

BHARAT SANCHAR NIGAM LIMITED
(A Government of India Enterprise)

TENDER DOCUMENT

Name of work:

Supplying & Installation of Poly Houses, Primary and Secondary Hardening Chamber, Shade Net House, Repairing of existing Green House, Shade Net Houses and Hi-Tech Green House in the RPRC compound, Bhubaneswar.

[NIT No. 22/2019-20/BCD/E.P/BBSR](#)

Estimated Cost - [Rs 59, 51,055.00](#)(Rupees Fifty nine lakh Fifty one Thousand Fifty five only)

E.M.D. - [Rs 1,19,100.00](#) (Rupees One lakh Nineteen Thousand One Hundred only)

Completion period: [6 \(Six\)](#) months

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

I N D E X

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PART – A

INFORMATION AND INSTRUCTIONS TO BIDDERS FOR e-TENDERING

The Executive Engineer(Civil), BSNL Civil Division-I, Bhubaneswar invites item rate e-tenders on behalf of **RPRC, Bhubaneswar** from **SPECIALISED AGENCIES** of poly houses for the following work:

- | Sl.No. | Description | Details |
|--------|---|---|
| i. | NIT No. 22/2019-20/BCD/E.P/BBSR
Name of Work: Supplying & Installation of Poly Houses, Primary and Secondary Hardening Chamber, Shade Net House, Repairing of existing Green House, Shade Net Houses and Hi-Tech Green House in the RPRC compound, Bhubaneswar. | |
| ii. | Estimated Cost | Rs 59, 51,055.00 (Rupees Fifty nine lakh Fifty one Thousand Fifty five only) |
| iii. | Earnest Money (In Rs.) | : Rs 1,19,100.00 (Rupees One lakh Nineteen Thousand One Hundred only) |
| iv. | Period of Completion | : 6 (Six) months |
| v. | Last date and time of online submission of tender: | 18.00 hours on 05.08.2019 |
| vi. | Time and date of online opening of Documents: | 11.30 hours on 06.08.2019 |
| vii. | Time and date of opening of Online Financial Bids : | 15.30 hours on 07.08.2019 |
| viii. | Period during which hard copies of EMD, 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 opening 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 or Central Public Procurement Portal (CPPP) free of cost. Any corrigendum(s) will be uploaded in these web sites and no press publicity will be given . The tenderers are requested to verify the corrigendum(s), if any before submitting the online bid. | |
| 4. | But the bid can be submitted only through http://www.tenderwizard.com/BSNL 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 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) Treasury Challan/Demand Draft/Pay order or Banker`s Cheque /Deposit at Call Receipt/FDR/ Bank Guarantee of any Scheduled Bank against EMD.
- b) Certificate of GST registration
- c) Certificates of Work Experience
- d) 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.**
- e) **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. 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-I, Bhubaneswar invites Item rate e-tenders on behalf of **RPRC, Bhubaneswar** from **SPECIALISED AGENCIES** of poly houses for the following work:

Supplying & Installation of Poly Houses, Primary and Secondary Hardening Chamber, Shade Net House, Repairing of existing Green House, Shade Net Houses and Hi-Tech Green House in the RPRC compound, Bhubaneswar.

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

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

- a) Treasury Challan/Demand Draft/Pay order or Banker's Cheque /Deposit at Call Receipt/FDR/ Bank Guarantee of any Scheduled Bank against EMD.
- b) Certificate of GST registration.
- d) Certificates of Work Experience.
- 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 59, 51,055.00**(Rupees Fifty nine lakh Fifty one Thousand Fifty five only). 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 all the tenderers--
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

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

Similar work means **"Poly House / Green House Works"** 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 Government/ Central Public Sector Undertakings.** 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 **6(Six) months** and shall be reckoned from **10th day** after the date of issue of **letter of acceptance** of the tender 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.

(i) The architectural and structural drawings are 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 or www.odisha.bsnl.co.in](http://www.tenderwizard.com/BSNL_or_www.odisha.bsnl.co.in) or [Central Public Procurement Portal \(CPPP\)](http://www.odisha.bsnl.co.in) 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.**

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. 3511.00 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 certificates 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 06.08.2019** and financial bid shall be opened at **15.30 Hrs on 07.08.2019**

9. 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 GST 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- Supplying, Fixing and Installing Primary hardening Chamber and Secondary hardening Chamber of area 108 Sqm. each.**
- 2- Supplying, Fixing and Installing Shade Net House of area 192Sqm.**
- 3- Supplying, Fixing and Installing Poly House of area 392Sqm.**
- 4- Repairing of existing High tech Green Houses and Shade Net Houses.**

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 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 BSNL* through 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.
20. *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.*
21. 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) After obtaining labour licence, EPF Registration, ESIC Registration, whatever applicable in this three for this contract or the contractor.
22. 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.
23. 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.
24. 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.
25. 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.

Signature and Name of

Executive Engineer (Civil)
For & on behalf of the
RPRC, Bhubaneswar.

