



INSTITUTE OF PHYSICS BHUBANESWAR

(An Autonomous Research Institute of Department of Atomic Energy, Govt. of India)

ODISHA - 751005

GENERAL CONDITIONS OF CONTRACT **(GCC)**

(This document shall form an integral part of the contract agreement.)

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1. PERFORMANCE GUARANTEE

- 1.1. The contractor shall submit an irrevocable Performance Guarantee of 5% (Five percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his/her proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period as specified below:
 - (i) The time allowed for submission of performance guarantee without penalty shall be 15 days from receiving of "Letter of Acceptance". This period can be further extended as written request of the successful bidder by the Engineer in Charge for a maximum period of 15 days beyond the initial period of 15 days (without penalty period) with a late fee of @1.00% per day of Performance Guarantee Amount. If the successful bidder still fails to submit the performance guarantee, then the bid shall be rejected and treated as cancelled and the entire EMD shall be forfeited.
 - (ii) This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank/Banker's Cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay Order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Fixed Deposit Receipts or Guarantee Bonds of any Nationalized Bank in accordance with the format at ANNEXURE- I In case a fixed deposit receipt of any Bank is furnished by the contractor to the IOP Bhubaneswar as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the IOP Bhubaneswar to make good the deficit.
- 1.2. The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work.
- 1.3. The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the IOP Bhubaneswar is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
 - (i) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee.
 - (ii) Failure by the contractor to pay Director, IOP Bhubaneswar any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-Charge.
- 1.4. In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Director, IOP Bhubaneswar.
- 1.5. Refund of Performance Guarantee: The performance guarantee shall be returned to the contractor, without any interest after recording of the completion certificate for the work by the Engineer-in-charge.

2. SECURITY DEPOSIT

- 2.1. The bidder, whose tender is accepted, will also be required to furnish by way of Security Deposit for fulfillment of his contract, an amount equal to 5% of the tendered value of the work. Earnest Money deposited at the time of tenders will be treated as part of the Security Deposit.
- 2.2. The successful bidder shall permit IOP Bhubaneswar at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of the gross amount of each running bill till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. Such deductions will be made and held by IOP Bhubaneswar by way of Security Deposit unless he has / they have deposited the amount of Security at the rate mentioned above in cash or in the form of Fixed Deposit Receipts. In case a fixed deposit receipt of any bank is furnished by the contractor to IOP Bhubaneswar as part of the security deposit and the bank is unable to make payment against the said fixed deposit

receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to IOP Bhubaneswar to make good the deficit.

- 2.3. All compensation or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by IOP Bhubaneswar or any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by scheduled banks (if deposited for more than 12 months) endorsed in favour of the Registrar, IOP Bhubaneswar, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof.
- 2.4. Security Deposit as deducted above can be released against Bank Guarantee issued by a Scheduled Bank on its accumulation to a minimum of Rs.5 Lakhs subject to the condition that amount of such Bank Guarantee, except last one, shall not be less than Rs.5 Lakhs. Bank Guarantee should be submitted which will be valid up to the expiry of defect liability period.
- 2.5. Refund of Security Deposit: The total amount recovered against Security Deposit shall be refunded without interest in proportionate annual installments after successful completion of each year of Defect Liability Period. Defect Liability Period shall commence from the date of final acceptance of the work and recording of the completion certificate by the Engineer-in-charge.

3. COMPENSATION FOR DELAY

- 3.1. If the contractor fails to maintain the required progress in terms of the milestones of the contract or to complete the work and clear the site on or before the stipulated or extended date of completion, he shall, without prejudice to any other right or remedy available under the Law to the IOP Bhubaneswar on account of such breach, pay as agreed compensation the amount calculated at 1.5% per month of delay to be computed on per day basis on the amount of tendered value of the work for every completed day / month (as applicable) that the progress remains below that specified or that the work remains incomplete. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the agreed value of work or of the agreed value of the item or group of items of work for which a separate period of completion is given, over and above the Performance Guarantee and Security Deposit.
- 3.2. In case, the contractor does not achieve a particular milestone or the re-scheduled milestone(s), payment @0.25% of Original Contract Value per week shall be withheld against that milestone, to be adjusted against the compensation levied at the final grant of Extension of Time. Withholding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor makes up the progress on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. No interest, whatsoever, shall be payable on such withheld amount.

4. DETERMINATION OF CONTRACT

- 4.1. Subject to other provisions contained in this clause, the Engineer-in-Charge may, without prejudice to his any other right or remedy against the contractor in respect of any delay, inferior workmanship, any claim for damages and /or any other provisions of this contract or otherwise, and whether the date for completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:
 - i. If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un workman-like manner shall omit to comply with the requirements of such notice for a period of 7 days thereafter.
 - ii. if the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continue to do so after a notice in writing of 7 days from the Engineer-in-Charge.

- iii. If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
 - iv. If the contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
 - v. If the contractor offers or gives or agrees to give to any person in IOP Bhubaneswar or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for IOP Bhubaneswar.
 - vi. If the contractor obtains a contract elsewhere as a result of wrong tendering or other non-bonafide methods of competitive tendering.
 - vii. If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
 - viii. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
 - ix. If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge.
 - x. If the work is not started by the contractor within 1 / 8th of the stipulated time.
 - xi. When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the Director, IOP Bhubaneswar shall have powers:
 - a. To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract, shall be liable to be forfeited, and shall be absolutely at the disposal of IOP Bhubaneswar.
 - b. After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be unexecuted out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.
- 4.2. In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.
- 4.3. In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is higher, either party may close the contract. In case contractor wants to close the contract, he shall give notice to the department stating the

failure on the part of department. In such eventuality, the Performance Guarantee of the contractor shall be refunded within 30 days from the date of notice from contractor. If Performance Guarantee is not released within prescribed time limit, then a simple interest 0.25% per month shall be payable on Performance Guarantee amount to the contractor from the date of expiry of prescribed time limit. A compensation for such eventuality, on account of damages etc. shall be payable @ 0.25% of tendered amount subject to maximum limit of Rs. 5 lacs.

- 4.4. Contractor is liable to pay compensation even if contract is not determined. In any case in which any of the powers conferred upon the Engineer-in-Charge under the contract, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor), use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof, belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work / or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final and binding on the contractor, his clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice); in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

5. TIME EXTENSION FOR DELAY

- 5.1. The time allowed for execution of the works as stipulated in the contract or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in contract. If the Contractor commits default in commencing the execution of the work as aforesaid, IOP Bhubaneswar shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.
- 5.2. As soon as possible after the Contract is signed, the Contractor shall submit a Time and Progress Chart for each mile stone and get it accepted by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate program has been agreed upon) complete the work as per the mile stones given.
- 5.3. If the work(s) be delayed by:
- i. Force majeure, or
 - ii. Abnormally bad weather, or
 - iii. Serious loss or damage by fire, or
 - iv. Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
 - v. Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
 - vi. Non-availability of stores, which are the responsibility of IOP Bhubaneswar to supply or

vii. Non-availability or break down of tools and plant to be supplied or supplied by IOP Bhubaneswar or

viii. Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Contractor's control,

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

- 5.4. Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within 14 days of the happening of the event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired. In any such case the Engineer-in-Charge may give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 1 month of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the contractor.

6. MEASUREMENTS AND PAYMENTS

- 6.1. Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done. All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract. All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorised representative and by the contractor or his authorised representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties. If for any reason the contractor or his authorised representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorised representative does not remain present at the time of such measurements after the contractor or his authorised representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor.
- 6.2. The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.
- 6.3. The contractor shall give, not less than 7 days notice to the Engineer-in-Charge or his authorised representative in-charge of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.
- 6.4. Engineer-in-Charge or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all

provisions stipulated herein above shall be applicable to such checking of measurements or levels. It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

7. COMPLETION CERTIFICATE, CLEANED SITE AND COMPLETION PLANS

- 7.1. Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within fifteen days of the receipt of such notice, the Engineer-in-Charge shall inspect the work, and if there is no defect in the work, shall furnish the contractor with a certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and / or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed, all scaffolding, surplus materials, debris, rubbish, unserviceable material and all huts and sanitary arrangements, required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floors or other parts the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof, and not until the work shall have been measured by the Engineer-in-Charge.
- 7.2. The contractor shall submit completion plans required as per Specifications within 30 days of the completion of the work.
- 7.3. In case, the contractor fails to comply as aforesaid, the department will get it done through other agency at his cost and actual expenses incurred plus Rs. 50,000/-for the same shall be recovered from the contractor and the contractor shall have no claim in respect of such cost thereof.

8. PAYMENT OF FINAL BILL

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within 3 (three) months from the date of receipt of the bill by the Engineer-in-Charge or his authorised representative, complete with account of materials issued by the Department and dismantled materials.

9. MATERIALS TO BE PROVIDED BY THE CONTRACTOR

- 9.1. The contractor shall, at his own expense, provide all materials, required for the works other than those specified otherwise. The contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer-in-Charge shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.
- 9.2. The Contractor shall at his risk and cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor

shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

- 9.3. The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.
- 9.4. The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.
- 9.5. The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in the contract.
- 9.6. No Price Escalation shall be considered on the tendered rates for stipulated or extended period of contract.
- 9.7. Secured advance on non-perishable materials: The contractor, on signing an indenture in the form to be specified by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work up to 75% of the assessed value of any materials which are in the opinion of the Engineer-in-Charge nonperishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered / deducted from the next payment made under any of the clause or clauses of this contract. Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of Engineer-in-Charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-Charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on perishable or high risk materials such as ordinary glass, sand, petrol, diesel etc.
- 9.8. Excavated / dismantled material will be IOP Bhubaneswar's property. The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work etc. as IOP Bhubaneswar's property and such materials shall be disposed off to the best advantage of IOP Bhubaneswar according to the instructions in writing issued by the Engineer-in-Charge.

