

TENDER NO: 20/2024 Dated 12.11.2024
NOTICE INVITING TENDERS FOR VIDEO CONFERENCING
SYSTEM IN BOARD ROOM OF R & D BLOCK AT IIIT-DELHI
CAMPUS OF INDRAPRASTHA INSTITUTE OF INFORMATION
TECHNOLOGY DELHI AT OKHLA-III, DELHI



INDRAPRASTHA INSTITUTE *of*
INFORMATION TECHNOLOGY **DELHI**



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TENDER NOTICE

1. Last Date & Time of issue of tender documents from 12.11.2024
2. Last Date & Time of receipt of tender 21.11.2024 upto 3.00 p.m.

PE& EO, IIIT-Delhi, Okhla, New Delhi-110020 on behalf of Registrar, IIIT-Delhi invites sealed itemrate tenders from eligible contractors for AV works.

Name of work	Tender for Video Conferencing System in the Board Room of R &D Block at Indraprastha Institute of Information Technology (IIIT-Delhi) Campus, Okhla Phase-III, New Delhi-110020
Tender No	20/2024
Date of Start and downloading the tender (Tender document available from www.iiitd.ac.in)	12.11.2024
Estimated Cost	Rs 8.35 Lacs
Location:	7 th floor of R & D Block
Earnest Money	Rs. 16700/- (Rupees Sixteen thousand and Seven hundred only) is to be submitted with tender document as earnest money. The above payment shall be made in the shape of deposit at pay order/demand draft of a scheduled bank issued in favour of IIIT Delhi Collection payable at New Delhi-110020
Performance Guarantee	To be submitted by L1 bidder The bidder whose bid is accepted will be required to furnish Performance Guarantee of 3% (Three percent) of the accepted tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract. This guarantee shall be in the form of DD / FDR in favour of IIIT Delhi Collections payable at New Delhi-110020. Bank Guarantee of any scheduled bank drawn in favour of IIIT-Delhi.
Security Deposit	2.5% of Tendered Value (SD will be released after successful completion of the Defects Liability Period)
Tender Fee	Tender documents can be downloaded from IIITD website (www.iiitd.ac.in) and submitted with non refundable DD of Rs. 1180/- in favour of IIIT Delhi Collection as cost of tender. Rs.1000/- + 18% GST /- = Rs.1180/- (Rupees One Thousand One hundred Eighty only) in the form of a demand draft/ pay order in favor of IIIT-Delhi Collections which is non-refundable. NEFT Transfer

	A/c details are as under: Bank - HDFC Bank LTD , Okhla Industrial Area Phase –III New Delhi 110020 Beneficiary's Name - IIIT Delhi Collections Account No - 20741110000035 I FSC code- HDFC0002074 In case of on-line payment of Tender Fees - UTR No. (For Tender Fee)
Time Allowed	15 Days (as per agreed schedule)
Last Date of Submission of Tender Date & Time	On 21.11.2024 upto 1500 Hrs in the office of Registrar, Indraprastha Institute of Information Technology Delhi, at Okhla Phase –III New Delhi-110020
Date & Time of Opening of Tender Documents	On 21.11.2024 at 1530 Hrs in the office of Indraprastha Institute of Information Technology Delhi, at Okhla Phase –III New Delhi-110020
Address for communication & submission of tender documents and opening of technical bid	Registrar, IIIT-DELHI, Okhla Industrial Area, Phase III, New Delhi 110020
Clarification/Queries, if any, can be addressed to	email ID: admin-project@iiitd.ac.in phone no-011-26907563/564/565, 011-71985363

Works to be completed in coordination with the main Civil & MEP Interior works contractor. No extra for non-availability of fronts or coordination with main agency shall be payable on account of the same.

- 1) The tenders shall be placed in sealed envelopes with a name of work and due date written on the envelope and addressed to the PE & EO, IIITD. Complete tender documents shall be submitted by the approved contractors in **two envelopes**. **1st envelope** shall contain the earnest money in the shape of Demand Draft / Pay Order of a scheduled Bank requisite shape as per condition & eligibility criteria and cost of tender as stated above in case of the downloaded version.
- 2) The eligible contractors who have carried out similar works in IIIT-D/Govt Depts/PSU/Reputed Pvt sector /MNCs are to submit the experience certificates for the works and registration certificates with Govt. Depts. if any. The said certificates along with the EMD be enclosed in **Envelope-1**.
- 3) Experience of having successfully completed similar works during last seven years ending on the 31st Oct 2024. The Similar works shall mean works of **SITC of AV works** . The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from date of completion to last date of receipt of tenders.

Three similar works not less than 40% of est.cost	Rs 3.34 lacs each Or
Two similar works not less than 60% of est cost	Rs 5.01 lacs each Or
One similar work not less than 80% of est cost	Rs 6.68 lacs each

- 4) One completed works of any nature either part of 3) or separate one costing not less than 40% of estimated cost ie Rs 3.34 lacs with some Central/State/Autonomous/Central PSU/State PSU/local authority formed under any Act published in Central/State Gazette.

- 5) The applications not supported with requisite experience certificates, GST registration certificate, s no. and ITCC in Envelope-1 shall not be entertained Average Annual Turnover over State of the Art Smart classroom should be at least Rs 20 lacs during immediate last 3 consecutive financial years ending 31st Mar 2024.
- 6) Should not have incurred any loss in the more than two years in the last three years ending 31stMar 2024.
- 7) Performance certificates must be submitted by the vendors for the works.
- 8) Company should not have been barred / blacklisted for taking up similar work in any organization- A certification to this effect on the letter head of the bidder.
- 9) The **2nd envelope** shall contain the financial bids including Priced Schedule of Quantities, Form of Tender, Conditions of Tender, Articles of Agreement, Brief Specifications, Condition of contract, Drawings all duly signed by the authorized signatory of the firms.

All these envelopes are to be put in a single envelope duly super-scribed the name of work, and addressed to PE &EO, (IIITD) and with their address. In case the tenderer does not fulfill the laid down eligibility criteria or fails to deposit the earnest money in prescribed form, financial bid shall not be opened.

Tenderers shall seal the tender affix their initials and put stamp on each and every page of tender document before submission. The tender of the contractor, who submits in-complete tender document or submits more than one tender for one work, shall not be considered at all.

Tenders will be received by the PE &EO **up to 3.00 P.M on 21.11.2024** and will be opened by him or his authorized representative in the office of Registrar, IIITD on the same day at 3.30 P.M.

First the Technical Bids will be opened and screened. The bids shall be examined whether the EMD is in order and the bidder meets the minimum eligibility criteria specified above. Those bidders whose EMD is in order, meets the minimum eligibility criteria, has submitted all the required documents and meet the technical requirements shall be considered for opening of financial bid. Conditional tenders would not be accepted. Financial bids in respect of contractors who do not fulfill above criterion shall not be opened.

- 10) No Xerox / certified copies of tenders shall be accepted, if submitted these tenders shall be rejected.

CE

CONDITIONS

1. The time allowed for carrying out the construction work will be 15 days from the 3rd day after the date of written orders to commence the work.
2. The site for the work is available. A tenderer shall be deemed to have full knowledge of the site whether or not an inspection has been undertaken by the tenderer and no revision in the amount quoted in the tender shall be permitted on account of not having inspected the site or any misunderstanding thereto. The tenderer shall be responsible for arranging and maintaining 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 this document and/or the agreement and/or any other letter, circular, notification issued or document released by IIITD. No extra for lack of knowledge of site shall be paid.
3. During execution of works, because of some unforeseen circumstances to enable him to complete the work as per terms of the contract, shall not relieve the contractor from any liability or obligations under the contract and he shall be responsible for the acts, defaults and neglects of any sub-contractor, his agents or workmen as fully as if they were the acts, defaults or neglects of the contractor, his agents or workmen.
4. The Contractor shall be required to deposit an amount equal to 3% of the tendered value of the work as performance guarantee in the form of an irrevocable bank guarantee bond of any scheduled bank or State Bank of India in accordance with the form prescribed or in the form of fixed deposit receipt etc. within 15 days of the issue of letter of acceptance. The performance guarantee shall have the validity up to 31.01.2025.
5. Tenderers are advised to inspect and examine the site and its surrounding at their own cost and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risk, contingencies and other circumstances which may influence or affect their tender. 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 own cost all materials, tools and plants, water, electricity, access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contact documents. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specification of the work to be done, local condition and other factors having a bearing on the execution of the work.
6. The Accepting Authority (IIITD) does not bind himself to accept the lowest or any other tender and reserves to him/herself the authority to reject in whole or part, any or all of the tenders received without the assignment of any reason. All tenders in which any of the prescribed conditions are not fulfilled or for 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 contractor who resort to canvassing will be liable to rejection.
8. The Accepting Authority reserves to himself the right of accepting the whole or any part of the

tender and the tender shall be bound to perform the same at the rates quoted.

9. Tenders shall remain open for acceptance for a period of 60 days from the date of opening of the tenders. If any tenderer withdraws his tender before the said period for issue of letter of acceptance, whichever is earlier or makes any modification in the terms and condition of the tender which are not acceptable to the IIITD, then IIITD shall, with out prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money absolutely besides black listing of the tenderer.
10. The notice-inviting tender shall form a part of the contract document. The successful tenderer/contractor shall, sign the necessary contract documents consisting of the notice inviting tender, all the documents including additional conditions, specification and drawings, if any forming the tender as issued at the time of invitation of tender and acceptance thereof with any correspondence leading thereto within the time specified in the letter communicating the acceptance of the tender. In case of delay, the earnest money may be forfeited and the tender cancelled or the contract enforced as per the terms of the tender and the invitation to tender and the tenderer shall thus be bound by the condition of contract even though the formal agreement has not been executed and signed within the specified time by the tenderer.
11. The work shall be carried out as per general of conditions of contract for central PWD works 7/8 (Tender Contract) and form part of the agreement/document.
12. Contract is liable to be terminated by the IIITD without payment of any compensation, if subsequent to the acceptance of tender the contractor is black-listed by, or enters into partnership of employs any black listed contractor of the IIITD or any other department, or Govt. or its, undertakings.
13. Cost of Bidding
 - 13.1 The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.
14. Clarification of Bidding Documents
 - 14.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing/mail at the Employer's address indicated in the invitation to bid not later than 3 days before the Date of Submission of Tenders.
Email- admin-project@iiitd.ac.in **phone- 01126907563/64/65**
15. Currencies of Bid and Payment
 - 15.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments will be invariably made in Indian Currency (Indian Rupees.)

16. PROTECTION OF ENVIRONMENT AND OTHER LAWS:

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and other local Acts/ Laws/ rules made there under, regulations, notifications and bye-laws of local authorities or any other law, bye-laws, regulations that may be passed or notification that may be issued in this respect in future by the State/ Local authority.

For and on behalf of the
REGISTRAR
Indraprastha Institute of Information Technology, New Delhi

TENDER

I/We have read and examined and understood the notice inviting tender, schedule, A, B, C, D, E & F, Specifications applicable, drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

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

We agree to keep the tender open for sixty (60) days from the due date of its opening and not to make any modifications in its terms and condition.

