than Rs. 5 lakh) or Rs. 25 lakh, whichever is less, will have to be deposited in the shape prescribed above. And balance **may be deposited** in shape of Bank Guarantee of any scheduled bank **having validity for six months or more from the last date of receipt of bids. The EMD has to be scanned and uploaded to the e-Tendering website by the intending bidders within the period of bid submission.**

8. The physical EMD (of the scanned copy of EMD) uploaded shall be deposited by the lowest bidder within ONE WEEK after opening of financial bid failing which the bid shall be rejected and enlistment of the agency shall be withdrawn by the enlisting authority. The agency shall be debarred from tendering in BSNL. The following undertaking in this regard shall also be uploaded by the intending bidders:-
"The Physical EMD shall be deposited by me/us with the EE calling the bid in case I/we become the lowest bidder within a week of the opening of financial bid otherwise Organization may reject the bid and also take action to withdraw my/our enlistment/debar me/us from tendering in BSNL."

Interested contractor who wish to participate in the bid has also to make following payments within the period of bid submission:

e-tender Processing Fee: e-Tender Processing Fee amounting to *Rs.2537/-* is to be paid through online to the account of M/s ITI Limited through their e-gateway by credit/debit card, internet banking or RGTS/NEFT facility. E-Tender processing fee paid through Demand draft shall not be accepted.

The intending bidder has to fill all the details of Demand Draft or Pay order or Banker's Cheque or Deposit at call Receipt or Fixed Deposit Receipts and Bank Guarantee (bankers name, amount, number and date) against payments for EMD in the drop down menu of the e-tendering portal.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the notice shall be scanned and uploaded to the e-Tendering website within the period of bid submission. **However, SELF certified copy of all the scanned and uploaded documents as specified in notice shall have to be submitted by the lowest bidder along with physical EMD within ONE WEEK physically in the office of tender opening authority.**

Online bid documents submitted by intending bidders shall be opened only of those bidders, **who has deposited e-Tender Processing Fee with M/s ITI Limited and Earnest Money Deposit and other documents scanned and uploaded are found in order.**

The bid submitted shall be opened at **11.30 Hrs on 14.01.2019** and financial bid shall be opened at **15.30 Hrs on 15.01.2019** The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if:

- (i) The bidder is found ineligible.
 - (ii) The bidder does not upload all the documents (including service tax registration/ VAT registration or Sales Tax registration) as stipulated in the bid document **including the undertaking about deposition of physical EMD of the scanned copy of EMD uploaded.**
 - (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted **physically by the lowest bidder** in the office of bid opening authority.
 - (iv) In case the eligibility credentials are not found genuine at any stage i.e. before award of work or during execution of the work or after completion of the work, the contractor will be debarred from tendering in BSNL for three years including any other action under the contract or existing law
 - (v) **The lowest bidder does not deposit physical EMD within a week of opening of bid.**
10. In case of works having estimated cost below Rs. 15,00,000/-, the successful tenderer shall be required to execute an agreement with the Engineer-in-charge in the performa annexed to the tender document, within 15 days of the issue of letter of award by the BSNL. In the event of failure on the part of the successful tenderer to sign the agreement, the earnest money will be forfeited and tender cancelled. In case of works of estimated to cost Rs.15,00,000/- and above, the successful tenderer, upon issue of letter of acceptance of Tender, shall be

required to furnish Performance Guarantee @ 5% of the tendered value in the form of irrevocable Bank Guarantee of requisite amount to the Engineer-in-charge in the Performa annexed to the tender document, within 10 days of the issue of letter of award of Tender by BSNL. In the event of failure on the part of the successful tenderer to furnish the Bank Guarantee within 10 days, including the extended period if any, the earnest money deposited by the contractor shall be forfeited automatically without any notice to the contractor, and tender will be cancelled.

11. The description of the work is as follows:-

1- Repairing RCC members with polymer modified mortar / concrete. **2-**Tile flooring. **3-**Doors/Windows/Railing. **4.**Painting works. **5.**Electrical works etc.

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

12. The competent authority on behalf of BSNL does not bind himself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
14. The competent authority on behalf of BSNL reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
15. The company or firm or any other person shall not be permitted to tender for works in BSNL Civil Zone in which his near relative (s) (directly recruited or on deputation in BSNL) is/are posted in any capacity either non-executive or executive employee. Near relative (s) for this purpose is/are defined as:

- (i) Member of Hindu Undivided family (HUF).
- (ii) They are Husband and Wife.
- (iii) The one is related to other in the manner as father, mother, son(s) & Son's wife (daughter-in-law), Daughter(s), Daughter's husband (son-in-law), brother(s), brother's wife, sister(s), sister's husband (brother- in-law).

The contractor shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relative to any executive employee/ Gazetted officer in the BSNL or Department of Telecom or in the Ministry of Communications.

All the intending tenderers will have to give a certificate that none of his/her such near relative(s) as defined above is/are working in the concerned BSNL Civil Zone where he is going to apply for tender/work. The format of the certificate is as under:

"I, _____ s/o Shri _____ Resident of _____ hereby certify that none of my relative (s) as defined above is/are employed in concerned BSNL Civil Zone. In case at any stage, it is found that the information given by me is false/incorrect, BSNL shall have the absolute right to take any action as deemed fit without any prior intimation to me".

The certificate in case of Proprietorship Firm shall be given by the proprietor, for Partnership Firm certificate shall be given by all partners and in case of Limited Company, by all Directors of the company. However, Government of India / Financial Institutions nominees and independent non-official part-time Directors appointed by Govt. of India or the Governor of the State are excluded from the purview of submission of this certificate while submitting tenders by Limited Companies.

Any breach of these conditions by the Company or Firm or any other person, the tender/work will be cancelled and Earnest Money/ Security Deposit/Performance guarantee will be forfeited at any stage, whenever it is so noticed. BSNL will not pay any damages to the company or Firm or the concerned person but damages arising on account of such cancellation to be borne by the contractor. The Company or Firm or the person will also be debarred for further participation in the tender in the concerned BSNL Civil Zone. Further, any breach of this condition by the tenderer would also render him liable to be removed from the approved list of contractors or BSNL. If however the contractor is registered in any other Department he shall also be debarred from tendering in BSNL for any breach of this condition.

16. No Engineer of Gazetted rank or other Gazetted Officer employed in engineering or administrative duties in an Engineering Department of the Government of India/State Government or PSU's is allowed to work as a contractor for a period of two years after his retirement from Govt. service, without previous permission of the Govt. of India or BSNL in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of

the Govt. of India/State Government or PSU's as aforesaid before submission of the tender or engagement in the contractor's service.

17. The tender for the work shall remain open for acceptance for a period of **45 (Forty Five) days** from the date of opening of the tenders. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or, makes any modifications in the terms and conditions of the tender which are not acceptable to the BSNL, then the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid.
18. This Notice Inviting Tender (BSNL W-6) shall form a part of the Contract Document. In accordance with clause 1 of the contract, the letter of acceptance award shall be issued first in favour of the successful Tenderer/Contractor. After submission of the performance guarantee, the letter of award shall be issued. The contract shall be deemed to have come into effect on issue of letter of acceptance of the tender. On issue of letter of award, the successful Tenderer/Contractor shall, within 15 days from such date, formally sign the agreement consisting of: -
 - a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b) Standard BSNL W-7/8 updated upto correction slip no-6 as on BSNL website www.odisha.bsnl.co.in
 - c) Agreement signed on non-judicial stamp paper as per Performa annexed to the tender document.
19. Payment to the contractors shall be *made by the client department of BSNL i.e. OFDC Ltd or BSNL* through cheque e-payment system like ECS & EFT as detailed below:
 - (a) In cities/areas where ECS/EFT facility is provided by Banks, the tenderer must have Account in such ECS/EFT facility providing Banks and that Bank A/c No shall be quoted in the tender by the tenderer
 - (b) The cost of ECS/EFT will be borne by BSNL in all cases where the payment to contractor is made in a local Branch i.e. tenderer is having bank account in the same place from where the payment is made by BSNL unit.
 - (c) In case payment is made to outside branch i.e. tenderer is having bank account not in the same place from where the payment is made by BSNL unit, the crediting cost will have to be borne by the tenderer only.
 - (d) The payments to contractors will compulsorily be made through ECS/EFT in respect of all contracts where the value of the contract is more than Rs. 10 lakhs.

The contractor shall have no objection to receive payment from the client department of BSNL i.e. OFDC Ltd
20. First running account bill shall be paid only after
 - (a) signing of the Agreement/Contract by both the parties, and

- (b) Progress chart has been prepared as required under Clause 5 and approved by the competent authority and
 - (c) Applicable labour licenses, registration with EPFO,ESIC & BOCW Welfare Board whatever applicable are submitted by the contractor to the Enginner-in-Charge.
21. General conditions of contract for works amended upto Correction Slip No. 6 in BHARAT SANCHAR NIGAM LIMITED are available on BSNL website www.odisha.bsnl.co.in as well as in the office of the Executive Engineer.
22. For e-Tendering of this tender BSNL has engaged e-portal maintained by M/s ITI, New Delhi. The agency intending to participate in tendering process shall have to register with ITI, New Delhi.
23. The intending bidder can get registered with ITI, New Delhi. For details kindly visit website <http://www.tenderwizard.com/BSNL> or contact Shri SANJIB MOHAPATRA mobile no 9937488749 or 7377708585.
24. If any terms and conditions under General Rules and Directions, (which can be seen in general conditions of contract available in BSNL website www.odisha.bsnl.co.in) is in contravention to terms and conditions as above, the terms and conditions as above shall prevail.

25.0 FOR COMPOSITE TENDERS

25.1.1 The Executive Engineer in charge of the major component will call tenders for the composite work. The cost of the tender document and earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite tender.

25.1.2 The tender document will include following three components:

Part A: BSNL W-6, BSNL W- 7/8, standard General Conditions of Contract for BSNL as applicable with all amendments/modifications upto date.

Part B: Pro forma for Schedule A to F for major component of work, Special conditions, Additional conditions (General / Civil works), particular specifications, list of recommended makes of Materials for civil works, schedule of quantities etc.

Part C: Pro forma for Schedule A to F for minor component of the work. (CE /SE / EE in charge of major component shall also be competent authority under clause 2 and clause 5 as mentioned in Schedule A to F for minor components), General / specific conditions, specifications for electrical works, list of recommended makes of materials for electrical works, schedule of quantities etc..

25.1.3 The tenderer must associate with himself, agencies of the appropriate class eligible to tender for electrical sub head, meeting the eligibility criteria as mentioned in Part C. *In case the main contractor himself meets the required eligibility criteria he shall be allowed to execute the*

electrical work after due verification etc. The main contractor shall give detailed execution programme of the work in which he shall indicate the time/stage of work when the agency for the electrical work will be deployed by him.

- 25.1.4 The eligible tenderers shall quote rates for all items of major component as well as for all items of minor components of work. The lowest tenderer would be decided based on the total amount quoted in respect of both CIVIL and ELECTRICAL Schedules in the tender documents. It will be obligatory on the part of the tenderer to sign the tender document for all the components (The schedule of quantities, conditions and special conditions etc.)
- 25.1.5 After acceptance of the tender by competent authority, the EE in charge of major component of the work shall issue letter of award on behalf of BSNL. After the work is awarded, the main contractor will have to enter into one agreement with EE in charge of major component and has also to sign two or more copies of agreement depending upon number of EE's in charge of minor components. One such signed set of agreement shall be handed over to EE in charge of minor component. EE of major component will operate Part-A and Part-B of the agreement. EE-in-charge of minor component(s) shall operate Part-C along with Part A of the agreement.
- 25.1.6 Entire work under the scope of composite tender including major and minor components shall be executed under one agreement.
- 25.1.7 Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works. The Earnest Money will become part of the security deposit of the major components of work.
- 25.1.8 The main contractor has to associate agency(s) for minor component(s) conforming to eligibility criteria as defined in the tender document and has to submit detail of such agency(s) to Engineer-in-charge of minor component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of minor component(s). If the main contractor fails to associate agency for execution of electrical work within the said period or furnishes incomplete details or furnishes details of ineligible agencies the entire scope of electrical work shall be withdrawn from the tender and the same shall be got executed by the Engineer-in-charge at the risk and cost of the main contractor.
- 25.1.9 In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of minor component. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge of minor component(s) is not satisfied with the performance of any agency, he can direct the contractor to change the

agency executing such items of work and this shall be binding on the contractor.

25.1.10 The main contractor has to enter in to agreement with contractor(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to EE in charge of each minor component as well as to EE in charge of major component. In case of change of associate contractor, the main contractor has to enter into an agreement with the new contractor associated by him.

25.1.11 Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor.