10. SPECIFICATIONS

- 10.1. The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the designs, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge. The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale. The following order of preference shall be observed:
 - a) Description of Bill of Quantities.
 - b) Particular Specifications and Special Conditions or Clauses, if any.
 - c) Approved Detail Drawings.
 - d) C.P.W.D. Specifications.

e) Indian Standard Specifications of B.I.S.

f) Manufacturer's specifications

10.2. The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract.

10.3. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

10.4. Contractor shall be required to submit a guarantee bond for all the water proofing works carried out by him as per ANNEXURE- II .

10.5. Approved Makes:

All Makes/Brands approved for use Or being used by CPWD shall be considered allowable for use in IOP Bhubaneswar works.

11. DEVIATIONS / VARIATIONS, EXTENT AND PRICING

11.1. The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

11.2. Deviation and Time Extension: The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, will be extended, if requested by the contractor, as follows:

- i. In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value, plus
- ii. 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

11.3. Extra Items and Pricing

- a. In the case of Extra Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index.
- b. In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para:
 - I. If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

- II. If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- c. In the case of extra item(s) (items that are completely new, not found in either Delhi Schedule of Rates of CPWD or in tender's schedule of quantities, and are in addition to the items contained in the contract), the contractor may within fifteen days of receipt of order or occurrence of the item(s), claim rates, supported by proper analysis, for the work and the engineer-in-charge shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

11.4. Deviated Quantities and Pricing

- a. In the case of contract items, substituted items, contract cum substituted items, which exceed the limits of 30% for new construction works of plinth and above, 100% for foundation work and 50% for maintenance repairs work, the contractor may within 15 days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.
- b. The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the aforesaid limits, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within 15 days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of 15 days having regard to the market rates.
- c. The contractor shall send to the Engineer-in-Charge once every month an upto date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge, which he has executed during the preceding quarter, failing which the contractor shall be deemed to have waived his right and the rates determined by the Engineer-in-Charge shall be deemed accepted by the contractor.
- d. For the purpose of operation of this clause the following works shall be treated as works relating to foundation.
 - i. For buildings, compound walls: Plinth level or 1.2 metres (4 feet) above ground level, whichever is lower, excluding items of flooring and D.P.C. but including base concrete below the floors.
 - ii. For abutments, piers, retaining walls of culverts and bridges, walls of water reservoirs: The bed of floor level.
 - iii. For retaining walls where floor level is not determinate: 1.2 metres above the average ground level or bed level.
 - iv. For roads: All items of excavations and filling including treatment of sub-base and soling work.
 - v. For water supply lines, sewer lines, underground SWD & similar works: All items of work below ground level except items of piping work.
 - vi. For open storm water drains: All items of work except lining of drains.
- e. Any operation incidental to or necessarily has to be in contemplation of tenderer while filing tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

12. FORECLOSURE OF CONTRACT DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK

- 12.1. If at any time after acceptance of the tender, IOP Bhubaneswar shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in charge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.
- 12.2. The contractor shall be paid at contract rates full amount for works executed at site and in addition, a reasonable amount as certified by the Engineer-in-charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure.
 - i. Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office, storage accommodation and water storage tanks.
 - ii. IOP Bhubaneswar shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided however, IOP Bhubaneswar shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over or to be taken over by IOP Bhubaneswar, cost of such materials as detailed by Engineer-in-charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor.
 - iii. If any materials supplied by IOP Bhubaneswar are rendered surplus, the same except normal wastage shall be returned by the contractor to IOP Bhubaneswar at rates not exceeding those at which these were originally issued less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to IOP Bhubaneswar stores, if so required by IOP Bhubaneswar, shall be paid.
 - iv. Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.
 - v. Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.
- 12.3. The contractor shall, if required by the Engineer-in-charge furnish to him books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.
- 12.4. The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by IOP Bhubaneswar as per item (ii) above 'Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by IOP Bhubaneswar from the contractor under the terms of the contract.
- 12.5. A compensation for such eventuality, on account of damages etc. shall be payable @ 0.5% of cost of work remaining incomplete on date of closure i.e. total stipulated cost of the work less the cost of work actually executed under the contract shall be payable

13. CARRYING OUT PART WORK AT RISK & COST OF CONTRACTOR

- 13.1. If contractor:

- (i) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or
 - (ii) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.
- 13.2. The Engineer-in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:
- (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
 - (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.
- 13.3. The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/ part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by IOP Bhubaneswar because of action under this clause shall not exceed 10% of the tendered value of the work.
- 13.4. In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.
- 13.5. Any excess expenditure incurred or to be incurred by IOP Bhubaneswar in completing the part work/ part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by Government as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Government in law or per as agreement be recovered for any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.
- 13.6. If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.
- 13.7. In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

14. SUSPENSION OF WORK

- 14.1. The contractor shall, on receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:
- a. on account of any default on the part of the contractor or;

- b. for proper execution of the works or part thereof for reasons other than the default of the contractor;
or
- c. For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

14.2. If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:

- a. the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;
- b. If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within fifteen days of the expiry of the period of 30 days.

14.3. If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reason (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-Charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by IOP Bhubaneswar or where it affects whole of the works, as an abandonment of the works by IOP Bhubaneswar, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by IOP Bhubaneswar, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer-in-Charge within 30 days of the expiry of the period of 3 months.

15. ACTION IN CASE OF WORK NOT DONE AS PER SPECIFICATIONS

- 15.1. All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer-in-charge, his authorised subordinates in charge of the work and all the superior officers of the Department or any organization engaged by the Department for Quality Assurance and of the Chief Technical Examiner's Office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.
- 15.2. If it shall appear to the Engineer-in-charge or his authorised subordinates in-charge of the work or his subordinate officers or the officers of the organization engaged by the Department for Quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months (six months in the case of work costing Rs. 10 Lakh and below except road work) of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be,

remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under para 2.1 of the contract (for non-completion of the work in time) for this default.

- 15.3. In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates he may consider reasonable during the preparation of on account bills or final bill if the items is so acceptable without detriment to the safety and utility of the item and the structure, or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

16. CONTRACTOR LIABLE FOR DAMAGES, DEFECTS DURING MAINTENANCE (DEFECT LIABILITY PERIOD)

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within 12 months (6 months in the case of work costing Rs. 10,00,000/- and below except road work) after a certificate final or otherwise of its completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defective or improper materials or workmanship, the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense, or in default, the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due, or at any time thereafter may become due to the contractor, or from his security deposit, or the proceed of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of 12 months (6 months in the case of work costing Rs. 10,00,000/- and below except road work) after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of road work, if in the opinion of the Engineer-in-Charge, half of the security deposit is sufficient to meet all the liabilities of the contractor under this contract, half of the security deposit will be refundable after 6 months and the remaining half after 12 months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later. Performance Security shall be refunded to the contractor after completion of the work and recording the completion certificate.

17. CONTRACTOR TO SUPPLY TOOLS & PLANTS, WORKMEN ETC.

- 17.1. The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), machinery, tools & plants. in addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffoldings and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer-in-Charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under the contract and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.
- 17.2. Recovery of compensation paid to workmen: In every case in which by virtue of the provisions of section 12 sub-section (1) of the Workmen's Compensation Act. 1923, IOP Bhubaneswar is obliged to pay compensation to a workman employed by the contractor, in execution of the works, IOP Bhubaneswar will recover from the contractor the amount of the compensation so paid; and, without prejudice to the rights of IOP Bhubaneswar

under Section 12, sub-section (2) of the said Act, IOP Bhubaneswar shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by IOP Bhubaneswar to the contractor whether under this contract or otherwise. IOP Bhubaneswar shall not be bound to contest any claim made against it under section 12, sub-section (1) of the said Act, except on the written request of the contractor and upon his giving to IOP Bhubaneswar full security for all costs for which IOP Bhubaneswar might become liable in consequence of contesting such claim.

- 17.3. Ensuring payment and amenities to workers if contractor fails: In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and of the contract labour (Regulation and Abolition) Central Rules, 1971, IOP Bhubaneswar is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the Rules, under Clause 19 H or under the DAE Contractor's Labour Regulations, or under the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by Department of Atomic Energy contractors, IOP Bhubaneswar will recover from the contractor the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of IOP Bhubaneswar under Section 20, sub-section (2) and Section 21, sub-section (4) of the contract labour (Regulation and Abolition) Act, 1970, IOP Bhubaneswar shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by IOP Bhubaneswar to the contractor whether under this agreement or otherwise. IOP Bhubaneswar shall not be bound to contest any claim made against it under Section 20, subsection (1) and section 21, sub-section (4) of the said Act, except on the written request of the contractor and upon his giving to IOP Bhubaneswar full security for all costs for which IOP Bhubaneswar might become liable in contesting such claim.

18. LABOUR LAWS TO BE COMPLIED BY THE CONTRACTOR

- 18.1. The contractor shall obtain a valid license under the Contract Labour (R & A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provision of the Child Labour Prohibition & Regulation Act-1998. The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996. Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non execution of the work.
- 18.2. No labour below the age of fourteen years shall be employed on the work.
- 18.3. Minimum wages act to be complied with The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, Contract Labour (Regulation and Abolition) Act, 1970 and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.