A sum of Rs..... Rupees (... ..)

has been deposited in demand draft of a scheduled bank issued by a scheduled bank as earnest money. If I / we, fail to furnish the prescribed performance guarantee within prescribed period, I / we agree that the said Director, IIITD or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / we fail to commence work as specified, I / we agree that Director, IIITD or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Schedule ' F ' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I / We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

I / We hereby declare that I / we shall treat the tender documents drawings and other records connected with the work as secret / confidential documents and shall no communicate information / derived there from to any person other than a person to whom I / we am / are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated.

Witness:

Signatures of Contractor

Address:

Postal Address

Occupation:

LETTER OF SUBMISSION

The CE
Indraprastha Institute of Information Technology, Delhi
Okhla Phase-III
(Behind Govind Puri Metro Station)
New Delhi-110020.

I/We, the undersigned, have read and examined in detail, the specifications and all bidding documents and hereby declare that:

Price and Validity

1. All the rates quoted in our proposal are in accordance with the terms and conditions as specified in the bid document. All the prices and other terms and conditions of this proposal are valid for a period of 60 calendar days from the date of opening of bid.
2. We do hereby confirm that our bid prices include all taxes/levies/GST indicated separately.
3. We hereby declare that if any tax law is altered, we shall pay the same.
4. The quoted rates are inclusive of ESI , PF and Green Tax no extra on such heads would be payable on such account.

Earnest Money

We have enclosed EMD in the form of demand draft no....., dated... ..favoring IIIT, Delhi payable at New Delhi issued / drawn on..... Bank for Rs._____/ - (Rupees _____ Thousand only), as desired.

Deviations

We declare that all the works shall be performed strictly in accordance with the technical specifications and other tender conditions with no deviations.

Qualifying Data

We confirm that all information/data have been submitted as required in tender document.

We hereby declare that our proposal is made in good faith, without collusion for fraud and the information contained in the proposal is true and correct to the best of our knowledge and belief. I/We agree that in case any information is found to be incorrect the tender is liable to be rejected at any point of tendering process.

Bid submitted by us is properly sealed and prepared so as to prevent any subsequent alteration and replacement.

We understand that you are not bound to accept the lowest or any bid you may receive.

Thanking you,
Yours faithfully,
(Signature and seal of Tenderer with name, designation and contact no.)

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of Registrar, IITD for a sum of

Rs.(Rupees))

The documents referred to below shall form part of this contract Agreement:-

- NIT
- Performa for Agreement
- Additional conditions.
- Special conditions
- Schedule of Quantities &
- Drawings
- General conditions of contract for CPWD Works-2020 with up-to-date correction slip

For & on behalf of Registrar

IIT-Delhi

Signature.

Dated.....

Designation.....

SCHEDULES

SCHEDULE 'A'

Schedule of quantities (Enclosed)

: Enclosed

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

NIL

SCHEDULE 'C'

Tools and plants to be hired to the contractor

NIL

SCHEDULE 'D'

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

NIL

SCHEDULE 'E'

Schedule of component *of* Cement, Steel, other materials, Labour etc. for price escalation.

NIL

CLAUSE 10 CC

Component of Cement - expressed as percent of total value work,

N/A

Component of Steel-expressed as percent *of* total work.

N/A

Component of civil (except cement & steel) / Electrical construction Materials-expressed as percent of total value of work.

N/A

Component of labour-expressed as per cent of total value *of* work.

N/A

Component of P.O.L. - expressed as percent of total value work.

N/A

SCHEDULE 'F'

Reference to General Conditions of contract.

Name of Work: Tender for Video Conferencing System in the Board Room of R &D Block at Indraprastha Institute of Information Technology (IIIT-Delhi) Campus, Okhla Phase-III, New Delhi-110020

Estimated cost of work: Rs.8.35 lacs

- i. Earnest money: Rs. 16700/-
- ii. **Performance Guarantee-** The contractor, for due and faithful performance of the Contract, shall obtain and submit to the Owner such security of 3% of the Contract Value within 7 days after the receipt of the Letter of Acceptance, in the form of BG Performa from a scheduled Bank /FD providing such security shall be subject to the approval of the Owner. The cost of complying with the requirement of this Clause shall be borne by the Contractor.

Period of Validity of performance Bond

The performance bond shall be valid as at Conditions Cl 4 and till the Contractor has executed and completed the Works in accordance with the Contract. This security shall be returned to the contractor within 14 days of the issue of the said Completion Certificate.

Claim under Performance Security

Prior to making a claim under the performance security the Owner shall, in every case, notify the Contractor stating the nature of the default in respect of which the claim is to be made.

Security Deposit / Retention money shall be Two and half percent (2.5%) of the value of executed works and will be deducted from each and every payment made to the contractor against running account bill submitted for the work done at site.

- iii. Defect Liability period 12 months from date of completion.
- iv. Liquidated damages - In case of delay on account of reasons attributable to the Contractor Liquidated Damages shall be levied. The amount of Liquidated Damages payable by the Contractor to the Employer would be 0.25% of the value of order for each calendar day of delay subject to a maximum of 5% of the value of order after which Employer reserves the right to terminate the contract without prejudice to the rights of the Employer.

General Rules & Direction:

Officer inviting tender: Registrar (IIITD)

2(v) **Definitions**
Engineer-in-Charge

CE

2(viii) Accepting Authority

DIRECTOR, IIITD

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

15%

2(xi) Standard Schedule of Rates

DSR-Latest

2(xii) Department

IIIT-D

9(ii) Standard CPWD contract Form

CPWD form 8 -2020 with up

to date correction slips.

Clause 1

- (i) Time allowed for submission of Performance Guarantee From the date of issue of letter of acceptance 7 days
- (ii) Maximum allowable extension beyond the period (Provided in (I) above) 7days

Clause 2

Authority for fixing compensation under clause 2. Director, IIITD

Clause 2A

Whether clause 2A shall applicable No

Clause 5

Number of days from the date of issue of letter Acceptance for reckoning date of start 3 days

Time allowed for construction 15 days

Clause 6, 6A

Clause applicable - (6 or 6A) Clause 6A

Clause 7

Gross work to be done together with net payment /adjustment or advance for material collected, if any since the last such payment for being eligible to interim payment. Rs 5 Lakhs.

Clause 10A

List of testing equipment to be provided by the contractor at site lab. As required

Clause 10 B (ii)

Whether Clauses 10B (ii) (iv) shall be applicable -----do-----10B(iii) ----- Yes No

Clause 10CA Escalation Not Applicable

Clause 10CC Escalation Not Applicable

Clause 11

Specification to be followed for execution of work

CPWD Specifications 2007,
Part I & II with Up-to-date correction slips

Clause 12

Deviation limit beyond which clauses 12.2 & 12.3 shall
Apply for building work

100%

Clause 16

Competent Authority for deciding reduced rates.

Director, IITD

Clause 17

Contractor liable for Damages defects during
maintenance period

Applicable

Clause 18

List of mandatory machinery, tools & plants to be
deployed by the contractor at site

As per the site requirement.

Clause 36(i)

Requirement of Technical Representative (s)

As per requirement.

Clause 25

Arbitration Clause

As per special conditions

SPECIAL CONDITIONS

1. In the event of the tender being submitted by a firm, it must be signed by a person duly authorized through a power of attorney issued by all the partners and a certified copy of the power of attorney should be enclosed with the forwarding letter or separately by each member thereof, or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so and such power of attorney shall be produced with the tender and it must disclose that the firm is registered under the Indian partnership Act.
Each and every signature given shall be separately witnessed. A Contractor or a contractor who himself / themselves has/have tendered or who may tender for the work shall not witness the tender of another person for the same work. Failure to observe this condition would render tenders of the contractors tendering as well as witnessing the tenders liable for summary rejection.
2. The conditions for item rate tender only will be applicable as given in general conditions of contract for central PWD works 2020. As mentioned there in also, in event no rate has been quoted for any items leaving space bolts in figure (s), word(s) and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other item(s) and rate for such items will be considered as zero and work will be required to be executed accordingly.
3. Rates quoted as percentage below/above in the tender will be summarily rejected.
4. It must be understood that the work has to be completed as per the time provided in the contract and as such time is the essence of the contract.
5. The quantities furnished in the bills of quantities are only probable quantities liable to alternation by omission, deduction or addition, and it would be clearly understood that the contract is **not a lump sum contract** and the IIITD do not, in any way, assure the tenderer or guarantee that the said probable quantities are correct or that the work would correspond thereto. Payments will be regulated on the actual quantities of work authorized, done and measured at the accepted rates. No claims due to any change in quantities (+ or -) will be entertained. The drawings, forming parts of complementary installations work specifications and the bills of quantities, of the contract, are explanatory of and are to one another, representing together the works / to be carried out. If neither the drawings nor the specifications nor the accepted bills of quantities include any part/parts the intention to include which is nevertheless clearly inferred and which are obviously necessary for the proper completion of the works/ installations, all such parts shall be supplied and executed by the contractor at no extra charge. Anything contained in one or another of (a) the drawings, (b) the specifications and (c) the accepted bills of quantities and not found in the others will be equally binding as if it were contained in each of them.
6. No alterations, which are made by the tenderer in the drawings, specifications, conditions or probable quantities accompanying this notice will be recognized and if any such alterations are made the tender, will be invalid. Conditional tenders will however be liable for rejection.
7. The tenderer must obtain for himself on his own responsibility and at his own expense all the information necessary, including risks, contingencies and other circumstances to enable him to make a proper tender and to enter into a contract with the IIITD. He must examine the drawings, specifications, conditions and so on and must inspect the site of work, examine the nature of the ground and the subsoil (so far as is practicable) and acquaint himself with local conditions, means of access to the work, storage facilities or areas for staff colony, the nature of the work, in fact all

matters pertaining thereto before he submits his tender.

