

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

INSTITUTE OF ADVANCED
STUDY IN SCIENCE AND TECHNOLOGY
(An autonomous Institute under Department of Science and
Technology, Govt. of India) PASCHIM BORAGAON,
GUWAHATI – 781 035.



TECHNICAL BID

**Tender Document for Renovation of Interior & Furnishing, Civil, Sanitary, Electrical,
Fire alarm, Audio-Visual system and Air Conditioning works at Director's office &
Conference hall at IASST, PASCHIM BORAGAON, GUWAHATI-35.**

___ July 2023

Guwahati

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
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TENDER DOCUMENT NO IASST/1299 / 2023-24/

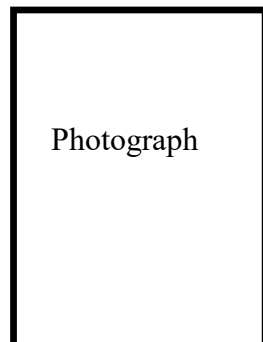
NAME OF WORK: **Renovation of Interior & Furnishing, Civil, Sanitary, Electrical, Fire alarm, Audio-Visual system and Air Conditioning works at Director's office & Conference hall at IASST, PASCHIM BORAGAON, GUWAHATI-35.**

Name of Contractor/Firm.....

Address of Communication.....

.....

Mobile No. :



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GUWAHATI – 781 035.**

Advt. No:448

Dt.1.08.2023

NOTICE INVITING TENDER

The Registrar, IASST, Paschim Boragaon, Guwahati – 781 035, invites sealed items rate tenders on Two Bid System for the following work:

NIT No	Name of works and Location	Estimated cost put to tender	Earnest Money	Time of Completion	Last date of time		Time & date of opening Tender
					Download of tender documents	Submission of Tender document (Hard copy)	
1	2	3	4	5	6	7	8
	Renovation of Interior & Furnishing ,civil ,Sanitary ,Electrical ,fire alarm & Audiovisual system and Air Conditioning works for Director's room & Conference hall at IASST, PASCHIM BORAGAON, GUWAHATI-35.	Rs 67,72,858.00(Including GST)	Rs 1,35,457.00	3Months	2/08/2023 to 21/08/2023	22.08.2023 2.30 P.M	23.08.2023 3.00PM

Tender forms and other details can be obtained from the IASST website. Bidder downloading Tender Document from the website shall deposit Rs 2 ,000.00 (Rupees two thousand) only in form of Demand Draft in favour of Director, IASST, Paschim Boragaon, Ghy-35, along with the tender . Tender fees& EMD will be exempted as per Govt rule on submission supporting documents.

Details of tenders / terms & conditions can be downloaded from the website of the Institute www.iasst.gov.in

Registrar
Institute of Advanced Study
In Science & Technology,
Paschim Boragaon, Ghy-35.

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A. PRE QUALIFICATION CRITERIA: PRE-QUALIFICATION CRITERIA:

A. **Technical Eligibility** : The Bidder shall have satisfactorily completed **similar works**- Experience of having successfully completed works during the last 7 years ending previous day of last date of submission of tender

Three similar completed works ,each costing not less than the amount equal of 40.0% of estimated cost put to tender i.e.Rs 27.09 lakh.

or

Two similar completed works, each costing not less than the amount equal to 60%of estimated cost put to tender i.e.Rs40.63 lakh.

or

One similar completed works of aggregate cost not less than the amount equal to 80% of estimated cost put to tender i.e Rs 54.18 lakh .

“Similar works” shall mean works of Renovation work such as Dismantling ,Interior& furnishing works like false Ceiling & tiles, Modular Cup board ,Furniture’s, internal electrical, Fire alarm, Audio visuals system, AC etc type of Interior works of Conference hall /Directors Chamber/VC Chamber etc.

Financial Eligibility:

- Shall have average financial turnover of Rs 33.86 lakh on construction works during the last three years ending 31st March 2023
- Should not have incurred any loss in more than two years during the last five years ending 31st March 2023.
- Shall have a solvency of Rs 27.09 lakh duly certified by the Bank not earlier than 6 (Six) months from the date of submission of the bid.

B Bid Evaluation Criteria:

The Bidders qualifying the initial criteria as stated above may be further evaluated for the following criteria by scoring method on the basis of details furnished by them:

- | | |
|---|--------------|
| a. Financial Strength (Form A & B) | Max 20 marks |
| b. Experience in Similar works during last 7 years (Form C) | Max 20 marks |
| c. Performance of works (Form D) Time over run | Max 20 marks |
| d. Performance of works (Form D) Quality | Max 40 marks |

Total 100 marks.

To become eligible for short listing the bidder must secure at least 50% marks in each and 60% marks in aggregate.

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C BIDS shall be submitted in two envelopes:

Envelope – 1 :- Technical Bid in CPWD Form 7/8 along with earnest Money deposit Tender shall be accompanied with earnest money of Rs. 1,35,457.00,(Rupees one lakh thirty five thousand four hundred fifty seven) only as follows:-

50% of earnest money may be deposited in the shape of Demand Draft/ Call Deposit / Bankers cheque/FDR of a scheduled Bank issued in favour of Director, IASST, PaschimBoragaon, Ghy-35 and balance **50% of amount of earnest money can be accepted in the form of Bank Guarantee** issued by a scheduled Bank having validity for 6 months or more from the last date of receipt of tenders.

Envelope – 2 :- Price bid filling up the BOQ issued with Tender document. The rate quoted by the Contractor shall be firmed till completion of the project. No escalation of any account will be paid to the Contractor. As such the Clause 10C, 10CA, 10CC of CPWD 2014 General Condition of Contract on price escalation will not be applicable in this contract

Bids opening :- The technical bid opening will be done in the presence of contractors who wish to witness the bid opening. Price bid opening will also be done in presence of contractors who have qualified for price bid opening.

Agreement shall be drawn with the successful tenderer on prescribed form No. CPWD 8, which is available as Govt. of India Publication with latest amendments. Tenderer shall quote his rates as per various terms and conditions of the said form, which will form part of the agreement.

2. The time allowed for carrying out the work will be 3 months from date of issue of letter of acceptance of tender or from the first day of handing over of the site, whichever is later, in accordance with the phasing if any, indicated in the tender documents.
3. Tender documents consisting of plans, specifications, the schedule of quantities of the various classes of work to be done and the set of terms and conditions of contract to be complied with by the contractor whose tender may be accepted and other necessary documents can be downloaded from the IASST website. Such bidders shall separately deposit Rs. 2000.00 along with Tender.
 1. The contractor whose tender is accepted will be required to furnish performance guarantee of 5% of the tendered amount within the period specified in scheduled “F” in the form of guarantee bonds of any scheduled Bank or the State Bank of India in accordance with the prescribed form.

In case the contractor fails to deposit the said performance guarantee within the period as indicated in scheduled – F including the extended period if any, the earnest money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

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INFORMATION AND INSTRUCTIONS TO BIDDERS.

1. General:

The Institute of Advanced Study in Science and Technology, Paschim Boragaon, Guwahati-35, is a research and training organisation registered under the Societies Registration Act. The institute is funded by the Govt. of India for maintenance and research activities in specific areas of national and regional importance.

NAME OF WORK : Renovation of Interior works ,civil works,Sanitary works ,Electrical works ,fire alarm & Audiovisual system and Air Conditioning works for Director's room & Conference hall at IASST, PASCHIM BORAGAON, GUWAHATI-35.

IASST intends to qualify for execution works with technical super visions and quality control of the jobs specify the works for the institutional complex of IASST in their own land at Paschim Boragaon, Guwahati – 35.

- 1.1 The objectives of this document is to pre-qualify the contractors for empanelment on evaluation based on feedback provided for the specialised job to be executed on item rate contract. The procurement and supply of materials, plant and machineries will also be a part of the job unless otherwise decided. The bidder shall have necessary testing facilities for quality control or in association with recognised agencies as per requirement of I.S. and other relevant codes. The fields testing facilities during execution of works must also be provided.

2. Broad Scope of works:

The broad scope of works of the proposed project are as follows:

Renovation of Interior works ,civil works,Sanitary works ,Electrical works ,fire alarm & Audiovisual system and Air Conditioning works for Director's room & Conference hall at IASST, PASCHIM BORAGAON, GUWAHATI-35.

The works are to be carried out as per the SOR items, standard and specifications.

3. Philosophy of Execution :

The work is proposed to be executed on competitive bids from the qualified bidders on bid documents of IASST. The contractor will have total responsibility of delivering the products with their expertise on planned execution of the works with mobilization of necessary manpower with plants and machinery required for the specific job to the least botheration and entire satisfaction of IASST, Guwahati-35.

- 5 Tenderers are advised to inspect and examine the site and its surrounding and satisfy themselves before submitting their tenders so as to familiar themselves about the nature of the work and the site, the means of access to the site, and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining, at his own cost, all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read this notice, all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and local conditions and other factors having a bearing on the execution of the work.

6 The competent authority does not bind him to accept the lowest or any other tender and reserves to him the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.

7. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contactors who resort to canvassing will be liable to rejection.

8. The competent authority reserve to himself the right of accepting the whole or any part of Tender and the Tenderer shall be bound to perform the same at rate quoted.

9. No Engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government services, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.⁷

10. (i) The tender for the works shall remain open for acceptance for a period of 90 days from the date of opening of tenders. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the Institute, then the Institute shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the re-tendering process of the work.

(ii) If contractor fails to furnish the prescribed performance guarantee within prescribed period, the earnest money is absolutely forfeited automatically without any notice.

11. This notice inviting tender shall form a part of the contract document. The successful tenderer / contractor, on acceptance of his tender by the accepting Authority, shall, within 15 days from the stipulated date of start of the work sign the contract consisting of :

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

- a. The notice inviting tender, all the documents including additional conditions, specifications and drawings, if any, forms the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- b. Standard CPWD Form -7/8 with up-to-date amendments and correction slips.

12 The tender document comprises of following three components :-

Part A – CPWD-6, CPWD-7/8 including schedule A – F for major component of the work, standard general condition of contract for CPWD 2021 or latest addition as applicable with all amendments/ modification.

Part B – General / specific condition, specification and schedule of quantities applicable to major component of the work.

Part C – Schedule A-F for minor component of the work. General / specific condition, specification and schedule of quantities applicable to the minor component work.

13 The tenderer must associate with himself, agencies of the appropriate class eligible to the tender for each of the minor component individually.

14 The eligible tenderer shall quote rates for all items of major components as well as for all items of minor components of the work.

15 After acceptance of the tender by competent authority the letter of award will be issued by the IASST authority making it clear in letter of award that the contractor will have

to execute agreement for different component of the work with the concerned authority of the respective discipline.

16 Entire work under the scope of composite tender including all major and minor component shall be executed under one agreement.

17 Security deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of the work. The earnest money will become part of the security deposit of major component of work.

Additional condition for CPWD – 6:

- 1 The tenderer shall abide by the rules and regulations under relevant state GST Acts / value added tax Act etc. as amended from time to time. Deductions for GST on works contract labour welfare cess as applicable shall be made from the gross value of the work done from all bills as per the provisions of above stated Acts. Nothing extra on account of this deduction shall be paid. In case this amount is not found payable to the State Govt. at a later date due to subsequent decision of the Court or Govt. the amount already deducted or the balance yet to be deducted if any from the remaining work yet to be paid/done, the

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

amount shall not be refunded/ paid to the contractor and contractor will have no claim for the same. The contractor may therefore quote his rates accordingly.

SPECIAL CONDITIONS OF CONTRACT (A)

A.1 Before tendering, the tender shall inspect the site of work and shall fully acquaint himself the conditions with regard to site, its approach from main road, nature of soil, availability of materials, suitable location for construction of god owns, stores, labour huts and location of batching plant etc. the extent of leads and lifts involved in the work (over the entire duration of contract) including local conditions, traffic restrictions, obstructions and other conditions, and restriction by Authorities as required for satisfactory execution of the work. He should take into consideration all such factors and contingencies, while quoting his rates. No claim whatsoever shall be entertained by the Department on this account.

A.2. the Contractor(s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials is required for construction.

A.3 The Contractor(s) shall study the soil investigation report for the site, available in the Office of Engineer-in-charge and satisfy himself about complete characteristics of soil and other parameters at site. However, no claim on the alleged inadequacy or incorrectness of the soil data supplied by the Institute shall be entertained.

A.4 The Contractor(s) shall give to the municipality, police and other authorities all necessary notice etc. that may be required by law and obtain all requisite licences for temporary obstruction, enclosures etc. and pay all fees, taxes and charges which may be liveable on account of his operations in executing the contract. He shall make good any damage to adjoining property, whether public or private and shall supply and maintain lights either for illumination or for cautioning the public required at night.

A.5 The rates for various items quoted by the tenderer shall apply for all the floors including terrace unless otherwise stated in the nomenclature of the items in the schedule of quantities attached with the tender.

A.6 No payment shall be made to the Contractor for any damage caused by rain, snowfall, fold or any other natural cause whatsoever during the execution of work. The damage to work shall be made good by the contractor at his own cost and not claim in the matter shall be entertained.