19. APPRENTICE ACT PROVISIONS TO BE COMPLIED WITH

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

20. CONFIDENTIAL INFORMATION

The drawings, specifications, proto-type, samples and such other information furnished to the contractor relating to the supply / work, sub-systems / equipment etc. are to be treated as confidential which shall be held by the contractor in confidence and shall not be divulged to any third party without the prior written consent of the Department. The contractor, therefore, binds himself, his successors, heirs, executors, administrators, employees and the permitted assignees or such other persons or agents directly or indirectly concerned with the work / supply to the confidential nature of the drawings, specifications, proto-type samples etc. It is a further condition of the contract that the contractor shall not, without prior written permission from the Department, transmit, transfer, exchange, gift or communicate any such

confidential information, and also the component, sub assembly, products, by-products etc. pursuant to the fabrication under taken by the contractor, to any third party.

21. SCAFFOLDING, MOBILE ELEVATED PLATFORM AND SAFETY

- 21.1. Every scaffold or mobile elevated platform and its supporting members, railings, Tee-boards, ropes should be designed to support given load, with a safety factor of at least four. No alterations should be made that might impair the strength of such structures, no improvised, make-shift or substandard scaffold should be permitted even for the most temporary use. All work in connection with such structures, including construction, operation, maintenance, alteration and removal should be carefully done under the direction and supervision of persons with specialized experience in such works. A safe and convenient means of access should be provided to the platform or scaffold. Means of access may be a portable ladder, fixed ladder, ramp or it may be a stairway. The use of cross braces or frame work as means of access to the working surface shall not be permitted.
- 21.2. Contractor shall provide safe access to any part of the structure or building for Engineer-in-charge or his/her representative or officials of the department for inspection of the works at any point of time.
- 21.3. All parts of the construction exposed to fall of a person more than 60cm height shall be kept safe and protected by way guarded railing or barrier.
- 21.4. All parts of the construction shall be kept well lit and ventilated by natural or artificial means.
- 21.5. Every worker shall be made to work wearing safety helmet, florescent shirt, safety harness, and safety shoes.
- 21.6. Construction site shall be kept out of bounds for layman by steel barricades of minimum height 1.8m suitably designed for safety and stability against self-weight, incidental loads and imposed loads.
- 21.7. Contractor shall designate a safety in-charge for the work before start of the work.
- 21.8. Non-compliance to above shall invite a penal recovery of 0.5% of the tendered amount per month without prejudice to any other conditions in the contract.

22. WATER

- 22.1. Water if available may be supplied by IOP Bhubaneswar to the contractor from a nearby source of water subject to the following conditions:
 - a) The water charges shall be 5 paise (₹ 0.05) per litre recovered on gross amount of the work done. Change in water charges if any, in future shall be adjusted accordingly.
 - b) The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from the source of supply.
 - c) IOP Bhubaneswar do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/ their own cost in the event of any temporary break down in the Department water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.
- 22.2. The contractor shall be allowed to construct temporary wells in IOP Bhubaneswar land for taking water for construction purposes only after he has got permission of the Engineer-in- Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

23. ELECTRICITY

- 23.1. Electricity may be provided by IOP Bhubaneswar to the contractor on his request but will be at the discretion of IOP Bhubaneswar.

23.2. The charges and tariff for usage shall be as per the following rules:

Tendered amount	Less than ₹ 10 Lakhs	From ₹ 10 Lakhs to ₹ 50 Lakh	From ₹ 50 Lakhs to ₹ 2 Crores	From ₹ 2 crores and above
One time Charge	Nil	₹ 3000/-	₹ 7500/-	₹ 15000/-
Monthly demand charges	₹ 400/- per month per kVA	₹ 400/- per month per kVA	₹ 400/- per month per kVA	₹ 400/- per month per kVA
Energy consumption charges	₹ 10/- per kWH	₹ 10/kWH	₹ 10/kWH	₹ 10/kWH
Meter rent/month	₹ 50/- per month for 3 phase power & single phase power			

23.3. The connection shall be given against specific work order. The contractor with multiple work orders shall take separate connection for each contract.

23.4. Engineer-in-charge, before forwarding any bill of the contractor for payment shall ensure that the latest electricity bills have duly been paid by the contractor and the receipt is enclosed with the bill claimed.

24. FORCE MAJEURE

If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics, strikes, lockouts or acts of God (hereinafter, referred to events') provided, notice of the happening of any such event is given by either party to the other within 10 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance of delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of IOP Bhubaneswar as to whether the works have been so resumed or not shall be final and conclusive, provided further that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 90 days, either party may at its option terminate the contract by giving notice to the other party.

25. ARBITRATION

25.1. In the case of dispute arising upon or in relation to or in connection with the contract between the parties, which has not been settled amicably, any party can refer the dispute for Arbitration under (Indian) Arbitration and Conciliation Act, 1996. Such disputes shall be referred to an Arbitral Tribunal consisting of 3 (three) arbitrators, one each to be appointed by IOP Bhubaneswar and Successful Bidder, the third arbitrator shall be chosen by the two arbitrators so appointed by the parties and shall act as Presiding Arbitrator. In case of failure of the two arbitrators appointed by the parties to reach a consensus regarding the appointment of the third arbitrator within a period of 30 days from the date of appointment of the two arbitrators, the Presiding arbitrator shall be appointed by the Secretary of the Ministry / Department. The Arbitration and Conciliation Act, 1996 and any statutory modification or re-enactment thereof, shall apply to these arbitration proceedings.

25.2. Arbitration proceedings shall be held in Bhubaneswar and the language of the arbitration proceeding and that of all documents and communications between the parties shall be English.

25.3. The decision of the majority of arbitrators shall be final and binding upon both parties. The expenses of the arbitrators as determined by the arbitrators shall be shared equally by the parties. However, the expenses incurred by each party in connection with the preparation, presentation shall be borne by the party itself. All arbitration awards shall be in writing and shall state the reasons for the award.

ANNEXURES

ANNEXURE- I

FORM OF PERFORMANCE GUARANTEE BY BANK GUARANTEE

In consideration of the Director, IOP Bhubaneswar having agreed under the terms and conditions of Letter of Intene / Agreement No..... dated..... made betweenand (hereinafter called “ the said Contractor{s}”) for the work (hereinafter called “ the said Letter of Intent / Agreement”) having agreed to production of a irrevocable bank Guarantee for Rs. (Rupees

..... only), as a security / guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement, we(Indicate the name of the Bank) (hereinafter referred to as “the Bank”) hereby undertake to pay to IOP Bhubaneswar an amount not exceeding Rs. (Rs.....only) on demand by IOP Bhubaneswar.

We (indicate the name of Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from IOP Bhubaneswar stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs..... (Rupees.....only).

We, the said bank, further undertake to pay to IOP Bhubaneswar any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

We..... (indicate the name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of IOP Bhubaneswar under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-charge on behalf of the IOP Bhubaneswar certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

We (indicate the name of Bank) further agree with IOP Bhubaneswar that IOP Bhubaneswar shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by IOP Bhubaneswar against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of IOP Bhubaneswar or any indulgence by IOP Bhubaneswar to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

We, (indicate the name of Bank) lastly undertake not to revoke this guarantee except with the previous consent of IOP Bhubaneswar in writing.

This guarantee shall be valid up to, unless extended on demand. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee, all our liabilities under this guarantee s hall stand discharged.

Signed and sealed

Dated the day of for(indicate the name of Bank)

* * *

(Note: The Letter of Intent shall form part of the Agreement)

ANNEXURE- II

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING AND TERMITE-PROOF WORKS FOR 10 (TEN) YEARS

The Agreement made this day of two thousand and between son of of (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called Government of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract) dated and made between the GUARANTOR of the one part and the Government of the other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said contract recited completely water and leak-proof and termite-proof.

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof and termite-proof for ten years from the date of giving of water proofing treatment and termite-proof.

NOW THE GUARANTOR hereby guarantees that water proofing treatment and termite-proof given by him will render the structures completely leak-proof and the minimum life of such water proofing and termite-proof treatment shall be ten years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose: (a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof; (b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts; (c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water-proof to the satisfaction of the Engineer-in-Charge at his cost, and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects, failing which the work shall be got done by the Department by some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if GUARANTOR fails to execute the water proofing or commits breach there under then the GUARANTOR will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government the decision of the Engineer-in-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligor and by and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Seal & Signature of Contractor

Postal Address

in the presence of—

- 1.
- 2.



INSTITUTE OF PHYSICS

BHUBANESWAR

ODISHA 751005

(An autonomous research institute under Dept. of Atomic Energy, Govt. of India)

TENDER DOCUMENT

for

Composite repair and renovation of Director's bungalow at Institute of Physics Bhubaneswar.

NIT No. NIT/IoP/02/2021-22

Tender Serial No. _____ Issued to:

.....
.....
.....

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1. NOTICE INVITING TENDER

1.1. INTRODUCTION

Institute of Physics, Bhubaneswar hereinafter called IOP Bhubaneswar, invites online tenders from the eligible contractors for **Composite repair and renovation of Director's bungalow at IOP campus**. Particulars of the project are as following.