8. The tenderer shall also bear all expenses in connection with the preparation and submission of his tender and attendance for subsequent negotiations/clarifications.
 - (I) Omission, neglect or failure on the part of the tenderer to obtain requisite and reliable information on any matter affecting his tender, the contract and the construction, completion, maintenance, (dismantling and disposal) of the work shall not relieve the tenderer whose tender is accepted from any liability in respect of the contract.
 - (II) The tenderer whose tender is accepted shall not be entitled to make any claim for increase in the rates quoted and accepted excepting in pursuance of any specific provision in the contract.
9. The Contractor, upon award of work, shall furnish the following details for the approval of the Engineer in charge:
 - 9.1. The names of manufacturers of specialized items such as patented water proofing systems / materials, doors, flooring tiles, false ceilings, insulating materials, wind mill, cement, steel, glazing, and any other materials etc. which he proposes to use in the work.
 - 9.2. The makes and types of fittings, materials, subject to the makes and type stipulated in the specifications, which he proposes to use in the work.
 - 9.3. The details of licenses granted to him and/or to professional qualified and/or licensed technical personnel on his staff who will be engaged on the work (and submit, if called for, the licenses for inspection by the Officer in charge in consultation with Engineer in charge).
 - 9.4. Only approved agencies/ skilled workers shall be deployed to carry out requisite specialized items of work. The Officer/ Engineer in charge's decision in consultation with Architect's/ in this regard shall be binding to all the parties concerned.
10. The rates quoted in the bills of quantities shall unless specified otherwise will be for all heights, depths deemed to be for finished work in-situ/ item by item as provided for, and shall include cost for all necessary material and labours, all necessary tools and plants and machinery, sheds, marking out, clearing site, etc. and for all taxes, octroi, excise, VAT works contract and any other tax or duty levied by Government, Central or Local, or Local Authority, GST indicated separately ,if any as applicable.
 - 10.1. The rates shall be firm and not be subject to any variations in exchange rates, in taxes, duties etc. in railway freight and the like including labour conditions, etc. The rates are not subject to escalation.
11. It will be the sole responsibility of the contractor to procure all the equipment's/ materials and other materials required for the work.
12. The IITD further reserves the right to delete or reduce at any time, any section of the bills of quantities with out assigning any reasons whatsoever there for and no claim will be entertained in this regard.
13. The tenderer whose tender is accepted is bound to execute formal agreement with the IITD within one week of the date of intimation of award of work in accordance with the draft agreement which will include conditions of tender, form of tender (general conditions of contract for central PWD works 2010), Articles of Agreement, Bills of quantities, Conditions of contract, Special conditions if any, the drawings and specifications, but his liability under the contract shall commence from the date of written order to commence work whether the formal agreement is drawn or not.

14. The Contractor shall bear all expenses in connection with the execution of the said agreement including fees for stamping and registration of documents as required.
15. The Security Deposit will bear no interest what so ever until the date of release.
16.
 - a) The contractor, upon award of work, shall submit a memorandum of procedure giving the outline of his general scheme, programme and time table, in the form of a chart that shall be scrutinized and approved (with modifications as necessary), which shall become the approved programme for execution. The approved programme shall be the basis for assessment of comparative progress under the relevant conditions of contract.
 - (b). Over and above, the contractor has to supply programme chalked out showing important milestones to be achieved and the progress actually achieved compared with, the target of the same in the programme and shortfall, if any planned for being made up in the programme for next month.
17.
 - (a) The work in general shall conform to the CPWD Specifications 2007 with up to date correction slips & any other latest civil specification published by CPWD, New Delhi and the "Specifications for works".
 - (b) In case items not covered by the general specifications referred above, reference shall be made to the appropriate I.S. Code.
 - (c) Should there be any difference in the particular specifications of individual item of work and the description of item as given in the Schedule of quantity, the latter shall prevail, which will be as per the relevant drawing.
 - (d), In case of any work for which there is no specification in I.S. specifications or in the specifications forming part of tender documents or in case there is any variation, such work shall be carried out in all respects in accordance with the instructions to be issued by the Engineer in charge.
18. On acceptance of the tender the Contractor shall in writing and at once inform the IITD and the Architects the name of his accredited representative(s) who will be responsible to take instructions from the Architects / Officer in Charge.
The work of any part of it shall not be transferred, assigned or sublet without the written consent of the IITD.
19. The Contractor shall be required to co-operate and work in co-ordination with and afford reasonable facilities for such other agencies / specialists / interior designers / consultants as may be employed by the Architects / Project Management Consultant/ Officer in Charge on other works / sub-works in connection with the project/scheme of which this work forms a part.
20. The Contractor shall get the necessary insurance done for their personal employed/ company insurance, third party insurance, marine insurance, all risk insurance or any other insurance as required.
21. The Contractor is required to comply with all Acts of Government relating to labour, safety, environment and other Rules and Regulations made there under from time to time and to submit at the proper times all particulars and statements required to be furnished to the appropriate Authorities.
22. **Delay and extension of time**
If in the opinion of the Architect/PMC/Owner the Work is delayed:

- a) By force majeure, or
 - b) By reason of any exceptionally inclement weather, or
 - c) By reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through the Contractor's own default, or
 - d) By the works or delays of other Contractor or tradesmen engaged or nominated by the Owner or the Architect/PMC and not referred to in the Schedule of Quantities and/or Specification, or
 - e) By reason of Architect's/PMC/Owner Instructions to delay work, or
 - f) By reason of civil commotion, local combination of workmen or strike or lock-out affecting any of the building traders, or
 - g) In consequence of the Contractor not having received in due time necessary Instructions from the Architect/PMC/Owner for which he shall have specifically applied in writing,
- Then the Architect/PMC/Owner shall make a fair and reasonable extension of time for completion of the Contract Work; in case of such strike or lock-out the Contractor shall, as soon as may be, give written notice thereof to the Architect/PMC/Owner, but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the Architect to proceed with the work.

23. **Failure by Contractor to comply with Architect's Instructions**

If the Contractor after receipt of written notice from the Architect requiring compliance fails within ten days to comply with such further drawings and/or Architect's Instructions the Owner with the consent of the Architect may employ and pay other persons to execute any such work whatsoever that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the Contractor.

24. **Termination or Abridgment of Contract by the Owner**

- a) If the Contractor being an individual or a Firm commit any 'Act or Insolvency' or shall be adjudged an Insolvent or being an Incorporated Company or Society shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervision of the Court and of the Official Assignee of the Liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Architect that he is able to carry out and fulfill the Contract, and to give security therefore, if so required by the Architect, or
- b) If the Contractor (whether an individual, Firm, Incorporated Company or Society) shall suffer execution to be issued, or
- c) Shall suffer any payment under this Contract to be attached by or on behalf of any or the creditors of the Contractor, or
- d) Shall assign or sublet this Contract without the consent in writing of the Architect/PMC first obtained, or
- e) Shall charge or encumber this Contract or any payments due or which may become due to the Contractor there under, or
- f) If the Architect/PMC shall certify in writing to the Owner that the Contractor:
- g) Has abandoned the Contract, or
 - ii) Has failed to commence the works, or has without any lawful excuse under these Conditions suspended the progress of the works for 14 days after receiving from the Architect/PMC/Owner written notice to proceed, or
 - iii) Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
 - iv) Has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the Architect written notice the said materials or work were

condemned and rejected by the Architect under these conditions, or

v) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or

vi) Has to the detriment of good workmanship or in defiance of the Architect's/PMC Instructions to the contrary sub-let any part of the Contract,

25. Then and in any of the said cases the Owner with the written consent of the Architect/PMC may, notwithstanding any previous waiver, after giving seven days' notice in writing to the Contractor, determine the Contract, but without hereby affecting the powers of the Architect or the obligations and liabilities of the Contract the whole of which shall continue in force as fully as if the Contract had not been so determined and as if the works subsequently executed had been executed by or on behalf of the Contractor. The costs of these works are therefore recoverable from the Contractor. And further, the Owner under instructions of the Architect, by his Agents or servants may enter upon and take possession of the works and all plants, tools, scaffolding, sheds, machinery, steam and other power utensils and materials lying upon the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor or other person or persons to complete the Work, and the Contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other Contractor or other person or persons employed for completing and finishing or using the materials and plant for the Work. When the Work shall be completed or as soon thereafter as convenient the Architect shall give a notice in writing to the Contractor to remove his surplus materials and plant, and should the Contractor fail to do so within a period of 14 days after receipt thereof by him, Owner shall sell the same, and shall give credit to the Contractor for the amount realized. The Architect shall thereafter ascertain and certify in writing what (if anything) shall be due or payable to or by the Owner for the value of the said plant and materials so taken possession of by the Owner and the expense or loss which the Owner shall have been put to in procuring the works to be completed, and the amount, if any, owing to the Contractor and the amount which shall be so certified shall thereupon be paid by the Owner to the Contractor or by the Contractor to the Owner, as the case may be, and the certificate of the Architect shall be final and conclusive between the parties.
26. If at any time after the commencement of the work the Owner shall for any reason whatsoever not require the whole thereof, as specified in the tender, to be carried out, but need to abridge the Contract, the Owner shall give notice in writing of the fact to the Contractor who shall have no claim to any payment or compensation which he might have derived from the execution of the work in full, but which he did not derive in consequence of the whole amount of the work not having been carried out. The Contractor shall in this case, however, be entitled to payment for the work already executed by him in accordance with the agreed rates. The Owner shall also take over all building materials as might have been ordered for the work, but orders for which cannot be canceled, if delivered within a reasonable time, and shall pay for them at cost price. The Contractor shall also be allowed to remove his tools and plants from the site.
27. Termination of Contract by Contractor
- a) If payment of the amount payable by the Owner under Certificate of the Architect /PMC for beyond two months from date of issue of certificate due to reason not attributable to the contractor.
 - b) The Owner commits any 'Act of Insolvency', or
 - c) If the Owner (being an individual, or firm) shall be adjudged an Insolvent, or (being an

Incorporated Company or Society) shall have an order made against him or pass an effective resolution for winding up, either compulsorily or subject to the supervision of the Court or voluntarily, or if the Official Assignee or the Owner shall repudiate the contract, or if the Official Assignee or the Liquidator in any such winding up shall be unable within fifteen days after notice to him requiring him so to do, to show to the reasonable satisfaction of the Contractor that he is able to carry out and fulfill the Contract and to make all payments due, and to become due there under and, if required by the Contractor, to give security of the same, or

d) If the works be stopped for three months or more under a continuous spell under the order of the Architect /PMC or the Owner or by any injunction or other order of any Court of Law,

28. Then and in any of the above said cases the Contractor shall be at liberty to determine the Contract by notice in writing to the Owner, through the Architect, and he shall be entitled to recover from the Owner payment for all works executed and cost of the material supplied and lying at site for the purpose of the Contract as on the said day of the termination. No other claim for idle labour , loss of overheads , profits shall be entertained nor shall any other claim on account of the delay in completion of the work /availability of site/ unwarranted conditions whatsoever shall be tenable, even if it is caused by circumstances beyond the Contractor's control.

29. Procedure for Settlement of Disputes

30.1 Engineer's Decision

If a dispute of any kind whatsoever arises between IIT-Delhi and the contractor in connection with, or arising out of , the contract or the execution of the works, whether during the execution of the works or after their completion and whether before or after any repudiation or other termination of the contract, including any dispute as to any opinion, instruction, determination, certificate or valuation of the engineer, the matter in dispute shall, in the first place, be referred in writing to the engineer, with a copy to all parties. Such reference shall be made within one (1) month of arising of any such dispute and state that it is made pursuant to this clause. No later than one (1) month after the day on which he received such reference the engineer shall give notice of his decision to IIT-Delhi and the contractor. Such decision shall state that it is made pursuant to the reference under this clause.