BHARAT SANCHAR NIGAM LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)

STATE: ODISHA

CIRCLE: BHUBANESWAR

DIVISION: BHUBANESWAR-I

ZONE: ODISHA

SUB-DIVISION: BHUBANESWAR

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

Tender for the work of: **Supplying & Installation of Poly Houses, Primary and Secondary Hardening Chamber, Shade Net House, Repairing of existing Green House, Shade Net Houses and Hi-Tech Green House in the RPRC compound, Bhubaneswar.**

A

- (i) To be submitted by **18.00 hours on 05.08.2019**

- (ii) To be opened in presence of tenderer who may be present at **11.30 hours on 06.08.2019** in office of Executive Engineer (Civil) and financial bid shall be opened at **15.30 Hrs on 07.08.2019**

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 **RPRC, Bhubaneswar** 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 1,19,100.00 (Rupees One Lakh Nineteen Thousand One Hundred)** 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 RPRC, Bhubaneswar 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 **RPRC, Bhubaneswar.**

Signature_____

—

Dated.....

Name and designation

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: - “Supplying & Installation of Poly Houses, Primary and Secondary Hardening Chamber, Shade Net House, Repairing of existing Green House, Shade Net Houses and Hi-Tech Green House in the RPRC compound, Bhubaneswar.”

Estimated cost of Work: **Rs 59, 51,055.00**(Rupees Fifty nine lakh Fifty one Thousand Fifty five only)

Earnest Money **Rs 1,19,100/- (Rupees One Lakh Nineteen Thousand and One hundred) only.**

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 10 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

**Superintending Engineer(C)/
Chief Engineer(C),
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	local market rates
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©/ Chief Engineer© 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.	6(Six) Months
ii) Authority to give fair and reasonable extension of time for completion of work.	Superintending Engineer©/ 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.	<u>Contract Amount of Civil part</u> 2xCompletion period in months.
Clause 10A Reinforcement steel to be used in the work shall have to be procured as below :	not applicable
Clause 10 C	Not applicable
Clause 10 CA	not applicable
Clause 10 D	Not applicable
Clause 11 Specification to be followed for	CPWD Specifications Volume I & II

execution of work.

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

50%(fifty percent)

Clause 16

Competent authority for deciding reduced rates.

Superintending Engineer(C)/
Chief Engineer (C),
BSNL Civil Odisha Zone,
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
	2	Graduate Engineer OR Diploma Engineer					Rs 15,000/-	Rs Fifteen Thousand only
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					Rs 15,000/-	Rs Fifteen Thousand only

Clause 37(i)

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

GST 18% Applicable. Any change 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 6400.00 (Rupees Six Thousand
2	For Reinforcement Steel conforming to BIS 1786 - TMT bars 500 D	Rs 57300.00 (Rupees Fifty Seven Thousand Three Hundred) only

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

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SCHEDULE -D

LIST OF PREFERRED MAKES FOR VARIOUS ITEMS OF WORK

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

MATERIAL	PREFERRED MAKE
Non Metallic hardener compound	Fosroc, STP, Pidilite, CICO, FERROUS
CRCA frames	TATA, SAIL
Dash/Anchoring Fasteners	HILTI/Fischer, BOSCH
Nuts/Bolts & Screws	GKW/Atul
Flush door shutters	Century, Greenply, Archid , Mayur Alishan
Hardware fittings	DORMA,EARL BIHAR,HETTICH,LAXMI,DOORSET,OZONE,EVERITE
Locks and Handles	Dorset, Godrej, Europa, Ozone, Everite, HETTICH, DORMA
Drawer multilock	KEYMAN/Earl Behari
Cylindrical lock	SECUR, DORSET, GODREJ
Mortice latch & lock	Godrej, Sheel
MS Tubes	Jindal,Tata,SAIL
Stainless steel sections	Jindal, Salem
Glue	Fevicol,Vamicol,Pidilite,Dunlop
CP fittings & accessories	Parko,Kingston,Esso,Plumber,Crab tree,Jaguar,ROCA , Kerovit
Screws	Nettlefold/,GKW Ltd
Hydraulic door closer	Hardwyn, Dormia, Ozone, Yale, Everite,Godrej, Doorset

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Welding Electrodes	Advani, ESAB India
Fire check wood doors	Godrej, Global, Radiant, Navair
Tinted film	Garware, Meditech, 3M
Privacy film	3M
PVC door shutter	Rajshri, Sintex, Duroplast
PVC Pipes and Fittings	Astral, Supreme, Finolex, Prince, Skipper, Ashirwad, Truebore
UPVC Pipes/fittings	Finolex, Supreme, Astral, SFMC
PVC water tank	Sintex(with ISI mark embosing only)
G. I. Pipes	Jindal, SAIL, Tata,
G. I. Fittings	Unik, Zenith, HB
Gun metal valves	Leader, ZOLOTO, DRP

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. 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)

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, notwithstanding 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 notwithstanding 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 contractors. GST rate is mentioned under clause 37(i) in the schedule F. Any increase in the rate of GST while making payment of bills will be compensated to the contractor. Any decrease in the rate 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 contractors.**
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