A.7 Royalty at the prevalent rates whoever payable, shall have to be paid by the contractor on the boulders, metal, shingles, sands and bajri etc. or any other materials collected by him for the work direct to the revenue authority of the District/ State Govt., Concerned and nothing extra shall be paid by the Institute for the same.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

A.8 Form work (centering and shuttering) conforming to sound engineering practice, as approved by Engineer-in-charge, shall be used. However various requirements specified for timber form work in CPWD specification 2009 Vol.1 to 11 with up to date correction slips shall be followed in case of steel form works as well. Nothing extra shall be payable for using steel formwork for work.

A.9 The chemically treated timber, shutters where specified, shall be got treated by an approved firm as per approved process with a preservative belonging to Type-IV (water soluble fixed type) and the absorption and other details shall be as prescribed in I.S 401 (latest edition). The Contractor(s) shall produce necessary certificates from the firm to the effect that the lot of timber/shutters brought at site has been satisfactorily treated by them according to I.S code 401 (latest edition). Each piece of timber/shutters treated by the firm shall get stamped with proper hammer mark showing the name of the firm.

A.10 For purpose of para 9.3 of CPWD Specifications Vol. 1 the portion of timber frame in the plastered grooves/rebates wherever such grooves are provided and are in contract with mortar shall be treated adequately. Such grooves/rebates shall invariably be given a coat of approved wood primer before masonry is plastered.

A.11 The contractor must study the specifications and conditions carefully before tendering.

A.12 The contractor shall have to make approaches to the site, if so required and keep them in good condition for transpiration of labour and materials as well as inspection of works by the Engineer-In-Charge. Nothing extra shall be paid on this account.

A.13 The work shall be carried out in such manner so as not to interfere or effect or disturb other works, being executed by other agencies, if any.

A.14 Any damage done by the contractor to any existing work shall be made good by him at his own cost. Otherwise the same shall be got done at his risk and cost.

A.15 The work shall be carried out in the manner complying in all respects with the requirement of relevant bye-laws of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.

A.16 For completing the work in time, the contractor might be required to work in two or more shifts including night shifts and no claims whatsoever shall be entertained on this account, notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulation and the agreement entered upon and or extra amount for any other reason.

A.17 The contractor shall make his own arrangements for obtaining electric connection(s), if required and make necessary payments directly to the department concerned. The department will however make all reasonable recommendations to the authority concerned in this regard.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

A.18 The contractor or his authorised representative should always be available at the site of work to take instructions from department officers and ensure proper execution of work. No work should be done in the absence of such authorised representative.

A.19. The contractor shall maintain in good condition all work executed till the completion of entire work allotted to the contractor.

A.20 In case the proposed building is to be constructed in a plot where already some building is occupied, the contractor will take all safety measures for the safety of people using the building nothing extra shall be paid on this account.

A.21 The contractor shall take all necessary measures for the safety of traffic during construction and provide, erect and maintain such barricades,, including signs, markings flags, lights and flagman as necessary, at either end of the excavation/embankment and at such intermediate points, as directed by the Engineer-in-charge for the proper

identification of instruction area . He shall be responsible for all damages and accidents caused due to negligence on his part.

A.22 The malba/garbage removed from the site shall be disposed off by the contractor at any suitable place as directed by the IASST authority.

A.23 All work and materials brought and left upon the ground by the contractor or by his orders for the purpose of forming part of the works, are to be considered to be the property of the President of India and the same are not to be removed or taken away by the contractor or any other person without the special license and consent in writing of the Engineer-in-Charge but the President of India is not to be in any way responsible for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or damaged by weather or otherwise.

A.24 The contractor will be responsible to provide potable and safe drinking water to labour engaged in execution of work.

A 25 The rates for all items of work, unless clearly specified otherwise, shall include the cost of all labour, materials, dewatering and other inputs involved in the execution of the items. Payment for centering/shuttering however, if required to be done for heights greater than 3.5 m shall be admissible at rates arrived at in accordance with clause 12 of the agreement if not already specified.

A.26 The contractor shall construct suitable Go down at the site of work for storing the materials safe against damage due to sun, rain dampness, fire, theft, etc.. He shall also employ necessary watch and ward establishment for the purpose and no extra claim whatsoever shall be entertained on this account.

A.27 All items involving prefabricated components of Aluminium, M.S Sectional Windows, pressed steel frames etc. shall be sample tested and approved by IASST authority before the bulk order is placed.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

A 28 Contractor may be required to execute the work under foul position. The decision of the IASST authority whether the position is foul or not shall be final and binding on the contractor.

A.29 Transparent sheet glass conforming to IS: 1761-1960 shall be used for glazing, thickness being governed as per CPWD specifications unless otherwise specified in the item. The contractor has to quote rate for windows etc. Accordingly and nothing extra shall be payable.

A 30 The P or S Trap in WCs shall be of deep water seal type and shall have a minimum water seal of 75mm. Floor traps shall have a minimum water seal of 50mm.

A 31 The contractor shall execute the different items simultaneously, as far as possible, so that minimum breakage and repairs are involved.

A 32 Other agencies will also simultaneously execute the works like Air conditioning, fire fighting , horticulture or external services and other building works for the same project along with this work in particular. The contractor shall afford necessary facilities for the same. No. claim in the mater shall be entertained.

A 33. Some restrictions may be imposed by the security staff etc. on the working and/or movement of labourers, materials etc. The contractor shall be bound to follow all such restrictions, instructions and nothing extra shall be payable on this account.

A 34(a) The Contractor shall be responsible for the protection of sanitary, water supply, drainage fittings, other fittings and fixtures against pilferages and breakage during the period of installation and thereafter until the building is handed over.

A 34 (b) The work of water supply, internal sanitary installations and drainage work etc. shall be carried out as per local Municipal corporation or such local body bye-laws and the contractor shall produce necessary completion certificates wherever required, from such authorities after completion of work. The work is to be carried thought licensed plumber and sanctity installation agency.

c) Water tanks, taps pipes, fittings and accessories should conform to bye-laws and specifications of the Municipal Body/corporation. The contractor should engage licensed plumbers for the work and get the materials (fixture, fittings) tested by the Municipal body /corporation authorities, wherever required at his own cost and nothing extra will be payable .

A.35 The Contractor shall give performance test such as smoke test/pressure test of the entire installation (s) as per standard specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.

A.36 Nothing extra shall be paid for making holes in walls/RCC members etc. for fixing suspenders and frame works and making good to restore the original surface of the building.

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A 37. Payment for work in different floors,. Extra for items for RCC work, brick work, concrete work and stone masonry above diffract floor level shall be made at rates provided for these items for operation of these rates the floor level shall be considered as the top of main structural FCC slab in that floor viz. Top of RCC slab in main room and not the top of nay sunken or depress floor for lavatory slabs.

A 37 (i) Coarse aggregate/Stone ballast/chips:

Wherever Delhi quartzite stone ballast or chips are specified in the CPWD specifications, hard stone ballast or chips obtained locally from quarries approved by the IASST authority and conforming to paras 4.1.2.1 and 4.1.2.6 of CPWD specification Volume-1 shall be used .

(ii) fine aggregate/sand:

Wherever Badarpur sand or Jamuna sand has been specified in the CPWD specifications, coarse sand or fine sand obtained locally from sources approved by the Engineer-in-charge and conforming to paras 3.1.4 and 3.1.4.1 to 3.1.4.4 of CPWD specifications (Vol.1) shall be used. The maximum quantity of silt content shall not exceed 8 (eight) percent.

Medium sand shall be natural pit or river sand, clean sharp, strong and free from excessive deleterious matter such as iron pyrites, coal mica, slate or similar contaminated materials, clay alkali soft fragments and sea shells, organic impurities etc. It shall not contain more than 8 (eight) percent of silt as determined by field test with measuring cylinder. The method of determining silt content test shall be as per CPWD Specification and as amended/corrected up to date sand containing more than the above allowable percentage of silt shall be washed so as to bring the silt content within the allowable limit.

Medium sand shall comprise 50% of coarse sand within the limits of grading Zone: III and 50% of fine sand within the limits of grading Zone: IV as given in Table, under para 3.1.4. of CPWD specifications Vol. II.

Milestone table as per given below :

Sl. No	Description of Mile stone(s) physical	Time allowed in days (from date of start)	Amount to be withheld in case of non-achievement of Mile stone(s).
1	Dismantling,brick wall,plastering ,false ceiling , ,Cupboard,tiles fitting ,apply wall putty,primer etc.	30 days	In the event of not achieving the necessary physical miles stone 1 % of tender value of work will be withheld for
2	Conceled ,electrical wiring ,Modular Lab table ,cupboard ,painting etc	30days	
3	Finishing cupboard,furnitures,tables ,electrical ,Audio visual ,Fire alurm & Ac fittings etc.	30days	

**INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY**

			failure in achieving each mile stone(s) subject to a maximum amount of 4%
	Total	90days	

SPECIAL CONDITIONS (B)

B.1 Reference Points:-

Contractor shall provide permanent bench marks, flag tops and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the level and locations, given in the architectural and plumbing drawings.

B.2. Completion drawings:

On completion of work, the contractor shall submit four prints of AS BULT drawing to the Engineer-in-Charge . These drawings shall have the following information:-

- a) Run of all pipes and their diameters including soil waste pipes vertical stacks.
- b) Ground and invert level of all drainage pipes together with location of all manholes and connections, up to outfall.
- c) Run of all supply lines with diameters, collation of control valves access panels etc.

B.3. Condition for sanitary and water supply fitting:-

Samples of all materials and fitting to be used in the work in respect of Brand, Manufacturer and quality shall be got approved form the Engineer-in-Charge well in advance of actual execution. Preference shall be given to articles bearing BIS certification mark.

- i) All sanitary fittings such as W.C. pans, wash basins, urinals etc.. Etc. shall be of approved make e.g. Hindustan Sanitary Ware, Parry Ware, Cera.
- ii) All bib cocks, stop cocks, C.P. brass taps etc. shall be of specified weight as per CPWD specification and shall be of approved make e.g. Soma, Gem, Parko, Kingston
Any materials / fitting whose samples has not been approved in advance and any other unapproved materials brought by the Contractor shall be immediately removed as soon as directed, failing which the same shall be got removed at the risk and cost of the contractor by the engineer-in –Charge without any further reference.

Wherever proprietary Brand/ Manufacturer is mentioned in the nomenclature of the items, it will imply that particular brand as approved by the Engineer-in- Charge , sample of any item of work shall be prepared by the contractor before starting the particular item of work and nothing extra shall be payable on this account.

B.4 Shutters shall be machine made and factory made only. Source of procurement(Factory) of shutters shall be got approved by the Engineer-in-Charge before placing order. Shutters shall be got prepared through specialised agency who are duly authorized and approved by the manufacturer.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

B.5. After the structure of one block is completed, a sample unit as per laid down specification shall be completed and got approved from the Engineer-in-Charge. The balance unit shall be completed as per approved sample unit.

B.6 A piece of M.S CONDUIT pipe used for operation of fittings and fixtures like pull bolt lock etc. including welding required will be provided by the contractor and nothing extra will be paid on this account. However, where the conduit pipes are not required no deduction will be made on this Account.

B.7 The contractor shall make his own arrangement for obtaining electric connections, if required and make necessary payment directly to the department concerned and nothing extra shall be payable on this account.

B.8 The contractor shall provide at his own cost suitable levelling, weighing and measuring arrangement at site for checking the level, weight/dimensions etc. as may be necessary for execution for the work.

B.9 Other agencies will also simultaneously execute the works like electrifications, horticulture or external services and other building works for the same projects along with this work in particular. The contractor shall afford necessary facilities for the same. No. claim whatsoever in the matter shall be entertained.

B.10 The building work will be carried out in the manner complying in all respects with the requirements of relevant byelaws of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-Charge and nothing extra shall be paid on this account.

B.11 The contractor shall submit a detailed programme in the form of CPM /PERT chart to the Engineer-in-Charge within 15 days of award of work and shall be got approved from him. The programme chart should include the following:-

- (a) Network CPM/PERT diagram prepared as per existing practice
- (b) Descriptive note explaining sequence of various activities.
- (c) Programme for procurement of materials by the contractor.
- (d) Programme of mobilization of machinery/equipments and their deployments.

The programme chart will have to be updated on fortnightly basis and will be submitted to the Engineer-in-Charge regularly. The approval by the Engineer-in-Charge of such programs or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibility under the contract. This is without prejudice to the right of the Engineer-in-Charge to take action against contractor as per terms and conditions of the agreement.

B.12 The contractor shall arrange and provided adequate centering and shuttering to ensure completion as per schedule.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

B.13. The Contractor shall have to use plate vibrators for casting of RCC slab in addition to needle vibrators and vibratory plate compactor for compaction of earth under floors.

B.14 All tools, plant and machinery provided by the contractor shall, when brought to the site be deemed to be exclusively intended for construction and completion of this work and the contractor shall not remove the same or any part thereof without the consent of the Engineer-in-Charge.

B.15 Ceramic wall tiles shall be of standard quality of reputed make like Somani, Johnson, Kajaria or Orient with size not less than 30cm x 60cm. or as approved by the Engineer-in-Charge. The joints shall be continuously vertical and not staggered. Tiles shall have glossy finish or matt finish as desired by Engineer-in-charge and should be of 1st quality.

B.16 Kota stone slab flooring shall be laid as per pattern approved by the Engineer-in-Charge. The stone slabs shall be machine cut and size shall in general not less than 0.25 square metres except in case of bands, strips & stair case.

B.17 The rates quoted by the contractor shall be all inclusive keeping in mind the specifications, additional and special conditions in view and nothing extra shall be payable whatsoever, unless otherwise specified.