Unless the contract has already been repudiated or terminated, the contractor shall in every case, continue to proceed with the works with all due diligence and the contractor and IIT-Delhi shall give effect forthwith to any / every such decision of the engineer unless and until the same shall be revised, as hereinafter provided, in an amicable settlement or an arbitral award. If either IIT-Delhi or the contractor be dissatisfied with any decision of the engineer, or if the engineer fails to give notice of his decision on or before one (1) month after the day on which he received the reference, then either IIT-Delhi or the contractor may within a further period of one (1) month from the day on which it / they receive(s) the notice of such decision, or on the day on which the said period of notice of / for decision expired, as the case may be, give notice to the other party, with copy for information to the engineer, of its / their intention to commence arbitration. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and no arbitration in respect thereof may be commenced unless such notice is given. If the engineer has given notice of his decision as to a matter in dispute to IIT-Delhi and the contractor and no notification of intention to commence arbitration as to such dispute has been given by either IIT-Delhi or the contractor as herein provided, the said decision shall become final and binding upon IIT-Delhi and the contractor.

30.2. Amicable Settlement

Where notice of intention to commence arbitration as to a dispute has been given in accordance with sub-clause 22.1, arbitration of such dispute shall not be commenced unless an attempt has first been made by the parties to settle such dispute amicably. Provided that, unless the parties otherwise agree, arbitration may be commenced on or after one (1) month from the day on which notice of intention to commence arbitration of such dispute was given, whether or not any attempt at amicable settlement thereof has been made or result achieved.

30.3. Arbitration

Any dispute in respect of which:

- a) the decision, if any, of the engineer has not become final and binding pursuant to the first sub-clause above,
- b) amicable settlement has not been reached within the period stated in the second sub-clause above,

shall be finally settled, unless otherwise specified in the contract, by arbitration to be held in New Delhi in English, under the provisions of the Arbitration and Conciliation Act 1996, including any statutory reenactment(s) / amendment(s) thereof and Rules made thereunder, by the arbitrator. The Director of the Institute shall appoint one person as the sole arbitrator. Either party shall be limited in the proceeding before such arbitrator to evidence or arguments put before the engineer for the purposes of obtaining the said decision pursuant to the first sub-clause herein. No such decision shall disqualify the engineer from being called as a witness and giving evidence before the arbitrator on any matter whatsoever relevant to the dispute. Arbitration proceedings shall not be commenced prior to the completion of the works, unless any major pre-requisite criticality is discerned by the arbitrator, and the obligations of IIT-Delhi, the engineer and the contractor shall not be altered by reason of the arbitration. The works shall not be stopped on account of the said process of arbitration and the contractor shall not be relieved of his responsibilities for the completion of the work under any circumstances whatsoever.

31.2. Contractor to provide everything necessary

The Contractor shall provide everything necessary for the proper execution of the Work according to the intent and meaning of the Drawings, Schedule of Quantities and Specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from, and if the Contractor finds any discrepancy in the Drawings or between the Drawings, Schedule of Quantities and Specification he shall immediately and in writing refer the same to the Architect who shall decide which is to be followed.

31.3. Materials and Workmanship to conform to Descriptions

All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or Specification and in accordance with the Architect's Instructions, and the Contractor shall upon the request of the Architect furnish him with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials which the Architect may require.

31.4. Assignment and Sub-letting

The whole of the works included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet the Contract or any part share thereof or interest therein without the written consent of the Architect, and no

undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the Work during its progress.

31.5. Removal of improper work

The Architect shall, during the progress of the Work, have the power to order the removal, from the Site or works within such reasonable time or times as may be specified in the order, of any materials which in the opinion of the Architect are not in accordance with the Specification or the Instructions of the Architect, the substitution of proper materials, and the removal and proper re-execution of any works executed with materials or workmanship not in accordance with the Drawings, Specifications or Instructions and the Contractor shall forthwith carry out such order at his own cost. In case of default on the part of the Contractor to carry out such order, the Owner shall have the power to employ and pay other persons to carry out the same, and all expenses consumed thereon or incidental thereto as certified by the Architect shall be borne by the Contractor, or may be deducted by the Owner from any moneys due or that may become due to the Contractor.

CLAUSE.5.1. Sub-Contractors

Where and when the appointment of specialist Sub-Contractors is indicated, such Sub-Contractors shall be appointed only with the prior written approval of the Owner upon recommendation of Engineer-in-Charge/Design Consultant /PMC on the following conditions: -

- A. The Contractor shall enter into written agreements with Sub-Contractors and ensure that the Sub-Contractors perform their Work in accordance with and subject to the terms and conditions of these Contract Documents. A copy of each such Agreement shall be furnished to the Engineer-in-Charge and the Owner.
- B. The Contractor shall remain fully responsible to the Owner for the performance and workmanship and all actions of all sub-Contractors and persons directly or indirectly employed by them.
- C. The Contractor shall supply and permit all Sub-Contractors to avail of site facilities and services to enable them to complete their Work safely and without hindrance or delay and conducive to produce the highest quality of Work required.
- D. The Contractor shall upon receipt of instruction from the Engineer-in-Charge, terminate and remove from site forthwith such Sub-Contractor or their person who's Work may be considered unsatisfactory.
- E. The Contractor shall make regular and prompt payment to each Sub Contractor not later than one week after receipt of payment from Owner for their measured Works certified by the Engineer-in-Charge. If the Contractor fails to make payments to Sub-Contractors as aforesaid, the Owner may, without any obligation or prejudice to its rights and with prior intimation to the Contractor may make direct payments to Sub-Contractors for and on behalf and from the account of the Contractor and recover such sums from the account of the Contractor out of the amounts due and payable under the bills raised by the Contractor. Such direct payments to Sub-Contractors shall be on behalf of the Contractor and shall in no way relieve the Contractor of his responsibilities or create a contractual relationship between the Owner and Sub-Contractor.
- F. Any Subcontractor that has been approved by the Owner shall neither be removed nor replaced without the prior written consent of the Owner.

CLAUSE.5.2. Nominated Sub-Contractors

The Owner shall be entitled to nominate to the Contractor selected Sub-Contractors for carrying out certain sections of the Work or to replace terminated Sub-Contractors. Such nominated Sub-Contractors shall receive the same assistance and co-operation from the Contractor as other Sub-Contractors appointed by the Contractor, and the Contractor shall be equally responsible and liable for their Work as is liable for the Works of the other Sub-Contractors. Nominated Sub-Contractors shall enter into direct agreements with the Owner and shall receive direct payments from the Owner. For the site facilities and services made available by the Contractor at his cost to the nominated Sub-Contractors including free water, electricity, insurance, staging, scaffolding, etc. the Contractor shall be entitled to receive 3% on the cost of the nominated Sub-Contractors' Work.

Nothing shall absolve the Contractor, including the approval/ termination/ nomination of Sub-Contractors by the Owner of his overall responsibility under the Contract to closely supervise the Work of the Sub-Contractor whether on or off the site and to ensure adherence to the Specifications and Schedules.

CLAUSE.5.3. Site office

CLAUSE.5.4. Fossils:

CLAUSE.5.5. Insurance

CLAUSE.5.6. Protection of Persons, Works and Property Accident or Injury to Workmen Accident Prevention:

Hazardous Material Identification. Protection of Property

Watchmen and Security Corrective Action

A. Authority to Stop Work: B. Rectification:

CLAUSE.5.7. Site Security:

~~**CLAUSE.5.8. Good for Construction Drawings, Details and Clearance to Construct.**~~ **CLAUSE.5.9. Warranty/Guarantee**

CLAUSE.5.10. Contractor's Responsibilities and Work Control Submittals

- A. "Shop drawings" means those drawings or other documents, which are specifically prepared by or on behalf of the Contractor to illustrate details of construction for the purpose of fabrication or installation and are submitted to the Owner to indicate the Contractor's intended method of achieving the end result required by the Contract Drawings and Specifications.
- B. "Project data" includes standard drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the Work required by the Contract.
- C. "Samples" are physical examples, which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.
- D. "Other submittals" includes progress schedules, setting drawings, testing and inspection reports, and other information required by the Contract Documents to be submitted by the Contractor for information or approval by the Owner.
- E. Mock up display of entire solution must be got approved prior to installation from the owners/its representatives.

CLAUSE.5.11. Co-operation with other contractors/specialized agencies/sub-contractors as per CPWD GCC 2020. No claim for delay in availabliliy of workfronts shall be entertained

CLAUSE.5.12. Rates:

The rates quoted by the tenderer, shall be firm and inclusive of all taxes viz GST (including works contract tax), octroi, entry tax, duties and levies, labour cess and all charges for packing forwarding, insurance, freight and delivery, installation, testing, commissioning etc. at site i/c temporary constructional storage, risks, overhead charges, general liabilities / obligations and clearance from local authorities, The fee for the inspection of installation by government authorities shall be reimbursed by the department on production of receipts. The contractor has to, however, initially make the payment. Likewise service tax applicable shall be initially paid by the contractor & shall be reimbursed to him by the department after verification of payment receipts etc.

Taxes :All statutory taxes GST, duties, cess or any other payment or deduction due to be paid to any of the central, state or local authority including but not limited to Sales Tax/VAT / Service Tax.

Or any other tax or Cess in respect of this contract shall be payable by the contractor and Owner shall not entertain any claim whatsoever in this respect. However, in respect of service tax, same shall be paid by the contractor to the concerned department on demand and it will be reimbursed to him by the Owner after satisfying that it has been actually and genuinely paid by the contractor.

GST, Green tax, ESI and PF shall be borne by the Contractor and no claims on such account will be entertained.

CLAUSE.5.13. Inspection and rectification of Works Access: Contractor tests:

Inspections:

Owner's inspections and tests:

Inspections and tests conducted by or on behalf of the Owner are for the sole benefit of the Owner and do not:-

- A. *Relieve the Contractor of responsibility for providing adequate quality control measures,*
- B. *Relieve the Contractor of responsibility for damage to or loss of the material before final completion and acceptance of the Work;*
- C. *Constitute or imply acceptance. Or.*
- D. *Affect the continuing rights of the Owner after acceptance of completed work. **Owner***

inspectors:

The presence or absence of at Owner's inspector does not relieve the Contractor from any of the obligations under the contract nor is the inspector authorized to change any term or condition of the contract.

Performance of inspections and tests:

The Contractor shall promptly furnish, without an additional charge all facilities, labour, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Engineer-in-Charge as per the terms of the Contract. The Owner may charge to the Contractor any additional cost of inspection or testing when work is not ready at the time specified by the Contractor for inspection or testing, when prior rejection makes re inspection or retesting necessary. The Owner shall perform all its inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the Contract Documents.

The Contractor shall be solely responsible for the protection of all Works so as to avoid any repairs and shall deliver to the Owner upon final completion the Works free of any blemish, defect or damage.

- 5.13.1 In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by the other agency as and when required by IITD in addition of the Engineer-in-charge and his authorized representative. The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-charge to visit the works shall have been given to the contractor, either himself be present to receive the orders and instructions or have a responsible representative duly accredited in writing, to be present for that purpose.
- 5.13.2 Inspection of the work by Design consultants appointed by the IITD.

The design consultant appointed by IITD shall be inspecting the works frequently to ensure that the works are in general being executed according to the design, drawings and specifications laid down in the contract.