Schedule of Quantities					
N/W: Supplying & Installation of Poly Houses, Primary and Secondary Hardening Chamber, Shade Net House, Repairing of existing Green House, Shade Net Houses and Hi-Tech Green House in the RPRC compound, Bhubaneswar.					
SN	Description of item	Quantity	Unit	Rate	Amount
1	Supplying, Fixing and Installing double arch Naturally ventilated Poly Houses of area 560 Sqm (20m x 28m) and maximum ridge height up to 6.50m along with an entrance room of size 2.60m x 3.00m with following salient components and features:	3.00	Each		
a	STRUCTURE: - Structure consist of Pre-galvanized steel Tubular structure made of TATA, SAIL, JINDAL of size 60mm OD with 2.9mm thick in 25 No main columns of length 4.00 mtr @ 7 No each in in left, right, middle rows and of length 6.00mtr for 04 nos columns i.e @ 2 nos each in front and back row. The same Pre-galvanized steel tubular pipes of size 60mm OD with 2.9mm thickness in 26 No columns (24 no outer column of length 4.50m and 2 no columns of length 3.00mtr projected from the vertical face of interior columns spaced at 4.0mtr apart for the extended rooms). Foundation tube for main columns shall be of size 76mm OD 3.2mm thick and that of corridor and other columns shall be of size of 48mm OD with 2.9mm thick. The poly house structure will be aerodynamic along all four sides with balcony / Corridor of 40mm OD (Straight corridors are used along length of Poly house to stop displacement of main column from heavy wind resulting more strength to structure). All members of the structure shall be connected with M6 to M10 bolts & nuts, bolts from 15 to 110 mm length, clamps and plain washers as per requirement and with the best quality plating to have good anti- corrosiveness.				
b	FOUNDATION: Pre-galvanised steel Tubular structure made of TATA, SAIL, JINDAL with proper marking on it for embedding in cement concrete for foundation shall be supplied by the tenderer. Foundation is not in the scope of tenderer, but he shall supervise the fixing of the foundation tube for level and position.				

c	<p>BUFFER ROOM: Entrance room of size 3.00m x 4.00m shall be projected inside from the front within 560 Sqm with two PVC doors, one of size 1.20m x 2.00m (sliding) in the back and another of size 2.00m x 2.00m (double leaf & side hung) in the front. The door frame including one vertical and one horizontal member in the middle shall be of pre-galvanized steel Tubular structure made of TATA, SAIL, JINDAL of size 33mm OD with 2.6mm thick covered with 6mm thick FRP / polycarbonate sheet.</p>				
d	<p>TRUSSES: Big Arc shall be of size 48mm OD with 2.9mm thick, Small Arc shall be of size 48mm OD with 2.9mm thick. Arch bracing shall be of 25mm nominal dia medium grade GI pipes, Column Arch bracing shall be of 25mm nominal dia medium grade GI pipes, Arch bracings both small & big shall be of 25mm nominal dia medium grade GI pipes, Corridor bracing shall be of 25mm nominal dia medium grade GI pipes, wind bracings connecting main columns shall be of 25mm nominal dia medium grade GI pipes, Horizontal beams shall be of 25mm nominal dia medium grade GI pipes. All Purlins are be made of 50mm nominal dia medium grade in all respect. All GI pipes shall be of TATA, SAIL or JINDAL make.</p>				
e	<p>GUTTER: Gutters shall be of trapezoidal section of perimeter 450mm made out of 2mm thick G.I sheet placed 4.00m above bed level of poly houses slopped @ 1% to 2% towards back. PVC rain water pipes of dia 110mm shall be provided at the end of gutter to the ground,</p>				
f	<p>COVERING: The Poly Houses shall be covered with 200 micron thick, U. V. stabilized, Diffused, IR, Anti fog / drip, diffused multilayer poly film of approved make fixed smoothly with GI locking profiles and GI wire spring. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
g	<p>APRON: Apron (made up using high quality high density polyethylene with suitable combination of UV and Anti Block and other high performance additives) of width 1.50mtr shall be provided at ground level on four sides in external corridor walls of poly houses with G.I fixing arrangement. Bottom portion of the apron beyond GI fixing arrangement (0.30mtr) to be embedded in soil.</p>				

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h	CURTAIN: Manual operable side roll-up curtains of width 2.00mtr with handles shall be provided on two long sides above apron top with poly film on inner side below the curtains.				
i	INSECT NET: UV stabilised Insects net 40 mesh of approved make along with curtain and below the curtain shall be provided. 6 no yellow adhesive strips for insect trap shall also be provided. Special arrangement shall be made while fixing the insect nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.				
j	SHADE NET: UV Stabilized Shade net of Black colour, 50% shading net with manual collapsible mechanism shall be provided below gutter level. Special arrangement shall be made while fixing the shade nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.				
k	BENCHES (Movable): Benches shall be placed inside the poly house @ 8 Nos per Poly house and consists of hot dipped galvanised steel structure of length 20 mtrs in suitable parts, width 0.90mtr and height upto 0.90mtr with supporting legs of size 20mm x 40mm x 2mm thick rectangular pipes spaced @ 860mm c/c along the width and not more than 1.55mtr c/c along the length. All table legs shall be provided with rubber shoes at bottom and connected with 20mm x 40mm x 2mm thick GI rectangular tubes at top in both directions to support the GI wire fabric 75x25 mm mesh of weight not less than 7.75 Kg/Sqm and also braced suitably at bottom in both directions at a height 150mm above floor level. GI angle of size 25mmx25mmx5mm shall be provided at all edges of the tables to cover the edges of the GI wire fabric.				
l	MICRO IRRIGATION SYSTEM: It consist of aqua master 70 lph at 3m x 3m spacing, 4kg/sqcm PVC main of 63mm dia and submain pipes of 40mm / 50mm outer dia, PVC Ball Valves, Ventury Assembly, Air release Valve, Flush Valve, connected to Common Plastic Disc Filter, Fitting and Accessories.				
m	FOGGERS SYSTEM: It consist of 4 way Anti Leak Foggers 28 lph, at spacing 1.6m X 2.5m, 4 kg/sqcm PVC main of 63mm dia and submain pipes of 40mm / 50mm outer dia, 16 mm LLDPE laterals, PVC Ball Valves, Flush Valve, connected to Common Plastic Disc Filter, fittings and Accessories.				