In case main contractor fails to make the payment to the contractor associated by him within 15 days of receipt of each running account payment then on the written complaint of the contractor associated for such minor component, EE in charge of minor component shall serve the show cause to the main contractor and after considering the reply of the same he may make the payment directly to the contractor associated for minor component as per the terms and conditions of the agreement drawn between main contractor and associate contractor fixed by him, if reply of main contractor either not received or found unsatisfactory. Such payment made to the associate contractor shall be recovered by EE of major or minor component from the next RA/final bill due to main contractor as the case may be.

25.1.12A The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.

25.1.12B Final bill of whole work shall be finalized and paid by the EE of major component. Engineer(s) in charge of minor component(s) will prepare and pass the final bill for their component of the work and pass on the same to the EE of major component for including in the final bill for composite contract.

Signature and Name of

Executive Engineer (Civil)
For & on behalf of the
Odisha Forest Development Corporation Limited

BHARAT SANCHAR NIGAM LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)

STATE: ODISHA

CIRCLE: Bhubaneswar

DIVISION: Bhubaneswar

ZONE: ODISHA

SUB-DIVISION: **No. II, BHUBANESWAR**

Percentage Rate Tender / Item Rate Tender & Contract for Works:

- (A) Tender for the work of : **Repair & Renovation works for 24 nos. Staff Quarters of OFDC Ltd including electrical works at Kharavel Nagar , Unit – III ,Bhubaneswar”(Balance work for 8 nos. quarters).**
- (i) To be submitted by **18.00 hours on 12.01.2019**
- (ii) To be opened in presence of tenderer who may be present at **11.30 hours on 14.01.2019** in office of Executive Engineer (Civil),BSNL Civil Division, Bhubaneswar and financial bid shall be opened at **15.30 Hrs on 15.01.2019.**

T E N D E R

I/ We have read and examined notice inviting tender, schedule, A, B, C, D, E & F. specifications applicable, Drawings & Design, General Rules and Directions, Conditions of Contract, Clauses of Contract, Special conditions, Schedule of Rate & other documents forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and Rules referred to in the Conditions of Contract and all other contents in the tender document for the work.

I/ We hereby tender for the execution of the work specified for the Bharat Sanchar Nigam Limited within the time specified in schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of the contract and with such materials as are provided for, by and in respect in accordance with, such conditions so far as applicable.

I/ We agree to keep the tender open for **45 (Forty Five) days** from the due date of submission thereof and not to make any modifications in its terms and conditions. If I/we withdraw my/our tender before the said period or issue of letter of acceptance, whichever is earlier, or, makes any modifications in the terms and conditions of the tender which are not acceptable to the BSNL, then the BSNL shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid.

A sum of **Rs. 86,011.00 (Rupees Eighty Six Thousand Eleven Only)** has been deposited in prescribed manner as earnest money.

DNIT

If I/We fail to commence the work specified, I/We agree that the said Bharat Sanchar Nigam Limited shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely otherwise the said earnest money shall be retained by competent authority on behalf of the Bharat Sanchar Nigam Limited towards Security Deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

I/We agree that, in case of works of estimated cost exceeding Rs.15,00,000/-, to deposit an amount equal to 5% of Tendered value of the work as performance guarantee in the form of bond of any Scheduled Bank of India in accordance with the proforma prescribed or in the form of Fixed Deposit Receipt etc., within 10 days of the issue of letter of acceptance of Tender by the BSNL. I/We am/are aware that in the event of failure on my/our part to furnish the Bank Guarantee within 10 days, the earnest money will be forfeited and tender cancelled.

I/ We hereby intimate that for receiving payments I/we have an account in _____ Bank with account No. _____ where the ECS/EFT facility of e-payment is available.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information derived there-from to any person other than a person to whom I/We am/are authorised to communicate the same or use the information in any manner prejudicial to the safety of the State.

I/We agree that should I/We fail to commence the work specified in the above memorandum, an amount equal to the amount of the earnest money mentioned in the form of invitation of tender shall be absolutely forfeited to the Bharat Sanchar Nigam Limited and the same may at the option of the competent authority on behalf of the Bharat Sanchar Nigam Limited be recovered without prejudice to any right or remedy available in law out of the deposit in so far as the same may extend in terms of the said bond and in the event of deficiency out of any other money due to me/us under this contract or otherwise.

The information in respect of works in hand is as per proforma enclosed.

"I/we agree that this contract is subject to jurisdiction of Court at **Bhubaneswar** only." (Where the NIT/Tender has been issued)

Dated.....

Witness:

Address:

Occupation:

()

Signature of Contractor

Postal Address: -

A C C E P T A N C E

The above tender (as modified by you (Contractor) and as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the **Odisha Forest Development Corporation Limited** for a sum of Rs _____ (Rupees _____)

The letters referred to below shall form part of this Contract Agreement:-

- (a) _____
- (b) _____

For & on behalf of the **Odisha Forest Development Corporation Limited**.

Signature _____

—

Dated.....

Name and designation

PART – B (FOR CIVIL WORK COMPONENT)

PROFORMA OF SCHEDULES

(Operative Schedules to be supplied separately to each of the intending tenderer)

SCHEDULE “A”

Schedule of Quantities - ENCLOSED

SCHEDULE “B”

Schedule of Materials to be issued to the contractor

S. No.	Description of Item	Quantity	Rates in figures & words at which the materials will be charged from the contractor	Place of issue
1	2	3	4	5
NIL				

SCHEDULE “C”

Tools and Plants to be hired to the contractor

S. No.	Description of Item	Hire charges per day	Place of issue
1	2	3	4
DELETED			

SCHEDULE “D”

Extra schedule for specific requirements/documents for the work, if any.

1. List of Preferred makes for various items of work
2. Additional Conditions of contract.
3. Additional Conditions(General)
4. Conditions for other Taxes and Royalties.

SCHEDULE “E”

Schedule of component of Materials, Labour etc. for escalation.

CLAUSE 10

Component of Materials expressed as percent of Total Value of Work	“X”	75%
Component of Labour expressed as percent of Total Value of Work	“Y”	25%
Component of POL expressed as percent of Total Value of Work	“Z”	0%

SCHEDULE "F"

(Reference to General Conditions of Contract)

Name of Work:- Repair & Renovation works for 24 nos. Staff Quarters of OFDC Ltd including electrical works at Kharavel Nagar, Unit – III, Bhubaneswar”(Balance work for 8 nos. quarters).

Estimated cost of Work: **Rs. 39,43,029.00 (Civil Part)**

Earnest Money **Rs. 86,011.00**

Performance Guarantee

(5 % of the tendered value in the form of Bank Guarantee from Scheduled Bank in respect of works with estimated cost put to tender exceeding Rs.15 Lakhs)

Rs_____***_____(
Rupees_____***_____)

(It shall be deposited within 7 days from the date of issue of letter of acceptance by the EE©, which can also be extended to a specified period as per the discretion of the NIT approving authority).

Security Deposit

(5 % of the tendered value of civil part in the form of Bank Guarantee from Scheduled Bank in respect of works)

Rs_____***_____
(Rupees_____)

Officer inviting tender

Executive Engineer (Civil),
BSNL Civil Division-I, Bhubaneswar.

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clause 12.2 & 12.3

50%

Definitions

2(v) Engineer-in charge

See below

Executive Engineer (Civil),
BSNL Civil Division-I, Bhubaneswar

2(viii) Accepting Authority
ENGINEER(C),

SUPERINTENDING/CHIEF

BSNL CIVIL ODISHA ZONE,
BHUBANESWAR.

2(x) Percentage on cost of materials and labour to cover all overheads and profit

15 %

- | | |
|-----------------------------------|---|
| 2(xi) Standard Schedule of Rates | Central Public Works Department
Schedule of rates - 2016 for Delhi
with up to date correction slips. |
| 9(ii) Standard BSNL Contract Form | BSNL W 7/8 form as amended
upto and including correction slip
No.6. |

Clause 2

Authority for fixing compensation under Clause 2---SUPERINTENDING
ENGINEER(C),

ENGINEER(C)/ CHIEF

BSNL CIVIL ODISHA ZONE,
BHUBANESWAR.

Clause 2 A

Whether Clause 2A shall be
applicable

NO

Clause 3 A

Whether Clause 3A shall be
applicable

NO

Clause 5

i) Time allowed for execution of work.

4(Four) Months

ii) Authority to give fair and reasonable
extension of time for completion of work.

Superintending Engineer(C)/
Chief Engineer©
BSNL Civil Odisha Zone
Bhubaneswar

Clause 6 A

Whether Clause 6 A shall be applicable

YES

Clause 7

Gross value of work to be done together with
net payment / adjustment of advances
for materials collected, if any, since the last
such payment for being eligible to interim payment.

Contract Amount of Civil part
2xCompletion period in
months.

Clause 10A

Reinforcement steel to be used in the work shall

have to be procured as below :

TMT bars Manufactured by Primary producers such as SAIL, TISCO, RINL

Clause 10 C

Not applicable

Clause 10 CA

Applicable

Clause 10 D

Not applicable

Clause 11

Specification to be followed for execution of work.

CPWD Specifications Volume I & II 2009 with up to date correction slips as on the date of opening of the tender.

Clause 12

12.2 & 12.3 Limit for value of any item of any individual trade beyond which sub clauses (i) to (v) shall not be applicable

50%(fifty percent)

Clause 16

Competent authority for deciding reduced rates.

Superintending Engineer (C),
BSNL Civil Circle,
Bhubaneswar

Clause 36(i)

Requirement of Technical Staff and rate of recovery in case of non-compliance shall be as per the following table:

Value of Work	Sl.No	Minimum qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical representative)	Minimum Experience in years	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)	
							figures	words
For Agreement amount upto Rs 150 lakhs	1	Graduate Engineer OR Diploma Engineer	Civil	Principal Technical representative	2 years for Graduate Engineer / 5 years for Diploma Engineer	1	Rs 15,000/-	Rs Fifteen Thousand only

DNIT

For Agreement amount between Rs 150 lakhs to Rs 500 lakhs	1	Graduate Engineer	Civil	Principal Technical representative	5 years	1	Rs 25,000/-	Rs Twenty Five Thousand only
	2	Graduate Engineer OR Diploma Engineer	Civil	Technical representative	2 years for Graduate Engineer / 5 years for Diploma Engineer	1	Rs 15,000/-	Rs Fifteen Thousand only

Clause 37(i)

Extent of **GST** payable by **Contractor** for Building and Construction works:

GST 12% applicable. Any changes in the rate of GST while making payment to the contractors will be adjusted accordingly.

Clause 42

i)

- (a) Schedule / statement for determining theoretical quantities of cement on the basis of Delhi Schedule of Rates slips printed by CPWD. Central Public Works Department, Delhi Schedule of rates **2016** for Delhi with upto date correction

ii) **Variation permissible on theoretical quantities**

- a) Cement for works with estimated costs put to tender
- i) not more than Rs. 5 lakhs 3 % minus
 - ii) more than 5 lakhs 2 % minus
- b) Steel reinforcement and structural steel sections for each diameter, section and category. 2 % minus

Star prices to be considered

Sl. No	Material	Star Price (Rate in Figures and Words)
1	For Cement	Rs. 6,400/- (Rupees Six thousand
2	For Reinforcement Steel conforming to BIS 1786 - TMT bars	Rs.57,300/- (Rupees Fifty Seven thousand three hundred) only. /M.T

The rate for recovery under clause 42 shall be same as the Star Price.

SCHEDULE -D (for Civil work)**LIST OF PREFERRED MAKES FOR VARIOUS ITEMS OF WORK**

The tenderer has to provide items specified as under or equivalent with the approval of the Engineer-in-Charge for corresponding item of work.