CLAUSE.5.14. Rejected Work as per CPWD GCC 2020 CLAUSE.5.15. Limit of price Adjustment

Provided that, in determining all such price adjustment in accordance with the aforesaid sub-clauses: (A) *No account will be taken of any amount by which any cost incurred by the contractor has been increased by default or negligence of the contractor.*

(B) *If the contractor fails to complete the work within time for completion, no increase or decrease of cost of specified materials shall be made .Only extension of time shall be granted in case delays are not attributable to the Contractor.*

CLAUSE.5.17. SPECIFICATIONS

In the case of any class of work for which there is no such specifications as referred to in detailed specification, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per C.P.W.D./District/ state P.W.D. / Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge. Specifications for a type of work are not covered by the detailed specifications/State P.W.D. specifications/I.S.I specifications or particular specifications; the same shall be decided by the engineer in-charge and shall be binding on the contractor.

The engineer-in-charge shall have the power to insist upon the contractor to purchase and use such materials of particular approved make which may in this opinion be necessary for proper and reasonable compliance with the specifications and execution of work.

In the event of any variation/discrepancy in the drawings, specification and tender documents, the decision of the Engineer In charge shall be final, binding and conclusive on the contractor.

(A) *As required by the Engineer-in-charge, the contractor shall provide all facilities at site or at manufactures work or an approved Laboratory for testing of materials and/or workmanship, all the expenditure in respect of this shall be borne by the contractor unless specified otherwise in the contract. The contractor shall when required to do so by the engineer-in-charge submit that the materials have been tested in accordance with requirements of the specifications.*

(B) Neither the confirmation by the engineer-in-charge not to test the materials nor the production of manufacturer(s) certificate etc. as aforesaid shall affect the right of the engineer-in-charge to reject, after delivery; the materials found not in accordance with the specifications.

CLAUSE.5.18. Contractor shall submit fabrication/ shop drawings for obtaining approval

The contractor shall submit fabrication drawing based on GA drawings and design parameters given by the Design Consultants, in triplicate for obtaining preliminary approval of the Engineer-in-Charge for all design drawing already issued to him. One copy of this drawing duly corrected and signed wherever necessary by Design Consultants will be returned to the contractor for preparing and resubmitting drawing after incorporating the said corrections again in triplicate for final approval. Along with the completion and approval of each fabrication drawing the contractor shall also submit the materials list for checking and approval to the Engineer-in-charge. No drawing shall be approved finally without material list. Once the drawing, if finally approved no request for any alternative section will be entertained. The contractor shall submit to Engineer in Charge 4 copies of all approved drawings out of which 2 copies will be issued back to the contractor for the execution of work. The contractor shall also submit copies of design calculations for the works.

CLAUSE.5.19. QUALITY ASSURANCE

- 5.19.1 The proposed project is a prestigious project and quality of work is of paramount importance. Contractor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work. The type of work will specially require engagement of skilled workers having experience particularly in execution of such items.
- 5.19.2 The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge & contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

In addition to the supervision of work by project management consultants, the design consultants appointed by the IIITD shall also be carrying out regular and periodic inspection of the ongoing activities in the work and deficiencies, shortcomings, inferior workmanship pointed out by them shall be communicated by engineer in charge to the contractor. Upon receipt of instructions from Engineer in Charge these are also to be made good by necessary improvement, rectification, replacement up to his complete satisfaction. Special attention shall be paid towards line and level of internal and external finishing to achieve an Institution of International standard and up keeping of quality assurance shall be of paramount importance, as such.

- 5.19.3 The Contractor shall submit, within 20 days after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer in-Charge. All the materials to be used in the work, to give the finished work complete in all respects, shall comply with the requirements of the Specifications and shall pass all the tests

required as per specifications as applicable or such specifications / standards as

directed by the Engineer in-Charge. However, keeping the Quality Assurance in mind, the Contractor shall submit, on request from the Engineer-in- Charge, his own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, for approval of the Engineer-in Charge.

- 5.19.4 The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contractor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account.
- Also, the material shall be procured only after written approval of the Engineer- in-Charge. All materials shall be got checked by the Engineer-in Charge or his authorized supervisory staff on receipt of the same at site before use.
- 5.19.5 The tests, as necessary, shall be conducted in the Laboratory approved by the Engineer-in- Charge. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in-Charge or his authorized representative.
- 5.19.6 The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the engineer-in Charge, at such time and to such places, as directed by the Engineer-in- Charge. Nothing extra shall be payable for the above.
- 5.19.7 The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor .The Contractor or his authorized representative shall remain in contact with the Engineer-in-Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.
- 5.19.8 All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in computerized measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.
- 5.19.9 The contractor shall give performance test of the entire installation(s) as per the standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
- 5.19.10 The Contractor shall maintain all the work in good condition till the completion of entire work. The Contractor shall be responsible for and shall make good, all damages and repairs, rendered necessary due to fire, rain, traffic, floods or any other causes. The Engineer-in- Charge shall not be responsible for any claims for injuries to person/workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of any other of his representatives, in his employment during the execution of

the work. The compensation, if any, shall be paid directly to the Department / authority / persons concerned, by the Contractor at his own cost.

5.19.11 Defects Liability Period:

Defects liability period shall be taken as 12 months from the date of commissioning and hand over of the Project as a whole (as defined in the contract agreement) wherein all the defects shall be rectified by the contractor at his own cost.

CLAUSE.5.20. Special Conditions – VIDEO CONFERENCING SYSTEM

5.20.1 SCOPE :

- i. The scope of all items in Tender for the Video Conferencing System in the Board Room of R &D Block equipment is SITC – Supply, Installation, Testing and Commissioning.
- ii. The agency that is bidding for the total project shall be called as “Tender for Video Conferencing System in the Board Room of R &D Block equipment execution agency”.
- iii. All and entire responsibility towards the successful execution of the Video Conferencing Systems of the project shall remain with the AV Works execution agency.
- iv. Some of the passive cabling system routes have been provided. Same have to be provided by the Works execution agency as per the actual requirements wherever not provided.
- v. The upgrades or enhancement of equipment software and firmware & management applications for same etc shall be free (without any extra cost) to the client.
- vi. The entire equipment shall have OEM certification.(MAF)**
- vii. There shall be a 3rd party inspection at different stages of execution of work; such a 3rd party shall be constituted by IITD at cost to be borne by IITD.
- viii. For all Video Conferencing Systems, the equipment shall have all operating software, application software and GUI etc. shall be of the latest versions installed complete. Further the software programmes shall be provided with upgrades and enhancements without any extra cost to the client for the entire contract period and DLP of these products. A soft copy of such programmes /software shall be made available to the client separately in addition to the above.
- ix. At the time of taking over of installation, for all equipments that are covered in. SITC, the works execution agency shall transfer all warranties and guaranties from OEM – original equipments manufacturer – to the client.
- x. The Video Conferencing Systems Works execution agency is advised to provide technical datasheets and specification sheets for approval for all items prior to initiating any supply. Any items having deviations, in absence of specific approval from Engineer-in- Charge, shall be returned whether installed or uninstalled at the risk, liability and expense of the System Works execution agency.
- xi. The Video Conferencing Systems Works execution agency is advised to inform the Engineer-in-Charge, of any specific requirements for equipments such as heat dissipation,

earthing, ventilation etc. before supply so as to incorporate the same at site by other agencies.

- xii. The Video Conferencing Systems Works execution agency is advised to specifically use items only from the make list and provide information on compliance of performance specifications. Make of components required to be used by Video Conferencing Systems Worksexecution agency to complete the installation, if not mentioned anywhere, shall be requiredto be GOT APPROVED from Engineer-in-Charge in writing before installation
- xiii. During warranty period replacement of defective components or sub-components shall be replaced by the brand-new spare parts bearing the same OEM part number Only under exceptional circumstances of non-availability of spare of the same part number the compatible spare having different OEM part number may be accepted. However, in such cases the spare part to be supplied against the defective part shall be brand new and shall bear part number from the OEM
- xiv. Video System of Lumens/Sony/Equivalent MAF to be submitted and Audio system Compatible with the existing of Bosch system self certificate to be submitted.

5.20.2 The AV Contractor shall ensure 24x7 maintenance of equipment for DLP and provide AMC support thereafter in case called for by the IIITD.

- a. Submit separate certificate for Hardware warranty and support individually from OEMs & SI in the name of IIITD Delhi, on their authorized letter-head with sign & seal.
- b. Be responsible for transferring/moving the hardware installed in one physical location to another physical location from the time of initial delivery of hardware through support and defect liability phase.
- c. Provide overview and hands-on training to IIITD staff every quarter in the 1st year of the contract about the whole system which is supposed to be functioning in full pace.
- d. Provide a complete layout diagram, shop drawings and as built drawings that describes the entire physical and logical inter-connectivity with respect to the system.
- e. Complete technical details of all devices and manual ordering/layout and actual Commands /Syntaxes entered in Command-Line or Graphics User Interface mode to configure the devices to start functioning, must be submitted in both soft and hard copies to IIITD authority. Submission of only hardware manuals would not be sufficient.
- f. Provide the full details of the escalation matrix with official address, best reachable phone numbers (both fixed & mobile numbers), reachable fax numbers and working Email Ids.
- g. Provide comprehensive maintenance service, during defect liability period, for all categories of all products covering hardware, software and replacement of defective parts /components. In case of non-availability of identical replacement, suitable new equivalent replacement with similar or better specifications part/software should be

made available and resolved within the call response time.

- h. Be responsible to restore any configuration or system and bring back to its original state, if any configuration or system fails.
 - i. Also check for potential problems by inspecting cables and cable connections or visual status indicators of covered hardware; checking temperature and humidity levels and comparing them to vendor's recommendations; and installing applicable engineering improvements and firmware updates that are required, in the opinion of Bidder, to maintain the hardware equipment. The SI should also provide a final report on the hardware's condition.
 - j. Should replace whole parts or components for any devices for any hardware issue within 2 hours; moreover for any hardware failure for any device (active or passive) a dedicated and exact replica of the device (active or passive) must be kept physically at IIITD campus.
 - k. Do periodic preventive maintenance of all the systems once in a quarter (3 months). And reports must be generated and submitted based on the health of the functioning and non-functioning devices to IIITD authority.
 - l. Generate & provide daily & monthly reports of the service and all calls received, resolved, pending (due to what reason) in an Excel sheet and/or Hard copies to IIITD.
 - m. Keep the uptime at 99.9% of all EQUIPMENT. Only original spare parts must be used. Attend all calls immediately and the same has to be resolved and closed within maximum 24 hours.
 - n. Be ready to provide 24x7 support after the working hours or on holidays (both Institute and National declared), if required. Preventative maintenance services are expected to be performed even on Saturday and Sunday regardless of the coverage window.
 - o. Normally carry out the maintenance / repair at the premises of IIITD. The System Works execution agency I shall arrange for dismantling, handling and transportation of the Items from the specified location of IIITD to the service center of the bidder and back, at the bidder's own risk and cost, if the machine is to be taken for repairs to their service center.
 - p. Bear all cost related to the preventive and corrective maintenance, during the period of support & defect liability. Spare parts / equipment, tools, lubricants, cleaning kits, drives, disks, other hardware parts, service personnel etc., required to repair / replace the faulty equipment shall be arranged by the bidder at his own cost during the currency of the defect liability period.
 - q. Periodically check the health of all equipment and get the data backup on daily basis as applicable.
- 5.20.2 Terms of payment: 70% on supply of major equipment ;20% on installation ;10% on satisfactory testing and commissioning.
- 5.20.3 Completeness of tender:

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections, and all other items which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specifically mentioned in the tender documents or not.