1.2. PARTICULARS

1.NIT Number	NIT No: NIT/loP/02/2021-22
2.Name of Work	Composite repair and renovation of Director's bungalow at IOP campus
3.Location of Work	Campus aforesaid area, IOP Bhubaneswar
4.Estimated Cost (including GST)	₹ 16,69,691/- (Rupees Sixteen Lakhs Sixty Nine Thousand Six Hundred Ninety One Only)
5.Earnest Money Deposit	NSIC/MSEs Registration Certificate OR Bid Security Declaration Form (Annexure-III).
6.Time limit for Execution	90 days from Date of Start.
7.Tender Basis and Mode	Two stage(Technical Bid & Financial Bid)
8.Date, Time & Venue of Pre-bid Meeting	19th August 2021, 15:00hrs, Meeting Room-Block-B, IOP Bhubaneswar-751005
9.Closing Date & Time for Receipt of bids	26th August 2021 upto 15:00hrs
10.Date& Time for Opening of Technical Bid	27th August 2021at 15:30hrs
11.Date& Time for Opening of Price Bid	To be intimated to the eligible bidders subsequently.
12. Engineer-in-charge and contact details.	For Civil works: Mr. Saroj Kumar Jena, SA/C (Civil), Tel: 06742306530, 9583582438 Email: sarojkumar@iopb.res.in For Elec. Works: Mr. A. K Dash, SO/D (Electrical), Mobile No.9437053048 Email: arundash@iopb.res.in
13. Address for tender Issue, submission and opening	Registrar's office, Institute of Physics Bhubaneswar, Odisha -751005
14.Website for full and updated information	https://www.iopb.res.in https://eprocure.gov.in/epublish/app
15. Website for tender submission & processing	https://eprocure.gov.in/epublish/app

1.3. ELIGIBILITY CRITERIA

1.3.1. The bidder must be registered in appropriate class of works with Government organization like CPWD/ PWD/ MES or PSUs or those having experience in similar nature of works awarded by Government / Semi Government Organizations/ Government Funded Autonomous Organization.

1.3.2. The bidder must have done at least 1 (ONE) similar work of value of 80% of the estimated cost or 2 (TWO) similar works for projects each of value 60% of the estimated cost or 3 (THREE) similar work for projects each of value 40% of the estimated cost with Government/ Semi-government/PSU/ Government Funded Autonomous Organization during last 7 (seven) years preceding last date of the month of tender submission.

Note:

(I) The estimated is ₹ 16,69,691/- (Rupees Sixteen Lakhs Sixty Nine Thousand Six Hundred Ninety One0 Only.

(ii) The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to the last date of receipt of applications for tender.

(iii) Similar works shall mean: Repair & Renovation/ Construction of Building including Electrical works

1.3.3. The bidder must be registered with appropriate government authority as a bonafide business entity and must have GST registration certificate and Permanent Account Number of income tax.

1.3.4. The registrations and licenses should be valid during the execution phase.

1.3.5. The Average annual turnover of the bidder as per ITCC or profit & loss statement shall not be less than 30% of the estimated cost of project, not having incurred loss in more than two years, during last 5 years ending 31 Mar 2021. The documents submitted should be duly certified and audited by Chartered Accountant.

1.3.6. Net worth Certificate of minimum 15% of the estimated cost i.e. ₹ 2.50 Lakhs issued by certified chartered accountants is to be submitted. Format for the same is enclosed in Annexure-IV

Kali
11/08/21
Registrar

On behalf of the Director, Institute of Physics Bhubaneswar

Copy to:

- 1) Director's office
- 2) Scientific Officer-D (Electrical Section)
- 3) Scientific Assistant-C (Civil Section)
- 4) Junior Accounts office
- 5) Notice Board
- 6) Office file

रजिस्ट्रार/REGISTRAR
भौतिकी संस्थान/INSTITUTE OF PHYSICS
भुवनेश्वर/BHUBANESWAR

2. INFORMATION TO BIDDERS

2.1 SCOPE OF WORK

- 2.1.1 The IOP Bhubaneswar intends for Composite repair and renovation of Director's bungalow at IOP Bhubaneswar campus. The work consists of Composite Repair & Renovation/Construction of Building including Electrical works of aforesaid area.
- 2.1.2 Constraint: The job needs to be executed in Campus area without causing any disturbances to the normal functioning of routine activities/ road networks.
- 2.1.3 The vendor shall work out execution sequence and methodology so as to complete the project within the envisaged time and the estimated cost, duly handling the constraint mentioned above.

2.2 GENERAL INSTRUCTIONS

- 2.2.1 Bidding documents are to be obtained electronically through websites <https://www.iopb.res.in>; <https://eprocure.gov.in/epublish/app>.
- 2.2.2 This bid document shall be read in conjunction with GCC (General Conditions of Contract) available on <https://www.iopb.res.in>
- 2.2.3 The bidder shall visit and inspect the site and obtain all information on his own responsibility and at own cost, which may be necessary for the purpose of quoting and submitting the tender. No excuse or ignorance as to site conditions and local information shall be accepted after awarding of the contract. Access to the site will be granted by the Engineer-in-charge on all working days within working hours.
- 2.2.4 IOP Bhubaneswar shall not provide any space at site for labour hutments.
- 2.2.5 All clarifications about the tender shall be sought by bidder on or before pre-bid meeting. The bidders may make suggestions which shall be considered during the Pre Bid Meeting. Intending bidder(s) may also send their queries or suggestion, if any, through e-mail to the Engineer-in-charge on sarojkumar@iopb.res.in (for civil works) and arundash@iopb.res.in (for electrical works) on or before 25th August 2021, 14:30hrs. No queries shall be entertained after notification of replies to noteworthy queries received till the date of pre-bid meeting.
- 2.2.6 Completion certificate issued by Competent Authority will only be considered as credential. If the Completion certificate issued by Competent Authority does not reflect the type of work, then Final bill / Schedule of Quantity of the qualifying works also to be attached along with the Completion certificates. Certificate from private individuals / organizations for whom such works have been executed shall not be accepted.
- 2.2.7 The bidding document (consisting of specifications, the schedule of quantities of various types of items to be executed, the set of terms and conditions of the contract and other documents / drawings, if any), Addendum/Corrigenda, Clarifications to Pre-bid queries can be downloaded from the websites: i) <https://www.iopb.res.in> ii) <https://eprocure.gov.in/epublish/app>. Corrigenda, if any shall be published only on these

websites at any time before the closing time of tender. The Institute shall not be responsible for any delay / difficulties / inaccessibility of downloading facility for any reason whatsoever. The renderers who have downloaded the tender documents from website must visit the website and ensure that such addendum(s)/corrigendum(s) (if any) is also downloaded by them. This shall be the responsibility of the prospective registered bidders to check the web site for any such corrigendum/addendum before closing time of tender and ensure that bid submitted by them are in accordance with all the corrigendum's/addendums.

- 2.2.8 All costs, charges & expenses that may be incurred in connection with the preparation of his tender shall be borne by him and the Institute accepts no liability whatsoever therefore.
- 2.2.9 Rates quoted by the bidders shall be inclusive of GST (Goods and Services Tax - Central, State and Interstate) and all applicable taxes. Income Tax and all other statutory deductions like labourcess etc. will be deducted from the bill as per prevailing rules.
- 2.2.10 Exemption to IOP Bhubaneswar against any tax/ duty/ fee/ surcharge/ charge/ cost, if any, found applicable or sought later from IOP Bhubaneswar after award shall be passed on to IOP Bhubaneswar by the contractor without dispute.
- 2.2.11 IOP Bhubaneswar reserves the right to reject any or all of the bids without assigning any reason.
- 2.2.12 Bid Validity: Bid shall remain valid for 120 days from the date of submission.
- 2.2.13 Firm Price: Bidder's quoted Rates/Prices for executing the activities under the Contract shall remain firm till completion of the entire work & shall not attract any escalation under any circumstances whatsoever.
- 2.2.14 If any information furnished by the bidder is found as false / fabricated, then his bid will be rejected and treated as cancelled. Even if such manipulation is detected at any stage after signing of the contract, it would lead to termination of the contract besides enforcing actions as mentioned in the Bid Security Declaration Form (Annexure-III) and liabilities towards prosecution. In such case the bidder will be debarred from participation in future tendering process in IOP Bhubaneswar for next 01(one) year.
- 2.2.15 Earnest Money Deposit (EMD): As per amendment in GFR-2017, No.F9/4/2020-PPD dated 12.11.2020, no provision for EMD has been kept in this tender. However the bidder has to submit a Bid Security Declaration as per the Annexure-III. MSEs registered with District Industries Centers, National Small Industries Corporation and any other body specified by Ministry of MSME or Startups as recognized by Department of Industrial policy and promotion shall be exempted from payment of EMD in the bid. The self-attested photocopy of their evidence should be submitted by the bidder (s) along with the formal request letter for exemption.
 - 2.2.15.1 In case the NSIC /MSEs registration certificate is found invalid during evaluation, the bid of such bidder shall be rejected.
 - 2.2.15.2 Bidder so exempted for submission of EMD shall have to submit an undertaking as per Annexure-II

- 2.2.15.3 Bidder not having NSIC/MSEs registration has to submit Bid Security Declaration Form Annexure-III along with an undertaking as per Annexure-II
- 2.2.15.4 Delay In handling over of bungalow beyond the stipulated date for reasons not attributable to IOP Bhubaneswar will invite penalty as mentioned under clause 3 of GCC.

2.3 SUBMISSION OF TENDER

- 2.3.1 Help for Contractors, FAQ Information about DSC and Bidders Manual Kit containing the detailed guidelines for e-Procurement system are also available on Central Public Procurement Portal. [<https://eprocure.gov.in/eprocure/app>].
- 2.3.2 It is mandatory for all the bidders to have a valid Class-I/Class-III Digital Signature Certificate (in the name of person having power of attorney to sign the Bid) from any of the licensed Certifying Agency to participate in e-Procurement of OP Bhubaneswar.
- 2.3.3 It is mandatory for the bidders to get their firm /company registered with e-procurement portal <https://eprocure.gov.in/eprocure/app> to have user ID & password.
- 2.3.4 Tender documents will be available online on website <https://eprocure.gov.in/eprocure/app> which can be downloaded free of cost.
- 2.3.5 Bidders may download and refer the "Instructions for Online Bid Submission" from (<https://eprocure.gov.in/eprocure/app>).
- 2.3.6 The tender documents shall be submitted online in the prescribed format given on the websites and technical bids received online shall be opened as per NIT or Corrigendum thereof. No other mode of submission is acceptable. Detailed credentials as per the requirement of eligibility criteria and all tender papers except Bill of Quantities are to be submitted in "Technical Bid".