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	<p>Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.</p>				
2	<p>Supplying, Fixing and Installing Poly House with fan and pad cooling system for Primary Hardening Chamber of area 108 Sqm (12m x 9m) and of grid size 3.00m x 3.00m without corridor with maximum ridge height of 5.00m and side height of 4.00m along with an entrance room of size 3.00m x 4.00m with following salient components and features:</p>	1.00	Each		
a	<p>STRUCTURE: Poly house Structure for Primary Hardening Chamber consists of Pre-galvanized steel Tubular structure made of TATA, SAIL, JINDAL of size 60mm OD and 2.9mm thick of length 4.00 mtr above bed level in main columns and the same GI pipes of size 60mm OD and 2.9mm thick and of length 4.27mtr above bed level in corridor Columns. Clumns of length 3.00mtr projected in to the hardening chamber from the vertical face of front row of columns spaced at 3.00mtr apart for the extended rooms. Foundation for main columns shall be size 76mm OD 3.2mm thick and that of other corridor and other columns shall be size of 48mm OD with 2.9mm thick. All Arch member shall be GI pipes of 48mm OD and 2.9mm thick, All Purlins shall be GI pipes 42mm OD and 2.6mm thick and all bracings shall be 33mm OD GI pipes 2.6mm thick. The whole structure shall be slopped @ 1% to 2% towards back side. All members of the structure shall be connected with M6 to M10 bolts & nuts, bolts from 15 to 110 mm length, clamps and plain washers as per requirement and with the best quality plating to have good anti- corrosiveness.</p>				
b	<p>FOUNDATION: Pre-galvanised stell Tubular structure made of TATA, SAIL, JINDAL with proper marking on it for embedding in cement concrete for foundation shall be supplied by the tenderer. Foundation is not in the scope of tenderer, but he shall supervise the fixing of the foundation tube for level and position.</p>				

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c	<p>BUFFER ROOM: Entrance room of size 3.00m x 4.00m shall be projected inside from the front within 108 Sqm with two PVC doors, one of size 1.20m x 2.00m (sliding) in the back and another of size 2.00m x 2.00m (double leaf & side hung) in the front. The door frame including one vertical and one horizontal member in the middle shall be of pre-galvanized steel Tubular structure made of TATA, SAIL, JINDAL of size 33mm OD with 2.6mm thick covered with 6mm thick FRP / polycarbonate sheet.</p>				
d	<p>COVERING: The Poly Houses shall be covered with with 200 micron thick, U. V. stabilized, Diffused, IR, Anti fog / drip, diffused multilayer poly film of approved make fixed smoothly with GI locking profiles and GI wire spring. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
e	<p>SHADE NET: UV Stabilized Shade net of Black colour, 50% shading net with manual collapsible mechanism shall be provided below gutter level. 6 no yellow adhesive strips for insect trap shall also be provided. Special arrangement shall be made while fixing the shade nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
f	<p>THERMAL NET: Aluminium Thermal Net 50% inside the Greenhouse with nylon support cables, pulleys, side support with clamps and manual collapsible arrangement. Special arrangement shall be made while fixing the thermal nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
g	<p>EXHAUST FAN: It consists of 48" exhaust fan with 4 no. of blades with 1.5 hp motor belt drive with Galvanized body with louvers.</p>				

h	COOLING PAD: It consists of cellulose cooling pad of size height 1.2m and 100mm thick size along with galvanized water collecting gutter, profiles to fix pads, PVC Water Distribution System, 1no 0.5 HP pump of approved make with accessories all complete. To support the cooling pad, brick wall of thickness 230mm (Length and high as per site requirement) with bricks of Class 5 in cement mortar 1:4 (1 cement: 4 coarse sand) plastered on both sides with cement mortar 1:4 (1 cement : 4 coarse sand) shall be constructed separately under the supervision of the tenderer.				
i	CONTROL PANNEL: It consists of electrical control panel (Indian) which consist of MCB, relay, Contractors, Three way switch, Volt meter, RYB indicator with temperature and humidity sensor to operate fogging system and cooling system in Auto mode				
j	ELECTRICAL CABLES: Electrical cables for Fan Motors and cooling pad pump from panel (i.e. 10 m from greenhouse)				
k	FOGGERS SYSTEM: It consist of 4 way Anti Leak Foggers 28 lph, at spacing 1.6m X 2.5m, 4 kg/sqcm PVC main of 63mm dia and submain pipes of 40mm / 50mm outer dia, 16 mm LLDPE laterals, PVC Ball Valves, Flush Valve, connected to Common Plastic Disc Filter, fittings and Accessories.				
	Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.				
3	Supplying, Fixing and Installing Poly House without fan and pad cooling system for Secondary hardening Chamber of area 108 Sqm (12m x 9m) and of grid size 3.00m x 3.00m without corridor with maximum ridge hight of 5.00m and side hight of 4.00m along with an entrance room of size 3.00m x 4.00m with following salient components and features:	1.00	Each		