5.20.4 Inspection and Testing

For items / equipment requiring initial inspection at manufacturer's works in India or overseas, the contractor will intimate the date of testing of equipment's at the manufacturer's works before dispatch. The department also reserves the right to inspect the job at factory and the successful tenderer has to make the arrangement for the same. The successful tenderer shall give sufficient advance notice regarding the dates proposed for such tests / inspection to the Engineer-in- Charge to facilitate their presence during testing. The Engineer-in-charge at their discretion may witness such testing. However No extra towards facility for visit abroad for such tests abroad shall be included in the contract. Requisite O&M, MTC's /Guarantee/ Warranty Certificates shall have to be provided in all cases. If the tests fail, then the cost of the travel, lodging and boarding of the inspection team of the Owner shall be borne by the contractor for all subsequent visits till the tests are satisfactorily conducted.

5.20.5 Storage and custody of materials:

The agency has to make their own arrangement for storage of their materials. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the department.

5.20.6 Care of the Building:

Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building or other services already installed at he site by other contractors. They shall be responsible for repairing all damages and restoring the same to their original finish at their cost. They shall also remove at their cost all unwanted and waste materials arising out of the installation from the site of work.

5.20.7 Performance Guarantee:

The tenderer shall guarantee among other things, the following vis-à-vis specifications. Satisfactory operation during the maintenance period.

5.20.8 Power Supply:

Power Supply for the purpose of its scope of works shall be vendors responsibility. The vendor may have an arrangement with the principal contractor at one point on chargeable basis.

5.20.9 Data and Program to be furnished by the tenderer:

With the Tender the tenderer shall furnish detailed technical literature, pamphlets and performance data for appraisal and evaluation of the offer.

- a) The contractor shall prepare and submit a tentative Bar Chart clearly indicating the various activities, in a manner to complete the entire work covered under this tender within the stipulated period.

1. After Award of Work:

- a) The Contractor shall prepare the programme chart for the execution of the work showing clearly all activities in consultation with IIITD from the start of work to the completion, with details of requirements of materials, man power, equipments and machinery deployment, required for the completion of the work within the stipulated period and submit the same to the Engineer-in-Charge within fifteen days after the issue of letter for commencement of the work. The Contractor shall also submit monthly program and progress reports and update / reschedule the same every month. These shall be submitted by the contractor in soft copy also besides forwarding hard copy of the same.

5.20.10 The successful tenderer should furnish well in advance Two copies of detailed instructions and manuals of manufacturers for all items of equipment's regarding installation, adjustments, operation and maintenance i/c preventive maintenance & trouble shooting together with all the relevant data sheets, spare parts catalogue and workshop procedure for repairs, assembly and adjustment etc all in triplicate.

5.20.11 Extent of work:

The work shall comprise of supply, installation, testing and commissioning of Video Conferencing Systems Works including labour and supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning as may be required by the department. The term complete installation shall not only mean major items of the plant and equipments covered by Technical Specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in details in the tender documents in connection with this contract. 12.2

5.20.12 Compliance with Regulations and Indian standards

12.1 All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to this work. In particular, the equipment and installation shall comply with the following:

- a . Factories Act
- b . Indian Electricity Rules
- c. I.S. & BS Standards as applicable
- d. Workmen's compensation Act
- e. Statutory norms prescribed by local bodies

12.2 Nothing in this tender shall be construed to relieve the successful tenderer of their responsibility for the, Supply installation and commissioning of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

5.20.13 Indemnity:

The successful tenderer shall at all times indemnify IIITD, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the department shall not be responsible for any accident or damage incurred or claims arising there from

during the period of erection, construction and putting into operation the equipments

and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer due to the above.

5.20.14 Erection Tools:

No tools and tackles either for unloading for shifting the equipments for erection purposes would be made available by the Owner. The successful tenderer shall make own arrangement for all these facilities.

5.20.15 Cooperation with other agencies:

The successful tender shall co-ordinate with other contractors and agencies engaged in the construction of the building and exchange freely all technical information so as to make the execution of this works contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any existing portion of the building has to be dismantled and re-done for want of cooperation and coordination by the successful tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration works to the original condition or specification of the dismantled portion of the work was not undertaken by the successful tenderer himself. Water proofing of pits shall not be damaged under any circumstances.

5.20.16 Verification of correctness of Equipment at Destination:

The contractor shall have to produce all the relevant records to certify that the genuine equipment from the manufacturers has been supplied and erected.

5.20.17 Order of Preference:

Should there be any difference or discrepancy between the description of items as given in the Schedule of Quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

1. Schedule of quantities
2. Additional and Commercial Conditions
3. Technical specifications specified in the tender
4. General Conditions of Contract for CPWD
5. Drawings/ schematics /SLD
6. CPWD General Specifications
7. Relevant IS or any other International code in case IS code is not available.

SPECIAL CONDITIONS OF CONTRACT-II

1) Scope work

- 1.1. The contract is for the supply and integration of all necessary materials and new equipment, detailed design and preparation of all necessary drawings, and the testing, installation, and commissioning of the sound and projection systems along with the wiring of/for the equipment/system in the conduits complete

The contract shall include the following:

- 1.2. All necessary materials and equipment and the installation, testing and commissioning of the equipment/systems as specified complete with all necessary electric wiring to connect the sources of power supply to the equipment.
- 1.3. Spares as listed plus any additional spares recommended by the manufacturers for one years operation and maintenance during DLP (Defect Liability Period)and for additional period of AMC if awarded.

2) Contractor's Responsibility

- 2.1. It is the intention of the specifications to specify the principal performance and requirements for the sound and projection systems.
- 2.2. The tenderer shall fulfill the performance design criteria of providing high quality sound reinforcement / recording system catering to speech and music, providing an average continuous peak SPL as specified for the auditorium, black box and the recording studio, individually.
- 2.3. In addition to submitting his drawings for approval, the contractor shall, whenever called upon to do so, submit for the approval of the Engineer his calculations justifying his various proposals together with such explanations, substantiations, and other data that may be necessary. The Contractor shall additionally submit the acoustics model of the sound reinforcement system, using internationally accepted real-time sound simulation software. If required to do so by the Engineer, he shall amend the basis of his calculations and shall resubmit them together with fresh proposals based on the revised calculations.
- 2.4. The contractor shall be required to submit detailed circuit diagrams of all equipment for approval before execution of work.
- 2.5 The Contractor shall submit the sound system design along with EASE mappings to authenticate the performance of the system provided.

3) Completeness of Contract

All special fixtures, control devices etc. not specifically mentioned but that are usual for the safety and efficiency of the audio and video equipment shall be included in the supply without any extra cost to the contract.

4) arture from Specifications

The work shall be carried out according to specifications. Any deviation from these specifications either on account of manufacturing practices or for any other

reason including the measures for additional efficiency and/or safety of the equipment under clause 3.0 above shall be clearly stated in a covering letter explaining in detail each and every departure the contractor proposes to make from the tender giving reasons thereof. Unless specifically mentioned it will be assumed that the tenderer agrees to supply all equipment and complete the work exactly as specified therein and as shown in the drawings in its entirety. All deviations shall be subject to the approval of the engineer.

5) Installation of Equipment

The layout and installation of the equipment shall be planned and carried out conforming to the best engineering and international practices. The successful tenderer shall furnish drawings showing complete layout of the equipment as also layout showing the location of the consoles etc. The installation of the various equipment and wiring of these units shall be such that these are easily accessible for maintenance and routine check-up.

6) Wiring of the Entire System

6.1. The wiring of the entire system shall be neat and conforming to good engineering practices. The successful tenderer shall furnish wiring layout scheme (conforming to layout of conduits already laid) including specifications for wires and cables he proposes to use for -

6.1.1. Audio wiring.

6.1.2. Wiring for loudspeakers

6.1.3. Power supply to the technical equipment.

6.1.4. Earthing system

7) Descriptive Literature

The tenderer shall supply a complete list with quantities of major items of equipment together with detailed descriptive literature including photographs and performance characteristics pertaining to the equipment offered.

8) Training/Technical Data

The successful tenderer shall be required to impart training in the use and maintenance of equipment as also furnish the following data:

8.1 Overall audio-video system design offered including jack/patch points.

8.2. Detailed shop drawings and wiring installation scheme for all equipment and entire system.

8.3. Detailed circuit diagrams of individual equipment

8.4. Factory test reports.

8.5. Manuals and instructions for installation, operation and maintenance of all equipment and the sound and projection system. Minimum of four sets of such manuals and instructions are required for each equipment, to be furnished in bound volumes.

8.6. A final drawing showing layout of the equipment with a soft copy of the same

8.7 Real time sound simulation mapping on EASE or other internationally accepted sound simulation software.

9) Inside Temperatures and Humidity

All equipment should be capable of performing satisfactorily in an ambient

temperature of 45 deg C and 80% humidity.

10) Standards

The materials used in the equipment shall conform to and be supplied in accordance with the latest revision of relevant IS, BS, DIN or IEC standards or equivalent current at the time of tender. All the work shall also conform to the requirements of local codes and regulations.

Tenderer should justify the particular standard chosen with reference to the operating context.

11) Guarantee

The successful tenderer shall furnish a guarantee for a minimum period of one year from commissioning date during which all equipment failing due to the faulty manufacture shall be replaced free of cost. The successful tenderer shall also guarantee the performance figures of the individual equipment. Commissioning shall be deemed to have taken place after award of "Acceptance Certificate" which would be signed and dated.

12) Name Plates

Instruction plates, name plates, ferruling and labels shall be provided before commissioning of all equipment requiring indication of operation and should be such size as to be readable at operational levels. The language of all such plates shall be in English. Plastic or screen printed labels shall not be acceptable.