Bill of Quantities with rates duly filled in are to be submitted in the format provided online In the name of "Financial Bid". Hence, physical submission of the documents is limited to submission of MSE registration certificate as per provision given in sub-clause 1.2.5 of NIT & 2.2 .15 of Information to Bidders.

Representative of the bidder, who chooses to attend, may attend the online opening of the technical bids on the scheduled date and time of Bid opening. However, such representatives shall be allowed to attend the opening of the Technical Bids, only, if such person presents the letter of authority issued in his name by the bidder on his letter head.

- 2.3.7 Bidders cannot submit the tender after the due date and time of e-bid submission. Time being displayed on Central Public Procurement Portal <https://eprocure.gov.in/eprocure/app> ("Server System Clock Time") shall be final and binding on the bidder. e-Bids are required to be submitted by bidders, only as per the Indian Standard Time (1ST) and not the time as per their location/country.

- 2.3.8 The bidders are advised to submit their e-bids well before the e-bid due date. IOP Bhubaneswar shall not be responsible for any delay in submission of e-bids for any reason including server and technical problems.
- 2.3.9 The Technical and Financial Bid shall be digitally signed by the Authorized Signatory of the bidder & submitted "on-line" only. The authorized signatory of the bidder must be in possession of Power of Attorney before submitting the digitally signed bid. Scanned copies of various documents can be prepared in .pdf file format.
- 2.3.10 Any tender received, without original Earnest Money in the form as specified in clause 1.2.5 of tender documents shall not be considered and shall be summarily rejected.
- 2.3.11 IOP Bhubaneswar reserves the right to cancel the tenders before submission/opening of tenders, postpone the tender submission/opening date and to accept/reject any or all tenders without assigning any reasons thereof. IOP Bhubaneswar assessment of suitability as per eligibility criteria shall be final and binding.
- 2.3.12 Tenderers may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. The decision of IOP Bhubaneswar in this regard shall be final and binding.

2.4 EVALUATION OF BIDS AND AWARD OF WORK

- 2.4.1 The Bid of bidder will be opened electronically on the specified date and time of opening Director's conference room, IOP Bhubaneswar-751005 in the presence of willing bidders or their authorized representatives.
- 2.4.2 Date, time and place of opening of Financial Bid will be informed after evaluation of Technical Bid to the Technically Qualified Bidders.
- 2.4.3 Bids shall, first, be checked for NSIC/MSEs registration certificate or Bid Security Declaration Form (Annexure-III). Only those bids found to have duly submitted NSIC / MSEs registration certificate or Bid Security Declaration Form (Annexure-III) shall be considered for evaluation.
- 2.4.4 Evaluation of Technical Bid: The bids received will then be assessed on the eligibility criteria mentioned at Para 10 of Notice Inviting Tender. Bids found not meeting the eligibility criteria shall be considered non-responsive and shall be rejected summarily.
- 2.4.5 IOP Bhubaneswar retains the right to revert back to individual bidders with further clarifications / queries on the Technical Bid. The bidder has to respond to the queries within the specified time mentioned in the covering letter.
- 2.4.6 On the date & time specified for opening of Financial Bid or the Revised Financial Bids as the case may be will be opened on specified date and time.
- 2.4.7 EVALUATION OF Financial Bids: The Financial Bid should contain the complete bid document with duly filled In Schedule of Financial Quote. Financial Bids opened as above will be checked for arithmetical errors.
- 2.4.8 The successful bidder shall be issued Letter of Acceptance (LOA) of the bid, and be required to furnish a Performance Guarantee as per General Conditions of Contract, Program Schedule with specific Milestones to be achieved as to complete the work within

the stipulated time limit and details of his Technical Staff to be deployed as per ANNEXURE-I.

- 2.4.9 Letter of Award (Work Order) shall be issued to the successful bidder only after receipt of the Performance Guarantee, along with Program Schedule and the details of Technical Staff to be deployed for the work.
- 2.4.10 Agreement (Contract) consisting of complete tender document including conditions, bill of quantities, technical proposal and specialized services, drawings, if any, and acceptance thereof together with any correspondence leading thereto, shall be drawn and signed with the awardee after issue of Work Order.
- 2.4.11 Date of start of work shall be reckoned from 7th day from the date of issue of "letter of Acceptance".

2.5 BIDDING CAPACITY OF CONTRACTORS

- 1) The bidding capacity of the contractor should be equal to or more than the estimated cost of the work put to tender. The bidding capacity shall be worked out by the following formula:

$$\text{Bidding Capacity} = \{[A \times N \times 2] - B\}$$

Where,

A=Maximum turnover in construction works executed in any one year during the last five years taking into account the completed as well as works in progress. The value of completed works shall be brought to current costing level by enhancing at a simple rate of 7% per annum.

N=Number of years prescribed for completion of work for which bids has been invited.

B= Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited.

3. UNDERTAKING BY THE BIDDER

UNDERTAKING

I / We have read and examined the Tender document including terms & conditions, specifications, bill of quantities, drawings and designs, general rules & directions, General Conditions of Contract, Special Conditions of Contract and all relevant other documents, publications and rules referred to in the Conditions of Contract and all other contents in the tender documents for the work.

I / We, hereby tender for execution of the work specified for the Institute of Physics Bhubaneswar within the time specified and in accordance in all respects with the specifications, designs, drawings and instructions in writing.

We agree to keep the tender open for 120 days from the last date of its submission and not to make any modifications in its terms and conditions. An undertaking as mentioned in Bid Security Declaration Form (Annexure-III) has been deposited. If I / we, fail to furnish the prescribed performance guarantee within prescribed period, I / we agree that the said Director, Institute of Physics Bhubaneswar or his authorized officer shall without prejudice to any other right or remedy, be at liberty to enforce actions as mentioned in the Bid Security Declaration Form (Annexure-III). Further, if I / we fail to commence work as specified, I / we agree that the Director, Institute of Physics Bhubaneswar shall without prejudice to any other right or remedy available in law, be at liberty to enforce actions as mentioned in the Bid Security Declaration Form (Annexure-III) and forfeit the performance guarantee absolutely, to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein.

Further, I / We agree that in case of enforcement of actions as mentioned in the Bid Security Declaration Form (Annexure-III) and/or Performance Guarantee as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

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 authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Seal & Signature of Contractor
Postal Address

Dated

Witness

Address

Occupation

ANNEXURE-I

TECHNICAL STAFF OF CONTRACTOR

DISCIPLINE	NAME	QUALIFICATION	EXPERIENCE	CONTACT NUMBER
Overall Project In-charge				
Engineer - Structure and Civil Works				
Engineer - Electrical & Mechanical Works				
In-charge - Safety, Health & Environment				

Seal & Signature of Contractor

ANNEXURE – II

UNDERTAKING FOR GCC COMPLIANCE**UNDERTAKING**

We hereby undertake that we shall fulfill all the terms & conditions within the specified time frame, after the acceptance of our offer in case our offer is accepted; failing which IOP Bhubaneswar may go ahead to take necessary action such as reporting the non-compliance to appropriate Government authorities and barring us from future participation in IOP Bhubaneswar works.

Seal & Signature of Contractor

Dated

ANNEXURE - III

Bid Security Declaration Form

Date: _____ Tender No. _____

To (Insert complete name and address of the purchaser)

I/We, The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Security Declaration.

I/We, accept that I/we may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am/We are in a breach of any obligation under the bid conditions, because I/We

- a) Have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- b) Having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instruction to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/We are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown)

In the capacity of (insert legal capacity of person signing the bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on day of (Insert date of signing) Corporate seal (where applicable)

ANNEXURE-IV

Format for Net worth Certificate

It is to certify that as per the audited balance sheet and profit & loss account during the financial year, the net worth of (individual/farm/company) having registered address at as on 31.03.2021 is Rs after considering all liabilities. It is further certified that the net worth of the company has not eroded by more than 30% in the last three years ending on 31.03.2021.

Signature of Chartered Accountant

.....

Name of Chartered Accountant

.....

Membership No. of ICAI

Date & Seal

4. Checklist for Documents to be uploaded on <https://eprocure.qov.in/eprocure/app>

Sl. No.	Documents	Reference
1.	Tender Documents	
2.	EMD	1.2.5
3.	Document support of Bonafide Business Entity	1.3.3
4.	GST Registration Certificate	1.3.3
5.	Permanent Account Number	1.3.3
6.	Experience Certificate	1.3.2
7.	Average annual turnover of the bidder as per ITCC or profit and loss statement for last 5 year	1.3.5
8.	Net Worth Certificate (Annexure-IV)	1.3.6
9.	ANNEXURES-I, II and III	
10.	SOQ	



INSTITUTE OF PHYSICS, BHUBANESWAR

(An Autonomous Research Institute of Department of Atomic Energy, Govt. of India)

PART-II
FINANCIAL BID

SCHEDULE OF QUANTITIES

Name of work: Renovation of Director's Bungalow at IOP Campus.