a	<p>STRUCTURE: Poly house Structure for primary hardening chamber consists of Tubular structure made of medium grade GI pipes of TATA, JSW or equivalent of size (i) 60mm OD and 2.9mm thick of length 4.00 mtr above bed level in 10 main columns and the same GI pipes of size 48 OD and 2.9mm thick and of length 4.27mtr above bed level in corridor Columns. Foundation for main columns shall be size 76mm OD 3.2mm thick and that of other corridor and other columns shall be size of 48mm OD with 2.9mm thick. Foundation for main columns shall be size 76mm OD 3.2mm thick and that of other corridor and other columns shall be size of 48mm OD with 2.9mm thick. 2 No columns of length 3.00mtr projected in to the hardening chamber from the vertical face of front row of columns spaced at 3.00mtr apart for the extended rooms. All Arch member shall be GI pipes of 48mm OD and 2.9mm thick, All Purlins shall be GI pipes 42mm OD and 2.6mm thick and all bracings shall be 32mm OD GI pipes 2.6mm thick. The whole structure shall be sloped @ 1% to 2% towards back side. All members of the structure shall be connected with M6 to M10 bolts & nuts, bolts from 15 to 110 mm length, plain washers as per requirement and with the best quality plating to have good anti- corrosiveness.</p>				
b	<p>FOUNDATION: Pre-galvanised steel Tubular structure made of TATA, SAIL, JINDAL with proper marking on it for embedding in cement concrete for foundation shall be supplied by the tenderer. Foundation is not in the scope of tenderer, but he shall supervise the fixing of the foundation tube for level and position.</p>				
c	<p>BUFFER ROOM: Entrance room of size 3.00m x 4.00m shall be projected inside from the front within 108 Sqm with two PVC doors, one of size 1.20m x 2.00m (sliding) in the back and another of size 2.00m x 2.00m (double leaf & side hung) in the front. The door frame including one vertical and one horizontal member in the middle shall be of pre-galvanized steel Tubular structure made of TATA, SAIL, JINDAL of size 33mm OD with 2.6mm thick covered with 6mm thick FRP / polycarbonate sheet.</p>				
d	<p>COVERING: The Poly Houses shall be covered with 200 micron thick, U. V. stabilized, Diffused, IR, Anti fog / drip, diffused multilayer poly film of approved make fixed smoothly with GI locking profiles and GI wire spring. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				

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e	SHADE NET: UV Stabilized Shade net of Black colour, 50% shading net with manual collapsible mechanism shall be provided below gutter level. 6 no yellow adhesive strips for insect trap shall also be provided. Special arrangement shall be made while fixing the shed nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.				
f	FOGGERS SYSTEM: It consist of 4 way Anti Leak Foggers 28 lph, at spacing 1.6m X 2.5m, 4 kg/sqcm PVC main of 63mm dia and submain pipes of 40mm / 50mm outer dia, 16 mm LLDPE laterals, PVC Ball Valves, Flush Valve, connected to Common Plastic Disc Filter, fittings and Accessories.				
	Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.				
4	Supplying, Fixing and Installing single arch dome shaped Shed Net Houses of area 192 Sqm (06m x 32m) and maximum ridge hight up to 6.00m along with an buffer room of size 2.00m x 3.00m within the area of 192 sqm with following salient components and features:	1.00	Each		
a	STRUCTURE: - Structure consist of Pre-galvanized Tubular structure made of GI Tubular pipe of TATA, SAIL, JINDAL of size 76mm OD, 3.2mm thick in main columns of length 3.5 mtr , 60mm OD in Purlins of length 1.5 mtr and 48mm OD in Gutter of length 1.6 mtr. Foundation for main columns shall be of above defined Pre-galvanised GI tubes of OD 90mm. All members of the structure shall be connected with M6 to M10 bolts & nuts, bolts from 15 to 110 mm length, plain washers as per requirement and with the best quality plating to have good anti- corrosiveness.				
b	FOUNDATION: Pre-galvanised stell Tubular structure made of TATA, SAIL, JINDAL with proper marking on it for embedding in cement concrete for foundation shall be supplied by the tenderer. Foundation is not in the scope of tenderer, but he shall supervise the fixing of the foundation tube for level and position.				

