

Second Call

Press Notice for Publishing Newspaper

NOTICE INVITING e-TENDER

The Executive Engineer, University Works Division, GGSIPU, Sector 16 C, Dwarka invites on behalf of Guru Gobind Singh Indraprastha University online item rate tenders for following work(s):-

Name of Work: RMO at GGSIP University, Dwarka Campus, New Delhi

Sub Head: Annual operation and Comprehensive Maintenance of Heating ventilation Air- conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19.

NIT No: 12/EE/UWD/Elect/2018-19 (Second Call)

Estimated Cost : Rs. **69,00,696/-**, Time of completion : 12 months, EMD: Rs **1,38,014/-**

The tender forms and other details can be obtained from website <http://govtprocurement.delhi.gov.in>. and www.ipu.ac.in. Last date of submission of bids is **13/08/2018**.

**---sd---
EE/UWD**

Second Call

Notice Inviting e-Tender

The Executive Engineer, University Works Division, on behalf of GGSIPU invites online Item rate bids from Original Engineering Manufacturer (OEM)/Authorized Service Provider of “Dunham Bush Make Chiller or enlisted contractor of CPWD in HVAC/Composite category in appropriate class fulfilled the set eligibility criteria, in two bid system (eligibility & Price Bid) for following work(s):

S. No.	NIT no.	Name of work& Location	Estimated cost put to bid	Earnest Money	Period of Completion	Date of upload on e-tender website	Last date & time of online submission of bid	Period during which EMD to be submitted	Time & date of opening of bid	Period during which eligibility documents shall be physically submitted
1	2	3	4	5	6	7	8	9	10	11
1	12/EE/UWD/Elect/2018-19 (Second Call)	Name of work : RMO GGSIP University, Dwarka Campus, New Delhi Sub Head : Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19	Rs.69,00,696/-	Rs. 1,38,014/-	12 months	23/08/2018	Upto 13/08/2018 15:00 hrs	Upto 13/08/2018 15:00 hrs	Upto 13/08/2018 15:30 hrs	By lowest bidder, within a week of opening of financial bid

1. The works involves ‘Annual Operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC)’.
2. The contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted. The firm:
 - a) Should be Original Engineering Manufacturer (OEM)/Authorized Service Provider of Dunham Bush Make Chiller in India or Enlisted contractor of CPWD in HVAC/Composite category in appropriate class. The enlisted contractor of CPWD in HVAC/Composite category should have written commitment from OEM/ASA of “Dunham Bush make Chiller” to provide AMC and supply the spares/equipment and engineering support during the contract period.
 - b) Should have valid GST registration & GST return filed up to date.
 - c) Should have valid Pan no, EPF and ESIC registration.

3. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
4. Information and Instructions for bidders shall form part of bid document.
5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <http://govtprocurement.delhi.gov.in>.
6. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
7. Contractor can upload documents in the form of **PDF** format.
8. Contractor must ensure to quote rate of each item.
Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

9. **Self attested copy of List of Documents to be scanned and uploaded within the period of bid submission:**
 - I) Copy of Demand Draft / FDR of any Scheduled Bank against EMD in favour of Registrar, GGSIPU
 - II) Certificate of Original Manufacturer/Authorized Service Provider of "Dunham Bush" Make Chiller in India or Enlistment in CPWD in appropriate class and Commitment of OEM/ASA as applicable.
 - III) Self attested copy of valid GST Registration Certificate.
 - IV) Self attested copy of GST return filed up to date.
 - V) Self attested copy of PAN Card.
 - VI) Self attested copy of EPF Registration.
 - VII) Self attested copy of ESIC Registration.

---sd---
EE/UWD

INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE

1. Information and instructions for Contractors will form part of NIT.
2. The Bid Document as uploaded can be viewed and downloaded free of cost by anyone including intending bidder. But the bid can only be submitted after uploading the mandatory scanned documents.
3. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
4. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
5. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.
6. On opening date, the contractor can login and see the bid opening process.
7. Contractor can upload documents in the form of **JPG** format and **PDF** format.
8. It is mandatory to upload scanned copies of all the documents as stipulated in the bid document. If such document is not uploaded his bid will become invalid and shall be rejected.
9. If the contractor is found ineligible after opening of bids, his bid shall become invalid and shall be rejected.
10. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the contractor the bid shall become invalid and shall be rejected.
11. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in pink colour and the moment rate is entered, it turns sky blue.
In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0".
Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "**0**" (**ZERO**).
12. **Payment of cost of Tender documents:-** The collection of cost of Tender documents is dispensed away with, as there is no physical supply of tender documents and also to have absolute anonymity of the bidders participating in e-procurement solution. The bidders can view/download the tender documents, from the www.govtprocurement.delhi.gov.in.