SI No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
	(A) CIVIL WORKS					
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	3	Cum			
2	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	5.79	Cum			
3	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyrifos/ Lindane multisifiable concentrate of 20%	37.50	Ltr			
4	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole : With chlorpyrifos/Lindane E.C. 20% with 1% concentration	52.00	mtr			
4.1	Treatment at points of contact of wood work by chemical emulsion Chlorpyrifos/ Lindane (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	21.00	mtr			
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth 1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)	1.20	Cum			
5.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth 1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	2.20	Cum			
6	Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete	6.00	Sqm			
7	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	1.00	Cum			
8	Half brick masonry with non modular fly ash bricks of class designation 10, conforming to IS : 12894, in super structure above plinth and upto floor V level. Cement mortar 1 : 3 (1 cement : 3 coarse sand)	14.00	Sqm			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
9	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	14.00	Sqm			
10	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).Sal wood	0.07	Cum			
11	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note:- Butt hinges and necessary screws shall be paid separately)	2.00	Sqm			
12	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick : Float glass panes 4 mm thick glass pane (weight not less than 10 kg per sqm)	2.00	Sqm			
12.1	Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia. wire and 1.4mm wide aperture with matching wood beading	2.00	Sqm			
13	Providing and fixing 25 mm thick shutters for cup board etc. :Panelled or panelled & glazed shutters :Second class teak wood including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	3.00	Sqm			
14	Providing and fixing chromium plated brass curtain rod having wall thickness of 1.25mm with two chromium plated brass brackets fixed with C.P. brass screws and PVC sleeves etc., wherever necessary complete :25 mm dia	10.00	mtr			
15	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.	54.00	Kg			
16	Providing and fixing ISI : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :125x64x2.50 mm	20.00	no			
17	Providing M.S. Piano hinges ISI marked ISI : 3818 finished with nickel plating and fixing with necessary screws etc., complete. Overall width 50 mm	17.00	mtr			
18	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	2.00	no			
19	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete.Size 75 mm	5.00	no			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
20	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete.	6.00	no			
21	Providing and fixing chromium plated brass handles with necessary screws etc. complete: 125mm	10.00	no			
22	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :300x16 mm	5.00	no			
23	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					
23.1	300x10 mm	5.00	no			
23.2	150x10 mm	5.00	no			
24	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :125 mm					
	for window	10.00	no			
25	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. completeDouble strip (horizontal type)	7.00	no			
26	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.With 12 mm mild steel U beading					
	Sun roof wall	8.00	Sqm			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
27	Providing and fixing factory made uPVC white colour casement/casement cum fixed glazed windows of approved make (Fenesta/ Prominance/Aluplast/ Torfenster(TSIL) make.) of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately) Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. Casement window single panel with S.S. friction hinges (300 x 19 x 1.9 mm), made of (small series) frame 47 x 50 mm & sash 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glass pane glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.). Fenesta/ Prominance/Aluplast/ Torfenster(TSIL) make.	2.5	Sqm			

SI No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
28	Providing and fixing factory made uPVC white colour sliding glazed window of approved make (Fenesta/ Prominace/Aluplast/ Torfenster(TSIL) make.) upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately) Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. Fenesta/ Prominace/Aluplast/ Torfenster(TSIL) make.					
28.1	Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm)	6.3	Sqm			
28.2	Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm).	8.73	Sqm			

SI No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
30	<p>Providing and fixing factory made uPVC white colour sliding glazed door of approved make (Fenesta/ Prominace/Aluplast/ Torfenster(TSIL) make).comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension uPVC extruded glazing beads, uPVC extruded interlock and uPVC extruded</p> <p>Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle with key on one side of extreme panels along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) crescent lock (if required), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.Three track three panels sliding door made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/ double glazing bead of appropriate dimension. (Area of door above 5.00 sqm.</p>	26.50	Sqm			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
31	<p>Providing and fixing factory made uPVC white colour casement/ Casement cum fixed glazed door of approved make (Fenesta/ Prominace/Aluplast/ Torfenster(TSIL) make.) of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile),</p> <p>uPVC extruded glazing beads of appropriate dimension, EPDM gasket, zinc alloy (white powder coated) 3D hinges and one handle on each side of panels along with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key, G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws, etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc.</p> <p>After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealent shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. Casement door with 3D hinges made of (big series) frame 67 x 64 mm & sash 67 x 110 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm).</p> <p>Fenesta/ Prominace/Aluplast/ Torfenster(TSIL) make.</p>	4.50	Sqm			
32	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	102.00	Kg			
33	<p>Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.20 mm M.S. laths with 1.20 mm thick top cover</p>	6.80	Sqm			
34	Supplying and fixing Stainless steel wire guage (Grade-304) aperture 1.4 mm and 0.50mm dia wire etc complete as per direction of EIC.	49.00	Sqm			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
35	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	12.50	Sqm			
36	Chequerred precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand). Dark shade pigment using ordinary cement	69.00	Sqm			
37	Providing and laying good quality vitrified floor tiles having homogeneous structure and texture with PGVT pattern in specified sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make (Kajaria/NITCO/Jhonson/Somany/Orient bell), in approved colours and shades, fixing with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness including grouting the joints with white cement / epoxy grout and matching pigments etc., complete as per direction of EIC. Size of Tile 600x600 mm	188.00	Sqm			
38	Providing and laying Vitrified tiles having homogeneous structure and texture with PGVT pattern in specified sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, approved make (Kajaria/NITCO/Jhonson/Somany/Orient bell), in approved colours and shades, in skirting, riser of steps, over cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness including grouting the joints with white cement / epoxy grout and matching pigments etc., complete as per direction of EIC. Size of Tile 600x600 mm	13.00	Sqm			
39	Providing and laying pressed clay tiles (as per approved pattern 20 mm nominal thickness of approved size) on roofs jointed with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound, laid over a bed of 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete	4.50	Sqm			
40	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.110 mm diameter	9.00	mtr			
41	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.Bend 87.5°.110 mm bend	4.00	no			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
42	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigis incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified. 2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	14.00	Sqm			
43	12 mm cement plaster of mix :1:4 (1 cement: 4 fine sand)	10.00	Sqm			
44	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand)	4.00	Sqm			
45	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	11.16	Sqm			
46	Wall painting with premium quality plastic emulsion paint of approved brand (Asian/Dulux/ Berger) and manufacture to give an even shade. One or more coats on old work	751	Sqm			
47	Painting with synthetic enamel paint of approved brand (ASIAN/ DULUX) and manufacture of required colour to give an even shade :One or more coats on old work	154.00	Sqm			
48	French spirit polishing : One or more coats on old work	4.00	Sqm			
49	Finishing walls with Premium Acrylic Smooth exterior paint of approved make (ASIAN/DULUX/Dr Fikit) with Silicone additives of required shade:New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	401.00	Sqm			
50	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	482.00	Sqm			
51	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.	12.00	Sqm			
52	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in- Charge.	4.00	nos			
53	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	21	nos			
54	Renewing glass panes and refixing existing wooden fillets: Float glass panes of nominal thickness 4 mm (weight	2	Sqm			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
55	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles 10 mm to 25 mm	25.00	Sqm			
56	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade	15.00	Sqm			
57	Providing and fixing wash basin of approved make (Jaquar/Hindware/Cera) with C.I. brackets, 15 mm C.P. brass pillar taps (Jaquar / Hindware / Cera make), 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	2.00	no			
28	Providing and fixing white vitreous china pedestal (Jaquar / Hindware / Cera make) wash basin completely recessed at the back for the reception of pipes and fittings.	2.00	no			
59	Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make(Jaquar / Hindware / Cera make) shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	4.00	no			
60	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	5.00	Sqm			
61	Filling the gap in between aluminium/ stone/ wood frame and adjacent RCC/Brick/ Stone/ wood/ Ceramic/ Gypsum work by providing weather/structural non sag elastomeric PU sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete, complying to ASTM C920, DIN 18540- F & ISO 11600 Upto 5 mm depth and 5 mm width-.	68.00	mtr			
62	Supplying and fixing polished Granite of black colour, 18 mm thick (slab area above 0.50 sqm)	11.00	Sqm			
63	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	13.50	mtr			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
64	Stone tile (polished) work for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete.8mm thick. Granite of any colour and shade	4.00	Sqm			
65	Providing and applying heavy duty fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 of approved make and material (Dr Fixit/Sika/STP) on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 1000 microns) of make Dr Fixit/Sika/STP. The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge. Note: The work shall be carried out by the authorized applicator of the respective agency.	262.00	Sqm			
66	Providing & Applying polymer modified, flexible cementitious negative side waterproofing coating with elastic waterproofing polymers on interior wall plaster surface in three coats @14.35 kg /10 sqm. one coat of self priming of cementitious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementitious waterproofing polymer (dilution with water in the ratio of 3:1) after scrapping and properly cleaning the surface to remove pre-existing paint film & loose particles till plaster is visible, complete in all respect as per the direction of Engineer-in-Charge. The material shall be reputed waterproofing brand: Dr Fixit/Sika/STP. The work shall be carried out by the authorized applicator of the respective agency.	33.00	Sqm			
67	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge. 50mm average thickness	3.00	Sqm			
68	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.	36.00	mtr			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
69	Providing, mixing and applying bonding coat of approved adhesive (Dr. Fixit/ STP/Sika) on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect					
69.1	SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	2.50	sqm			
69.2	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make	1.85	sqm			
70	Providing, mixing and applying SBR polymer (of approved make: Dr Fixit/ Sika/STP) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge. Note: Measurement and payment: The pre-measurement of thickness shall be done just after the surface preparation is completed and Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding / tapping with a blunt metal instrument and/or the 75mm size cube crushing strength at the end of 28 days to be not less than 30 N/Sqmm2). 25 mm average thickness. Note: The work shall be carried out by authorised applicator only.	23.00	Sqm			
71	Providing and injecting approved grout in proportion recommended by the manufacturer (Dr Fixit/ Sika /STP) into cracks/honey-comb area of concrete/ masonry by suitable gun/pump at required pressure including cutting of nipples after curing etc. complete as per directions of Engineer-in- Charge. (The payment shall be made on the basis of actual weight of approved grout injected.)Stirrer mixed SBR Polymer (of approved make:Dr Fixit/ Sika /STP modified Cement slurry made with Shrinkage Compensating Cement in concrete/RCC work. Note: The work shall be carried out by authorised applicator only.	30.00	Kg			
72	Mirror polishing on marble work/Granite work/stone work / mosaic work where ever required to give high gloss finish complete.	15.00	Sqm			
		Total Qty(A)=Rs.				
	<u>(B) ELECTRICAL WORKS</u>					