S.NO.	MATERIAL	PREFERRED MAKE
1	Water Proofing Compound	Fosroc, Pidilite, Impermo, Sika, Accoproof, CICO
2	PVC Pipes and Fittings	Astral, Supreme, Finolex, Prince, Skipper, Ashirwad, Truebore
3	Acrylic Distemper/Plastic Emulsion Paints	Asian Paints, ICI, Berger
4	Steel Primer	ICI, Asian Paints, Berger, Shalimar
5	Dash/Anchoring Fasteners	HILTI/Fischer
6	Nuts/Bolts & Screws	GKW/Atul
7	Stainless Steel Sink(Out of salem Steel only)	Diamond, Nirali, Neekanth, Jayana, Prestige
8	Float Valve	Viking, Prayag, Watertech
9	Admixtures in concrete	Fosroc, Sika Pidilite, Roff
10	Vitreous China Sanitary ware/Porcealin	Parryware, Cera, Hindware, Nycer
11	Plastic seat cover of W.C.(ISI mark only)	Commander, Hindware, Admiral
12	G. I. Pipes	Jindal (Hissar), Tata, Zenith, I.T.C., GST
13	G. I. Fittings	Unik, Zenith, HB
14	Gun metal valves	Leader, ZOLOTO,DRP
15	Gully traps	Perfect, Hind or Crystal
16	Clear Glass/Reflective Glass	Saint Gobain, Modiguard, Asahi, Modifloat, Indor Asia
17	Grouting compound	Latticrete, Balandura, Fosro
18	Aluminium sections	Hindalco, Jindal, Indal
19	Aluminium fittings	Everite, OXFORD, Argent, NLCO, Allans
20	Floor springs	Dorma, Ozone, Hardwyn, Yale, Evuerite, Godrej
21	Exterior paints	Snowcem India, Asian, ICI
22	Pre-laminated particle board	Ecoboard, Asish, Novapan

DNIT

23	Aluminium composite panel (ACP)	Aludecor, Alponic, Alcobond, Alcopanel, Durabuilt, Alstrong
24	Polyvinyl Butyl film	Dupont, Trossifoil, Trussosf
25	PVC sheet flooring/Antistatic	LG, Armstrong, Jindal, Wonderfloor
26	Silicon sealant	DOW Corning, GE
27	Epoxy grouts	Saint Gobin, Latticrete, Balandura, FOSROC
28	Flush door shutters	Kitply/Sitapur/Anandwood/Century/Greenply/Archid/Mayur
29	Hardware fittings	EARL BIHAR/HETTICH/LAXMI
30	Cupboard Locks	Dorset, Godrej, Europa
31	Drawer multilock	KEYMAN/Earl Behari
32	Cylindrical lock	SECUR, DORSET, GODREJ
33	Mortice latch & lock	Godrej, Sheel
34	Plyboard	National/Duro/Green Ply/Kitply
35	Prelaminated MDF Board	Merino
36	Plain MDF Board	NUWOOD
37	LAMINATES	Greenlam/Formica/Decolam/Merinolam
38	Enamel Paints	Johnson & Nicholson/Asian/Royal touch Berger/ICI
39	Paver block	Aeons/Hicon/Shan Fly Ash/Malu/Prathi Sai/Nitco/Gico/Ultra
40	MS Tubes	Jindal/Tata/SAIL
41	Precast chequered cement concrete tiles	NITCO/Ultra/Aeons/Hicon/Gico
42	CPVC pipes	Ashrivad, Flowguard, Skipper, Oriplast
43	Stainless steel sections	Jindal
44	Glue	Fevicol/Vemicol
45	Ceramic tiles	Kajaria/NITCO/ORIENT/Bell/Somany
46	CP fittings & accessories	Parko/Kingston/Esso/Plumber/Crab tree
47	Insulation above false ceiling	Armaflex/Superior/Eurobatex
48	Square perforated metal false ceiling	Conwed/Unimet/TRAC
49	Providing Acoustical felt treatment	Soundtex
50	Exposed grid false ceiling	ARMSTRONG/NITTOBO/AMF/CELOTEX
51	Gypsum Board accessories	India Gypsum Ltd.
52	Epoxy paint	Nerolac/Asian
53	Access flooring system (false floor)	Uitile/Donn
54	Perforated panels	Uitile/Donn

DNIT

	(false floor)	
55	Rodent repellent	MASER
56	Tinted film	Garware, Meditech, 3M
57	Privacy film	3M
58	Writing boards	Alkon/Whitemark/Writemark
59	Artificial leather	National leather Cloth Mfg Co., Bhor
60	Fire retardant paint	Firetard
61	Screws	Nettlefold/ GKW Ltd
62	Fabric Protection	Scotchguard of Birla 3M
63	Foam of chairs, Sofa	MM Foam/ U FOAM
64	Vitrified tiles/Polished Porcelain	Kajaria/NITCO/EURO/Somany/ Naveen
65	Wood preservative	Bison by British paints/ Woodguard/Termiseal
66	Marine plywood	Kenwood/ Kitply/ National/Greenply/Sharon
67	Commercial plywood	Guna/Kenwood/Galaxy/Century
68	Plain particle board	Novopan/Nepalboard/Ecoboard
69	Fire retardant fabric	Trevira CS fabrics(Rajasthan Spinning & Weaving Mills Ltd.)
70	PVC water tank	Sintex(with ISI mark embosing only)
71	PVC door shutter	Rajshri/Sintex
72	White cement	Birla White/JK White
73	PVC gratings	Prince/Prayag.
74	Hydraulic door closer	Hardwyn, Dormia, Ozone, Yale, Everite/Godrej
75	Welding Electrodes	Advani, ESAB India
76	UPVC windows (with 10 yrs manufacturers warranty)	Wintech, Fenesta, Kommerlink, Veka, Reheau,Aluplast

ADDITIONAL CONDITIONS OF CONTRACT

The following “Additional conditions” shall be added to the standard conditions to take into account the special requirement of the work.

1. The intending tenderers shall note that the work is to be completed within the stipulated period.
2. The tenderers shall take into consideration the Drawings and Specifications and quote the rates accordingly. The quoted rates shall be inclusive of all charges such as Insurance, transportation, taxes fixed by the Central/State Government etc. Nothing extra shall be payable over the quoted rates.
3. In case of any discrepancy in the item given in the schedule of quantities appended with the tender and Architectural drawings relating to the relevant item, the contractor shall obtain clarifications in writing from the Engineer-in-Charge before execution.
4. The contractor shall take instructions from the Engineer-in-Charge for stacking of materials in any place. No excavated earth or building materials shall be stacked on areas where other buildings, roads, services of compound walls are to be constructed.
5. The surplus excavated earth which is beyond the requirement of the Government work may be allowed to be disposed off by the contractor on his own or to sell the surplus earth to private parties at his discretion, but nothing extra shall be paid for carriage of disposal of surplus earth, if the same is not required for any other Government work. The approval of the Engineer-in-Charge in writing is required to be obtained for the above.
6. The structural drawings for the work shall be issued in stages taking into consideration the approved programme as well as the actual progress.
7. The manufactured materials used on the work shall have ISI mark. In case of materials for which no manufacture has been licensed to manufacture, the materials with ISI marking, the material shall conform to the provision of the CPWD specifications. In the case of non-ISI marked materials, tests shall be conducted to ensure that they conform to the specifications or codes mentioned above. BIS marked materials may also be got tested if felt necessary by the Engineer-in-Charge.
9. All materials for which testing is mandatory before being allowed for incorporation in the work shall be purchased well in advance of their actual requirement in the work at site, so as to afford enough availability of time for getting the material tested and obtaining the approval of the Engineer-in-Charge.
9. Other agencies doing works related with this project will also simultaneously execute the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying / burying in the work of pipes, cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for other agencies, conduits for electrical wiring / cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.
10. Royalty, if any, at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle, sand and bajri etc. collected by him for

- the execution of the work direct to the Revenue authority or authorized agent of the State Government concerned or Central Government.
11. The rates quoted shall include all taxes, royalty, seignior age charges that are applicable from time to time as per statutory rules of State / Central Government.
 12. The contractor shall make his own arrangements for obtaining electric / water connections, if required, and make necessary payments directly to the Department concerned.
 13. The work shall be carried out in a manner complying in all respects with the requirements of relevant byelaws of the Municipal Committee / Municipal Corporation / Development Authority / Improvement Trust under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-Charge and nothing extra shall be paid on this account.
 14. The contractor shall provide at his own cost suitable weighing and measuring arrangements at site for checking the weight / dimensions as may be necessary for execution of the work.
 15. No compensation / payment shall be payable to the contractor for any damage caused by rains, snow fall, lightning, wind, storm, floods tornadoes, earthquakes or other natural calamities during execution of work. He will make good all such damages at his own cost and no claim on this account will be entertained.
 16. Some restrictions may be imposed for regulating the construction/work activities, storage of materials, entry and movement of the personal/workers for security reasons by the competent security in-charge or by the Engineer-in-Charge or his representative and in such case the contractor shall be bound to follow all such restriction/instructions and nothing extra shall be payable on this account.
 17. All cement bags and all other similar perishable items shall be stored by the contractor in a separate go-down which shall be exclusively constructed by the contractor for this purpose at his own cost as per general guidelines given in the “ Typical Sketch for :-
Cement Godown” under clause 3.2.1.4 of the Specifications. The dimensions given in the said sketch are only indicative and the contractor shall be bound to construct the storage godown of sufficient size so as to properly store the appropriate quantity of cement required for consumption for not less than ONE MONTH. Such go-down shall have weather proof roof and walls. The go-down shall be provided with a single door with arrangement for locking it simultaneously with two locks. The contractor shall be fully responsible for the safe custody of all the materials even if the materials are kept and stored under double lock system. The account of daily receipts and issues of the cement bags shall be maintained in the said register which shall be signed daily by the contractor or by his authorized agent in token of correctness of the entries.
 18. The contractor shall also be bound to observe and follow all the provisions of “The Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996” and “The Building and other Construction Workers Welfare Cess Act 1996” and all the rules framed there-under. Nothing extra on this account shall be paid to the contractor.

19. Any cement slurry added over a base surface or for continuation of concreting for better bond is added to have been built in the item unless otherwise specified and nothing extra shall be payable or extra cement considered with consumption on this account. Rates of all items in which use of cement is involved shall be inclusive of curing.
20. Unless otherwise specified in the Schedule of quantities of items, the rate for all items of the work shall be inclusive of pumping out or bailing out water encountered from any sources such as rain, sub-soil water, flood or any other causes whatsoever. The foundation pits, trenches etc. shall be kept free from water while the works below ground level are in progress. Nothing extra on this account shall be payable to the contractor.
21. Unless otherwise provided in the schedule of quantities of item of work, the rates tendered by the contractor shall be for all heights, lifts and leads and depth of the building and nothing extra shall be payable to the contractor on this account.
22. *The bills shall be submitted by the contractor in Computerized Measurement Books(CMB) as per procedure laid down in Clause 6A of BSNL W-8 which will form part of the agreement. The bills shall be submitted by the contractor by 25th of every month.*
23. Portland Pozzolona Cement (flyash blended) conforming to IS: 1489(Part 1) shall be used in the work. The certificate from PPC manufacturer indicating the percentage of flyash shall be submitted to the Engineer-in-charge before using the cement in the work. Hence, the tenderers may quote their rates for the items requiring cement considering the rate of PPC.

ADDITIONAL CONDITIONS (GENERAL)

(Para 3.1 to Para 3.2.6 (in pages 102 to pages 104) under Additional conditions in BSNL booklet on General conditions of contract for building works may be treated as deleted)

1.0 CEMENT

1.1 The contractor shall procure Portland Pozzalona Cement (conforming to IS:1489-Part 1) as required in the work, from reputed manufacturers of cement having a production capacity of one million tonnes or more per annum such as ACC, Ultratech, ZUARI, Birla and Cement Corporation of India, Gujarat Ambuja etc., as approved by the Ministry of Industry , Government of India and holding license to use ISI certification mark for their product. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially. Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking. Samples from cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.

1.2 The cement shall be brought at site in bulk supply of approximately 10 tonnes or as decided by the Engineer-in-Charge.

1.3 The cement godown of the capacity to store a minimum of 200 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to the door of cement godown. The keys of one lock shall remain with Engineer-in-Charge or his authorized representative and keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge or his authorized representatives.

1.4 The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The frequency and details of the tests shall be decided by the Engineer- in-Charge depending on the quantum of supply in each batch. The cost of tests shall be borne by the contractor / Department in the manner indicated below:

(a) By contractor, if results show that the cement does not conform to the relevant BIS codes.

(b) By Department, if results show that the cement conforms to relevant BIS codes.

- 1.5 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by the conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at rate so prescribed shall be made. In case of excess consumption no adjustment shall be made.
- 1.6 Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.
- 1.7 Damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.
- 1.8 The cement bags shall be stacked on proper floors consisting of two layers of dry bricks laid on well consolidated earth at a level of at least one foot above ground. The stacks shall be in rows of 2 and 10 bags high with minimum of 0.6m clear. Bags should be placed horizontally continuous in each line. Actual size / shape of go down shall be as per site requirement and nothing extra shall be paid on this account. The decision of Engineer-in-charge regarding capacity shall be final.
- 1.9 Cement register for the cement shall be maintained at site. The account of daily receipts and issues of cement shall be maintained in the register in the proforma prescribed and signed daily by contractor or his authorized agent.
- 1.10 A Certificate from the manufacturer indicating the percentage of Fly ash in each batch of cement shall be obtained and submitted to the Engineer-in-charge for his approval when PPC is proposed to be used in work. PPC shall be permitted only after prior approval of Engineer-in-charge.

2.0 STEEL

- 2.1 The contractor shall procure TMT bars of Fe 500D grade from primary producers such as SAIL, TISCO or RINL as approved by the Ministry of Steel. The TMT bars procured from primary producers shall conform to manufacturer's specifications. The specifications of TMT bars procured from primary producers shall meet the provisions of IS 1786: 2008 pertaining to Fe 500 D grade of steel.
- 2.2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.
- 2.3 Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the

specifications as defined under para 2.1 above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week's time of written orders from the Engineer-in-charge to do so.