B18 All arrangement for establishment, watch & ward, police permission, appropriate vehicles for transportation etc. shall have to be arranged by the contractor & nothing extra on this account shall be payable.

B19 various factory made materials shall be procured from reputed & approved manufacturers or their authorised dealers. List of such approved manufacturers is available at [Annexure-V](#). For the items/materials not appearing in the list, the decision of Engineer-in-charge shall be final and binding.

B20 The earthwork obtained from excavation of foundation shall be used for filling in plinth, sides under the floors and courtyard etc. and in low lying areas within the premises as per direction of Engineer-in-Charge. The contractor, if so desired by Engineer-in-charge in writing, shall dispose the earth outside the premises at specified location, for which extra payment shall be made as admissible in terms of contract.

B21 The contractor shall use good centering and shuttering system so as to ensure good quality concrete surface in all collations,. In case, concrete surface is found to be not up to mark, or in line and level or there is honey combing the contractor would be asked to dismantle the same and redo work at his own cost.

B.22 All brick work and RCC work in basement up to plinth level, irrespective of its height shall be measured in the relevant item of brick work /RCC work in foundation, plinth and basement.

B23. Wherever work is specified to be done or material procured through specialized agencies their names shall be got approved well in advance from Engineer-in- Charge. Failure to do so shall not justify delay in execution of work. It is suggested that immediately after award of work:

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

contractor should negotiate with concerned specialist agencies and send their names for approval to Engineer-in-Charge. Any material procured without prior approval of Engineer-in-Charge in writing is liable to be rejected. Engineer –in –Charge reserves right to get the materials tested in laboratories of this choice before final acceptance. Not standard material shall not be accepted.

B.24 Doors & frames shall be procured from specialist firms, product of such agencies shall be got approved from the Engineer-in-Charge well in advance.

B.25 Water proofing work shall be done by specialised firms, Name of such firms shall be got approved from IASST well before the time of execution of those items. The contractor shall maintain a register showing the date wise locations where water proofing work is done. Such record shall be got attested by the representative of the Engineer-in-Charge on day to day basis./ Any defective work will be dismantled forth with and shall be redone. Only licensed plumber shall be engaged in plumbing work.

B.26 No. pipe shall be covered before representative of IASST authority satisfy themselves about the joint being tight against leakage. In order to be sure of the same smoke test for soil/waste pipes and pressure test for plumbing would have to be conducted. Cost of such testing would be included in the quoted rate for relevant item.

B.27 The construction joints shall be provided in predetermined locations only as approved by IASST authority. The treatment of such joints shall conform to clause-5,4,4 of CPWD specification Vol.-II .The cost of shuttering and the treatment of joints may be included in item of concrete work/RCC work itself and nothing extra shall be payable on this account to the contractor.

B28 All reinforced cement concrete work shall be weigh batched, machine mixed and machine vibrated design mix of specified grade. The contractor shall install on the site fully/semi-automatic batching plant or weigh batcher at the site allotted by the Department. This plant shall have provision of accurate measurement of weight of various ingredients including water. If the agency wants to install the plant at location other than that allotted to him, he shall have to arrange the land as well as suitable transit mixers and pump of required capacity at his own cost and nothing extra shall be payable on this account. Alternatively concrete can be purchased from approved R.M.C. Plants, Refer condition No.29. The contractor however, shall indicate the intension of doing so at the time of tendering itself with full details.

B 29. The contractor should declare at the time of tendering as to how he will arrange design mix concrete i.e. whether he would install batching plant/weigh batcher at site of work or would arrange design mix for approved R.M.C plant.

If contractor decide to procure ready mix concrete from R.M.C plants, he shall within a week of award of the work, submit list of at least three R.M.C. plant companies of repute along with details of such plant indicating name of owner/company its location, capacity, technical establishment, past experience and text of MOU proposed to be entered between purchaser and supplier to the satisfaction of IASST authority who satisfying himself with quality/capability of the company shall give approval in writing (subject to drawl of MOU). The MOU shall be drawn with RMC plant owner/company and submitted to Engineer-in-Charge within a week of

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

such approval. The contractor will not be allowed to purchase ready mixed concrete without completion of above stated formalities for use in this project.

Notwithstanding the approval granted by IASST authority in aforesaid manner the contractor shall be fully responsible for quality of concrete including input control, transpiration and placement etc.

The IASST authority will reserve right to inspect at any stage and reject the concrete if he is not satisfied about quality of product. The contractor should therefore draw MOU/Agreement with RMC owner/company very carefully keeping all terms and conditions/specification forming a part of this tender document.

The department reserves right to exercise control over R.M.C procured as specified in Para 24 of particular specification.

B.30 All statutory deductions/ Constn. Workers Welfare Cess shall be deducted from all running/ final bills as applicable from the gross value of work done.

B.31

GST (Goods and Service Tax)

Goods and Service Tax (GST) may be included by the Contractor in their quoted price. However if the Bidder does not include the GST with their quoted price, the Bidder shall indicate the rate of GST as per the format and submit alongwith the price Bid.

Note:

1. IASST, if applicable, will reimburse the GST to the CONTRACTOR against submission of invoices issued in accordance with GST Rules,
2. Bidder shall furnish this Form duly filled in all respects along with his price part. However, Bidder is required to furnish the **Form indicating only the Rate of Duty/ Tax (%)** as per Column (d) along with his unpriced part.
3. The rate of GST indicated in this format shall be considered for statutory variation as per the provisions of bidding document.
4. GST quoted above shall be considered for evaluation as per provisions of Bidding Document.
5. Bidder shall indicate total GST amount payable under the contract in this format. However, if Services, to be provided by the Contractor, falls under the category defined under reverse charge rule of GST then the liability of deposition of GST to the tax authority by the Contractor, and by the Owner shall be dealt in accordance with Notifications issued on reverse charge rule of GST by Government of India from time to time.
4. Bidders not mentioning anything about GST along with the Price Bid, will be construed to have included GST along with their quoted price and will not be paid extra by IASST.

**INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY**

DETAILS OF GOODS AND SERVICES TAX (To be submitted along with the Price Bid).

S.No.	Tax	Ceiling Amount	Rate of GST	Amount of GST
		on which the GST applicable	is (%)	
(a)	(b)	(c)	(d)	(e)
1)	GST		_____ %	

Sign and Seal of Bidder

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

C. GENERAL SPECIFICATIONS

C.1 Except for the items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of Quantities, the work shall generally be carried out in accordance with CPWD specifications 2009 Vol-1 & II with up-to date correction slips shall be followed. (Herein after referred as CPWD Specifications) and instruction of the IASST authority, wherever CPWD specifications are silent the latest Indian Standard codes/specifications shall be followed.

E.5 LIST OF MATERIALS OF APPROVED MAKE

The materials of first / standard quality from the following approved makes are to be used. In case it is established that the brands specified below are not available in the market, contractor shall submit alternative proposal for the approval of Engineer – In – Charge.

E. 5A. General Materials

SL.NO.	T Y P E	BRAND NAME
1.	IRON DOOR HINGES	MOWJEE.
2.	ALLUMINIUM DOOR FITTINGS i. TOWER BOLTS, HANDLES, ii. HOOKS & EYES.	ARK/MEPRO/URGENT.
3.	MORTICE LOCK	GODREJ / EBCO
4.	PRE-COATED SHEETS ROOFING SCOPE/DURA .	DYNA ROOF/TATA BLUE
5.	OIL BOUND WASHABLE iii. DISTEMPER	BERGER PAINTS/ASIAN
6.	FALSE CEILING	GYPSUM BOARD/E-BOARD /CLASSIC/HILUX CALCIUM SILICATE BOARD
7.	CERAMIC TILES	JOHNSON / KAJARIA/ SOMANY/BELL-ORIENT /VERMORA/QUTONE/SIMERO
8.	VITRIFIED TILES	JOHNSON/KAJARIA/QUTONE /SOMANY/ MARBONITE

**INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY**

9.	GRANIT SLAB	JET BLACK / RUBY RAD
10.	MARBLE	MAKARAN (WHITE) / (GREEN) UDAIPUR
11.	REBARING	FISCHER FIXING (FISV 360)
12.	STEEL	TATA /TISCON / SAIL TMT BARS
13.	ROOF TRUSS	TATA STRUCTURA / STEEL HOLLOW/ NEZONE SECTION
14.	ANTISKID TILES	JOHNSON / NITCO/ KAJARIA
15	WATERPROOFING COMPOUND /SUNK FLOOR/ ROOF TREATMENT	CHOKSY CHEMICAL /FOSROC/PIDILITE-DR.FIXIT
16	4 - 6 MM GLASS	MODI FLOAT / SAINT GOBAIN. (FLOAT GLASS)
17	PLASTIC PAINT	LUXOL SILK OF BERGER / I.C.I DELUXE / ASIAN.
18	PLASTER OF PARIS	BHUTAN / JINDAL .
19	SYNTHETIC ENAMEL PAINT	LUXOL SILK OF BERGER / VELVET OF I.C.I / DULUX/ASIAN PAINTS.
20	ALUMINIUM SECTION	JINDAL /ANUPAM /HALCO /HINDALCO.
21	EXTERIOR WATER PROOF CEMENT PAINT	WATER PROOF WATER COAT ANTI FUNGAL / EXTERIOR PAINT OF BERGER / APEX OF ASIAN PAINT/SNOWCEM
22	CEMENT	ORDINARY PORTLAND CEMENT 43 GRADE, STAR CEMENT, DALMIA , CEMENT CORPORATION OF INDIA , LAFARGE, ACC, AMBUJA, L&T, BIRLA, ULTRATECH.,
23	STEEL / REINFORCEMENT	TATA / SAIL/ JINDAL

**INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY**

	(TMT BARS)	
24	PREPAINTED ZINC GALVALUME SHEET.	DYNA ROOF / DURAKOLOR
25	PRE-LAMINATED BOARDS BOARD/GREEN LAM	BHUTAN/NEPAL
26	PARTICLE BOARD/BLOCK BOARD & PLYWOOD,PHENOL BONDED, TERMITE RESISTANT (BWR)	GREEN PLY/LAM,CENTURY/ ARCHIDPLY/GLO
27	WALL PUTTY	BIRLA/J.K
28	FRICITION HINGES (STAINLESS STEEL)	EARL BIHARI OR EQUIVALENT
29.	Modular Cup Board/Over head unit Labbench with reagent rack top made of 19mm black granite moulded on outer edges with fixing	Island /Rectangular
	a) Ply board make JD 100% water proof 10 years warranty b) Channel BTL Company ,2years warranty c)Lock Godrej make d) Hinge BTL company e) Pannel Marryne ply Board f) Dustbin 2 Nos g) Modular shutters g) Inside 0.8mm Mica (off white) and facility of electrical wiring and modular switch fixing.	

SANITARY FXTURE AND FAUCETS

<u>SL. NO.</u>	<u>DESCRIPTION</u>	<u>BRAND NAME / MANUFACTURE</u>
1.	VITREOUS CHINA SANITARY WARE:	A) JAQUAR /HINDWARE /PARRYWARE
2.	C.P.BRASS FAUCETS, WASTES, TRAPS ETC.	A) JAQUAR/AGMEGCO

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

- | | | | |
|-----|--|---|--|
| 3. | C.P./ FLUSHVALVES FOR W.CS | : | A) JAQUAR/HINDWARE |
| 4. | C.P. ANGLE VALVES (BALL VALVE TYPE) | : | A) JAQUAR/AGMEGCO/ |
| 5. | C.P. BATHROOM ACCESSORIES | : | A) JAQUAR/
AGMEGCO/
CRABTREE |
| 6. | C. P. W SPREADERS,
URINAL FLUSH PIPE | : | A) LOTUS
B) ESS |
| 7. | STAINLESS STEEL SINK | : | A) NIRALI/
PARRYWARE |
| 8. | BEVELLED EDGE MIRROR | : | A) JAQUAR
/AGMEGCO |
| 9. | UPVC SOIL WASTE AND
VENT PIPES AND FITTINGS | : | A) SUPREME
B) PRINCE
C) FINOLEX. |
| 10. | R.C.C QUALITY | : | A) ISI MARKED
OF APPROVED. |
| 11. | PLASTIC SEAT FOR W.C PAN | : | A)COMMANDAR/
ADMIRAL/
PARRYWARE |
| 12. | C.P FITTINGS | : | A) ESSCO
B) JAQUAR
C) AGMEGCO
D) PARRYWARE/
CRABTREE |
| 13. | PVC PIPES AND FITTINGS | : | A) SUPREME/PRINCE |
| 14. | GUNMETAL VALVES(FULL WAY) | : | A) ZOLOTO |
| 15. | BIB AND STOP COCK
(BRASS) | : | A)ZOLOTO
B)JAQUAR
C)AGMEGCO |
| 16. | MOULDED PLASTIC
WATER TANKS | : | SINTEX,
OCEAN,POLYCON |

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TECHNOLOGY**

17. C.I MANHOLE COVER : a)SUPER
b)SWASTIC
18. CPVC PIPES : ORIPLAST
19. C.P. ACCESSORIES : A)GROHE
B)JAQUAR
20. SYNTHETIC POLYMERIC RUBBER COMPOUND : A) VIDOFLEX
B) SUPERLON
C) ARMSTRONG
21. VALVES, FLOAT VALVES : A)ZOLOTO
22. STEEL / CONCRETE MANHOLE COVERED GRATING. : A)K.K. MANHOLES
B)PRAGATI CONCRETE
c) RIF
d) KAJCECO
e) NECO

34

Note : The contractor shall provide the materials as per the Make or Brand indicted above. When two or more alternative equivalent brands have been mentioned, the brand to be finally used shall be decided by the Engineer – In – Charge. In case of non availability of the approved brand, EIC would decide alternative brand.