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c	<p>DOOR: Providing GI framed sliding door of size 1.20m width x 2.00mtr hight including one vertical member and one horizontal member in the middle made with 33mm OD, 2.60mm thick GI tubular pipe structure covered with FRP / Poly carbonate sheet of 6mm thick and with good quality ISO certified fittings an locks etc. complete as per direction of Engineer-in-Charge.</p>				
d	<p>COVERING: The shed Net House shall be covered with 200 micron thick, U. V. stabilized, ability to pass light 80% to 85%, White / Diffused (20%) as per requirement, IR, Anti fog, Anti drip, multilayer poly film of approved make fixed smoothly with aproved quality aluminium locking profiles, GI wire spring and good quality jointing materials. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
e	<p>SHADE NET: Shed Net shall be of ISI marked, UV Stabilized, Agro compatible Shade Net 50% weaving of Green / Black colour with manual collapsible mechanism as per direction of Engineer-in-Charge. Special arrangement shall be made while fixing the shade nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
f	<p>IRRIGATION SYSTEM: The Irrigation System shall be made as drip Irrigation system with water storage tank shall be of ISI marked Sintex or equivalent water storage tank of capacity 1000 ltrs supplied with water by 1.00HP capacity pump of reputed make and 4Kg/Sqcm PVC main and sub-main pipes, PVC Ball Valves, Ventury injection system with all accessories, lateral lines, Dripper / Emmiter , Control valve, Air release Valve, Flush Valve, connected to Common Plastic Disc Filter, all necessary fittings Fitting and Accessories required to complete the system as per direction of Engineer-in-charge.</p>				
g	<p>GI FENCING: Providing and fixing G.I. chain link fabric fencing of required width in mesh size 100 x 100mm made of G.I wire of dia 2.50mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete on sides of the structure as per the direction of Engineer-in-charge.</p>				

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h	DIGITAL CYCLIC TIMER: The shed net house shall be provided with microprocessor based cyclic timer to control the irrigation system with pre-cast feature to automate the man free operation of irrigation system.				
i	FITTINGS & ACCESSORIES: All fittings and accessories shall be of ISO certified Grade-A materials, wherever applicable it must be UV stabilized, it must be rust free in case of metallic, It should not be made of recycle process in case of PVC / plastic, all aluminum components / accessories must be Grade-A quality.				
	Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.				
5	Supplying, Fixing and Installing Single arch Naturally ventilated Poly Houses of area 392 Sqm (14m x 28m) and maximum ridge height up to 6.50m along with a buffer room of size 3.00m x 4.00m with following salient components and features:	1.00	Each		
a	STRUCTURE: - Structure consist of Pre-galvanized Tubular structure made of GI Tubular pipe of TATA, SAIL, JSW or equivalent of size 76mm OD with 2.9mm thick in main columns of length 4.00 mtr in Left and right rows and in front & back rows. The same tubular pipe of size 76mm OD with 2.9 mm thickness in all outer Columns. Foundation for main columns shall be of tubular pipe of length 1.50m and size 90mm OD with 3.2mm thick and that of corridor and other columns shall be of lipped channel of length 1.50m and size 48mm OD with 2.9mm thick. The poly house structure will be aerodynamic along all four sides with balcony/ Corridor of 40mm OD with 2.6 mm thickness (Straight corridors are used along length of Poly house to stop displacement of main column from heavy wind resulting more strength to structure). All members of the structure shall be connected with M6 to M10 bolts & nuts, bolts from 15 to 110 mm length, plain washers as per requirement and with the best quality plating to have good anti- corrosiveness.				

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b	<p>FOUNDATION: Foundation for all columns will be done separately under supervision of tenderer in respect of anchorage length and levelling. Pre-galvanised lipped channel with proper marking on it for embedding in cement concrete for foundation shall be supplied by the tenderer.</p>				
c	<p>BUFFER ROOM: Entrance room of size 3.00m x 4.00m shall be projected inside from the front within 392 Sqm with two PVC doors, one of size 1.20m x 2.00m (sliding) in the back and another of size 2.00m x 2.00m (double leaf & side hung) in the front. The door frame including one vertical and one horizontal member in the middle shall be of pre-galvanized steel Tubular structure made of TATA, SAIL, JINDAL of size 33mm OD with 2.6mm thick covered with 6mm thick FRP / polycarbonate sheet.</p>				
d	<p>DOOR: Repairing / Replacement of GI framed sliding door of size 1.20m width x 2.00mtr hight made with 33mm OD, 2.60mm thick GI tubular pipe structure covered with FRP / Poly carbonate sheet of 6mm thick and with good quality ISO certified fittings an locks etc. complete as per direction of Engineer-in-Charge.</p>				
e	<p>TRUSSES: Big Arc shall be of size 48mm OD with 2.9mm thick, Small Arc shall be of size 48mm OD with 2.9mm thick. Arch bracing shall be of 25mm dia medium grade GI pipes, Column Arch bracing shall be of 25mm dia medium grade GI pipes, Arch bracings both small & big shall be of 25mm dia medium grade GI pipes, Corridor bracing shall be of 25mm dia medium grade GI pipes, wind bracings connecting main columns shall be of 25mm dia medium grade GI pipes, Horizontal beams shall be of 25mm dia medium grade GI pipes. Top Ridge purlins, Bottom Ridge Purlins and side ridge purlins shall be made of lipped channels and that of gable purlins of size 42mm OD with 2.9mm thickness. All GI pipesshall be of TATA, SAIL or JINDAL make.</p>				