- 2.4 The steel reinforcement bars shall be brought to the site in bulk supply as decided by the Engineer-in-Charge.
- 2.5 The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- 2.6 For checking nominal mass, tensile strength, bend test, re-bend test, etc., specimen of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:-

Size of bar	For consignment below 100 tonnes	For consignment over 100 Tonnes
Under 10mm dia	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16mm dia	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm dia	One sample for each 45tonnes or part thereof	One sample for each 50 tonnes or part thereof

2.7 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor / Department in the manner indicated below:

- a) By the contractor, if the results show that the steel does not conform to relevant BIS codes.
- b) By the Department, if the results show that the steel conforms to relevant BIS codes.

2.8 The actual issue and consumption of steel on work shall be regulated and proper accounts shall be maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations, recovery at the rate so prescribed shall be made. In case of excess consumption, no adjustment needs to be made.

2.9 The steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

2.10 The contractor shall furnish to BSNL all the purchase invoices for cement and Steel for every consignment.

3.0 INSPECTION OF SITE

The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc. constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence their tenders. The site is available for work. The contractor shall, immediately on issue of letter of acceptance of tender, make arrangements for starting the work.

4.0 The Contractor shall, if required by him, before submission of the tender, inspect the drawings in the Office of the Engineer-in-Charge. The Department shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the tender documents have been furnished, in good faith, for general information and guidance only. The Engineer-in-Charge, in no case, shall be held responsible for the accuracy thereof and / or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is different or in-correct otherwise, or actual working drawings are at variance with the drawings available for inspection or attached to the tender documents. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.

5.0 The nomenclature of the items given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and / or described in the specifications, provided that the same can be reasonably inferred there from.

6.0 Before tendering for the work, the contractor shall visit the site and assess the manner in which he is able to arrange the facilities required for work. The contractor will not be permitted to erect labour huts in CPRI site. He shall make his own arrangements for stores, field office etc. Material go-down, site office etc required for the work and constructed by him should be dismantled and removed from the site soon after completion of work. The Engineer-in-Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained. Nothing extra shall be payable on this account.

7.0 All ancillary and incidental facilities required for execution of work like, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp

required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, telephone, etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, barricading, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities unless otherwise specified. Nothing extra shall be payable on this account.

8.0 SUBMISSIONS AFTER AWARD OF WORK

The Contractor shall submit the following details after award of work:

- a. List of Equipments proposed to be deployed for this work is to be mandatorily provided and deployed by the contractor.
- b. Site organization chart with Bio-data of Site Engineer and Key Personnel proposed to be deployed at site.
- c. The details of shuttering material proposed to be used to complete the entire R.C.C/ structural steel work commensurate with overall stipulated period for completion of work.
- d. The contractor shall prepare and submit a tentative integrated Bar Chart (for Civil and E & M services) clearly indicating the various activities, in a manner to complete the entire work covered under this tender within the stipulated period and as per milestones.

9.0 The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by any statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor. He shall protect and indemnify BSNL and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts.

10.0 Royalty at the prevalent rates shall be paid by the Contractor or the RMC supplier as per the terms of supply between them on all materials such as boulders, metals, sand and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Nothing extra shall be payable on this account.

11.0 The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify BSNL from

any and all damages and claims that may arise on any account. The Contractor shall indemnify BSNL against all claims in respect of patent rights, royalties, design, trademarks of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify BSNL in all respects from such actions, costs and expenses. Nothing extra shall be payable on this account.

12.0 SIGN BOARDS

The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, client / owner, etc. Nothing extra shall be payable on this account.

13.0 FACILITIES FOR SITE OFFICE

The Contractor shall provide, construct and maintain at all times during execution and till the completion of work, a temporary site office with adequate electric light fittings, fans, electric/ power points, switches etc for use of the Engineer- in-Charge and his authorized representatives. Such office shall be provided with suitable partitions, doors, windows, locking arrangement and water and electricity facility. The entire site office and its surroundings shall be maintained in a neat and clean condition by the Contractor for the entire duration of the construction. The premises / facilities provided by the contractor shall be demolished/ dismantled / disconnected and material carted away by him at his own cost after the completion of work or as directed by Engineer-in-Charge. The rates quoted by the Contractor shall be inclusive of providing and maintaining such facilities and nothing extra shall be payable on this account.

14.0 SPECIALIZED AGENCIES:

14.1 The tenderer shall submit list of Specialized Agencies for the specified items of the Civil work for executing the work and furnish the name of Specialized Agencies for each of the various works.

14.2 The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material or engaging any specialized agencies. The Contractor shall make a detailed submittal with catalogues and highlighted proposed specifications. A list of works executed by the specialized agency, is to be furnished to the Engineer-in-charge, for seeking prior approval. The specialized agency should have successfully completed at least one work of similar nature.

14.3 Save in exceptional circumstances, the main contractor shall not change the specialized agency. However, if the change is warranted, he may

do so with the approval of Engineer-in-Charge. This shall however be without any change in the accepted rates of the contract agreement and without any cost implications to the Department.

15.0 PROTECTIVE / SAFETY MEASURES

Necessary protective and safety equipment shall be provided to the Site Engineer, workers & Supervisory staff by the Contractor at his own cost and used at site.

16.0 The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion. The agency may deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period specified. Adequate number/sets of equipment in working condition, along with adequate stand-by arrangements, shall be deployed during entire construction period. It shall be ensured by the Contractor that all the equipment, Tools & Plants, machineries etc provided by him are maintained in proper working conditions at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the Contractor, on site of work or his work shop for this work, shall be exclusively intended for use in the construction of this work and they shall not be shifted / removed from site without the permission of the Engineer-in-Charge.

17.0 Use of Personal protective Equipment and safety devices relevant to site activities shall be arranged by the contractor or as directed by Engineer-in-Charge and the cost on this account shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts

The stacking of materials on the access points should be avoided so as to facilitate the movement of the workmen. Proper illumination in the access area will be also ensured. Suitable platforms are to be provided before allowing any workmen to work at height. The openings are to be strictly avoided in the working platforms to avoid fall of person & materials from Heights. All scaffolds must be satisfying specified standards and it should be checked before erection of the same at site. Throwing the scaffold materials from height is to be avoided.

Safety nets shall be used to arrest the falling of the construction material and debris. The size of the safety net shall be as per site requirement. Any opening, hole or gap on floors, grating or walking / working surface, where person, tools or materials can be subject to potential fall, shall be appropriately covered and / or guarded. Covers when applied shall be of substantial strength. Where scaffold planks are used as cover, they must be properly held together to act as one cover assembly. Guard rails shall be made of solid materials (i.e. scaffold tubing) and shall be capable to sustain load without failure.

Multilevel working at same places (i.e. work within shafts, floor edges) one above the other shall not be permitted. Proper protection with safety nets & PPE shall be provided prior to allowing some critical multilevel working. The

erection jobs shall be performed only under the supervision of competent personnel. The transport of construction material/ debris to/from work site shall be done during lean hours of the day and necessary supervision shall be ensured to prevent any untoward instances. The area of erection shall be cordoned off and Danger signage's shall be displayed. Nothing extra shall be paid for the above and the cost on this account shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. The work shall be so planned so as to provide temporary approach for vehicular movement to the occupants of the building at all times. If required, a diversion shall be provided for access to the building.

18.0 DISPLAY PERMISSIONS

The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc under various labour laws and other regulations applicable to the works, at his site office.

19.0 REMOVAL OF CONSTRUCTION DEBRIS ETC. FROM SITE

The Contractor shall not stack building material / construction debris / muck on the land or road of the local development authority or on the land owned by the client, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in- Charge, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account unless otherwise specified. In case, the Contractor is found stacking the building material / debris as stated above, the Contractor shall be liable to pay the stacking charges / penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer –in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

20.0 TOOLS AND PLANTS

No tools and plants including any special T&P etc. shall be supplied by the Department and the Contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shall be entertained on this account

21.0 COORDINATION WITH OTHER AGENCIES

The Contractor shall conduct his work so as not to interfere with or hinder the progress of the work being performed by other Contractors or by the Engineer-in-Charge. As far as possible, he shall arrange his work and place, so as not to interfere with the operations of other Contractors or shall arrange his work with that of the others, in an acceptable and coordinated manner and

shall perform it in proper sequence.

22.0 FACILITIES BY THE CONTRACTOR TO THE OTHER CONTRACTORS / AGENCIES

The Contractor shall cooperate with and provide the facilities to other agencies working at site for smooth execution of the work. The Contractor shall :

- a. Properly co-ordinate their work with the work of other Contractors.
- b. Provide control lines and benchmarks to other Contractors.
- c. Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
- d. Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.
- e. Resolve the disputes with other Contractor amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator. The contractor shall indemnify the Department against any claim(s) arising out of such disputes.

23.0 The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shall take all care to prevent any water- logging at site. The wastewater, slush etc. shall not be allowed to be collected at site. It may be directly pumped into nearby drains with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.

24.0 PREVENTION OF NUISANCE AND POLLUTION

The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants of the adjacent properties and to the public in general. The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge. The Contractor shall use such methodology and equipment for execution of the work, so as to cause minimum environmental pollution of any kind during construction, to have minimum construction time and minimum inconvenience to road users and to the occupants of the buildings on the adjacent plot and public in general, etc. He shall make good at his own cost and to the entire satisfaction of the Engineer in Charge any damage to roads, paths, cross drainage works or public or private property whatsoever caused, due to the execution of the work or by traffic brought thereon, by the Contractor. Further, the Contractor shall take all precautions to

prevent any pollution of streams and waterways. All waste or superfluous materials shall be carted away by the Contractor, entirely to the satisfaction of the Engineer-in-Charge. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/ users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Contractors are advised to visit site and get first hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

25.0 SCAFFOLDING

Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the Contractor. It shall be suitably braced for stability, with all the accessories, gangways, etc. with adjustable suitable working platforms to access the areas with ease for working and inspection. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. It shall be ensured that no damage is caused to any structure due to the scaffolding. Charges for Double scaffolding shall be payable under relevant agreement item.

26.0 The Contractor shall maintain all the work in good condition till the completion of entire work. The Contractor shall be responsible for and shall make good, all damages and repairs, rendered necessary due to fire, rain, traffic, floods or any other causes. The Engineer-in-Charge shall not be responsible for any claims for injuries to person/workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of any other of his representatives, in his employment during the execution of the work. The compensation, if any, shall be paid directly to the Department / authority / persons concerned, by the Contractor at his own cost.

27.0 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with- standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.

28.0 In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained not withstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any.

29.0 The Contractor shall make all necessary arrangements for protecting from rains, the work already executed and for carrying out the further work,

during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account.

30.0 SECURITY & TRAFFIC ARRANGEMENTS

In event of any restriction being imposed by the Department, traffic or any other statutory authority having control over the project, on the working or movement of labour, materials, etc., the Contractor shall strictly follow all such restrictions or instructions issued regarding the same and nothing extra shall be payable to the Contractor on account of such restrictions or instructions.

31.0 STORAGE OF MATERIAL AT SITE

No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules/instructions issued by the relevant authorities and as per the direction of Engineer-in-Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

32.0 NO WAIVING OF LEGAL RIGHTS AND POWERS

The Engineer-in-Charge shall not be precluded or stopped from taking any measurements, and framing of estimates or detaining any certificates made either before or after the completion and acceptance of the work and payment, from showing the true amount and character of the works performed and materials furnished by the Contractor and from showing that any such measurements, estimates or certificates untrue or incorrectly made and that Engineer-in-Charge shall not be precluded or stopped from recovering from the Contractor such damages as it may be sustained by reasons of his failure to comply with the terms and conditions of the contract.

33.0 FINAL TESTING OF THE INSTALLATION

The Contractor shall demonstrate trouble free functioning of all the Civil and E & M installations and services. The Engineer-in-Charge or his authorized representatives shall carry out final inspection of the various Civil and E & M services and installations. Any defect(s) noticed during demonstration shall be rectified by the Contractor at his own cost to the entire satisfaction of the Engineer-in-Charge. Nothing extra shall be payable on this account.

34.0 No claim for idle establishment & labour, machinery & equipments, tools & plants and the like, for any reason whatsoever, shall be admissible during the execution of work as well as after its completion.

35.0 PLUMBING WORK.

The contractor shall employ the specialized agency for executing of plumbing work with the prior approval of Engineer – in – Charge.