On finalising the brands with the contractor decision will be final .All other items shall be of ISI marked / as per approved sample kept at site of work.

23. Sand :Coarse sand for RCC work and medium grade sand for plastering.
24. UPVC doors and windows : Rehau/Finista make

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RECOMMENDED BRANDS/ MAKES OF MATERIALS

ITEMS	MAKERS / BRAND
Switch fuse with HRC type fuse :	ABB / GEC ALSTHOM/ Control & Switch gear company (C&S)
Switch fuse with rewirable type fuse :	GEC ALSTHOM/ CROMPTON/ HAVELL'S/HPL-SOCOMECC/Control & Switch gear company. (C&S)
Residual current circuit breaker	LEGRAND / ABB / HAGER
MCB Distribution boards :	LEGRAND / HAVELL'S / HAGER / GEC ALSTHOM
Change over Switch	HPL- COCOMECC / C&S
M S Distribution boards	HAVELL'S / HAGER / C&S / LEGRAND
1.1 KV grade PVC insulated unarmoured/ armoured aluminium cables and wires	CI / NICCO / HAVELL'S / POLY CAB / RRKABEL / FINOLEX
MCCB	LEGRAND / HAGER / Control & Switch gear company (C&S) / ABB/L & T/SCHNEIDER
PVC insulated wire and cables upto 1100 volt grade aluminium/ copper (only ISI marked quality)	ICC / HAVELL'S / POLY CAB / FINOLEX / RRKABEL
Power socket, industrial type	HAVELL'S / MK/LEGRAND / ABB / AAGER
Steel conduit:	
Black enameled (only ISI marked quality)	MAHCO/SENCO/ASHIS/KKI/ECW/SUPREME/ADARSH
Galvanised	MAHCO/SENCO/ASHIS/KKI/ECW/SUPREME/ADARSH
GI pipe	ITC/BST/JINDAL/NEZONE
16amp/6 amp switch plug socket and push switch (ISI marked ceiling	MK / LEGRAND / HAVELL'S KAY / MMP/EPP / ANCHOR / SSK

Document /Information to be furnished by the Bidder: (Envelope – I)

- (a) Financial Analysis – details to be furnished duly supported by figures in balance sheet / profit & loss account for the last five years, duly certified by the Chartered accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached) as per FORM “A”.
- (b) Solvency certificate from bankers of the bidder in the prescribe as per FORM “B”.
- (c) Copies of work orders, performance and completion certificates etc. from the clients for similar works executed and completed in the last seven years, as per FORM ‘C’, FORM ‘D’, FORM ‘E’.
- (d) Copies of valid ITC and STCC/GST.
- (e) Valid electrical contractor licence and supervision licence upto 11 KV.
- (f) PF registration and copy of certificate thereof.
- (g) Power of attorney in the name of person signing the application/ bid .
- (h) Quality assurance plan along with list of recognised test houses proposed for various tests.
- (i) Bidder may furnish any further information as considered necessary.
- (j) Information furnished will be kept confidential.
- (k) All pages of this bid document to be signed and returned with the bid

- (l) Each document furnished along with the bid will be required to be signed by person / person holding power of attorney on behalf of the organisation.
- (m)(a) Bids shall be submitted in sealed cover marked with **“Envelope-I” and “Envelope –II” and clearly mentioned the work name & name of the Bid.**
 - (b) IASST shall not be responsible for any delay, loss or non-receipt of bids. Delayed bids or bids received in late shall not be considered.
 - (c) FAX / Mail bids shall not be entertained.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

- (d) For any discussion / clarification required on the bids, respective bidder shall be intimated in due course after opening of the bids.
- (v) The bidder must submit a copy of the recent passport size photo with the self attested.
- (a) The requisite quantum of work as shown will be substantiated by completion certificate from the competent project authority. In case of work is in progress, the certificate of proportionate progress in consistent to the schedule of completion will be furnished from the competent project authority.
- (b) Contractors should have well experienced technical group of persons of appropriate qualification to manage the infrastructure project and ensure quality control of materials and construction activities.
- (c) The bidder should have sufficient number of plants and machinery and construction equipment's in running conditions for exclusive use in this work.
- (d) For testing the quality of materials and construction etc. contractors should have their own facilities / collaboration with reputed test houses of Guwahati with IASST's approval, testing will be undertaken with these test houses as per standard codes of practice.
- (e) The bidder should be well conversant with statutory labour and industrial laws of the country and its proper implementation to the maximum extent.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

FORM 'A'

Financial Information :

Financial Analysis – details to be furnished duly supported by figures in balance sheet / profit & loss account for the last five years, duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached)

YEARS				

- (i) Gross Annual turn over on construction works.
- (ii) Profit /Loss
- (iii) Financial arrangements for carrying out the proposed work.
- (iv) Solvency Certificate from Bankers of the bidder in the prescribed FORM 'B'

Signature of Chartered Accountant with seal

Signature of Bidder(s)

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TECHNOLOGY

FORM 'B'

FORM OF BANKERS' CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information the M/s Shri / Mr.
..... having marginally noted
address, a customer of our bank is / are respectable and can be treated as good for any
engagement upto a limit of Rs..... (Rupees
.....)

This certificate is issued without any guarantee or responsibility on the bank or any of the
officers.

Signature
For the Bank

- Note : 1. Bankers certificates should be on letter head of the Bank, sealed in cover addressed
to tendering authority.
2. In case of partnership firm, certificate should include names of all partners as
recorded with the Bank.

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TECHNOLOGY**

FORM 'C'

**DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING
THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DAY OF
SUBMISSION OF TENDERS**

1	2	3	4	5	6	7	8	9	10

1. Sl. No :
2. Name of work / project and location :
3. Owner or sponsoring organization :
4. Cost of work in Lakh of rupees :
5. Date of commencement as per contract :
6. Stipulated date of completion :
7. Actual date of completion :
8. Litigation arbitration cases pending / in progress with details :
9. Name & address / telephone No. of officer to whom reference may be made :
10. Whether the work was done on back to back basis yes/No

Indicate gross amount claimed and amount awarded by the Arbitrator.

Signature of Bidder(s)

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TECHNOLOGY

FORM 'D'

PERFORMANCE REPORT OF WORKS REFERRED TO IN FORMS 'C'

1. Name of work / project & location
2. Agreement No.
3. Estimated cost.
4. Tendered cost
5. Date of start
6. Date of completion
 - (i) Stipulated date of completion
 - (ii) Actual date of completion
7. Amount of compensation levied for delayed completion, if any
 - a) Whether case of levy of compensation for delay has been decided or not Yes/No
 - b) If decided amount of compensation levied for delayed completion, if any
8. Amount of reduced rate items, if any
9. Performance Report
 - (a) Quality of work very good/good/fair/poor
 - (b) Financial soundness very good/good/fair/poor
 - (c) Technical proficiency very good/good/fair/poor
 - (d) Resourcefulness very good/good/fair/poor
 - (e) General Behaviour very good/good/fair/poor

Dated:

Executive Engineer or Equivalent

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

FORM 'E'

STRUCTURE & ORGANISATION

1. Name & address of the bidder
2. Telephone No / Fax No
3. Legal status of the bidder (attached copies of original document defining the legal status)
 - (a) An individual
 - (b) A proprietary firm
 - (c) A firm in partnership
 - (d) A limited company or Corporation
4. Particulars or registration with various government Bodies (attach attested photocopy)

Organisation /place or registration

Registration No.

- 1.
- 2.
5. Names and titles of Directors & Officers with designation to be concerned with this work.
6. Designation of individuals authorised to act for the organisation.
7. Was the bidder ever required to suspend construction for a period of more than six months continuously after he commenced the construction? If so, give the name of the project and reasons of suspension of work.
8. Has the bidder, or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment.
9. Has the bidder, or any constituent partner in case of partnership firm, ever been debarred / black listed for tendering in any organisation at any time? If so, give details.
10. Has the bidder, or any constituent partner in case of partnership firm, ever been convicted by the court of law? If so, give details.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

11. In which field of Civil engineering construction the bidder has specialization and interest?

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

Form of performance security (Guarantee)

Bank Guarantee Bond

In consideration of the Director, Institute of Advance Study in Science and Technology (hereinafter called “The Institute”) having offered to accept the terms and conditions of the proposed agreement between _____ and _____ (hereinafter called “the said Contractor(s)”) for the work _____ (hereinafter called “the said agreement”) having agreed to production of an irrevocable Bank Guarantee for Rs.------(Rupees _____ only) as security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

We, _____ (hereinafter referred to as “the Bank”) hereby undertake (Indicate the name of the Bank) To pay to the Institute an amount not exceeding Rs. _____ (Rupees _____ Only) on demand by the Institute.

1. We, _____ -do hereby undertake to pay the amounts due and payable (Indicate the name of the Bank) Under this guarantee without any demure, merely on a demand from the Institute stating that the amount claimed as 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)

2. We, the said bank further undertake to pay the Institute 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 relocating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

3. We, _____ further agree that the guarantee herein contained shall (Indicate the name of the bank)
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 will all the dues of the Institute under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till IASST authority on behalf of the government certified 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.

5. We, _____ further agree with the Institute shall have the fullest liberty without our consent and without affecting in any manner our obligation 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 the Government against the said

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY

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 commission

20

on the part of the Institute or any indulgence by the Institute 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.

6. This guarantee will not be discharged due to the charge in the constitution of bank or the Contractor(s).

7. We, _____ lastly undertake not to revoke this guarantee except
(Indicate the name of the Bank)

With the previous consent of the Institute in writing.

8. This guarantee shall be valid upto _____ unless extended on demand by the Institute. 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 shall stand discharged.

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

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

ANNEXURE - E

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER SUPPLY AND SANITARY INSTALLATIONS.

The agreement made this-----day of-----two thousand and-----
--between -----S/o -----

(hereinafter called the GUARANTOR of the one part) and the Director, IASST (hereinafter called the Institute of the other part).

WHEREAS THIS agreement is supplementary to a contract (Herein after called the Contract) dated-----and made between the GUARANTOR OF THE ONEPART AND the Government of the other part, whereby the contractor interalia , under look to render the work in the said contract recited structurally stable, workmanship and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work will remain structurally stable and guarantee against faulty workmanship, Finishing manufacturing defects of materials and leakages etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable , after the expiry of maintenance period prescribed in the contract for the minimum life of two years, to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Engineer-in-Charge with regard to nature and cause of defect shall be final.

During the period of guarantee the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge calling upon him to rectify and 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 the guarantor fails to make good all the defects, commits breach there under then the guarantor will indemnify the Principal and his successor 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 those presents have been executed by the obligator-----
and-----

By for and on behalf of the Director, IASST on the day, month and year first above written.

Signed sealed and delivered by OBLIGATOR in presence of:

1----- 2-----

SIGNED FOR AND ON BEHALF OF THE Director, IASST BY-----

In the presence of:

1----- 2-----

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

ANNEXURE-II

**GUARANTEES BOND TO BE EXECUTED BY CONTRACTOR FOR WATER
PROOFING TREATMENT FOR BASEMENT/TERRACE/TOILETS.**

This agreement made this -----day of -----Two thousand and -----
-between -----son of ----- (hereinafter called the
Guarantor of the one part) and the Director, IASST (hereinafter called the Institute on 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 on the other
part, where by the contractor interalia , undertook to render the structures in the said contract
pesticited completely water and leak proof.

The Guarantor hereby guarantees that water proofing treatment given by him will render the
structures completely leak proof and the minimum life of such water proofing 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.

The decision of the Engineer-in-Charge with regards to cause of leakage shall be final.

During the period of guarantee the guarantor shall make good all defects and in case of any
defect being found render the structure 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 notice from the Engineer-In-Charge calling upon him to rectify and defects failing
which the work shall be got done by the department through 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 fail to execute the water proofing or comments breach there under then
the Guarantor will indemnify the Principal and his successors against all loss ,damages, cost,
expenses 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 cost incurred by the Institute on the decision of the Engineer-In-Charge
will be final and binding on the parties.

IN WITNESS WHEREOF those presents have been executed by the obligator-----
-----and by-----

For and on behalf of the Director, IASST on the day, month and year first above written.

Signed sealed and delivered by OBLIGATOR in presence of:

1----- 2-----

SIGNED FOR AND ON BEHALF OF THE DIRECTOR, IASST BY-----

----- in the presence of:

1----- 2-----

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

Form of performance security (Guarantee)
Bank Guarantee Bond

In consideration of the Director, IASST (hereinafter called "IASST") having offered to accept the terms and conditions of the proposed agreement between _____ and _____ (hereinafter called "the said Contractor(s)') for the work _____ (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs.------(Rupees _____ only) as security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

We, _____ (hereinafter referred to as "the Bank") hereby undertake (Indicate the name of the Bank) to pay to the IASST an amount not exceeding Rs. _____ (Rupees _____ Only) on demand by the IASST.