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f	<p>COVERING: The shed Net House shall be covered with 200 micron thick, U. V. stabilized, ability to pass light 80% to 85%, White / Diffused (20%) as per requirement, IR, Anti fog, Anti drip, multilayer poly film of approved make fixed smoothly with approved quality GI locking profiles, GI wire spring and good quality jointing materials. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
g	<p>APRON: Apron (made up using high quality high density polyethylene with suitable combination of UV and Anti Block and other high performance additives) of width 1.50mtr shall be provided at ground level on two sides (length wise) in external corridor walls of poly houses with G.I fixing arrangement. Bottom portion of the apron beyond GI fixing arrangement (0.30mtr) to be embedded in soil.</p>				
h	<p>CURTAIN: Manual operable side roll-up curtains of width 2.00mtr with handles shall be provided on two length sides above apron top with poly film inside below curtains.</p>				
i	<p>INSECT NET: UV stabilised Insects net 40 mesh of approved make along with curtain and below the curtain shall be provided. 6 no yellow adhesive strips for insect trap shall also be provided. Special arrangement shall be made while fixing the insect nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
j	<p>SHADE NET: Shed Net shall be of ISI marked, UV Stabilized, Agro compatible Shade Net 50% weaving of Green / Black colour with manual collapsible mechanism as per direction of Engineer-in-Charge.</p>				
k	<p>IRRIGATION SYSTEM: The Irrigation System shall be made as drip Irrigation system with water storage tank shall be of ISI marked Sintex or equivalent water storage tank of capacity 1000 ltrs supplied with water by 1.00HP capacity pump of reputed make and 4Kg/Sqcm PVC main and sub-main pipes, PVC Ball Valves, Ventury injection system with all accessories, lateral lines, Dripper / Emmiter , Control valve, Air release Valve, Flush Valve, connected to Common Plastic Disc Filter, all necessary fittings Fitting and Accessories required to complete the system as per direction of Engineer-in-charge.</p>				

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1	FOGGERS SYSTEM: It consist of 4 way Anti Leak Foggers 28 lph, at spacing 1.6m X 2.5m, 4 kg/sqcm PVC main of 63mm dia and submain pipes of 40mm / 50mm outer dia, 16 mm LLDPE laterals, PVC Ball Valves, Flush Valve, connected to Common Plastic Disc Filter, fittings and Accessories.				
	Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.				
6	Repairing existing High Tech Green House of size 7.10 mtr x 14.10 mtr by repairing the damaged parts of the green house or replacing the damaged parts of the Green House as detailed below:	1.00	Each		
a	COOLING PAD: Providing and fixing cellulose cooling pad of size - height 1.5m and 0.10 mtr thick along with galvanized water collecting gutter, profiles to fix pads, PVC Water Distribution System, 1no 0.5HP pump of approved make with accessories all complete. To support the cooling pad, brick wall of thickness 230mm (Length and hight as per site requirement) with bricks of Class 5 in cement mortar 1:4 (1 cement: 4 coarse sand) plastered on both sides with cement mortar 1:4 (1 cement : 4 coarse sand) shall be constructed separately under the supervision of the tenderer.				

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b	<p>COVERING: Replacement of existing damaged sheet coverings with 6mm thick U.V stabilized, impact resistant, multi wall clear poly carbonate sheet of weight sustainability up to 1.30 Kg per Square metre, temperature sustainability from -40 degree to +120 degree, ability to pass light 80% to 85% and of approved quality as per direction of Engineer-in-Charge. The poly carbonate sheet shall be fixed to the structure with good quality jointing materials, Grade-A quality Alluminium Locking Profile with EPDM Rubber and ISO certified Grade-A rust free fittings accessories. Existing good quality old poly carbonate sheet covering wherever replacement is not required shall be cleaned properly by using detergents / chemicals as per direction of Engineer-in-Charge. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
c	<p>EXHAUST FAN: It consists of 36" exhaust fan with 6 no. of blades with 1.5 hp motor belt drive with Galvanized body with louvers.</p>				
d	<p>CONTROL PANNEL: Provision of micro processor based control pannel to regulate / control the equipments such as PAR lamps, cooling system, misting unit, temperature, humidity, feather touch operation, safety alarm and auto On/Off facility to damage protection.</p>				
	<p>Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.</p>				
7	<p>Repairing existing Shade Net House of size 6.20 mtr x 32.40 mtr by repairing the damaged parts of the shed net house or replacing the damaged parts of the shed net House as detailed below:</p>	2.00	Each		

a	<p>COVERING: Replacement of existing damaged roof coverings with 200 micron thick, U. V. stabilized, ability to pass light 80% to 85%, White / Diffused (20%) as per requirement, IR, Anti fog, Anti drip, multilayer poly film of approved make fixed smoothly with aluminium locking profiles and GI wire spring. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
b	<p>SHADE NET: Replacement or provision of ISI marked, UV Stabilized, Agro compatible Shade Net 50% weaving of Green / Black colour with manual collapsible mechanism as per direction of Engineer-in-Charge. The UV film shall be fixed to the structure with good quality jointing materials, Grade-A quality Alluminium Locking Profile with EPDM Rubber, UV stabilized (wherever applicable) and ISO certified Grade-A rust free fittings accessories. Special arrangement shall be made while fixing the shade nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				
c	<p>GI FENCING: Providing and fixing G.I. chain link fabric fencing of required width in mesh size 100 x 100mm made of G.I wire of dia 2.50mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete on sides of the structure as per the direction of Engineer-in-charge.</p>				
d	<p>DOOR: Repairing / Replacement of GI framed skidding door of size 1.20m width x 2.00mtr hight made with 33mm OD, 2.60mm thick GI tubular pipe structure covered with FRP / Poly carbonate sheet of 6mm thick and with good quality ISO certified fittings an locks etc. complete as per direction of Engineer-in-Charge.</p>				
	<p>Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.</p>				