36.0 COMPUTERIZED MEASUREMENTS AND BILLING

- a) The measurements shall be recorded and entered in computerised format in the first instance by the contractor, and a hard copy shall be submitted to the BSNL.
- b) These measurements shall be got checked by the Junior Telecom Officer / Sub Divisional Engineer/Executive Engineer. The contractor shall incorporate all such changes or corrections, as may be done during these checks, to their draft computerised measurements, and submit to the BSNL the corrected computerized measurements in the form of a book, duly hard bound in red colour, and with its pages duly numbered.
- c) The Computerised Measurement Book shall be allotted a serial number by BSNL.
- d) The Computerized Measurement Book given by the contractor, duly bound, with its pages duly numbered, shall have no cutting or overwriting.
- e) In case of any error, the Computerised Measurement Book shall be cancelled, and the contractor shall resubmit a fresh Computerized Measurement Book. This should be done before the corresponding computerised bill is submitted to the BSNL for payment.
- f) The contractor shall submit as many copies of Computerised Measurement Books as may be required for the purpose of reference and record in the various offices of the BSNL.
- g) Nothing extra shall be paid on the above account.

CONDITIONS FOR OTHER TAXES AND ROYALTIES

1. **The rates offered should be inclusive of GST liable to be paid by contractor (either directly payable by them or through BSNL). GST rate is mentioned under clause 37(i), Schedule-F. Any increase in the rate of GST while making payment of bills will be compensated to the contractor or in case of decrease of GST while making payment of bills will be recovered from the bills of contractor. Contribution towards EPF, ESIC and all other taxes as applicable. Insurance, loading, unloading, transportation etc should be included on the quoted rates. The rate shall be firm & final.**
2. **Income Tax and surcharges** over Income Tax etc. at the rates fixed by the Ministry of Finance. Government of India shall be deducted from all the running and final bills of the contractor. Should there be any increase in rate of Income Tax and surcharge during execution of the contract, the same shall be payable by the contractor
3. Cost for the welfare of construction workers shall also be deducted from the bills of the contractor.
4. **Royalty** shall have to be paid by the contractor on all materials such as stone, bricks, boulders, metal, shingle, bajri, stone aggregate, coarse sand and fine sand etc. or any other materials used for the execution of the work direct to the Revenue Authority of the District/ State Govt. concerned.

SCHEDULE -A (for Civil work)

Schedule of Quantities					
Name of the work : Repair and renovation works for 24 nos. staff quarters of OFDC Ltd. at Kharavel nagar, Unit-III, Bhubaneswar (Balance Work for 8 nos. quarters).					
Sl. No.	Description of Item	Quantity	Unit	Rate (Rs)	Amount (Rs)
Sub-Head : Earth Work					
1.	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift up to 1.5 m, as directed by Engineer-in-Charge:				
a)	All kinds of soil	350.00	One Square Metre		
2.	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
a)	All kinds of soil.	20.00	One Cubic Metre		
3.	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
a)	All kinds of soil				
(i)	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	130.00	One Metre		
4.	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	16.00	One Cubic Metre		

DNIT

5	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	19.00	One Cubic Metre		
Sub-Head : Concrete Work					
6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
a)	1:2:4 (1 cement : 2 coarse sand(zone-III) : 4 graded stone aggregate 20 mm nominal size)	5.00	One Cubic Metre		
b)	1:3:6 (1 Cement : 3 coarse sand(zone-III) : 6 graded stone aggregate 40 mm nominal size).	9.00	One Cubic Metre		
c)	1:5:10 (1 cement : 5 coarse sand(zone-III) : 10 graded stone aggregate 40 mm nominal size)	30.00	One Cubic Metre		
7	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor, etc., up to floor five level, excluding the cost of centering, shuttering and finishing :				
a)	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	2.50	One Cubic Metre		
b)	1:5:10 (1 cement : 5 coarse sand(zone-III) : 10 graded stone aggregate 40 mm nominal size).	2.50	One Cubic Metre		
Sub-Head : Reinforced Cement Concrete					
8	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				
a)	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	1.50	One Cubic Metre		
9	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	5.00	One Cubic Metre		
10	Centering and shuttering including strutting, propping etc. and removal of form for all heights:				

DNIT

a)	Suspended floors, roofs, landings, balconies and access platform.	25.00	One Square Metre		
b)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	60.00	One Square Metre		
c)	Columns, Pillars, Piers, Abutments, Posts and Struts.	80.00	One Square Metre		
d)	Stairs, (excluding landings) except spiral-staircases.	7.00	One Square Metre		
e)	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	6.00	One Square Metre		
f)	Edges of slabs and breaks in floors and walls.				
(i)	Under 20 cm wide	20.00	One Metre		
g)	Weather shade, Chajjas, corbels etc., including edges.	44.00	One Square Metre		
11	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but , excluding cost of reinforcement, with 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20mm nominal size).	1.00	One Cubic Metre		
12	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in shelves, including setting in cement mortar 1:3 (1cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	0.50	One Cubic Metre		
13	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level.				
a)	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	30.00	One Kilogram		
14	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				

a)	Thermo-Mechanically Treated bars of grade Fe-500 D or more.	500.00	One Kilogram		
15	Smooth finishing of the exposed surface of R.C.C. work with 6 mm thick cement mortar 1:3 (1 Cement : 3 fine sand)	250.00	One Square Metre		
16	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	410.00	One Metre		
Sub-Head : Brick Work					
17	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
a)	Cement mortar 1:4 (1 cement : 4 coarse sand)	8.00	One Cubic Metre		
18	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
a)	Cement mortar 1:6 (1 cement : 6 coarse sand)	6.00	One Cubic Metre		
19	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in.				
a)	Cement mortar 1:4 (1 cement : 4 coarse sand)	42.00	One Square Metre		
20	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry.	42.00	One Square Metre		
21	Brick edging 7cm wide 11.4cm. deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	100.00	One Metre		
Sub-Head : Marble & Granite Work					
22	Providing and fixing 18mm thick gang saw cut mirror polished pre-moulded and pre-polished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
a)	Granite of any colour and shade				
(i)	Area of slab upto 0.50 sqm	2.00	One Square Metre		

(ii)	Area of slab over 0.50 sqm.	15.00	One Square Metre		
23	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	27.00	One Running Metre		
	Sub-Head : Wood and P.V.C. Work				
24	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia. & length (hold fast lugs or dash fastener shall be paid for separately).				
a)	Sal wood	0.50	One Cubic Metre		
25	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge.				
a)	Kiln seasoned and chemically treated Piasal/Kasi wood.				
(i)	30 mm thick shutters	8.00	One Square Metre		
26	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick:				
a)	Kiln seasoned and chemically treated Piasal/Kasi wood.	6.00	One Square Metre		
b)	Float glass panes				
(i)	4 mm thick glass pane	4.00	One Square Metre		
27	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.				
a)	Kiln seasoned and chemically treated Piasal/Kasi wood.				

DNIT

(i)	30 mm thick	10.00	One Square Metre		
28	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters :				
a)	25mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws.	8.00	One Square Metre		
29	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				
a)	Fixed to openings /wooden frames with rawl plugs screws etc.	60.00	One Kilogram		
30	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete:				
a)	115 mm	8.00	Each		
31	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete :				
a)	250x16 mm	4.00	Each		
32	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :				
a)	250x10 mm	4.00	Each		
b)	200x10 mm	32.00	Each		
c)	150x10 mm	50.00	Each		
33	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :				
a)	100 mm	36.00	Each		
b)	75 mm	52.00	Each		

34	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness. The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat. Door frame laminate shall be 2 mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady] the frame.	80.00	One Metre		
35	Providing and fixing to existing door frames.				
a)	30 mm thick Fiber glass Reinforced Plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF)/ Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856, complete as per direction of Engineer-in-charge.	23.00	One Square Metre		
36	Providing and fixing factory made uPVC white colour fixed glazed windows/ ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc.				
	Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately)				

	Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.				
a)	Fixed window/ ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.)	4.00	One Square Metre		
	Sub-Head : Steel Work				
37	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	120.00	One Kilogram		
38	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	5.00	One Kilogram		
39	Welding by gas or electric plant including transportation of plant at site etc. complete.	100.00	One Centimetre		
40	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame, concrete/ masonry, etc. as per direction of Engineer-in-charge.				
a)	10 x140 mm	150.00	Each		
	Sub-Head : Flooring				
41	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.				
a)	40 mm thick with 20 mm nominal size stone aggregate	10.00	One Square Metre		
42	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.				
a)	18 mm thick.	8.00	One Square Metre		
43	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				

a)	25 mm thick.	54.00	One Square Metre		
44	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	14.00	One Square Metre		
45	Extra for Kota stone/ sand stone in treads of steps and risers using single length up to 1.05 metre .	54.00	One Square Metre		
46	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete	130.00	One Square Metre		
47	Providing and laying rectified Glazed Ceramic floor tiles 300x300 mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete.	330.00	One Square Metre		
Sub-Head : Roofing					
48	Providing gola 75x75mm in cement concrete 1:2:4 (1 cement :2 coarse sand : 4 stone aggregate 10 mm and down gauge) including finishing with cement mortar 1:3(1 cement : 3 fine sand) as per standard design				
a)	In 75x75mm deep chase	50.00	One Running Metre		
49	Providing and fixing on wall face un-plasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i)Single socketed pipes.				

DNIT

a)	75 mm diameter	5.00	One Running Metre		
b)	110 mm diameter	110.00	One Running Metre		
50	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS :5382 leaving 10 mm gap for thermal expansion.				
a)	Single tee with door				
(i)	75x75x75 mm	3.00	Each		
(ii)	110x110x110 mm	10.00	Each		
b)	Bend 87.5°				
(i)	75 mm bend	3.00	Each		
(ii)	110 mm bend	10.00	Each		
51	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50mm hardwood plugs, screwed with M.S. screws of required length including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
a)	75 mm	5.00	Each		
b)	110 mm	80.00	Each		
52	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	3.00	Each		
53	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %), total coated thickness with zinc coating 120 gm per sqm as per IS:277 in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	16.00	One Square Metre		

Sub-Head : Finishing					
54	12 mm cement plaster of mix :				
a)	1:6 (1 cement: 6 coarse sand)	1000.00	One Square Metre		
55	15 mm cement plaster on rough side of single or half brick wall of mix :				
a)	1:4 (1 cement: 4 coarse sand)	10.00	One Square Metre		
b)	1:6 (1 cement: 6 coarse sand)	1600.00	One Square Metre		
56	Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.				
a)	12 mm cement plaster	44.00	One Square Metre		
57	6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.	5.00	One Square Metre		
58	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :				
a)	Water thinnable cement primer.	3230.00	One Square Metre		
59	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade				
a)	New work (Two or more coats applied @ 1.43 ltr/ 10 sqm. over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm).	1670.00	One Square Metre		
60	French spirit polishing :				
a)	Two or more coats on new works including a coat of wood filler.	25.00	One Square Metre		
61	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	800.00	One Square Metre		
62	Distemping with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.				

DNIT

a)	Two coats.	3230.00	One Square Metre		
63	Painting with synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
a)	Two coats.	450.00	One Square Metre		
64	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.				
a)	With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre.	400.00	One Square Metre		
b)	With ready mixed red oxide zinc chromatic on steel /iron works having VOC content less than 250 grams/litre.	60.00	One Square Metre		
Sub-Head : Repairs to Buildings					
65	Renewing glass panes, with wooden fillets wherever necessary:				
a)	Float glass panes of thickness 4 mm .	4.00	One Square Metre		
66	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40mm dia. M.S. tube 1.5m centre to centre horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc. wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding.	60.00	One Square Metre		

67	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	8.00	Each		
68	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	8.00	Each		
69	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes within 50 metres lead as per direction of Engineer-in-Charge.				
	(a) Internal Work - Exposed on wall	30.00	One Metre		
	Sub-Head : Dismantling and Demolishing				
70	Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer in-charge	3.00	One Cubic Metre		
71	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
a)	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	6.00	One Cubic Metre		
b)	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	12.00	One Cubic Metre		
72	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	20.00	One Cubic Metre		
73	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer in-charge.	18.00	One Square Metre		
74	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge..				
a)	In cement mortar	12.00	One Cubic Metre		
75	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
a)	Of area 3 sq. metres and below	8.00	Each		

DNIT

76	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead:				
a)	Of area 3 sq. metres and below	32.00	Each		
77	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :				
a)	100 mm dia pipe	90.00	One Running Metre		
78	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	2000.00	One Square Metre		
79	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	100.00	One Cubic Metre		
	Sub-Head : Sanitary Installations				
80	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron/PVC P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required				
a)	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	6.00	Each		
81	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :				
a)	W.C. pan with ISI marked white solid plastic seat and lid	2.00	Each		
82	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				

a)	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps.	8.00	Each		
83	Providing and fixing Stainless Steel A Isis 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
a)	Kitchen sink without drain board				
(i)	610x460 mm bowl depth 200 mm.	8.00	Each		
84	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
a)	Flexible pipe				
(i)	32 mm dia	8.00	Each		
(ii)	40 mm dia	8.00	Each		
85	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	8.00	Each		
86	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with a minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.	16.00	Each		
87	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.				
a)	600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.	8.00	Each		
88	Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour. Weighing not less than 300 gms.	8.00	Each		
Sub-Head : Water Supply					
89	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. : Internal work - Exposed on wall				
a)	20 mm nominal outer dia. Pipes.	90.00	One Running Metre		