4. We, _____ -do hereby undertake to pay the amounts due and payable (Indicate the name of the Bank) Under this guarantee without any demure, merely on a demand from the IASST stating that the amount claimed as 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)

5. We, the said bank further undertake to pay the IASST 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 relocating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

Contd.... Page 2

Page ... 2

6. We, _____ further agree that the guarantee herein contained shall
(Indicate the name of the bank)

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 will all the dues of the IASST under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till IASST authority on behalf of the government certified 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.

5. We, _____ further agree with the Government that the Government
(Indicate the name of the Bank)

Shall have the fullest liberty without our consent and without affecting in any manner our obligation 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 the IASST 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 top the said contactor(s) or for any forbearance act of commission on the part of the IASST or any indulgence by the IASST 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.

6. This guarantee will not be discharged due to the charge in the constitution of bank or the Contractor(s).

Contd.... Page 3

INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY

Page.... 3

7. We, _____ lastly undertake not to revoke this guarantee except
(Indicate the name of the Bank)

With the previous consent of the Government in writing.

9. This guarantee shall be valid upto _____ unless extended on demand by the IASST. 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 shall stand discharged.

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

/

**INSTITUTE OF ADVANCED STUDY IN SCIENCE AND
TECHNOLOGY**

**An Autonomous Institute under Department of Science and
Technology
Govt. of India, Paschim Boragaon, Garchuk, Guwahati-781035**

PRICE BID



Tender Document for

**Renovation of Interior & Furnishing, Civil, Sanitary, Electrical, fire alarm &
Audio-Visual system and Air Conditioning works for Director's office & Conference hall
at IASST, PASCHIM BORAGAON, GUWAHATI-35.**

Summery Sheet

Renovation of Interior & Furnishing, Civil, Sanitary, Electrical, fire alarm & Audio-Visual system and Air Conditioning works for Director's office & Conference hall at IASST, PASCHIM BORAGAON, GUWAHATI-35

SL NO	ITEM OF WORK	Detail SOR	Page No.	AMOUNT
1)	COST OF INTERIOR AND FURNISHING WORKS a) CONFERENCE HALL b) DIRECTOR'S ROOM	Annexure-I Annexure-II	3 - 10	
2)	COST OF CIVIL WORKS FOR TOILET AND PANTRY	Annexure-III	11 - 15	
3)	COST OF INTERNAL ELECTRICAL WORKS a) CONFERENCE HALL b) DIRECTOR'S ROOM	Annexure-IV Annexure-V	16 - 35	
4)	COST OF SANITARY WORKS FOR DIRECTOR'S TOILET a) ESTIMATE BASED ON CPWD ITEMS b) ESTIMATE BASED ON APWD ITEMS	Annexure-VI Annexure-VII	36 - 44	
5)	COST OF FIRE ALARM AND AUDIO VISUAL SYSTEM a) FIRE ALARM SYSTEM b) AUDIO VISUAL SYSTEM	Annexure-VIII	45 - 47	
6)	COST OF AIR CONDITIONING WORKS	Annexure-IX	48 - 49	
	GRAND TOTAL COST(Including GST)			

**SOR for INTERIOR WORKS FOR CONFERENCE HALL
AT FIRST FLOOR ,GUWAHATI**

Annexure I

SL	Description	Unit	QTY	Rate	Amount
1	Providing VITRIFIED floor tiles of approved quality, of specified size, shape and thickness not less than 12 mm on floors skirting risers and tread of steps over 15mm thick base of cement mortar in Prop 1.3 (1cement : 3 coarse sand) including cutting where necessary finished with flush pointing with Fax -A-Tile (choksey / Sika / Pedelite / Rouf) white cement slurry mixed with approved pigment to match the shade of the shade of the tiles complete at all level as specified and directed. (Coloured pigment should be in conformity with colour of tiles and as approved and directed by the Architect)				
	a) Premium Range (Size 600mm x 600mm) RAK / NITCO /Somany / JOHNSON (Double fired nano technology) Basic rate of tiles should not be less than Rs. 1350 per sq.m	Sqm	0.00		
	b) Delux Range (Size 1000mm x 1000mm - RAK / NITCO / JOHNSON/Somany) Basic rate of tiles should not be less than Rs. 1950 per sq.m	Sqm	70.64		
2	Applying two coats of wood preservative oil, colourless (Burger Products) on new wood and wood based surface, after including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering and knotting.	Sqm	2.41		
3	Providing amd fixing of wall paneling made of 4mm. Thick teak veneer to be fitted over 12mm. Thick commercial ply wood with a wooden frame work made of 40mm. X 50mm. wooden members to be placed @ 600mm. c/c both ways. The rate included three cots of french polishing over a coat of primer etc. comopleat any level.	Sqm	80.63		
4	Texture Paint on Walls				
	Providing and applying Spectrum aggragate textured wall coating in the branded name of SPECTRUM with its all tools, plants and machineries and scaffolding etc as per manufactures guideline and specification of the product. A) Spectrum Naturaplast	Sqm	5.96		
5	False Ceiling (GYP-board) : (PLAIN COFFER)				
	Supplying, fitting, fixing and painting where necessary (one coat primer and two coats of paint) M/F Suspended Ceiling which includes G.I perimetre channels of size 0.55mm thick (having one flange of 20mm and another flange of 30mm and a web of 27mm) along with perimeter of ceiling, screw fixed to brick wall / partition with the help of nylon sleeves and screws, at 610mm c/c. Then suspending G.I intermediate channels of size 45mm (0.9mm thick with two equal flanges of 15mm each) from the soffit at 1220mm c/c with ceiling angle of width 25mm x 10mm x 0.55mm thick fixed to soffit with G.I cleat and steel expansion fasteners.				

	Ceiling suspension of 0.55mm thickness having knurled web of 51.5mm and two equal flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clip in direction perpendicular to the intermediate channel with the help of connecting clip and in direction perpendicular to the intermediate channel with the help of connecting clip in direction perpendicular to the intermediate channel at 457mm c/c, 9.5 mm/ 12.5mm tapered edged Gypboard (conforming to IS : 2095 - 1982) is then screw fixed to ceiling section with 25mm long drywall screws at 230mm c/c. Screw fixing is done mechanically either with screw driver or drilling machine with suitable attachment. Finally the board are to be jointed and finished so as to have a flush look which include filling and finishing the tapered and square edges of the boards with jointing compound, joint paper tape and two coats of dry wall topcoat suitable for Gypboard complete at all levels as specified and directed. (For light fittings, providing opening for doors, windows, ventilators etc. cut out made with frame of perimeter channel supported suitably to be measured and paid seperately where necessary).				
	12.5mm thick	Sqm	63.69		
6	Supplying, fitting and fixing Armstrong mineral fibre acoustic suspended ceiling system fine fissured (TEGULAR) edge tiles with Armstrons XL 24mm exposed gried. The tile should have humidity resistance of 99% NRC 0.5, light refraction > 85% thermal conductivity 0.052-0.057 w / mk, in module sixe 600 x 600mm x 16mm. the gried should on all T section i.e. the main runner 1200 mm x 600mm cross tees with a web height of 4,35 and 3mm (Which ever is required) and a load capacity of 23.78kg / m2 the T section have a Galvanising of 120gm / m2 completed as directed and specified.				
	a) Fine Fissured / classic lite (BEV. TEGULAR) edge tiles with 16mm black silhouuted exposed grid	Sqm	0.00		
	b) Wood work (Bev, Tegular) Edge tiles with 15mm exposed grid.	Sqm	20.15		
7	Providing , fitting and fixing 450 mm deep and 750 / 2100 mm height contineous storage with shutters and with necessary hard ware with storage arrangement at bottom with middle self and shutter and locking arrangement a s per the detail drawing enclosed made of 18mm thick water proof exterior grade block board/MDF board of approved make with lamination 1mm thick on horizontal vertical surface of approved make and shade including fixtures , locks , handles polishing and painting, transportation etc. complete as directed.				
	a) 750mm ht (low hight)	Rm	3.48		
	b) 450 depth (below projector)	Rm	1.50		
8	Supply and fixing of vertical blinds of Vista /Mac make to the windows & Glazed partition.	Sqm	0.00		
9	Supplying & making Planter box of size 450mmx450mm and height 450 mm with18 mm block board / MDF Board with top beading and outside teak vineering and lamination and with inside varnish/ painting	Each	12		
10	DISPLAY UNIT				
	Providing and placing in position display units fabricated out of BWR 19mm block board/ 12mm thick BWR ply and finished with laminated / veneer as directed complete with 12mm glass shelves completed with varnishing	Nos	2		
11	Magnetic White Board : Supplying and fixing in position Magnetic White Board of size 1800 x 1200 with all accessories like magnetic Duster, Magnetic colour markers, etc of white mark or equivalent make all complete.	Each	1		
12	WINDOW CUETAINS				0.00

	a)net fabric	pcs	2		
	b)silk fabric	pcs	2		
13	HOF Ergonomic Medium back Leatherette conference chair with comfortable arm rest	nos	28		
14	Godrej Metro 20 Feet Conference table in wood	nos.	1		
15	Proving 1mm laminate finish of approved brand over existing doors . All existing enamel paint will be removed	nos.	2		
16	dismantling of existing interior items and existng electrical fittings and fictures	LS	LS		
	Total of Interior				
		Grand Total			
		Say			

**INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY
DETAIL SOR FOR INTERIOR WORKS OF DIRECTOR'S ROOM AT FIRST FLOOR
Annexure II**

PART-1					
	Description	Unit	QTY	Rate	Amount
1	Providing VITRIFIED floor tiles of approved quality, of specified size, shape and thickness not less than 12 mm on floors skirting risers and tread of steps over 15mm thick base of cement mortar in Prop 1.3 (1cement : 3 coarse sand) including cutting where necessary finished with flush pointing with Fax -A-Tile (choksey / Sika / Pedelite / Rouf) white cement slurry mixed with approved pigment to match the shade of the shade of the tiles complete at all level as specified and directed. (Coloured pigment should be in conformity with colour of tiles and as approved and directed by the Architect)				
	a) Premium Range (Size 600mm x 600mm) RAK / NITCO / JOHNSON (Double fired nano technology) Basic rate of tiles should not be less than Rs. 1350 per sq.m	Sqm	11.47		
	b) Delux Range (Size 1000mm x 1000mm - RAK / NITCO / JOHNSON) Basic rate of tiles should not be less than Rs. 1950 per sq.m	Sqm	58.57		
2	Applying two coats of wood preservative oil, colourless (Burger Products) on new wood and wood based surface, after including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter, sand papering and knotting.	Sqm	5.61		
3	Providing and fixing of wall paneling made of 1mm laminate to be fitted over 12mm. Thick commercial ply wood with a wooden frame work made of 40mm. X 50mm. wooden members to be placed @ 600mm. c/c both ways. The rate included three coats of french polishing over a coat of primer etc. complete at any level.	Sqm	41.39		
4	Vertical panelling on existing square columns / wall with 1st class timber frame and 12 mm water proof ply / MDF board finished with glass/texture paint/acrelic board/vineer panels of approved shade/pattern etc. complete.	Sqm	18.06		
5	Message Board /Pin -up Boards :				
	Supply & fixing message boards made of 12mm thick soft board with fixed over 12mm BWR plywood as backing finished with fabric (costing approx. Rs. 190/- per mts.) of approved texture, design and colour including cost of material, labour, necessary adhesive, screws etc. complete as directed by SBI /Consultant fixed flush with surfaces of wall cladding wherever required.	Sqm	0.54		
6	False Ceiling (GYP-board) : (PLAIN COFFER)				

	Supplying, fitting, fixing and painting where necessary (one coat primer and two coats of paint) M/F Suspended Ceiling which includes G.I perimetre channels of size 0.55mm thick (having one flange of 20mm and another flange of 30mm and a web of 27mm) along with perimeter of ceiling, screw fixed to brick wall / partition with the help of nylon sleeves and screws, at 610mm c/c. Then suspending G.I intermediate channels of size 45mm (0.9mm thick with two equal flanges of 15mm each) from the soffit at 1220mm c/c with ceiling angle of width 25mm x 10mm x 0.55mm thick fixed to soffit with G.I cleat and steel expansion fasteners.				
	Ceiling suspension of 0.55mm thickness having knurled web of 51.5mm and two equal flanges of 26mm each with lips of 10.5mm are then fixed to the intermediate channel with the help of connecting clip in direction perpendicular to the intermediate channel with the help of connecting clip and in direction perpendicular to the intermediate channel with the help of connecting clip in direction perpendicular to the intermediate channel at 457mm c/c, 9.5 mm/ 12.5mm tapered edged Gypboard (conforming to IS : 2095 - 1982) is then screw fixed to ceiling section with 25mm long drywall screws at 230mm c/c. Screw fixing is done mechanically either with screw driver or drilling machine with suitable attachment. Finally the board are to be jointed and finished so as to have a flush look which include filling and finishing the tapered and square edges of the boards with jointing compound, joint paper tape and two coats of dry wall topcoat suitable for Gypboard complete at all levels as specified and directed. (For light fittings, providing opening for doors, windows, ventilators etc. cut out made with frame of perimeter channel supported suitably to be measured and paid separately where necessary).				
	12.5mm thick	Sqm	70.12	1325	
7	Supplying, fitting and fixing Armstrong mineral fibre acoustic suspended ceiling system fine fissured (TEGULAR) edge tiles with Armstrons XL 24mm exposed gried. The tile should have humidity resistance of 99% NRC 0.5, light refraction > 85% thermal conductivity 0.052-0.057 w / mk, in module sixe 600 x 600mm x 16mm. the gried should on all T section i.e. the main runner 1200 mm x 600mm cross tees with a web height of 4,35 and 3mm (Which ever is required) and a load capacity of 23.78kg / m2 the T section have a Galvanising of 120gm / m2 completed as directed and specified.				
	a) Fine Fissured / classic lite (BEV. TEGULAR) edge tiles with 16mm black silhouuted exposed grid	Sqm	0	1785	
	b) Wood work (Bev, Tegular) Edge tiles with 15mm exposed grid.	Sqm	7.17	3702	