8	Repairing existing Shade Net House of size 6.20 mtr x 30.70 mtr by repairing the damaged parts of the shed net house or replacing the damaged parts of the shed net House as detailed below:	1.00	Each		
a	COVERING: Replacement of existing damaged roof coverings with 200 micron thick, U. V. stabilized, ability to pass light 80% to 85%, White / Diffused (20%) as per requirement, IR, Anti fog, Anti drip, multilayer poly film of approved make fixed smoothly with aluminium locking profiles and GI wire spring. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.				
b	SHADE NET: Replacement or provision of ISI marked, UV Stabilized, Agro compatible Shade Net 50% weaving of Green / Black colour with manual collapsible mechanism as per direction of Engineer-in-Charge. The UV film shall be fixed to the structure with good quality jointing materials, Grade-A quality Alluminium Locking Profile with EPDM Rubber, UV stabilized (wherever applicable) and ISO certified Grade-A rust free fittings accessories. Special arrangement shall be made while fixing the shade nets to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.				
c	GI FENCING: Providing and fixing G.I. chain link fabric fencing of required width in mesh size 100 x 100mm made of G.I wire of dia 2.50mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete on sides of the structure as per the direction of Engineer-in-charge.				
d	DOOR: Repairing / Replacement of GI framed sliding door of size 1.20m width x 2.00mtr high made with 33mm OD, 2.60mm thick GI tubular pipe structure covered with FRP / Poly carbonate sheet of 6mm thick and with good quality ISO certified fittings an locks etc. complete as per direction of Engineer-in-Charge.				

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	<p>Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.</p>				
9	<p>Repairing existing High Tech Green House of size 22mtr x 14mtr by repairing the damaged parts of the green house or replacing the damaged parts of the Green House as detailed below:</p>	1.00	Each		
a	<p>COOLING PAD: Providing and fixing cellulose cooling pad of size - height 1.5m and 0.10 mtr thick along with galvanized water collecting gutter, profiles to fix pads, PVC Water Distribution System, 1no 0.5HP pump of approved make with accessories all complete. To support the cooling pad, brick wall of thickness 230mm (Length and height as per site requirement) with bricks of Class 5 in cement mortar 1:4 (1 cement: 4 coarse sand) plastered on both sides with cement mortar 1:4 (1 cement : 4 coarse sand) shall be constructed separately under the supervision of the tenderer.</p>				
b	<p>COVERING: Replacement of existing damaged sheet coverings with 6mm thick U.V stabilized, impact resistant, multi wall clear poly carbonate sheet of weight sustainability up to 1.30 Kg per Square metre, temperature sustainability from -40 degree to +120 degree, ability to pass light 80% to 85% and of approved quality as per direction of Engineer-in-Charge. The poly carbonate sheet shall be fixed to the structure with good quality ISO Certified jointing materials, Grade-A quality Aluminium Locking Profile with EPDM Rubber, ISO certified Grade-A rust free(in acse of metallic) fittings accessories, UV stabilized wherever applicable. Special arrangement shall be made while fixing the covers to the frame work so that it can be easily removed by the user in future in case of cyclonic storm.</p>				

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c	SHADE NET: Replacement or provision of ISI marked, UV Stabilized, Agro compatible Shade Net 50% weaving of Green / Black colour with manual collapsible mechanism as per direction of Engineer-in-Charge. The UV film shall be fixed to the structure with good quality jointing materials, Grade-A quality Aluminium Locking Profile with EPDM Rubber, UV stabilized (wherever applicable) and ISO certified Grade-A rust free fittings accessories.				
d	MICRO SPRINKLER / FOGGERS SYSTEM: It consist of 4 way Anti Leak Foggers 28 lph, at spacing 1.6m X 2.5m, PVC main & submain pipes of 6 kg/cm ² , 16 mm LLDPE laterals, PVC Ball Valves, Flush Valve, connected to Common Plastic Disc Filter, fittings and Accessories.				
e	EXHAUST FAN: It consists of 8" exhaust fan with 6 no. of blades with 1.5 hp motor belt drive with Galvanized body with louvers.				
f	CONTROL PANNEL: Provision of micro processor based control pannel to regulate / control the equipments such as PAR lamps, cooling system, misting unit, temperature, humidity, feather touch operation, safety alarm and auto On/Off facility to damage protection.				
g	GUTTER: Gutters shall be of trapezoidal section of perimeter 600mm made out of 500 micron poly sheet fixed at suitable level and with suitable slope to dispose off the water to the ground.				
h	COOLING FAN: Providing and fixing 48 inches slow speed co-axial belt driven fan with complete accessories and automatic closing / opening of vent system. The fan can be made operational with single phase and 220V AC.				
	Notes: The rate shall be inclusive of all Taxes and cost of all materials, fittings and accessories, carriage/ transportation, tools and plants, equipments, labour charges, Installation charges, commissioning charges, training charges and incidentals all complete and nothing extra shall be paid on any account unless otherwise specifically mentioned in the item.				

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