DNIT

b)	25 mm nominal outer dia .Pipes.	40.00	One Running Metre		
c)	32 mm nominal outer dia. Pipes.	90.00	One Running Metre		
d)	40 mm nominal outer dia. Pipes.	110.00	One Running Metre		
90	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge : External work				
a)	40 mm nominal outer dia. Pipes.	120.00	One Running Metre		
91	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :				
a)	25 to 40 mm nominal bore	8.00	Each		
92	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	8000.00	One Litre		
93	Providing and fixing PTMT bib cock of approved quality and colour.				
a)	15mm nominal bore, 86 mm long. Weighing not less than 88 gms.	24.00	Each		
94	Providing and fixing PTMT stop cock of approved quality and colour.				
a)	15 mm nominal bore, 86 mm long. Weighing not less than 88 gms.	24.00	Each		
95	Providing and fixing PTMT grating of approved quality and colour.				
a)	Circular type.				
(i)	125 mm nominal dia with 25 mm waste hole.	16.00	Each		
96	Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.				
a)	25 mm nominal bore, 152 mm long. Weighing not less than 440 gms.	8.00	Each		

DNIT

97	Providing and fixing PTMT swivelling shower, 15mm nominal bore. Weighing not less than 40 gms.	8.00	Each		
98	Providing and fixing PTMT soap Dish Holder having length of 138 mm, breadth 102 mm, height of 75 mm with concealed fitting arrangements. Weighing not less than 106 gms.	16.00	Each		
99	Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour.				
a)	15 mm nominal bore with 45 cm length.	16.00	Each		
100	Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.				
a)	25mm nominal bore. Weighing not less than 62 gms.	8.00	Each		
101	Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)including disposal of malba.	12.00	One Running Metre		
Sub-Head : Drainage					
102	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size),foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
a)	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
(i)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	12.00	Each		
103	Extra for depth for manholes				
a)	Size 90x80 cm				
(i)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	One Running Metre		

104	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :				
a)	For pipes 100 to 250 mm diameter	2.00	Each		
105	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.				
a)	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Each		
Sub-Head : Water Proofing					
106	Grading roof for water proofing treatment with				
a)	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	2.00	One Cubic Metre		
b)	Cement mortar 1:4 (1cement : 4 coarse sand)	2.00	One Cubic Metre		
Sub-Head : Structural Repairs					
107	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge				
a)	75mm average thickness	20.00	One Square Metre		
b)	50mm average thickness	10.00	One Square Metre		
108	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.				

DNIT

a)	Bars up to 12 mm diameter	25.00	One Metre		
b)	Bars above 12 mm diameter	25.00	One Metre		
109	Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100mm up to 200mm in RCC beams, lintels, columns and slabs to introduce steel bars for sunshades/balconies including fixing the steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-In- Charge.				
a)	Up to and including 12mm dia.	200.00	Each		
110	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.				
a)	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make	10.00	One Square Metre		
111	Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge. Note: Measurement and payment: The pre-measurement of thickness shall be done just after the surface preparation is completed and Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding / tapping with a blunt metal instrument and/or the 75mm size cube crushing strength at the end of 28 days to be not less than 30 N/ mm ²).				
a)	25 mm average thickness in 2 layers.	50.00	One Square Metre		

112	Providing, mixing and applying SBR polymer (of approved make @ minimum 2% by wt. of cement used) modified plain/reinforced cement concrete for structural members having minimum characteristic compressive strength [with ordinary Portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness. Note: Rates shall be for finished surface area of concrete and shall include the cost of labour, concrete and appropriate approved Super- Plasticiser for rendering concrete as flowable and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument)				
a)	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	100.00	One Square Metre		
b)	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	100.00	One Square Metre		
Sub-Head : LMR Items					
113	Providing and fixing stainless steel (Grade 202) railings made of Hollow tubes, of 18 gauge thick Sun city/ Naman/ Auro pipes from Jindal stainless steel pipes, making curvature (wherever required) and fitting the same with necessary stainless steel nuts and including welding, grinding, buffing, polishing and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge.				
a)	Hand rails of 50mm dia at a height of about 0.85 mtr. from the floor level supported with verticals of 40mm dia and three horizontal line of 20mm dia as per approved design.	184	One Kilogram		
114	Providing and fixing unplasticised Rigid PVC SWR pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, in trenches (trenching item shall be paid separately), (i)Single socketed pipes.				

DNIT

a)	160 mm diameter	80.00	One Running Metre		
115	Providing and fixing PVC ball valve in CPVC pipe line etc complete.				
a)	32 mm nominal bore	8.00	Each		
b)	40 mm nominal bore	8.00	Each		
116	Providing and fixing PVC Union in CPVC pipe line etc. complete (New work)				
a)	25 mm nominal bore	8.00	Each		
b)	32 mm nominal bore	8.00	Each		
c)	40 mm nominal bore	8.00	Each		

Executive Engineer (Civil)
BSNL Civil Division-I, Bhubaneswar

PART – C (ELECTRICAL WORK COMPONENT)

PROFORMA OF SCHEDULES

(Operative Schedules to be supplied separately to each of the intending tenderer)

SCHEDULE “A”

Schedule of Quantities: Appended

SCHEDULE “B”

Schedule of Materials to be issued to the contractor

S. No.	Description of Item	Quantity	Rates in figures & words at which the materials will be charged from the contractor	Place of issue
1	2	3	4	5
NIL				

SCHEDULE “C”

Tools and Plants to be hired to the contractor

S. No.	Description of Item	Hire charges per day	Place of issue
1	2	3	4
NIL			

SCHEDULE “D”

Extra schedule for specific requirements/documents for the work If any.

1. Eligibility conditions for Electrical sub-head in respect of composite external works (Civil & Electrical)
2. List of approved makes for Electrical works.
3. Specifications for E.I. & Fans.
4. M.V. / L.T. Panel specification.
5. Cable laying.
6. General specification.
7. Standards.
8. General Conditions.

SCHEDULE “E”

Schedule of component of Materials, Labour etc. for escalation.

NIL

SCHEDULE “F”

(Reference to General Conditions of Contract)

Name of Work - Repair & Renovation works for 24 nos. Staff Quarters of OFDC Ltd including electrical works at Kharavel Nagar, Unit – III, Bhubaneswar”(Balance work for 8 nos. quarters).

Minor work: Electrical portion.**Estimated cost of Work : Rs 3,57,517.00 (Electrical part)****Earnest Money Not applicable****Performance Guarantee**

(5 % of the tendered value in the form of Bank Guarantee from Scheduled Bank in respect of works with estimated cost put to tender exceeding Rs. 15 Lakhs)

Not applicable**Security Deposit**

(5 % of the tendered value of the Electrical part in the form of Bank Guarantee from Scheduled Bank)

Rs _____
(Rupees _____)

Officer inviting tender

Executive Engineer (Civil),
BSNL Civil Division-I, Bhubaneswar.

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clause 12.2 & 12.3

50%

Definitions**See below**

2(v) Engineer-in charge

Executive Engineer (Elect.),
BSNL Electrical Division Bhubaneswar

2(viii) Accepting Authority

SUPERINTENDING /CHIEF ENGINEER(CIVIL),
BSNL Civil Odisha Zone,
Bhubaneswar.

2(x) Percentage on cost of materials and labour to cover all overheads and profit

15 %

2(xi) Standard Schedule of Rates

Market rates

9(ii) Standard BSNL Contract Form

BSNL W 7/8 form as modified upto
and including correction slip No.6.

Clause 2

Authority for fixing compensation under Clause 2

Superintending /Chief Engineer (Civil),
BSNL Civil Odisha Zone,
Bhubaneswar.

Clause 2 A

Whether Clause 2A shall be applicable

NO

Clause 3 A

Whether Clause 3A shall be applicable

NO

Clause 5

i) Time allowed for execution of work.

To be completed along with Civil works

ii) Authority to give fair and reasonable extension of time for completion of work.

Superintending/Chief Engineer (Civil),
BSNL Civil Odisha Zone,
Bhubaneswar.

Clause 6 A

Whether Clause 6A shall be applicable

YES

Clause 7

Gross value of work to be done together with net payment / adjustment of advances for materials collected, if any, since the last such payment for being eligible to interim payment.

Contract Amount of Electrical part
2xCompletion period in months.

Clause 10 C, 10 CA and 10 D

Not applicable

Clause 11

Specification to be followed for execution of work.

CPWD–Electrical Specifications
2009 including up to date
correction slips

Clause 12

12.2& 12.3

Limit for value of any item of any individual trade beyond which sub clauses (i) to (v) shall not be applicable

50%(fifty percent)

Clause 16

Competent authority for deciding reduced rates.

Superintending Engineer(Elect.),
BSNL Electrical Circle,
Bhubaneswar.

Clause 36(i)

Requirement of Technical Staff :

Work with Estimated Cost put to Tender more than Rs. 2 lakhs but less than Rs 5 lakhs

Recognised Diploma Holder

Work with Estimated Cost put to Tender more than Rs 5 lakhs

Graduate or Recognised
Diploma Holder with 3 years
experience

Rate of recovery in case of non-compliance:

Work with Estimated Cost put to Tender more than Rs. 2 lakhs but less than Rs 5 lakhs Rs. 2000/- per month

Work with Estimated Cost put to Tender more than Rs 5 lakhs Rs. 4000/- per month

Clause 37(i)

Extent of **GST** payable by **Contractor** for Building and Construction works:

GST 12% applicable. Any changes in the rate of GST while making payment to the contractors will be adjusted accordingly.

**ELIGIBILITY CONDITIONS FOR ELECTRICAL CONTRACTOR TO BE
ENGAGED BY THE MAIN CONTRACTOR**

- 1 BSNL enlisted contractors of **Class-III** & above in Electrical category.
OR
2. The contractor satisfying the following conditions:
 - 2.1. The contractor enlisted in CPWD, MES and Railways in respective class as per their tendering limits.

AND

Average annual turnover during the last three years, ending 31st March of the previous financial year, should be at least 30% of estimate cost of electrical part.

AND

Experience of having successfully completed similar works in Central Government/State Government /Central Govt. Autonomous Body/Central Govt. Public Sector Undertaking during last 7 years ending last day of the month previous to the one in which NIT applications are invited, should be either of the following :-

- i. Three similar successfully completed works costing not less than the amount equal to 40% of estimate cost of electrical part.

OR

- ii. Two similar successfully completed works costing not less than the amount equal to 60% of estimate cost of electrical part.

OR

- iii. One similar successfully completed works costing not less than the amount equal to 80% of estimate cost of electrical part.

Note: For applying of tender in a state, the contractor shall have to possess a valid Electrical License of appropriate voltage issued by any State Govt. provided notification in official Gazette, exempt, on such conditions.

LIST OF APPROVED MAKES OF BSNL ELECTRICAL WING

S. NO.	Item	Makes
1	Engine	Ashok Leyland/ Cummins/Cater pillar/KOEL/Volvo penta / Mahindra & Mahindra (up to 40 KVA)/ Escorts (up to 30 KVA) / Eicher (up to 20 KVA)
2	Alternator (Brushless)	Crompton Greaves (AL Series) / KEC/ Leroy Somer/Stamford / Jyoti Ltd.
3	Battery (Lead Acid / Mntc. Free)	Amara Raja / AMCO / Farukawa / Hitachi / Exide / Prestolite / Standard
4	HV Switchgear (Vacuum Circuit Breaker / SF6)	Biecco Lawrie / Crompton / Kirloskar / MEI / Jyoti Ltd
5	Transformer (Oil filled / Dry type	ABB /Schneider Electric / Andrew Yule / Bharat Bijlee / Crompton / EMCO / Kirloskar / Siemens
	a)Above 400 KVA	
	b)Up to 400 KVA	In Addition to above makes, Uttam / Automatic Electric Gear (AEG)/ Patson / Rajasthan Transformer and Switchgear
6	Air Circuit Breaker	L&T / Schneider Electric / Siemens
7	MCCB(Ics=Icu)	L&T / Schneider Electric / Siemens
8	SDF units	L&T / Schneider Electric / Siemens / HPL / Havells
9	Power Contactors	L&T / Schneider Electric / Siemens/ Lakshmi (LECS)
10	Change Over Switch	HPL / Havells/ H-H Elcon
11	Intelligent APFC Relay	L&T /EPCOS (Siemens)/ Schneider Electric /Neptune Ducati / Syntron / ABB
12	Bus Bar Trunking / Sandwiched Bus Duct	Moeller/L&T / Schneider Electric / ABB / Legrand / Zeta
13	Power Capacitors (MPP/APP)	L&T /EPCOS (Siemens) / ABB/Crompton/ Schneider Electric /Neptune Ducati
14	Digital / KWHr meter	Schneider Electric/ AE/ Digitron / IMP / Meco / Rishabh / Universal / HPL/ L&T / ABB
15	Cold Shrink HT/LT Cable Joint	Denson / 3M(M-Seal) / Raychem
16	Rubber Matting	ISI mark
17	MCB / Isolator / ELCB / RCCB / Distribution Board	Crompton / Havells / Indokopp / MDS / Legrand / L&T / Schneider Electric / Siemens / Standard / C&S / ABB / HPL
18	MS / PVC Conduit	ISI mark
19	Cable Tray	MEM / Bharti / Ratan / Slotco / Profab
20	HT/LT Cables	ISI mark
21	PVC insulated copper conductor wire	ISI mark
22	Centrifugal Pump	Amrut / BE / Beacon / Batliboi / Crompton / Jyoti / Kirloskar / KSB / Mather & Platt / Wasp / Grundfos
23	Submersible Pump	Crompton/ Amrut / BE / Calama / Kirloskar / KSB
24	Motors	ABB / Bharat Bijlee / Crompton Greaves // Schneider Electric / HBB / KEC / Siemens / Jyoti Ltd.