8	Providing and supplying Armstrong 'Optra Acoustical Wall Panelling' with square edges made of fibre glass substrate 25mm thick and wrapped on the front side with an acoustically transparent and fire-resistant fabric with an option of colours as per the choice of the Architect/ Person in-charge of size 2100x600 or 600x600 mm providing a minimum sound absorption level of 0.90 NRC to be affixed to wall using Wall panel impalers supplied by M/s Armstrong Industries India Pvt. Ltd and construction adhesives as per the instructions laid down by the manufacturer.				
	a) With optra High Acoustical wall Panelling with square edge (fabric)	Sqm	9.31		
	b) With wood work panelling (60 x 60 x 16mm)	Sqm	7.33		
9	Full height Partitions fully glazed with Glass :				
	Providing & fixing fully glazed partitions with toughened clear float glass of brand Saint Gobain/ Asahi India glass Ltd. & comprising of the following:				
	i) Bottom & Top members :				
	18mm BWR Ply-2 nos. joined together firmly with adhesive and screws to make a composite panels of 38 × 150mm optionally with teak wood of same size. These panels shall be rigidly fixed to the ground and ceiling with coach screws in perfect line & level.				
	ii) Middle Panels :				
	12mm Plain float glass toughened fixed as runing panels as per drawing in the groove made in above panels. The joint in the two panels of glass shall be neatly finished with colourless sealant compound.				
	iii) Finish with Laminate :				
	All exposed surface panels made out of 18mm BWR ply shall be finished with 1mm thick laminate in approved colour and shade.				
	Partitions shall be firmly fixed to the ground, walls, roof/ceiling by means of screws and concealed brackets. Partitions be erected in perfect line and level both horizontally and vertically.	Sqm	13.76		
10	Doors in fully glazed partitions :				
	a) Door Shutter :				
	Similar to partitions as detailed under item no. 19 with 12mm plain float glass. (toughened)				
	b) Door hardware :				
	Each door shutter shall be provided and fixed with door stoppers, lock, patch fittings and all fittings and hardware of, S S Dorset/Godrej-satin steel finish/Vista neo-serio or diamond series suitable for glass shutters and dorma floor spring, etching of SBI logo all as per approved make and samples by Architect. The items shall also be provided with full height S.S door handle fixed to the top rail and bottom rail of shutter.	Sqm	3.78		
	Supply and fixing of vertical blinds of Vista /Mac make to the windows & Glazed partition.	Sqm	0		

11	Supplying & making Planter box of size 450mmx450mm and height 450 mm with 18 mm block board / MDF Board with top beading and outside teak veneering or lamination and with inside varnish/ painting	Nos	7.0		
12	Providing , fitting and fixing 450 mm deep and 750 / 2100 mm height continuous storage with shutters and with necessary hardware with storage arrangement at bottom with middle self and shutter and locking arrangement as per the detail drawing enclosed made of 18mm thick water proof exterior grade block board/MDF board of approved make with lamination 1mm thick on horizontal vertical surface of approved make and shade including fixtures , locks , handles polishing and painting, transportation etc. complete as directed.				
	a) 750mm ht (low height)	Rm	1.62		
	b) 2100 mm ht (full height)	Rm	0.94		
	c) storage unit below T.V.	nos	1		
13	DISPLAY UNIT				
	Providing and placing in position display units fabricated out of BWR 19mm block board/ 12mm thick BWR ply and finished with laminated / veneer as directed complete with 12mm glass shelves completed with varnishing	Nos	1		
14	Pantry storage unit				
	Overhead Storage unit : Providing and fixing storage overhead made of 19mm thick exterior grade Phenol Formaldehyde bonded block board including providing 1.5mm thick laminated sheet in matt finished of approved make and shade including first class timber frame work. All exposed edges of the block are to be covered with Teak wood lipping as per design. Rate to include charges for brass hardware fittings as well as fixtures complete as per drawing. (Approx. size 300 mm depth and 750mm height).	sqm	1.3		
	Cupboard: Providing and placing in position cupboard for pantry fabricated out of sal wood frame size 50 x 75 mm with shutters fabricated out of waterproof ply 19mm thick complete with hardware and painting.				
	Storage below platforms.	sqm	1.65		
15	PAINTING WORK : Scraping down the existing lime wash/paint completely filling the cracks with Plaster of Paris/palti, apply one coat of primer and the 3 coats of plastic emulsion paint Lustre / Enamel paint of approved shade/brand to the walls, ceiling, windows/doors as per instructions.	sqm	10.59		
	Total (A)				
	PART-2				
	FURNITURE, CHAIRS AND OTHER ACCESSORIES				
1	Providing and supplying contemporary chic design centre table (Durian/equivalent make Cat. No. ZEE/YUBONG with clear tempered glass top and clear	Nos	1		

	tempered glass shelf or 1 wooden shelf and 1 drawer below the top				
2	Providing and supplying two-seater fabric sofa of durian/castle-X / equivalent	Nos	1		
3	Providing and Fixing rubberite hollow mat at the entrance of size 5 feet x 3 feet -- 3 inch	Nos	2		
4	Providing and fixing Durosoft door mat for Main Entrance Door b) 2 feet x 4 feet & 0 inch	Nos	1		
5	Service Trolley out of Teak Wood/ brass	Nos	1		
6	window curtain				
	a) net fabric	pcs	8		
	b)silk fabric	pcs	8		
7	5 seater faux leather L- shaped Sofa set	nos	1		
8	Directors table and chair				
	a) directors table	nos	1		
	b)directors leather chair of HOF	nos	1		
	c)visitors chair of HOF	nos	2		
9	small coffee table and chair set for pantry	nos	1		
10	side corner table	nos	1		
11	New Doors to be provided	nos	4		
12	Proving 1mm laminate finish of approved brand over existing doors . All existing enamel paint will be removed	nos	1		
13	dismantling of existing interior items and existing electrical fittings and fictures	LS	1		
	Total (B)				
	TOTAL Of (A+B)				
	Grand Total				

SOR FOR CIVIL WORK, IAAST

Annexure III

Item No.	Description of item	Qty.	Unit	Rate	Amount
15.3	Demolishing R.C.C. work manually/ by mechanical means including				
	stacking of steel bars and disposal of unserviceable material within	1.3	cum		
15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
		4.5	cum		
5.9	Centering and shuttering including strutting propping etc. and removal of form at all levels for				
a.	above plinth level upto 2nd floor				
5.9.5	Lintels, beams, plinth beams, girders, bressumers and				
		39.4	sqm		
5.2	Reinforced cement concrete work in walls (any thickness), including				
	attached pilasters, buttresses, plinth and string courses, fillets, columns,				
	pillars, piers, abutments, posts and struts etc. above plinth level up to				
	floor five level, excluding cost of centering, shuttering, finishing and				
	reinforcement :				
5.2.2	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural				
		6.0	cum		
10.2	Steel work in built up tubular trusses including cutting,hoisting fixing in position and applying a priming coat of approved steel primer,sealed and bolted including special shaped washers etc.complete.				
		329.9	kg		

12.1.3	12.50 Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge)				
	0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	21.0	sqm		
	Supply ,fitting ,fixing and painting gypboard ceiling/E board ceiling				
12.5	12.5mm.....on the entire back surface of the gypboard ceiling in order to prevent moisture	12.0	sqm		
6.12	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in				
		41.7	sqm		
13.2	15mm thick cement plaster on the rough side of single or half brick wall with cement mortar of 1:4				
		41.7	sqm		
13.1	12 mm thick cement plaster on the rough side of single or half brick wall with cement mortar of 1:4				
		41.7	sqm		
#####	6 mm cement plaster of mix :				
		9.0	sqm		

13.8	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.				
		41.7	sqm		
13.85 61.4	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content. 13.85.1 With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre sqm				
		41.7	sqm		
13.5	Finishing walls with Acrylic Smooth exterior paint of required shade : 13.46.1 New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)				
		75.0	sqm		
13.8	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
		41.7	sqm		
11.4	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. All tiles will be pasted with LATICRETE 325 HIGH FLEX Ag silver floor tile adhesive.				
		15.0	sqm		

11.4	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including pointing the joints with white cement and matching pigments etc., complete.				
		27.3	sqm		
11.6	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. 11.56.1 Polished Granite stone slab colour of Black, Cherry/Ruby Red or equivalent				
		1.9	sqm		
9.2	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 9.20.1 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws sqm				
		5.4	sqm		
9.12	9.117 Providing and fixing factory made uPVC door frame made of uPVC				
		10.4	mtr		

9.15	<p>Providing and fixing factory made uPVC white colour sliding glazed window above 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, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) touch lock with hook (if required for wire mesh panel), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 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,</p>				
		10.8	sqm		
MR	<p>Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen to be provided with Laticrete 325High Flex Ag Silver floor tile adhesive.</p>	35.0	sqm		
	TOTAL				

**SOR OF ELECTRICAL WORKS FOR
PROPOSED CONSTRUCTION/INTERIOR DESIGN OF THE DIRECTOR'S ROOM OF THE INSTITUTE OF ADVANCE STUDY IN
SCIENCE AND TECHNOLOGY DEPARTMENT AT**

**BORAGOAN, GUWAHATI, ASSAM
ELECTRICAL WORKS (Annexure IV)
BASED ON CPWD SCHEDULE 2022**

Sl.	CPWD Schedule		Description	Unit	Qty.	Rate	Amount
No.	Item No. & Pg. No.						
1		2	3	4	5	6	7
PART-A. SCHEDULE ITEMS							
CHAPTER 1			WIRING				
Copper wiring in PVC Conduit :							
1.	1.10	2	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	1.10.3		Group C	Point	34		
2.	1.55	9	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	1.10.3		Group C	Point	14		
3.	1.12	3	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	60		

4.	1.14	3	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
	1.14.1	3	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre			
	1.14.2	3	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	120		
	1.14.3	3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metre	10		
	1.14.4	3	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Metre			
	1.14.5	3	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	Metre	20		
	1.14.10	3	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	Metre			
	1.14.11	3	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	Metre	30		
5.	1.19	4	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/recessed steel/ PVC conduit as required	Metre	25		
6.	1.53	8	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.				
	1.53.1		1 run of cable	Metre	80		
7.	1.21		Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
	1.21.1	5	20 mm	Metre	80		
	1.21.2	5	25 mm	Metre			
	1.21.3	5	32 mm	Metre			
8.	1.22		Supplying and fixing metal box of following sizes (normal) on surface or recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.				
	1.22.2	5	100 mm x 100 mm x 60 mm deep	Each	10		

	1.22.5	5	180 mm x 100 mm x 60 mm deep	Each	4		
9.	1.24		Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
	1.24.1	6	5/6 A switch	Each	2		
	1.24.4	6	3 pin 5/6 A socket outlet	Each	2		
	1.24.7	6	TV antenna socket outlet	Each	1		
	1.24.6	6	Telephone socket outlet	Each	2		
	1.24.8	6	Bell push	Each	1		
11	1.25	6	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	1		
12	1.26	6	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	6		
13	1.27	6	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.				
	1.27.1		1 or 2 Module (75mmX75mm)	Each	7		
	1.27.2		3 Module (100mmX75mm)	Each	2		
14	1.31	7	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	3		
15	1.32	7	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Each	3		
16	1.34	7	Supplying and fixing brass batten/angle holder including connection etc. as required complete.	Each			

17	1.38	7	Supplying and fixing call bell / buzzer suitable for DC/AC single phase, 230 volts complete as required.	Each	1		
18	1.41	7	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent/LED fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	38		
19	1.45	8	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	Each	6		
20	1.50	8	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.				
	1.50.1		Upto 450 mm sweep	Each	3		
21	1.56	9	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 nos. 3 pin 5/6 A modular socket outlet and 3 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings). [SOC}	Each	3		
22	1.57	9	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required. [Pa/c]	Each	2		
CHAPTER 2			MCCB, MCB & DB'S				

23	2.3	10	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
	2.3.1		6 way, Double door	Each			
	2.3.2		8 way, Double door	Each			
	2.3.3		12 way, Double door	Each	1		
24	2.5	11	Supplying and fixing of following ways surface! recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
	2.5.1		4 way (4 + 12), Double door	Each	1		
	2.5.2		8 way (4 + 24), Double door	Each			
25	2.10	11	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	2.10.1		Single pole	Each	16		
	2.10.3		Double pole	Each			
	2.10.4		Triple pole	Each			
26	2.14	12	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	2.14.1		25 amps	Each			