ADDITIONAL CONDITIONS

1. General conditions of contract for Central PWD Works 7/8 (Tender of Form) shall be part of the agreement.
2. The work shall be carried out strictly as per CPWD specifications 2007, Part I & II with up to date correction slips. Wherever no specification is available in the above said document, drawings and specifications supplied with bill of quantities shall be applicable
3. The Contractor shall have to clear the site for the work of all overlying rubbish /garbage/dumped refuse material prior to commencement of the work in case required at no extra cost. The contractor shall take approval from the Engineer /Officer in Charge in writing for collection and stacking of materials.
4. The contractor must follow CPWD Safety Code as provided in general conditions of contract for CPWD Works.
5. Any damage done by the contractor or his workmen to any existing work during the course of execution of the work shall be made good by him at his own cost.
6. Contractor shall clear the site thoroughly of all rubbish etc. left out of his materials immediately on completion of the work and properly keep the site clean around the building to the satisfaction of the Engineer- in-Charge.
7. The preference of the codes will be IS codes.
8. The rates are inclusive of all staging, material and labour as required for the works. The items in the bill of quantities include all the materials, labour, and installation, complete as a finish items unless otherwise stated.
9. Unless specifically mentioned otherwise, quoted Rates shall be deemed to include work to be carried out at all curvatures, heights, depths, inclinations and locations, and in wet/foul locations, as and when they are encountered. The rates quoted for the various works as specified in the Priced Schedule of Quantities are work in all types of soils/rock and prevailing Site conditions including earth work, excavation, shoring, execution of various other items of work, i.e., laying of pipes, joining, concreting, masonry, plastering, etc. in and under water and dewatering as required. Nothing extra is payable on this account.
10. All security precautions shall be taken during dismantling work. The site shall be fenced /barricaded with suitable material during construction period .No payment shall be made for fencing/barricading work. Fencing/barricading shall be done immediately after possession of site and shall be removed after completion of construction period
11. No space on site/otherwise for labour huts shall be provided by IITD, cost of same shall be borne by contractor.
12. The general condition of contract for Central P.W.D. Works has reference of various laws /acts /rules. The settlement of any disputes and arbitration, only Indian arbitration and conciliation act 1996 shall be applicable.
13. In case any specific brand of material has been specified either the same brand or of approved make of same specifications shall be used. The contractor shall take approval in advance for all such materials.

14. Costs for all materials and labour for the preparation of samples, market research, etc. shall be borne by the Contractor within his quoted Rates and nothing extra shall be payable for this. The works shall not be proceeded with without approval of the sample. In case sample is rejected and works cannot be proceeded with the IIITD shall be at liberty to terminate the contract and the Contractor shall have no claim for the works under such circumstances whatsoever.
15. The contractor should take utmost care to avoid any damage to the existing flooring, electrical works/cables, telephone cables, false ceiling, sprinkler system, fire alarm etc. in place. In case of any damage, it would be the responsibility of the contractor to restore the same immediately.
16. The contractor may have to carry out the works in odd hours of day and night as per academic schedule of the Institute and no extra charges shall be payable.
17. The works may have to be suspended from time to time as per academic requirements. No extras/escalation will be payable except for suitable extension of time of upto time as per GCC of the CPWD.
18. All protocols/guidelines for preventing spread of Covid 19/ Cov2 SARS virus strains need to be followed by the Contractor/s as per Govt . / IIITD authorities Guidelines issued from time to time.
19. Necessary guidelines for Environmental Protection as per local /State Govt/ Central Govt Authorities as applicable shall be followed by the Contractor/s. Extension of time will be granted as justified without any financial implications.
20. All works are to be carried out in coordination with the other agencies at work and the time period of noisy work has to be in coordination with the academic calendar/requirements. Noisy work should be done at night hours only. Other agencies for works may work simultaneously or separately as required for the allowed periods of time as required by them for the smooth completion of the works.

CORRIGENDUM TO FORM 7/ 8 / 9 (CPWD) MUST BE READ ALONG WITH THE

PAMPHLET

S.No	FOR	READ
1	Government of India/Owner	Indraprastha Institute of Information Technology Delhi
2	C.P.W.D. or Government or Department	Indraprastha Institute of Information Technology Delhi
3	CPWD -7/8/9	CPWD 7/8/9
4	President / President of India	Chairman ,BOG,IIITD
5	Chief-Engineer	Director ,IIITD
6	Superintending Engineer	PE &EO / CE, IIITD
7	Administration Head	Registrar ,IIITD
8	CPWD Code, Paragraph '90	Shall be applicable to IIITD works
9	DSR'2007	Shall be applicable to IIITD works
10	CPWD specifications 2007 part - I& II	Shall be applicable to IIITD works
11	DSR (Internal) 2007 for Electrical works	Shall be applicable to IIITD works
12	CPWD specifications (Internal) 2007 for Electrical works	Shall be applicable to IIITD works
13	DSR External 2007 for Electrical works and specifications	Shall be applicable to IIITD works
14	Provision of Section 12 Sub-Section (i) of the works man compensation	Shall be applicable to IIITD works
15	CPWD safety Code framed from time to time	Shall be applicable to IIITD works
16	CPWD maternity benefits to labour	Shall be applicable to IIITD works

17	Model Rules of the protection of health and sanitary appointment for workers employed by CPWD	Shall be applicable to IITD works
18	CPWD contractor labour Regulations	Shall be applicable to IITD works

SPECIFICATIONS:

1. GENERAL:

- 1.1. Without forgoing the requirements of the conditions of Tender and the Conditions of Contract the works in general shall conform to the "Specifications 2007" published by CPWD, New Delhi and the "Specifications for works" stated in this tender. In case items not covered by the general specifications referred above, reference shall be made to the appropriate I.S. Codes. If there is any difference in the particular specifications of individual item of work and the description of item as given in the Schedule of quantity, the latter shall prevail. In case of any work for which there is no specification in I.S. specifications in the specifications forming part of tender documents or in case there is any variation, such work shall be carried out in all respects in accordance with the instructions to be issued by the Engineer-in-charge. The term Officer in Charge appearing in the specifications shall mean supervisor and be in Charge of the work or his authorized representative as the context may demand. All corrections to "Specifications 2007" or latest revisions of I.S. Code/ Specification shall be deemed to apply to this contract.
- 1.1.1. Materials bearing ISI certification mark certification shall be given highest preference for use in the works. Where the Contractor is required to do, perform, execute (etc.) any work or service or the like, it shall be deemed to be at his own cost. Absence of terms providing, Supplying, installing, fixing, etc. shall not even remotely entitle the Contractor to any additional payment there for
- 1.1.2. The rates accepted in the Schedule of Quantities apply to all floors, heights, depths, leads, lifts, spans, sizes, shapes, locations, etc. unless a distinction has been included in the very Schedule.
- 1.1.3. The Specifications and the Schedules may have been divided into various sub-heads for convenience only. This does not limit applicability of one to the other nor does it absolve the Contractor of his responsibility to complete any trade / item of work as reasonably inferred from one or more of such sub-heads.
- 1.1.4. The Schedule of Quantities is not necessarily based on "Schedule of Rates - Delhi 2007 or any of its later/ earlier versions. Hence the Schedule of Quantities shall be read and construed according to explanations given herein and intentions gathered there from. A mere parallel drawn form the said Schedule of Rates shall therefore not form a basis for a variation and, or additional payment.
- 1.1.5. All work under this contract is deemed to be performed above subs soil water level. However, removal of water collected from rains and the like shall be treated as part of contractual risk/obligation.
- 1.1.6. Screws, bolts, nuts, washers, hold fasts, lugs, anchors, clamps, plugs, suspenders, brackets, straps and fasteners of the like are deemed to be included in the rates of various items unless the Schedule of Quantities expressed a different intention.
- 1.1.7. Resetting any displacements, making good holes/chases and such other incidental jobs are included in rates of respective items for which these are required.

2. DRAWINGS, SPECIFICATIONS, INTERPRETATIONS ETC.:

In general, drawings shall indicate the dimensions, positions and type of construction, the specifications shall stipulate the qualities and the methods and performance criteria, and the schedule of quantities shall indicate the provisional quantities and the rates for each item of work. However, the above documents being complementary, what is called for by any one shall be as binding as if called for by all. In case of contradictory requirements between specifications and schedule of quantities, the requirements given in the schedule of quantities shall prevail.

Special conditions being mainly an amplification of General Conditions, they shall be read in conjunction with each other.

Work indicated on the drawings and not mentioned in the schedule of quantities or specifications or vice versa, shall be deemed as though fully set forth in each. Work not specifically detailed, called for, marked or specified, shall be the same as similar parts that are detailed, marked or specified.

I.S. SAFETY CODES

I.S.660 Safety Code for Mechanical Refrigeration

I.S.659 Safety Code for air conditioning

I.S.3016 Code of Practice for precautions in welding and cutting operations

I.S.818 Code of practice for safety and health requirements in electrical and gas welding and cutting operations.

I.S.5216 Code for safety procedure and practice in electrical works

I.S.3696 Safety code for scaffolds and ladders

Special Note

Though every care is taken while preparing this document to cover all necessary matters, specifications, general conditions, special conditions, provisions for smooth and complete execution of work, however in case of any omission in the tender/ contract document, latest correction slips of general conditions of contract for CPWD works 2020 will be the reference manual but not in supersession to aforesaid conditions.

Contractor should depute a qualified supervisor dedicated for this work, who will monitor and coordinate work from contractor's side and interact with the IIITD Engineers, responsible for supervision of work, on regular basis.

Contractor will take due permission for entry of all his workers in IIITD. No unauthorized person will be allowed to work inside. During execution of work, Engineer may make minor changes in the scope of work as per site conditions or other reasons. Contractor will have no extra claim in his rates for the same.

All standard protocols such as wearing masks, using sanitizer, maintaining safe distancing norms must be followed by the Contractor and his workers to prevent spread of coronavirus failing which expulsion/ penalty shall be levied on the agency. The workers shall be scanned for temperature before entry as per norms and actions per policy taken.

All are supposed to use identified utilities of the Institute only

SECTION 6

SAFETY CODES AND RULES

1. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned .WARNING/ CAUTION BOARDS: All temporary warning / caution boards / glow signage display such as "Construction Work in Progress", "Keep Away", "No Parking", Diversions & protective Barricades etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer-in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer – in – Charge. Nothing extra shall be payable on this account.

Existing Systems Installed:

- Surface-mount loudspeakers: JBL Control 25-1 (4 units)
- 2-Channel Power Amplifier: Crown DCI2 | 300 (1 unit)
- Audio Digital Signal Processor: Extron DMP 64 (1 unit)
- UHF Wireless Lapel Microphone: AKG WMS420 Presenter (1 unit)
- Chairman Gooseneck Conference Microphone: Bosch CUSD-DL (1 unit)
- Delegate Gooseneck Conference Microphones: Bosch CUSD-DL (20 units)
- Central Conference Controller: Bosch CUSD-CU (1 unit)
- Projector: SONY VPL-CH355 (1 unit)
- 8 or more button-based controller system (1 unit)

Note: The system should be configured to integrate seamlessly with the existing Bosch system. When the button on the gooseneck conference microphone is pressed, the camera should automatically focus on the user.

Before starting the process, the vendor should arrange a demo for the same at no cost.

NON-BLACK LISTING DECLARATION

FORMAT OF UNDERTAKING. TO BE FURNISHED ON COMPANY LETTER HEAD WITH REGARD TO BLACKLISTING/ NON- DEBARMENT. BY ORGANISATION

UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT

To, Registrar
IIITD Campus
Okhla Phase-III,
New Delhi-110020

We hereby confirm and declare that we, M/s -----, is not blacklisted/ De-registered/ debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services during the last 5 years.

Signature of Contractor
With stamp

.