DNIT

25	Fresh Air Fans	GE / Khaitan / Almonard / Crompton
26	Starter	ABB / BCH/ Schneider Electric / L&T/ Siemens
27	Single Phase Preventer	L&T/ Minilec /Siemens /Zero trip
28	GI/MS Pipe	ATC/ATL/BST/GSI/ITC/ITS/IIA/JST/Jindal/TTA/Tata/Zenith
29	Foot Valve	ISI mark
30	Gate Valve	Advance / Audco / Johnson Controls / Zoloto / Annapurna / Fountain / Kirloskar / Leader / Sant / Trishul
31	Compressors	Carrier / Emerson Copeland / York / Danfoss(for chillers only)
32	Resin Bonded Glass Wool	Fibre Glass / Pilkington / Up Twiga
33	Expanded Polystyrene	BASF(India)Ltd
34	Gauge	Feibig / H.Guru / Pricol
35	Controls	FLICA / Honeywell / Indfoss /Penn-Danfoss / Ranco / Ranutrol / Sporland
36	Fine Filter	Anfiltra Effluent / ARW / Athlete / Airtake / Dyna / Kirloskar / Puromatic / Purafill / Purolator / Tenacity
37	GI Sheet	HSU Jindal / National / Nippon Denro / Sail / Tata
38	Heat Detector	Appollo / Chemtron / Edward / Fenwal / Hochiki / Nitton / System Sensor / Wormald / Honeywell Essar / Notifier
39	Ionization Detector	Appollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / System Sensor / Wormald
40	Photo Electric Smoke Detector	Appollo / Cerebrus / Edward / Fenwal / Hochiki / Nitton / Wormald
41	Fire Panel (Microprocessor based)	Agni Instruments / Agni Devices / Aruna Agenices / Carmel Sensor / Ravel Elect. / Honeywell Essar / Notifier / Navin Systems
42	Sprinkler / Hose Reel & Hose Pipe	ISI mark
43	Fire Extinguisher	ISI mark
44	Lift	OTIS, Kone, Mitsubishi, Schindler, Johnson

Note :

1. In case of External /AMC works, the list of approve makes may be modified as per client's requirement.
2. The accessories such as CT / PT / measuring instrument / relays provided by approved make in respect of Transformer / HT Panel / DG / AC Package Units as supplied by approved manufacturer along with the equipments are also acceptable in addition.
3. Any additional makes may be approved by concerned PCEs/ Sr CE/ CE(Elect) for the work under his jurisdiction as already accorded vide letter no. 3-2-5/EW/VEP-1/2007 dated 05-07-2007.

SPECIFICATIONS FOR E.I. & FANS.

1. The work shall be done as per current C.P.W.D. specifications –1994 for electrical works and Indian Electricity Rules as amended from time to time.
2. The work shall be supervised by a qualified Engineer as provided in C.P.W.D. Manual.
3. The layout of the work will be given by the Engineer-in-charge or his duly authorized representative at site of work.
4. The following wiring shall be done on separate circuits.
 - i. Power plug wiring.
 - ii. Light & fan point wiring.
 - iii. Emergency light point wiring to be fed from battery.
 - iv. Fire detectors.
5. The earthing sets shall be provided in the presence of the Engineer-in-charge or his authorized representatives.
6. The tenderer should submit the sealed samples of materials to be used on work along with the tender. The samples of the successful tenderer will be retained by the Engineer-in-charge while the samples of other will be returned after the tender is decided. Unapproved materials, if used on the work shall have to be removed immediately at the cost and risk of the contractor.
7. The contractor will have to submit the following tests at his cost and intimate test results before final bills are paid. Nothing extra will be paid to him on this account.
 - i. Earth test.
 - ii. Polarity test.
 - iii. Insulation test.
 - iv. Earth continuity test of the conduit pipes.
8. Any damage done to the building by the contractor during the execution of work shall have to be made good at his own cost and risk. If he does not do it himself within a reasonable time determined by the Executive Engineer (E) then the same will be done at his risk by the department after giving notice to him.
9. At the time of laying conduit pipe in the slab/wall in recess the contractor will keep fish wire of 14 SWG wire throughout conduit pipe and will have to take special care so that the conduit is not passed through air-conditioning ducts, grills, columns, beams etc. If any such necessity of foreseen special written permission of Executive Engineer (E) will be obtained before such work is carried out. In case of failure the contractor will not be paid on this account. The successful tenderer should recess the conduit in the sails before they are plastered and in collaboration with the building progress of the work. Any damage done will have to be made good at the cost of the contractor. The conduit pipe should be mechanically and electrically continuous.
10. All M.S. boxes for switches plugs and regulators etc. should be provided with 3mm. thick synthetic phenolic bounded laminated sheet columns.
11. The various circuits wiring at various places shall be kept minimum by taking the runs on walls where crossing of columns is not necessary. This has to be decided before the casting of slab so that unnecessary length of conduits are not laid therein.

12. All the main distribution boards panel, sub-main board and sub-distribution boards and their complete fittings shall be sign written clearly indicating the number of distribution board the type of load it is serving the number of circuits contained in the type of load it is serving and the
13. number of circuits contained. In the distribution box. Details of the recess fed from the particular distribution box shall be pasted in a tabular form on the resource of the cover of distribution box.
14. Underground cables of 1 KV grade should be subjected to pressure, insulation tests before and after laying the same cost of all repairs and replacements and all extra work_of removal and relaying will have to be made good by the contractor at his own cost & risk.
15. The contractor shall have to use metal clad switches and metal clad distribution of specified categories as given below unless otherwise specified.
16. Termination of all connections on main board and sub-main distribution board will be done by crimping and nothing extra will be paid on this account.
17. Inter connections on the main board and sub-main boards will be done by solid copper conductor with PVC sheathing/copper conductor cable.
18. All instruments shall be arranged by the contractor.
19. Unless otherwise specified Bakelite sheet shall be plain white colour without any pattern .Also "Anchor" or similar superior make piano switches shall be used. Both sheet as well as piano switches shall be approved by the Engineer-in-charge before execution.
20. (i) All cable having more than one strand should invariably crimped with dowells lugs/ferrules of appropriate size crimping tool is to be arranged by the contractor at no extra cost .In case contractor fails to bring crimping tools department may supply crimping tool subject to availability at an extra cost of Rs. 100/- per day per instrument. Responsibility on account of delay shall rest entirely with the contractor.
(ii) If any conduit is already laid/M.S. box is fixed in the slab/wall of the bldg. its recovery will be governed by the formula as per DSR 94 + contract abatement on the related sub-Head.
21. The piano switches for fans and light plugs shall be I.S.I. marked type/approved switches only.
22. When a boards are connected to a voltage ,higher than 250 volt all the terminals of leads of the apparatus mounted on shall be marked and the following colours to indicate the different poles or phases to which the apparatus for different terminals may have been connected.

AC .	D . C .
Three phases -	
Three wire systems –	
Red, Blue, Yellow	
1 outer wires : Red & Blue.	
Neutral :- Black	
22. "BSNL reserves the right to get material inspected any components thereof by the manufacturer/ their authorized representative, whose report as regards to the genuineness of component shall be final and binding. In case any component upon

such inspection is found to be duplicate/spurious, double the cost of such component based on price list (without any discount whatsoever) effective on date of aforesaid inspection shall be recoverable.

In case the contractor agrees to replace the components so found spurious/duplicate at his cost, within 15 days of the said report compensation of Rs.1,000/- per component found spurious/duplicate shall be levied against the contractor. Besides the above the BSNL reserves the right to take disciplinary action against the contractor.

23. Size of wire cable used for interconnection should not be less than as follows

S.No	Switches.	Alu.Condr. Size Sq.	Copper cond. Size Sq.m	Remarks
1	5	1.5	1.5	
2	10	4	4	
3	16	10	6	
4	20	16	10	
5	32	23	16	
6	63	70	25	
7	100	185	70	
8	200	300	120	
9	320	300	240	

The make specified in the item only should be supplied. However, if the same make is not available the other equivalent make will be accepted subject to corresponding deduction as per current list price. The decision of Engineer-in-charge shall be final about the equivalent make as well as the cost. However, no additional rate shall be paid, if the list price of the equivalent make is more than specified make.

M.V./ L.T PANEL SPECIFICATION

1 CONSTRUCTION FEATURES:

- 1.1 MV and LT switchboard/panel shall be extensible and sheet steel cubical, indoor floor mounting, and dead front freestanding type. The design shall be totally enclosed, completely dust tight and vermin proof. The sheet steel to be used shall be not less than 1.60mm thick, gasket of 2mm. thick shall be used between all adjacent units and beneath all covers to render the joints effectively dust proof. Sheet steel work shall be of high quality. All openings and outlets in the doors shall be machine made and shall be free from burrs. Weld rugs shall be ground smooth. All sheet surfaces shall be free from dents and hammer marks. A base channel of 75mm x 40mm fabricated out of 3 mm thick hot rolled sheet steel painted black shall be provided to prevent corrosion of sheet steel cubicles.
- 1.2 The design of frame work and end covers shall be such as to require a minimum number of screws visible from outside. The frame work shall be made of steel sheets folded to impart strength which will also serve as continuous barriers between logically arranged switch board components. The arrangements of horizontal & vertical bus-bars, Switchgears compartment and cable space shall be used on modular construction, and isolated from each other through steel metal / 6mm bakelite sheet. Rubber / Neoprene bushes shall be used whenever cable / bus-bar crosses the compartment.
- 1.3 The switchboard/panel shall be easily extensible and shall have high degree of flexibility. The arrangement shall be logically compact and neat. Each module shall be fitted with individual dust proof doors provided with insulated thumb screws. The switchboard/panel shall have uniform height and depth throughout its length and shall present a flush appearance. The maximum operating height shall not exceed 2000mm. Adequate lifting facilities shall be provided for each shipping section to facilitate handling and transport. The compartment doors shall be so interlocked that it shall not be possible to open the doors with the switch is in closed position. An arrangement for defeating this door interlock shall be provided for testing purposes.
- 1.4 Outgoing links insulated with heat shrinkable sleeves from feeders shall be rigidly supported and suitably extended in cable box chamber for ease of cable connections. Cable lugs and links shall be covered by insulating shields. Barriers shall be provided between the modules accommodating equipments, associated with the outgoing circuits. All vertical sections shall have covering at the bottom so that entry of dust, rats and vermin is not possible.

2. **MOULDED CASE CIRCUIT BREAKER (MCCB) :**

The MCCB shall be of suitable Breaking capacity as in panel specification with microprocessor controlled / thermal release suitable for adjustment up to 90% (maximum). Terminals should be suitable for termination of Aluminium conductor cable. Door interlock defeat facility, Push to trip facility as required.

MCCB should be suitable for working on 415V, 50Hz supply.

3. **INTERLOCK :**

Sequence type strain free interlock shall be provided to ensure the following :-

- i) All four incomers MCCBs & buscoupler MCCB shall be Electrically & Mechanically Interlocked so that only ONE MCCBs can operate at a time. (Four mechanical interlocks with only ONE key) – For main MV Panel.