	2.14.2		40 amps	Each	4		
	2.14.3		63 amps	Each			
27	2.16	12	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	Each	2		
28	2.11	11	Supplying and Fixing Singe Pole Blanking Plate in the existing MCB DB complete etc. as required.	Each	4		
29	2.21	12	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	2		
CHAPTER 5			EARTHING				
30	5.2	23	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	SET	3		
31	5.6	23	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 Metre long etc. with charcoal/ coke and salt as required.	Set			
32	5.8	23	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre			
33	5.14	24	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre			

34	5.9	23	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Meter	25		
35	5.15	24	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	25		
36	5.17	24	Providing and fixing 4mm dia.copper wire on surface or in recess for loop earthing as required.	Meter	50		
37	5.18	24	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Meter	10		
			Total Part-A SCHEDULE ITEMS				
B- NON-SCHEDULE ITEMS							
			MCB AND MCCB				
38	Analysed Rate		Supplying and fixing following rating, Double pole, 415 volts, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
		a)	40 amps	Each	1		
39	Analysed Rate		Supplying and fixing following rating, Four pole, 415 volts, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
		a)	63 amps	Each	1		
40	Analysed Rate		Supplying with fitting and fixing sheet steel, phosphatised, powder painted Single door surface mounting MCB enclosure incorporated with bus-bar, Neutral link, Earth bar and din rail etc fitted on wall with grouting nuts & bolts as reqd. complete with making necessary connection as approved, specified and directed by the deptt.(Schneider neo break, C&S, Havells, INDOASIAN, HPL or equivalent as approved by the Deptt.)make)				

		a)	2 way single door	Each			
		b)	4 way single door	Each	2		
	DATA CABLING AND FIXURES						
41	Analysed Rate		Patch Cord Cat 6 UTP Gray 1m - Moulded SCHNEIDER/ LEGRAND or equivalent	Nos	6		
42	Analysed Rate		Patch Cord Cat 6 UTP Gray 2m - Moulded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Nos	3		
43	Analysed Rate		Patch Panel Cat 6 UTP Keystone -24 Port-Loaded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Nos	1		
44	Analysed Rate		APW Flexi box Wall mount Rack 12U 600 X 550mmD Networking Wall mount Rack with Front Tinted Glass Door with Lock "PDU 6*5A - 01 Nos.Fan 90 cfm 230V - 01 Nos. Mounting Hardware (Set of 10) - 1 Set 19"" 1U Cable Manager - 1 Nos."	Each	1		
45	Analysed Rate		Supplying with fitting and fixing of CAT 6 RJ-45 Computer jack in one module MODEL RANGE LEGRAND (MYRIUS), ANCHOR (VIOLA), MK (WRAPAROUND/ PLUS), ABB (CHEIRON), KOLORS (KREST), SCHNEIDER (VIVACE), CRABTREE including making necessary connection as per direction of department.	Each	3		
			UPS				
46	Analysed Rate		Supplying including installation of Inverter (NUMERIC/ Microtech/ V-Guard/ Luminous) with Battery and its case as per direction and specified by the Deptt.				
			5 KVA On-Line UPS System having 0.9 P.F. (NUMERIC or equivalent make as approved by the Deptt.) with PWM-IGBT technology 240V AC Input (170V – 280V A 3 Ph input- 1 Ph output With Isolation Transformer 5KW output with 0.9 output PF 60min backup using 20 nos, 12V 28Ah SMF battery and M.S. Rack, Battery interlink cables ect.		0		
		LUMINIARIES					

47	Analysed Rate	Supplying of Superior finish extruded LED Batten white powder coated pressure die cast aluminium body with High transmittivity, non Yellowing PMMA diffuser with driver and accessories pre-wired upto terminal block assembly. LED Luminaires of make PHILIPS Cat No. BN021C LED20S PSU CDL G LED 18W or equivalent including lamps etc. complete [TL]	Each	1		
48	Analysed Rate	Supplying of the following indoor Decorative Recess mounted LED down lighter luminaires of make-WIPRO model no-LD80-131-XXX-60-SM 16W LED complete with all accessories such as ballast, starter etc. In the false ceiling type Armstrong /Gypsum or similar ceiling mounting with necessary support with 1.5 sq.mm. P.V.C. insulated S.C.copper conductor as required and as directed by the department (Jaquar / LT / Wipro make). [DL]	Each	30		
49	Analysed Rate	Supplying, installation, testing and Commission of Surface mounted LED Luminaires - Decorative modular LED Lamp with electronic ballast with white moulded body housing cover of make PHILIPS cat no. SM251C LED16S-6500 PSU WH or equivalent with 16 W LED lamp as required complete. [CL]	Each	3		
50	Analysed Rate	Supplying of the following Indoor Decorative Recessed mounted 2' x 2' LED LED down lighter luminaires of make-CROMPTON model no-LCTLRP-30-FO-CDL 30W LED complete with all accessories such as ballast, starter etc. In the false ceiling type Armstrong /Gypsum or similar ceiling mounting with necessary support with 1.5 sq.mm. P.V.C. insulated S.C.copper conductor as required and as directed by the department (Jaquar / LT / Wipro make). [CLS]	Each	2		

51	Analysed Rate	Supplying of Surface mounted LED Luminaires - LUMILINEBS9WLED865SPCWH 9 W LED 6K OF Make:- Havells or equivalent make LUMILINE Mirror light used for lighting. Luminaries housing & Control gear Box is of cast aluminium with heat sink for better heat transmission. Or equivalent (Equivalent will be selected by the deptt considering the mother items rate) (equivalent PHILIPS/ WIPRO/ BAJAJ/ CROMPTON / HPL/ SOLAR/ JAQUAR make). [ML]	Each	2		
52	Analysed Rate	Supplying of 1200 mm sweep Ceiling fan of make HAVELLS Cat/Brand Cat/PACER Ceiling Fan of colour White, Brown or Bianco complete with down rod or equivalent etc. [F]	Each	1		
53	Analysed Rate	Supplying and fixing of 400 mm sweep Wall fan of make HAVELLS Cat/Brand Swing Wall Fan of colour White, Brown or Bianco complete with down rod or equivalent etc. [WF]	Each	5		
54	Analysed Rate	Supplying of 300 mm sweep exhaust fan of make HAVELLS Cat/Brand VENTIL AIR -DS complete with all accessories complete or equivalent. [EF]	Each	3		
		Total Part-B NON-SCHEDULE ITEMS				
		Grand Total (SCHEDULE ITEMS + NON-SCHEDULE ITEMS)				

SOR OF ELECTRICAL WORKS FOR

**PROPOSED CONSTRUCTION/INTERIOR DESIGN OF THE CONFERENCE HALL OF THE INSTITUTE OF ADVANCE STUDY IN SCIENCE AND
DEPARTMENT AT**

**BORAGOAN, GUWAHATI, ASSAM
ELECTRICAL WORKS (Annexure V)
BASED ON CPWD SCHEDULE 2022**

Sl. No.	CPWD Schedule Item No.	Description	Unit	Qty	Rate	Amount
1		3	4	5	6	7
PART-A. SCHEDULE ITEMS						
CHAPTER 1		WIRING				
Copper wiring in PVC Conduit :						
1.	1.10	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	1.10.3	Group C	Point	24		
2.	1.55	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
	1.10.3	Group C	Point	17		

3.	1.12	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	20		
4.	1.14	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
	1.14.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre			
	1.14.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	240		
	1.14.3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metre	20		
	1.14.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Metre	60		
	1.14.5	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	Metre	15		
	1.14.10	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	Metre			
	1.14.11	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	Metre	40		
5.	1.19	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/recessed steel/ PVC conduit as required	Metre	1		
6.	1.53	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.				
	1.53.1	1 run of cable	Metre	500		

7.	1.21	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
	1.21.1	20 mm	Metre	200		
	1.21.2	25 mm	Metre	100		
	1.21.3	32 mm	Metre	50		
8.	1.22	Supplying and fixing metal box of following sizes (normal) on surface or recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.				
	1.22.2	100 mm x 100 mm x 60 mm deep	Each	20		
	1.22.5	180 mm x 100 mm x 60 mm deep	Each	10		
9.	1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
	1.24.1	5/6 A switch	Each	2		
	1.24.4	3 pin 5/6 A socket outlet	Each	2		
	1.24.7	TV antenna socket outlet	Each	1		
	1.24.6	Telephone socket outlet	Each			
	1.24.8	Bell push	Each			
10.	1.25	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.		0		
11.	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	6		

12.	1.27	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.				
	1.27.1	1 or 2 Module (75mmX75mm)	Each	26		
	1.27.2	3 Module (100mmX75mm)	Each	1		
13.	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	1		
14.	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Each	1		
15.	1.41	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent/LED fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	34		
16.	1.45	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	Each	7		

17.	1.56	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 nos. 3 pin 5/6 A modular socket outlet and 3 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings). [SOC}	Each	25		
18.	1.57	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required. [Pa/c]	Each	3		
CHAPTER 2		MCCB, MCB & DB'S				
19.	2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
	2.3.1	6 way, Double door	Each			
	2.3.2	8 way, Double door	Each			
	2.3.3	12 way, Double door	Each	2		
20.	2.5	Supplying and fixing of following ways surface! recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
	2.5.1	4 way (4 + 12), Double door	Each			
	2.5.2	8 way (4 + 24), Double door	Each	1		

21.	2.10	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	2.10.1	Single pole	Each	31		
	2.10.3	Double pole	Each	1		
	2.10.4	Triple pole	Each	1		
22.	2.14	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	2.14.1	25 amps	Each	1		
	2.14.2	40 amps	Each	1		
	2.14.3	63 amps	Each	0		
23.	2.16	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	Each	3		
24.	2.11	Supplying and Fixing Singe Pole Blanking Plate in the existing MCB DB complete etc. as required.	Each	4		
25.	2.21	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	2		
CHAPTER 5		EARTHING				

26.	5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	SET	3		
27.	5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 Metre long etc. with charcoal/ coke and salt as required.	Set	0		
28.	5.8	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre	0		
29.	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	0		
30.	5.9	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Meter	25		
31.	5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	25		
32.	5.17	Providing and fixing 4mm dia.copper wire on surface or in recess for loop earthing as required.	Meter	50		

33.	5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Meter	10		
		Total Part-A SCHEDULE ITEMS				
		B- NON-SCHEDULE ITEMS				
		MCB AND MCCB				
34.	Analysed Rate	Supplying and fixing following rating, Double pole, 415 volts, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
		40 amps	Each	3		
35.	Analysed Rate	Supplying and fixing following rating, Four pole, 415 volts, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
		63 amps	Each	1		
36.	Analysed Rate	Supplying with fitting and fixing sheet steel, phosphatised, powder painted Single door surface mounting MCB enclosure incorporated with bus-bar, Neutral link, Earth bar and din rail etc fitted on wall with grouting nuts & bolts as reqd. complete with making necessary connection as approved, specified and directed by the deptt.(Schneider neo break, C&S, Havells, INDOASIAN, HPL or equivalent as approved by the Deptt.)make)				
		2 way single door	Each	0		
		4 way single door	Each	2		
		DATA CABLING AND FIXURES				
37.	Analysed Rate	Patch Cord Cat 6 UTP Gray 1m - Moulded SCHNEIDER/ LEGRAND or equivalent	Nos	30		

38.	Analysed Rate	Patch Cord Cat 6 UTP Gray 2m - Moulded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Nos	25		
39.	Analysed Rate	Patch Panel Cat 6 UTP Keystone - 24 Port- Loaded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Nos	2		
40.	Analysed Rate	APW Flexi box Wall mount Rack 12U 600 X 550mmD Networking Wall mount Rack with Front Tinted Glass Door with Lock "PDU 6*5A - 01 Nos.Fan 90 cfm 230V - 01 Nos. Mounting Hardware (Set of 10) - 1 Set 19" 1U Cable Manager - 1 Nos."	Each	1		
41.	Analysed Rate	Supplying with fitting and fixing of CAT 6 RJ-45 Computer jack in one module MODEL RANGE LEGRAND (MYRIUS), ANCHOR (VIOLA), MK (WRAPAROUND/ PLUS), ABB (CHEIRON), KOLORS (KREST), SCHNEIDER (VIVACE), CRABTREE including making necessary connection as per direction of department.	Each	25		
		UPS				
42.	Analysed Rate	Supplying including installation of Inverter (NUMERIC/ Microtech/ V-Guard/ Luminous) with Battery and its case as per direction and specified by the Deptt.				
		5 KVA On-Line UPS System having 0.9 P.F. (NUMERIC or equivalent make as approved by the Deptt.) with PWM-IGBT technology 240V AC Input (170V – 280V A 3 Ph input- 1 Ph output With Isolation Transformer 5KW output with 0.9 output PF 60min backup using 20 nos, 12V 28Ah SMF battery and M.S. Rack, Battery interlink cables ect.	Each			