SI No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
73	<p><u>Concealed wiring in PVC conduit:</u> Supply Installation, testing & commissioning of 1100V FRLS grade PVC insulated multi stranded copper conductor wires, for light point/ fan point/ exhaust fan point/ call bell point, in surface / recessed medium class PVC conduit(25mm to 40mm)/ Flexible Nylon conduit, with, suitable size GI junction box and earthing the point with FR PVC insulated copper conductor single core cable etc as required, as per IB/IS specification, on ceiling/ concrete or brick wall at a minimum depth of 3inch from the surface, complete with all accessories, bends, Tees, suitable pull boxes/ junction boxes of suitable size as per the site condition wherever required & with necessary leads at both ends by approved copper lug, complete as per the instructions of Engineer-in charge.</p> <p>Note: 1. Connection shall be done with crimped type tinned copper lugs and washers.</p> <p>2. Cutting of concrete/ Brick wall, ceiling etc are to be done properly using suitable cutting machine without damaging periphery area for laying of conduits & fixing of switch boards, DBs, JB's etc.</p> <p>3. After laying of conduits, and fixing of switch boxes, JB's etc the cutting area has to be repaired good to finish as like as prior to cutting of the same.</p> <p>4. All PVC insulated copper conductor FRLS grade shall be ISI marked.</p> <p>5. Make of wires: Finolex/ L&T or approved equivalent of the same.</p>					
73.1	03 nos. of 04 Sqmm wires in suitable PVC conduit	23	Mtr			
73.2	03 nos. of 1.5 Sqmm wires in suitable PVC conduit	36	mtr			
	<p><u>OUTLET MODULAR SWITCH & SOCKET BOXES:</u></p> <p>Fabrication, supply, installation, Testing and commissioning on concrete/brick wall duly concealed of outlet Modular plastic surface Switch Boards with modular switches, sockets, moulded front plate and inner plate etc., wiring inside the board has to be carried out using 1.5Sqmm copper PVC insulated single core flexible wire. All complete as per the instructions of Engineer-in-charge.</p> <p>Note:</p> <p>1. The scope also includes supply of modular blanking plates wherever required.</p>					

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
74	<p>2. All switches, sockets, boxes, moulded front plate, inner plate, Plug Top etc should be of MK(BLENZE)/ LEGRAND(MYRUS) or approved equivalent.</p> <p>3. All wires to be used should be of Finolex/Polycab make or approved equivalent.</p> <p>4. All MCB to be provided should be of Legrand make or approved equivalent.</p> <p>5. All terminals of the wires to be connected inside the board should be provided with suitable copper lugs/ sockets.</p> <p>6. All fan regulators should be of 120W, electronics stepped, wide, modular socket type model (02 modules)</p> <p>7. Sample of all materials is to be got approved from EIC, IOP before execution</p>					
74.1	The Modular Switch box will contain 02nos. of 5Amp, 250Volt Modular Switch	5	Nos.			
74.2	The Modular Switch box will contain One no. Modular Bell Switch + One no. Modular Two way 05A Switch + Two nos. 05 A Modular Switch + One no.05A Modular Socket	1	Nos.			
74.3	The Modular Switch box will contain One no. Two way 05A Modular Switch + One no.05 A Modular Switch	1	No			
74.4	The Modular Switch box will contain One no.15 A Modular Switch	3	Nos.			
74.5	The Modular Switch box will contain Two nos. modular Fan Regulator + Four nos. 05A Modular Switch + Two nos. Modular Bell Push Switch	1	Nos.			
74.6	The Modular Switch box will contain Three nos.05A Modular Switch + Three nos.05A Modular Socket	3	Nos.			
74.7	The Modular Switch box will contain One no.05 A Modular Switch	6	Nos.			
74.8	The Modular Switch box will contain One no. Modular Fan Regulator + Five nos. 05A Modular Switch + Two nos. of 05A Modular Socket	1	Nos.			

SI No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
74.9	The Modular Switch box will contain One no.05A Modular Switch + One no. 05A Modular Socket	6	No			
74.10	The Modular Switch box will contain One no.15A Modular Switch + One no.15A Modular Socket	10	No			
74.11	The Modular Switch box will contain Two nos.05A Modular Socket + Two nos. 05A Modular Switch	3	No			
74.12	The Modular Switch box will contain Two nos. 05A Modular Switch + One no. 05A Modular Socket	4	No			
74.13	The Modular Switch box will contain Two nos. Modular Fan Regulator + Seven nos. 05A Modular Switch + One no. 05A Modular Socket	1	No			
74.14	The Modular Switch box will contain Two nos.05A Modular Socket + Three nos. 05A Modular Switch	1	No			
74.15	The Modular Switch box will contain One no.15A Modular Socket	9	No			
74.16	The Modular Switch box will contain Three nos. of 05A Modular Switch	2	No			
74.17	The Modular Switch box will contain Four nos.05A Modular Switch + One no. Modular Fan Regulator + One no. 05A Modular Socket	2	No			
74.18	The Modular Switch box will contain Two nos. Modular Fan Regulator + Eight nos.5A Modular Switch + One no. 5A Modular Socket	1	No			
74.19	The Modular Switch box will contain Five nos.05A Modular Switch + One no. Modular Fan Regulator+ One no.05A Modular Socket	1	No			
74.20	The Modular Switch box will contain Four nos. 05A Modular Switch	1	No			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
74.21	The Modular Switch box will contain One no. Modular Fan Regulator+ Three nos. 05A Modular Switch + One no. 05A Modular Socket	1	No			
75	<p><u>OUTLET SWITCH/LIGHT POINT BOXES:</u></p> <p>Fabrication, supply, installation, Testing and commissioning duly concealed in concrete/brick wall/Ceiling of outlet switch boards made out of 16 SWG thick galvanized MS sheet with top cover 3mm thick Bakelite Hylam (Preferably of National make, white color) laminated sheet duly fixed by SS screws. Necessary wiring inside the board has to be carried out using suitable copper PVC insulated single core flexible wire. One suitable nut and bolt has to be provided on the side wall of the board for earth connection. All complete as per the instructions of EIC-IOP.</p> <p>Note: 1. All Switches, Sockets, ceiling rose & Angle holder should be of Anchor (Model-Penta) make or approved equivalent of the same.</p> <p>2. All wires to be used should be of Finolex/ L&T make or approved equivalent of the same.</p> <p>3. All terminals of the wires to be connected inside the board should be provided with suitable copper lugs/ sockets.</p> <p>4. Sample of all materials is to be got approved from EIC, IOP before execution.</p> <p>Nomenclature as required for each board is to be mentioned on the same.</p>					
75.1	The Switch/ Light point box will contain 01nos. of 5 Amp, 250Volt Angle Holder	20	Sets			
75.2	The Switch/ Light point box will contain 01nos. of 5 Amp, 250Volt Batten Holder	4	Sets			
75.3	The switch/Light point box will contain 01no.s of 250Volt Call bell, Ding Dong type, preferably of Cona make or approved equivalent of the same	3	Sets			