4. BUS-BARS :

Three phase and neutral Aluminum bus-bars shall be provided of rating as specified. Aluminum alloy used for bus-bars and connections shall be equivalent to E.91 E-WP of IS-5082/1969. Bus-bar shall be housed in separate bus-bar chambers. Horizontal bus-bars shall be extended throughout the length of the panel unless agreed otherwise. The bus-bars shall be suitable braced to withstand the fault level and shall be supported on unbreakable non hygroscopic phenolic laminated sheets rigidly held to the frame work of the chamber. Bus-bar chamber shall have a separate screwed cover and means shall be provided to identify the various phase of the bus-bars. The Vertical/Horizontal bus-bar shall be accessible from the front. Cable runs shall not prevent or obstruct the access to vertical / horizontal bus-bars shall be arranged as close to the units as possible. The connections between horizontal bus-bars and Vertical bus-bars shall be short and neat. Long link connections requiring careful brazing etc, are not preferred. The bus-bar shall be colour coded and fully insulated by means of heat shrinkable sleeves necessarily.

5. COMPARTMENTS :

Full height cable compartment running behind side front of the vertical modules shall be provided for easy termination of all incoming and outgoing cables entering either from top or from the bottom. Adequate supports shall be provided for the cables wherever necessary. The cable compartment shall have its own hinged cover which can be opened for case of access during cabling.

6. INTERCONNECTION AND CONTROL WIRING :

Switch board shall be completely factory wired ready for connecting to the equipment. Power connection of the circuits shall be done by Aluminum flats or by adequate size of PVC insulated standard copper wires. All control wiring with PVC insulated copper conductor of 1.5 sqmm. and shall be fitted with identification ferrule at each end and not more than two connections shall be made at any one terminal. The wires shall be arranged and supported in such a manner that there shall be no strain on the terminators.

7. TERMINAL ARRANGEMENTS :

The terminals shall be of adequate current rating and size to suit individual feeder requirements. For connections above 63 amps rating cable lugs shall be used. These cable lugs shall be mounted in such a manner so as to facilitate easy cable connections. Terminals shall be mounted in the cable compartment. Tap-off connections at the bus-bars shall not have wire connections. For switches above 63A rating solid bus link shall be provided from outgoing terminal of switch up to cable alley duly insulated with heat shrinkable sleeves. Direct connection by means of cables on outgoing shall not be permitted

8. CABLE ENTRY :

The switch board shall be designed to facilitate Aluminum conductor PVC cable entry from top and / or bottom as the case may be. Removable sheet steel plates provided with suitable size of knockouts for cable glands as specified shall be fitted at the top/bottom.

9. INDICATION INSTRUMENTS :

The indicating instructions shall be of an approved make conforming to relevant IS. This arrangement of the instruments shall be logical. The size of the instruments shall be as specified.

10. LABELS :

Engraved PVA labels shall be provided on all the incoming and outgoing feeder compartments. The exact legend to be engraved will be furnished by Engineer-in-charge.

11. EARTHING BUS-BARS:

The earth bus-bars shall be of G.I. and of adequate size as per B.I.S. specification.

12. PAINTING :

All steel work shall undergo, process of de-greasing pickling in acid, cold-rinsing, phosphatising, passivating and then be sprayed with a high corrosion resistant primer. The primer should be baked in an oven. The finishing treatment shall be by application of powder coating with two coats of approved colour.

Cable Laying:-

1. Underground cables of 1.1 KV grade should be subjected to pressure, insulation tests before and after laying the same cost of all repairs and replacements and all extra work of removal and relaying will have to be made good by the contractor at his own cost & risk.
2. The contractor shall have to use metal clad switches and metal clad distribution of specified categories as given below unless otherwise specified.
3. Termination of all connections on main board and sub-main distribution board will be done by crimping and nothing extra will be paid on this account.
4. Inter connections on the main board and sub-main boards will be done by solid copper conductor with PVC sheathing/copper conductor cable.
5. All instruments shall be arranged by the contractor.
- 6 (i) All cable having more than one strand should invariably crimped with lugs/ferrules of appropriate size crimping tool is to be arranged by the contractor at no extra cost .In case contractor fails to bring crimping tools department may supply crimping tool subject to availability at an extra cost of Rs. 100/- per day per instrument. Responsibility on account of delay shall rest entirely with the contractor.
7. "BSNL reserves the right to get material inspected any components thereof by the manufacturer/ their authorized representative, whose report as regards to the genuineness of component shall be final and binding. In case any component upon such inspection is found to be duplicate/spurious, double the cost of such component based on price list (without any discount whatsoever) effective on date of aforesaid inspection shall be recoverable. In case the contractor agrees to replace the components so found spurious/duplicate at his cost, within 15 days of the said report compensation of Rs.1,000/- per component found spurious / duplicate shall be levied against the contractor. Besides the above the BSNL reserves the right to take disciplinary action against the contractor.
8. Size of wire cable used for interconnection should not be less than as follows

S.No	Switches.	Alu.Condr. Size Sq.	Copper cond. Size Sq.mm	Remarks
1	5	1.5	1.5	
2	10	4	4	
3	16	10	6	
4	20	16	10	
5	32	23	16	
6	63	70	25	
7	100	185	70	
8	200	300	120	
9	320	300	240	

The make specified in the item only should be supplied. However, if the same make is not available the other equivalent make will be accepted subject to corresponding deduction as per current list price. The decision of Engineer-in-charge shall be final about the equivalent make as well as the cost. However, no additional rate shall be paid, if the list price of the equivalent make is more than specified make.

GENERAL SPECIFICATION

1. The ACB/MCCB/SFU etc, shall be fitted on the panel through G.I. hexagonal nut and bolts, self tapping screws/round headed bolts shall not permitted. Enough clearance on all sides as per manufacturer's recommendation are to be provided while mounting the switches. Horizontal/Vertical/or any other type of switch mounting shall be strictly as per practice recommended by the switch manufacturer. Only anodized nut bolts and washers shall be used in current circuits.
2. The panel shall be fully assembled and tested for dispatch from factory. Local assembly of components at site are not permitted.
3. The type and routine test certificate of complete panel, and individual test certificate of relays/ACB' s/ MCCB' s are to be furnished along with supply of the panel.

STANDARDS

The design, manufacture and testing of various equipments covered by this specification shall comply with the latest issue of following IS standards:-

- a. IS 4237 : General requirements for switchgear and control gear for voltage not exceeding 1000 volts.
- b. IS 4047 : Specification for hereby duty air break switch bus and composite units for air break switches and fuses for voltage not exceeding 1000 volts.
- c. IS 2208 : Specification for HRC fuses cartridge fuse links up to 650 volts.
- d. IS 2705 : Specification for current transformer.
(Part-I to IV)
- e. IS 1248 ; Specification for direct action electrical indicating instruments.
- f. IS 2516 : (Part-I/Section-I) specification for alternating current circuit breakers.
- g. IS 375 : Switch gear bus-bar, main connections and auxiliary wiring, making and arrangements for.
- h. IS 3231 : Electrical Relays for power system protection.
- i. IS 5082 : Wrought aluminum and aluminum alloy bars rods, tubes and section for electrical purposes.

GENERAL CONDITIONS

The following general conditions of contract are deemed to be agreed.

- a) All civil works such as construction of foundation of equipments with masonry, cutout, chasing etc. or the steel supports as may be required is included in the scope of works if not specified otherwise in the schedule of work and nothing extra shall be paid for the same.
- b) All damages or breakages which might be caused during the execution of the work shall be made good by the firm at his own risk and cost
- c) The firm is responsible for the removal of debris and waste materials arising out of the works done by him from the site. The site must be kept clean and tidy during installation.
- d) The firm shall commence the work only after obtaining prior permission from the Engineer-in-Charge.
- e) The firm shall employ qualified and well-experienced staff specialized in the job and make available duly authorized representative to take instructions from departmental officer during inspection.
- f) Necessary tools and plants shall be arranged by the firm. Modern tools and Equipments shall be used for handling of equipments / materials, drilling, cutting etc. so that minimum noise, vibrations and disturbance to the building/occupants/ equipments can be achieved.
- g) The firm shall provide necessary barriers, warnings signals and other safety measures to avoid accidents.
- h) The concealed items shall be carried out only in presence of departmental officers.
- i) Work shall generally be carried out during working hours. However as per the department's requirements the working hours may be extended without any extra claim.
- j) All fittings, unit assemblies, accessories, hardware, foundation bolts, terminal blocks for connection and miscellaneous materials and accessories of items of works which are useful and necessary for efficient assembly and working of the equipment shall be deemed to have been included within the scope of the work in the tender and within the overall details for complete item whether they have been specifically mentioned or not.

SCHEDULE -A (for Electrical work)

N/w:- Repair and Renovation work of 24 nos. Staff Qtrs of OFDC Ltd at Kharvelanagar (Balance work for 8 nos. staff qtrs)					
SI No	Description of Items	Quantity	Unit	Rate	Amount
	<u>Sub-Head-I</u>				
1	Wiring for light point/fan point/exhaust fan/Call bell point with 1.5 Sq.mm. FR PVC insulated copper conductor single core cable in surface/recessed steel conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with 1.5 sq.mm FR PVC insulated copper conductor single core cable etc as required. (Group-A)	128	Each Point		
2	Wiring for power plug with following size FR PVC insulated copper conductor single core cable in surface/recessed PVC conduit as required.				
	a) 2 x 4 Sq.mm. with 1 No. 4 sqmm. PVC insulated copper cond. Single core cable for loop earthing.	120	One Metre		
	b) 4 x 4 Sq.mm. with 2 No. 4 sqmm. PVC insulated copper cond. Single core cable for loop earthing.	36	One Metre		
3	Wiring for circuit /sub main along with earth wire with the following sizes PVC insulated copper conductor single core cable in surface/recessed PVC conduit as required.				
	a) 2 x 1.5 Sq.mm.+ 1 x 1.5 Sq.mm. earth wire	120	One Metre		
	b) 4 x 1.5 Sq.mm.+ 2 x 1.5 Sq.mm. earth wire	54	One Metre		
	c) 2 x 6 Sq.mm.+ 1 x 6 Sq.mm. earth wire	65	One Metre		
	<u>Sub-Head-II</u>				
4	Supplying & fixing following piano type switch/socket on the existing switch board cover including making connection etc as reqd.				
	a) 3 pin 5/6 amp. Socket outlet	96	Each		
	b) 5/6 amp switch	96	Each		
	c) 15/16 amp Switch	72	Each		
	d) 6 pin 15/16 amp socket outlet	72	Each		

DNIT

	e)Supplying and fixing stepped type electronic fan regulator on the existing switch box including connections but excluding modular plate etc. as required.	24	Each		
	f) wall/Ceiling mounted 18W/20W LED type batton (1213mm) with polycarbonate housing and polycarbonate diffuser & integrated electronic driver etc as reqd. (havells, or equivalent Philips/ Bajaj model)	24	Each		
	g) 9W LED retrofit type LED Bulb	24	Each		
5	S/F of brass batten/ angle holder including connection etc. as required	64	Each		
6	Supplying of 1400mm 3 blade ceiling fan suitable for operation on 230 volts 50Hz AC supply etc. as required.(Usha-NEWZEN/Equivalent model of M/s Havells/Crompton Greaves/Bajaj).	24	Each		
7	Supplying and Fixing of 200mm sweep fresh air suitable for operation on 230 volts 50Hz AC supply etc. as required.(Usha/ Havells/ Crompton Greaves/ Bajaj).	8	Each		
8	Supplying and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6 & 15/16 A socket outlet and 15/16 A piano type switch, connections, painting etc. as required.	24	Each		
9	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable etc. as required.	24	Each		
	<u>Sub-Head-III</u>				
10	S/F of the following capacity 240 Volts/415 volts main switch with rewirable fuses i/c fixing on existing M.S. angle frame, connection, testing etc. as reqd.(make:- Standard/SS)	8	Each		

DNIT

11	S/F following way, single pole and neutral, sheet steel, MCB distribution board consumer unit, 240 V, on surface/recess, complete with tinned copper busbar, neutral busbar ,earth bar, din bar, hinged front acrylic cover for the MCB knobs, detachable gland plate, interconnections, phosphatized and power painted including earthing etc. as required(But without MCB/RCCB/Isolator)				
	a) 12 way ,Double Door	8	Each		
12	Supplying & fixing of 5A-32A rating,240 V,'c' series, MCB suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	i) single pole	56	Each		
13	Supplying and fixing following rating, Double pole, 240 volts, Isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	i) 40 amp	8	Each		
14	Supplying & fixing of single pole blanking plate in the existing MCB DB complete etc. as required.	12	Each		
	<u>Sub-Head-IV</u>				
15	Earthing with G.I earth pipe 4.5 mtr long, 40mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal or coke and salt as required.	2	Each Set		
16	Providing & laying earth connection from earth electrode with 6 SWG dia G.I wire in 15 mm dia G.I pipe from earth electrode including connection with G.I thimble, excavation & refilling etc as required.	20	One Metre		
17	Providing & fixing 6 SWG dia G.I wire on surface or in recess for loop earthing , as required.	100	One Metre		

Executive Engineer (Civil)
BSNL Civil Division-I, Bhubaneswar.