43.	Analysed Rate	Supply, installation and testing of Tray Light / non-integral flexible LED strip light of make Wipro Model FormzLED LS 06/26 LS06-005-120-WW-50 4.8 W per mtr, 5m spool; IP 20 with LG40-024 LED driver 240 V/12V or equivalent. Rate to include cost of lamps. [STRIPLIGHT]	Metre	35		
44.	Analysed Rate	Supplying of the following indoor Decorative Recess mounted LED down lighter luminaries of make-WIPRO model no-LD80-131-XXX-60-SM 16W LED complete with all accessories such as ballast, starter etc. In the false ceiling type Armstrong /Gypsum or similar ceiling mounting with necessary support with 1.5 sq.mm. P.V.C. insulated S.C.copper conductor as required and as directed by the department (Jaquar / LT / Wipro make). [DL]	Each	26		
45.	Analysed Rate	Supplying of the following Indoor Decorative Recessed mounted 2' x 2' LED LED down lighter luminaries of make-CROMPTON model no-LCTLRP-30-FO-CDL 30W LED complete with all accessories such as ballast, starter etc. In the false ceiling type Armstrong /Gypsum or similar ceiling mounting with necessary support with 1.5 sq.mm. P.V.C. insulated S.C.copper conductor as required and as directed by the department (Jaquar / LT / Wipro make). [CLS]	Each	8		
46.	Analysed Rate	Supplying and fixing of 400 mm sweep Wall fan of make HAVELLS Cat/Brand Swing Wall Fan of colour White, Brown or Bianco complete with down rod or equivalent etc. [WF]	Each	7		
		Total Part-B NON-SCHEDULE ITEMS				
		Grand Total (SCHEDULE ITEMS + NON-SCHEDULE ITEMS)				

**SOR
FOR
PROPOSED TOILET BLOCK OF DIRECTOR'S ROOM (SANITARY AND WATER SUPPLY WORKS)**

BASED ON CPWD SCHEDULE OF RATES 2020-2021

Annexure (VI)

(BUILDING - CIVIL WORK)

Sl. No.	DSR	Specification of item of works	Unit	Abstract of Quantities	Rate as per S.O.R.	Estimated Amount
	2021 Item No.					
1	17.2 17.2.1	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	Each	1		
2	17.7 17.7.2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls	Each	2		

		wherever require: White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap			
3	17.16A	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to Each European type W.C. of quality and make as approved by Engineer - in - charge.	1		
4	17.22A	Providing and fixing CP Brass 32mm size Bottle Trap of approved Each quality & make and as per the direction of Engineer-in-charge.	2		
5	17.2817.28.217.28.2.1	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste Each fittings complete.Flexible pipe32 mm dia	3		
6	17.33	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. Each brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	2		
7	17.34 17.34.1	Providing and fixing toilet paper holder : C.P. brass	1		
8	17.60 17.60.1 17.60.1.1	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls	3		

		and floors : 100 mm inlet and 100 mm outlet Sand cast iron S&S as per IS: 3989			
9	17.60.217.60.2.1	100 mm inlet and 75 mm outlet Sand cast iron S&S as per IS - 3989	Each	2	
10	17.71	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	Each	2	
11	17.72	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.	Each	2	
12	17.73 17.73.2	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour. 600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.	Each	1	

14	18.7.2	20 mm nominal outer dia Pipes	Metre	5.00		
15	18.7.3	25 mm nominal outer dia Pipes	Metre	15.00		
16	18.7.5	40 mm nominal outer dia Pipes	Metre	5.00		
17	18.8 18.8.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc. 15 mm nominal outer dia Pipes	Metre	15		
18	18.8.2	20 mm nominal outer dia Pipes	Metre	5.00		
19	18.50 18.50.1	C.P. BRASS FITTINGS Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms. 15 mm nominal bore	Each	2		
20	18.51 18.51.1	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS	Each	2		

		standards and weighing not less than 690 gms. 15 mm nominal bore			
21	18.52 18.52.1	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15 mm nominal bore	Each	4	
22	18.74 18.74.2	Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour. 15 mm nominal bore with 45 cm length	Each	2	
23	19.7 19.7.1 19.7.1.1	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone- III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone- III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete	Each	1	

		as per standard design : Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5			
24	19.1919.19.119.19.1.1	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved Each quality.L D- 2.5Rectangular shape 600x450 mm internal dimensions	1		
25	17.74	Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of Each approved quality and colour, weighing not less than 300 gms. 2	2		
26	18.19 18.19.1 18.19.1.1	Providing and fixing gun metal non- return valve of approved quality Each (screwed end) : 25 mm nominal bore Horizontal 1	1		
	18.17 18.17.4	Providing and fixing gun metal gate valve with C.I. wheel of Each approved quality (screwed end) : 50 mm nominal bore 1	1		
27	18.58 18.58.1 18.58.1.2	Providing and fixing PTMT grating of Each approved quality and colour. 2	2		

	Circular type 125 mm nominal dia with 25 mm waste hole			
	Total : Schedule Items DSR-2021			

SOR FOR SANITARY & WATER SUPPLY WORKS AT GROUND, FIRST AND SECOND FLOOR FOR PROPOSED TOILET BLOCK FOR DIRECTOR'S ROOM (BASED ON APWD SCHEDULE OF RATES 13-14 AND MARKET RATE)

Annexure VII

Item No.	Description of works	Unit	QTY	Rate (Rs)	Amount
1.13.3	Table top basin				
MR	(ii) Solo (cat. No SLS-WHT-0558)	EACH	1		
	WASTE COUPLING				
1.32	Providing, fitting and fixing Chrome Plated waste coupling complete as directed and specified.				
	(a) Jaquar Make				
	(i) 32mm (HT/FT) (Cat.No.ALD-705 / 709)	each	2		
	BOTTLE TRAP				
1.37	PVC PIPES,BENDS,JUNCTIONS,TEES ETC.				
1.37.1	Supplying, fitting and fixing PVC pipes of 6 Kg/cm ² (Supreme/Prince) or other ISI approved including joining ,fitting and fixing wiyh clamps etc.as necessary complete at all levels including below G.L as directed and specified.				
	a) In exposed surfaces or in trenches.				
	(ii) 110mm dia.	each	6		
	b) Concealed by chiselling or breaking brick wall/C.C./R.C.C and making good to the damages.				
	(ii) 110mm dia.	each	5		
1.37.4	Supplying fitting and fixing 45degree PVC bend of (Supreme/Prince) or other ISI approved including joining , fitting and fixing etc. as necessary complete at all levels including below G.L. as directed and specified.				
	a) In exposed surfaces or in trenches.				
	(ii) 110mm dia.	each	5		
1.37.5	Supplying fitting and fixing PVC Plain single tee of (Supreme/ Prince) or other ISI approved including joining, fitting and fixing etc. as necessary complete at all levels including below G.L. as directed and specified.				
	a) In exposed surfaces or in trenches.				
	(ii) 110mm dia.	each	2		

1.37.6	Supplying fitting and fixing PVC single tee with door of (Supreme/Prince) or other ISI approved including joining, fitting and fixing etc. as necessary complete at all levels including below G.L. as directed and specified.				
	a) In exposed surfaces or in trenches.				
	(ii) 110mm dia.	each	2		
	b) Concealed by chiselling or breaking brick wall/C.C./R.C.C and making good to the damages.				
	(ii) 110mm dia.	each	2		
	GRATING				
1.40	Providing fitting & fixing C.I. Grating to the floors complete as directed and specified.				
	(a) 110mm dia	each	2		
1.42	C.P. Grating				
	(ii) 110mm dia	each	2		
	MANHOLE COVER				
1.50	Providing fitting and fixing (600x600)mm 90mm thick C.I. Man hole cover and frame of 25 Kg. weight complete as directed and specified	each	1		
17.10	Providing and fixing stainless steel A ISI 304(18/8) kitchen sink as per IS:13983 with C.I brackets and stainless steel plug 40mm. Including painting of fittings and brackets, cutting and making good the walls wherever required.				
17.10.1.4	510 x 1040 mm bowl depth 178mm	each	1		
17.32	Providing and fixing mirror of superior glass of approved quality and of required shape and size with plastic moulded frame of approved make and shade with 6mm thick hard board backing:				
17.32.2	Rectangular shape 453 x 357mm	each	2		
	Providing fitting and fixing vitreous china wall hang water closet(European type w.c pan 400mm high) with seat and lead, CP brass hinges and rubber buffers,ci/ms brackets, required				
	Vignette(cat no. VGS-WHT-0312)	EACH	1		
		TOTAL			
		GRAND TOTAL			
		SAY			

COST ESTIMATE OF FIRE ALARM AND AUDIO VISUAL SYSTEM

Annexure VIII

AS PER DSR-2018(E&M)

17.2	INTELLIGENT FIRE ALARM SYSTEM	QTY	UNIT	RATE	AMOUNT
17.2.1	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications.				
17.2.1.2	Two Loop Panel.	1.00	No.		
17.2.4	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	16.00	No.		
17.2.5	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	8.00	No.		
17.2.6	Supplying, installation, testing & commissioning of intelligent addressable programmable sounder complete as required.	1.00	No.		
17.2.7	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	1.00	No.		
17.2.14	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	1.00	No.		
17.2.15	Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required.	1.00	No.		

AUDIO VISUAL SYSTEM - NON SCHEDULED					
SL.NO.	ITEM DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Supplying installation, testing, programming and commissioning of Audio equipment, 4-Channel Power Amplifier, 75 W per channel @ 8 ohms. MAKE: AHUJA/ HONEYWELL/ BOSCH	1	Each		
2	Supplying installation, testing, programming and commissioning of Audio equipment, Conference system - CS5 Conference system- Base Unit. MAKE: AHUJA/ HONEYWELL/ BOSCH	1	Each		
3	Supplying installation, testing, programming and commissioning of Audio equipment, CS5 Conference system- Delegate Unit simple. MAKE: AHUJA/ HONEYWELL/ BOSCH	22	Each		
4	Supplying installation, testing, programming and commissioning of Audio equipment, CS5 Conference system -Chairman unit . MAKE: AHUJA/ HONEYWELL/ BOSCH	1	Each		
5	Supplying installation, testing, programming and commissioning of Audio equipment, CS5 Conference system- Power Supply for max. 12 Delegates. MAKE: AHUJA/ HONEYWELL/ BOSCH	2	Each		
6	Supplying installation, testing, programming and commissioning of Audio equipment, CS5 Conference system- System Cable - Cat5 2,5m with RJ45 connection (or equivalent as approved by the Deptt.). MAKE: AHUJA/ HONEYWELL/ BOSCH	23	Each		
7	Supplying installation, testing, programming and commissioning of Audio equipment,CS5 Conference system- Mounting Frame for flush mount installation. MAKE: AHUJA/ HONEYWELL/ BOSCH	1	Each		
9	Supplying installation, testing, programming and commissioning of Audio equipment,8" Open-Back Ceiling Speaker. 70V/100V taps at 6W, 3W, 1.5W (plus 0.75W at 70V), very high 97 dB sense, 50 Hz to 16 kHz, for non-plenum applications, 1.4 kg (3.0 l). MAKE: AHUJA/ HONEYWELL/ BOSCH	8	Each		
10	Supplying installation, testing, programming and commissioning of 65" widescreen LED Monitor having below specified features and specification: Resolution: 4K Ultra HD (3840x2160) Refresh Rate: 60 Hertz Connectivity: 3 HDMI ports to connect set top box, Blu-ray speakers or gaming console 2 USB ports to connect hard drives or other USB devices 1 VGA Slot to connect your Laptop/PC 1 AV Input 1 AV Output 1 RF Slot Sound: 20 Watts output 2.0CH Speaker Type Down Firing Speaker Direction AI Sound Auto Volume Leveling AI Acoustic Tuning Bluetooth Surround Ready Clear Voice Pro Display: α5 Gen5 AI Processor 4K 178 Degree Viewing Angle Active HDR HDR 10 Pro HLG Dynamic Vivid HDR Dynamic Tone Mapping AI 4K Upscaling Smart TV Features: WebOS ThinQ AI In-Built WiFi Screen Mirroring Supported Apps: Netflix, Prime Video, YouTube, Zee5, etc.	1	Each		

	Warranty: 1 Year Standard Manufacturer Warranty From Date Of Purchase MAKE : LG/ SAMSUNG/ SONY				
					Total

Annexure-IX					
PRICE BID(PART-II)					
AIR-CONDITIONING WORKS FOR IASST, ASSAM.					
ESTIMATE FOR AIR CONDITIONING INSTALLATION WORK FOR IASST.					
Note : For any make, if OEM doesn't has specific star rating for the product but that product has equivalent energy saving as compared to the star rating, then vendor shall mentioned the same against the model number.					
S.No.	Particulars	Unit	Qty	Rate	Amount
Part A:					
1	Blue star /Voltas/Godraj/LG Make3- 5 Star Inverter Split Type AC's				
	i) 2TR 5 Star Inverter Split AC	Nos	1		
	ii)1.5 TR 5 Star Inverter Slpit AC	Nos	1		
2	Blue star/Voltas/Godraj/LG Make 3-5 Star Inverter Cassette Type AC				
	i) 2TR 5 Star Inverter Cassette AC	Nos	3		
Total Amount Part A					
	Installation & Commissioning of the unit With Accessories:				
Part B					
1	i)Supply and Installation of Outdoor Stand for Split AC's and Cassette AC	Nos	5		
2	i)Installation and Commissioning for Split AC's	set	2		
	ii)installation & Commissioning for Cassette AC's	set	3		

3	i) 5KVA Voltage Stabilizer for 2 TR Split and Cassete AC's	Nos	4		
	ii) 4KVA Voltage Stabilizer For 1.5 TR Split AC	Nos	1		
Total Amount Part B					
Total Project Cost (Part A+Part B)					
Extra Pipe & Fittings(If required)					
Part C					
4	i)Copper Pipe with Nitrirel Insulation	Rmt.	1		
	ii)Nitrirel Cable	Rmt.	1		
	iii)Upvc Pipes and Fittings	Rmt.	1		