SI No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
75.4	The switch/Light point box will contain 01 no. of Ceiling rose , white color, 250V, 50Hz, 05A rating	29	Sets			
75.5	05"x05" Laminated Sheet (Blank Plate)	5	Nos.			
75.6	03" Round laminated sheet (Blank Plate)	5	Nos.			
76	MCB BOX: Fabrication, supply, installation, Testing and fixing on concrete/brick wall/ plywood partition of local control MCB box made out of 16 SWG thick galvanized MS sheet with top cover also galvanized MS sheet duly fixed by SS screws. Necessary cut outs to be provided on the top cover for the operating lever of the MCB and suitable size gland holes at two ends has to be made for the MS conduits/ Armored cables or The readymade factory made MCB boxes of Legrand make or approved equivalent. MCB shall be minimum of 10 KA breaking capacity. All complete as per the instructions of Engineer-in-charge- IOP Make: MCB of Legrand or approved equivalent of same. All input & output connection has to be provided with suitable sockets.					
76.1	The MCB box with one no. 32A DP MCB	7	Nos.			
77	Junction Box: Fabrication, supply, installation, Testing and commissioning of duly concealed in concrete/brick wall/Ceiling of outlet JB (50cmx45cmx12cm(depth)Box size) made out of 16 SWG thick galvanized MS sheet with top cover 3mm thick Bakelite Hylam (Preferably of National make, white color) laminated sheet duly fixed by SS screws. Suitable gland plates on all sides to be provided with stamped holes for wire entries. One suitable nut and bolt has to be provided on the side wall of the board for earth connection. All complete as per the instructions of EIC-IOP.	1	Nos.			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
78	<u>LIGHT FIXTURES:</u> Supply, installation, testing commissioning of LED light fixtures and fittings complete with all accessories, LED tube / lamp etc. on surface of slab/ beam/ false ceiling by 2 numbers (minimum) of 6mm Anchor fasteners or on wall by means of 25 x 3mm GI strip bend to shape and with 2 nos. of wood screws, nylon plug etc. suitable supporting frame fixed with rag bolts grouted on the wall/ anchor fastener on the beam/ column & other fixing accessories etc., provision & connection with 01 sq.mm multi-stranded copper conductor PVC insulated FRLS grade wires/ 1.5sq.mm copper conductor PVC insulated FRLS grade earth wire etc. with the fixture from the existing point, all as per drawing, specifications & as per the instruction of EIC. Note: Sample fixture/ fitting shall be got approved from department with complete technical data.					
78.1	LED Tube light Fitting/Batten suitable for single T8 LED Tube /1x18W LED Tube light with 01 nos. 18W, 04ft length, Cool White, LED Tube light. The LED Tube should be replaceable/ suitable for retrofit in old conventional fittings CG model no.ECO-DIJB12LT8-20 (For fitting/Batten) & Ultron-LT8-8-565-2 (For LED T8-Tube) or approved equivalent of the same.	12	Nos.			
78.2	1ftx1ft, Square, Surface mounted, LED panel, white light, 18W, 250V, 50Hz to be mounted on the inner concrete surface of the roof. Preferably of CG make Model – LCDSPLN-S-18/ LCTLRN-18-CDL or approved equivalent of the same.	9	Nos.			
78.3	09W, 250V, 50Hz. Round LED Bulbs to be provided in the Angle/ Batten Holders/ Bulkhead fittings, Philips/CG/Bajaj or approved equivalent of the same	31	Nos.			
79	<u>CEILING FANS:</u> Supply, Installation, testing & commissioning of 1200 mm sweep ceiling fans, double ball bearing, capacitor with aluminium canister complete with down rod/ motor, safety chain/ wire and all accessories, suitable for 230V/ 250V, 50Hz supply system, including continuous earthing and final connection with 01sq.mm multi-stranded copper conductor PVC insulated FRLS grade wires. Make: Crompton Greaves, Model-High Speed Plus, 05 Star rated or approved equivalent of the same.	10	Nos.			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
80	<p><u>GEYSER:</u> Supply, Installation, Testing & Commissioning of mini instantaneous electric water heater relevant ISI marked 3KW, 3 liter capacity, superior grade stainless steel tank, Moulded PUF insulation for less energy consumption, Slek & ABS body, Copper heating element, with safety devices like pressure relief Valve, Snap action automatic thermostat, thermal cut out, fusible plug and non-return device and reset knob, working on 230/ 250V single phase supply including MS supports fabricated out of 25 x 5 mm thick MS flat with 2 coat of red oxide and 2 coats of enamel paint fixed on wall with 3 no.s of no.10 nettle fold wood screw in wall with nylon/ Phil plug and all mounting accessories including connection with suitable lugs. The scope of work includes supply with 3 core x 4 Sqmm copper wire between geyser & connector box (max 01 meter) with 15A Plug top and suitable C.P. brass pipe with nut bolts, coupling to the inlet and outlet of water heater and pipe line and all as per specifications, standards, drawings & instructions of EIC.</p> <p>Make: V-Guard make, Model STRIN HOT, Classic-03ltr/ Crompton Greaves-Model-Solarium-IWH03PC1-3ltr or approved equivalent of the same.</p>	4	Nos.			

SI No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
81	<p><u>DISTRIBUTION BOARDS:</u></p> <p>Supply, Installation, testing & commissioning of following medium voltage (415V) TP&N distribution boards complete with necessary SFU, MCCB, MCBs, etc. suitable for wall mounting with M.S. frame work of 40x40x5mm angle mounting with M.S. enclosure fabricated out of 16SWG thick M.S. CRCA sheet with concealed hinged door, cam type locking arrangement etc. Suitable tinned copper bus bars have to be provided for all phases, neutral and earth connections both for incoming and outgoing connections. Cable end box, wire way box, including interconnections with appropriate size of PVC insulated copper conductor, phase barriers, earth of DB, enameled danger board, name plate, neoprene gasket for joints & door has to be provided. Necessary metal treatment, two coats of red oxide paint & two coats of enameled paint has to be provided. The front door (MS sheet) should have necessary cutouts for knobs/ operating levers of MCB's. Phase distribution drawing etc. all as per drawings specifications etc. relevant IS & instruction of Engineer-in-charge-IOP (G.A. & fabrication drawing to be got approved before fabrication)</p> <p>Note:</p> <ol style="list-style-type: none"> 1.MCB's shall be minimum 10KA breaking capacity & Preferably of Legrand make or approved equivalent of the same. 2. All SFUs preferably of L&T/ Siemens make or approved equivalent of the same and Fuses to be provided with that. 3. All tinned copper bus bars should be minimum of 200A rating or as mentioned in the drawing. 4. All wires to be used for wiring are should be FRLS, Finolex make or approved equivalent of the same. 5. Bolted type terminal blocks of suitable rating are to be provided for all types of input and output connections. 6. All input & output connection has to be provided with suitable cable sockets (Aluminium for Aluminium cable and Copper for copper cable) 7. If factory made DB is available of legrand or approved equivalent make suitable for this requirement same can be supplied and installed. 					
81.1	<p>Main DB with (Preferably Legrand make readymade TPN-DB-08way (08+24) with cat no.507783 with metal door IP 43-1K 09)</p> <ol style="list-style-type: none"> 1. Incomer: 04 Pole TPN MCB 63 A – 01 no. 2. Out Going: SP MCB 20A – 09 nos. 3. Out Going: SP MCB 32A – 08nos. 4. Out Going: SP MCB 16A – 03 nos. 5. Out Going: SP MCB 10A – 04 nos 	1	Sets			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
81.2	<p><u>Meter Box:</u> Wall mounting type double door meter box, Completely sealed with rubber gasket suitable for installation of one three phase energy meter & one no. 04 pole 63A MCB. Necessary window with transparent glass to be provided in the inner door for viewing the energy meter reading. Necessary cutting for TPN MCB operating lever is to be provided in the inner door. Earthing point is to be provided in the box.</p> <p>The box will contain one no. of three phase energy meter, preferably of L&T make, EM301, 3Ph, 4wire, current 10Amp to 40Amps and one TPN MCB of 63Amp at outgoing.</p> <p>The box should have enough space for connection of 02 nos. of 16Sqmm, 4 core, PVCA cable. Bolted type, 04way, terminal block of 125A rating is to be provided in the box. Two nos. of gland holes are to be provided in the box at lower end for connection of PVCA cable/ PVC conduit</p>	1	Sets			
81.3	<p><u>Out Door Switch & Socket Box:</u></p> <p>Outdoor type hinged Double door, Switch & Socket Box, completely sealed with rubber gasket for protection from rain water, suitable for installation on the outside wall duly concealed on the brick/ concrete wall.</p> <p>The inner door of the box will contain one no.06 pin, 15Amp Socket and one no.15A Switch, preferably of Anchor/ Cona make. Necessary wiring is to be carried out with 04 Sqmm Stranded copper, PVC insulated, flexible wires, preferably of Finolex/ Polycab make. Necessary gland holes to be provided on the side of the box for cable/ conduit entry.</p>	2	Sets			
82	<p><u>Main Gate Junction Box:</u></p> <p>Fabrication, supply, installation, Testing and commissioning of duly concealed in concrete/brick wall, of water proof junction box (12"x 10"x5") Box made out of 16 SWG thick galvanized MS sheet. Top cover also should be of same GI sheet duly fixed with SS Screws. One suitable nut and bolt has to be provided on the side wall of the JB for earth connection. One 04 way bolted terminal block of 125A current rating is to be provided in the box. Three nos. of suitable gland holes are to be provided for input and output conduits. All complete as per the instructions of EIC-IOP.</p>	1	Sets			

Sl No.	Description of Items	Qty.	Unit	Unit Price(Rs.)		Total Amount(Rs.)
				In figure	In words	
83	<u>Water Tight/ Bulk head light fitting:</u> Supply, installation, testing and commissioning of water tight metal fixture with 09W CFL/LED lamp suitable for fixing on wall outside of the house. Make: Philips/ Bajaj/ Wipro or approved equivalent of the same.	7	Nos.			
84	<u>Chimney for Kitchen:</u> Supply Installation testing and commissioning of Chimney for the Kitchen, The chimney should be of Baffle-Filter, Suction side Width – 90cm or more, Finish- Black Tampered Glass, Control – Touch + Gesture Control i.e. Chimney should be with motion sensing technology that enables easy operation by a simple wave of hand. With Touch Control, it should enable ease of operation with just one touch. Motor position inside chimney should be such that it should make clear path for smoke and air. Suction Power should be of 1500 m3/ hr. or more than that. 02 nos. of Lamps (Less than 02 watt) should be in the chimney focusing downwards to the cooking area. Warranty on the Chimney should be one year Comprehensive & 05 year on Motor or more than that from the date of installation. Make of the chimney preferably of FABER-Primus-Plus-Energy TC-HC-BK-N90 or approved equivalent of the same	1	Sets			
85	<u>EARTH STATION:</u> Supply, installation, testing & commissioning of tinned copper plate electrode earth station, 2.5 mtr. below ground level conforming to latest IS specifications complete with all required materials like coke/charcoal, salt, brass, nut bolts & washers, watering arrangements (GI funnel), G.I. pipe-25mm (B class), masonry chamber, heavy duty cast iron cover plates and excavation in all types of soil in ground, refilling and removal of excess earth within a radius of 500mtr etc. as per instruction of EIC, drawing & specification. Note: 1. Measurement of resistance of earth station and resistance of complete scheme of earthing shall be measured, recorded & got approved by EIC. 2. The copper plate should be of electrolytic grade. 3. Two nos. of 25 x 6 mm tinned copper flat is to be bolted to the earth plate and to be brought up to the top of earth surface into the masonry chamber. 600 x 600 x 3.15 mm tinned copper plate electrode earth station	1	Sets			