AGREEMENT

AN AGREEMENT is made this ----- BETWEEN the
Indraprastha Institute of Information Technology. A State University established by Govt Of NCT of
Delhi
,and with its registered office at IIITD Campus , Okhla Phase III , New Delhi 110020, which expression
shall include its successor, unless repugnant to or Excluded by the contract here of and assignees of and
represented by its Registrar, IIITD the first party (hereinafter called the Authority) and by its
sole proprietor/partners/Director.of M/s ----- and having registered
office at ----- (which expression shall be including his / its successor's heirs, executors,
representative and or assignees of the second party (hereinafter called the contractor}).

WHEREAS the Authority has, under tender Notification No. -----

WHEREAS the contractor has submitted tender for carrying out the work as above as per the tender document
page ---- to ----- and has represented that in conformity with his / its obligation contained in the tender as
modified by the correction slips and corrigendum contained he / it shall carryout the same truly, faithfully and
honestly.

THE SAME has been accepted by both the parties on the terms and conditions, corrections, corrigendum
contained in the tender as modified as well as the letter of acceptance Issued party No.1 annexed here to as.

The same shall be binding on both the parties.

IN WITNESS WHEREOF, the parties have signed the deed of agreement on the date, month and year referred
to above.

Date: At New Delhi.

Signed by

Party No.1 Party No.2

WITNESS

1. Party No.1

2. Party No.2

INTEGRITY AGREEMENT

The tenderer shall be required to physically submit a set of documents in the office of Registrar, IITD. In order to maintain transparency and integrity in the process of awarding contract, it is essential for IITD and tenderers to agree and abide by certain principles and policies. IITD and tenderers agree to following:

- (i) IITD shall remain committed to follow the principles of transparency, equity and competitiveness in public procurement;
- (ii) The Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the tenderer shall sign the Integrity Agreement, which is an integral part of tender/tender documents, failing which the tenderer will stand disqualified from the tendering process and the tender of the tenderer shall be liable to be rejected summarily.
 - a. The tenderers agree and acknowledge that the NIT is an invitation to offer made on the condition that the tenderers shall sign an Integrity Agreement in the format as provided for in this document. Such Integrity Agreement shall form an integral part of the tender documents. Any failure on the part of any tenderer to execute the Integrity Agreement shall render such tenderer disqualified from the tendering process. The tenderer agrees and acknowledge that bidding for the Work as envisaged in this document shall be regarded as an unconditional and absolute acceptance of the condition of executing the Integrity Agreement.
 - b. The tenderers acknowledge, agree and confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the Integrity Agreement shall be separate and distinct from the main agreement, which shall come into existence once tender is finally accepted by IITD. The tenderers acknowledge and accept the tenure of the Integrity Agreement, which shall be in the line with Article 6 (Duration of the Pact) of the format of Integrity Agreement as prescribed herein.
 - c. The tenderers acknowledge that in the event of failure to sign and accept the Integrity Agreement, while submitting the tender/tender, IITD shall have unqualified, absolute and unfettered right to disqualify the tenderer and reject the tender in accordance with terms and conditions of the tender.

In addition to other components of tender document, the Integrity Pact shall also be signed between The Director, IITD and successful tenderer after acceptance of tender.

INTEGRITY AGREEMENT

To,
Registrar,
INDRAPRASTHA INSTITUTE OF INFORMATION
TECHNOLOGY DELHI

Sub: Supply, Installation, Testing and Commissioning of Video Conferencing System in the Board Room of R &D Block at Indraprastha Institute of Information Technology (IIIT-Delhi) Campus, Okhla Phase-III, New Delhi-110020

Dear Sir,

I/We acknowledge that Director on behalf of the IIITD is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/tender documents.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that **THE MAKING OF THE TENDER SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE** of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender is finally accepted by IIITD. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 6 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/tender, IIITD shall have unqualified, absolute and unfettered right to disqualify the tenderer and reject the tender in accordance with terms and conditions of the tender.

Yours faithfully

(Duly authorized signatory of the Tenderer)
To be signed by each tenderer and Registrar, IIITD)

Form of Performance Guarantee Bank Guarantee / Bond

In consideration of the IITD having offered to accept the terms and conditions of the proposed agreement between and(hereinafter called “the said Contractor(s)”) for the work..... (herein after called “the said agreement”) having agreed..... to production of an irrevocable Bank Guarantee

for Rs.(Rupees only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We, (herein after referred to as “the Bank”) hereby undertake to pay to the Owner an amount not exceeding Rs. (Rupees..... Only) on demand by the Owner.
2. We,(indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the Owner 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.....(Rupeesonly)
3. We, the said bank further undertakes to pay to the Owner any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.
4. We, (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Owner under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer in-Charge on behalf of the Owner 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, (indicate the name of the Bank) further agree with the Owner 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 Owner against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Owner or any indulgence by the Owner 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 change in the constitution of the Bank or the Contractor(s).
7. We, (indicate the name of the Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Owner in writing.
8. This guarantee shall be valid up tounless extended on demand by the Owner accompanied with a request from the Contractor.
9. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees.....) 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 offor(indicate the name of the

Bank)

FORM I

GENERAL INSTRUCTIONS FOR THE SELF ATTESTED DECLARATION:

I, _____, aged ___ years, son/daughter of _____, presently residing at _____ and authorized by _____ (name of tenderer) ("Tenderer") to solemnly affirm on behalf of the Tenderer, solemnly affirm on oath as hereunder:

1. The Tenderer confirms that eligible similar works(s) have not been got executed through another contractor on back to back basis.
2. The Tenderer confirms and agrees that, if any such violation comes to the notice of Indraprastha Institute of Information Technology Delhi at Okhla-III, Delhi ("Owner"), then the Owner shall be at liberty to initiate appropriate penal and legal action against the Tenderer.
3. The Tenderer confirms and agrees that if such a violation comes to the notice of the Owner at any time before the date of start of Work, the engineer-in-charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

DEPONENT
VERIFICATION
ON

I, _____, aged ___ years, son/daughter of _____, presently residing at _____ and authorized by Tenderer verify that the information mentioned above is true and correct to the best of my knowledge and belief.

DEPONENT

FORM L

GENERAL INSTRUCTIONS FOR THE SELF ATTESTED DECLARATION FOR SITE VISIT

I, _____, aged _____ years, son/daughter of _____, presently residing at _____ and authorized by _____ (name of tenderer) (“Tenderer”) to solemn this affidavit on behalf of the Tenderer, solemnly affirm on oath as hereunder:

1. The Tenderer confirms that the Tenderer has duly undertaken the visit of the proposed project site of Indraprastha Institute of Information Technology Delhi located at Okhla-III, Delhi.
2. The Tenderer has inspected and examined its surroundings and has satisfied itself about the site conditions and site logistics. The Tenderer confirms that it is aware of the ground conditions and nature of the site, means of access to the site and the accommodation area required for establishing the labour camp. The Tenderer agrees and confirms it shall be solely responsible for arranging and maintaining the aforementioned at its own cost including 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.
3. The Tenderer confirms and agrees that the submission of the tender implies that the requisite site visit has already been undertaken and that the Tenderer has acquainted itself with the local conditions and other factors having a bearing on the execution of the Work.

DEPONENT

VERIFICATION

I, _____, aged _____ years, son/daughter of _____, presently residing at _____ and authorized by Tenderer verify that the information mentioned above is true and correct to the best of my knowledge and belief.

DEPONENT

Bill of Quantities

Sr.No.	Description	Qty	Unit	Rate	Amount
1	Supply, installation, testing and commissioning of modular based Digital Signal Processor with Minimum 6 Analog input and 4 Analog output, all inputs should have 16 channel automatic echo cancellation, 4x4 built in Dante, 2 ch output USB audio, Compliant with AES67, LAN for control, THD+N (22Hz to 20kHz) 0.002% , Dynamic Range 110dB, unweighted, Crosstalk, input to input, 1kHz <110dB, Sampling Rate 48kHz, A/D-D/A Converters 32-bit, Phantom Power +48VDC. Make & Model: - Xilica Solaro QR1+ #3-Solaro XC-SML+ #2-Solaro XC-SLO+ Solaro XC-SUB+ HearClear AEC or equivalent	1	Nos.		
2	Supply, Installation, Testing & Commissioning of HD Base T Collaboration Switcher Kit with 4K 60 Hz 4:4:4 resolution, HDCP 2.2, HDR 10 and Dolby Vision, VIDEO INPUTS: 1 x HDMI, 1 x USB-B host, 1 x USB-C input with 100 W charging capability, VIDEO OUTPUTS: 1 x HDMI output and 1 x HBase T output which should support up to 100m transmission. Should Support automatic source detection & switching and should be Controllable via RS-232, TCP/IP, or front panel buttons. should have 2 x USB 3.0 USB for peripherals. Along with a HD BaseT receiver having 4K @ 60 Hz 4:4:4, HDR 10 and Dolby Vision, HDCP 2.2., 1 x HDMI out, 3 x USB and 1 x Type-C, de-embedded audio, RJ-45 for network passthrough, RS-232: Bi-directional passthrough transmission with transmitter. Set with power supply and accessories. Make & Model: - Clear one, UCS 2100 Switcher Kit or equivalent	1	Nos.		
3	Supply, Installation, testing and commissioning of 1/2.8” 2.16 MP CMOS 1080p60 PTZ Camera, Video Format 1080p : 60 / 50 / 30 / 25 720p : 60 / 50 / 30, Video Output (HD) Interface, 3G-SDI / HDMI / Ethernet / USB3.0/ Optical Zoom 20x, Horizontal Viewing Angle 57°, Vertical Viewing Angle 32.1°, Diagonal Viewing Angle 65.4° Aperture F1.6~F3.8, Focal Length 5.33mm~110mm, Shutter Speed 1/1 ~ 1/10,000 sec, Minimum Object Distance Wide: 0.5M / Tele: 1.5M, Video S/ N Ratio > 50dB, Minimum Illumination 1.0 lux (F1.6, 50IRE, 30fps), Focus System Auto / Manual / Smart AF Gain Control Auto / Manual White Balance Auto / Manual Exposure Control Auto / Manual, Panning Angle +170° ~ 170° Panning Speed 225°/sec Tilting Angle +90° ~ -30° Tilting Speed 225°/sec Preset Positions 256, HDMI / 3G-SDI 1080p 60, IP Stream Main : H.264 1080p 60 Second : H.264 640x360p 30 Webpage Preview: 1280x720 30, IP Compression, H.264, USB Output 1080p 60 USB Compression H.264 / MJPEG, IP Protocol RTSP / RTMP / RTMPS / MPEG-TS /SRT Input Line In / MIC In Output Ethernet / USB 3.0 / HDMI / SDI Compression Format AAC / PCM interface RS-232 / RS-422 / Ethernet / USB / Remote Protocol VISCA / VISCAIP / ONVIF, Power Consumption PoE : 10W DC In : 9W. Make & Model :-Lumens, VCA53 , Sony or equivalent	1	Nos.		
	TOTAL AMOUNT				
	GST @				
	TOTAL AMOUNT WITH GST				

Note: All rate to be inclusive cost of Transportation, Labour, Materials, loading, unloading etc. as required for satisfactory completion of work.

In words (Rs) (____)