13. **Submission of bids:** The bidders who are desirous of participating in „e“ procurement shall submit their price bids in the standard formats prescribed in the Tender documents, displayed at www.govtprocurement.delhi.gov.in. The bidder should upload the scanned copies of all the relevant certificates, documents etc., on the www.govtprocurement.delhi.gov.in in support of their price bids. The bidder shall sign on all the statements, documents, certificates uploaded by him, owning responsibility for their correctness/authenticity.

14. **Payment of Bid Security (Earnest Money Deposit):** The EMD shall be in the form of Pay Order/FDR of a scheduled bank issued in favour of Registrar, GGSIPU, New Delhi have to be deposited. 50% of earnest money or Rs.20 lakh, whichever is less, will have to be deposited in the shape prescribed above and balance amount of earnest money can be accepted in the form of Bank Guarantee issued by a scheduled bank.

Zerox copy of the DD/Pay Order/FDR is to be scanned and uploaded alongwith the Bid, and the original Pay Order/FDR shall be sent to the office of EE, UWD so as to reach before the date and time mentioned in NIT. Failure to furnish the original DD/Pay Order/FDR as EMD and other documents before the date and time mentioned in NIT will entail rejection of bids.

15. **Price Bid Opening:-** The Price Bids will be opened online by the Executive Engineer, UWD at the specified date & time and the result will be displayed on the www.govtprocurement.delhi.gov.in which can be seen by all the bidders who participated in the tenders.

16. **Processing of Tenders:** The concerned officer/officers will evaluate and process the tenders as done in the conventional tenders and will communicate the decision to the bidder online.

17. **Participation of Bidders at the time of opening of bids:** Bidders have two options to participate in tendering process at the time of opening of Bids:

- i) Bidders can come to the place of opening of bids (electronically) as done in the conventional tender process.
- ii) Bidders can see the process online.

18. **Signing of agreement:** After the award of the contract, an agreement shall be signed as done in conventional tenders.



GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

Tender Document

Name of Work: RMO GGSIP University, Dwarka
Campus, New Delhi

Sub Head: Annual operation and Comprehensive
Maintenance of Heating ventilation Air-
conditioning System (HVAC) at GGSIPU,
Dwarka during 2018-19

**Executive Engineer
University Works Division
Ground Floor, Library Block,
GGSIPU, Sector- 16C, Dwarka,
New Delhi – 110078
Contact : 25302291**

Volume - I

General Conditions

Special Conditions

Particular Specification

INDEX

Name of Work: RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19

S.No.	Description	Page Nos.
1.	Press Notice	1
2.	Notice Inviting e-Tender for Website	2-3
3.	Information and Instructions for Contractors for E-Tendering Forming Part of NIT and to be posted on Website	4-5
4.	Notice Inviting e-Tender (Form-6)	9-11
5.	Submission of Tender (Form 7/8)	12-13
6.	General Rules and Directions	14-19
7.	Conditions of Contract	20-23
8.	Proforma of Schedules A to F	24-29
9.	Form of Performance Security and Earnest Money Deposit– Bank Guarantee Bond	30-33
10.	Integrity Pact	34-41
11.	Special Conditions & Technical Specifications	42-45
12.	Additional Condition	46-53
13.	Inventory	54-57
14.	Schedule of Quantity	58

Notice Inviting e-Tender

FORM-6

Online Item rate tenders are invited on behalf of the Registrar GGSIPU, from Original Engineering Manufacturer (OEM)/Authorized Service Provider of “Dunham Bush Make Chiller or enlisted contractor of CPWD in HVAC/Composite category in appropriate class fulfilled the set eligibility criteria, in two bid system (eligibility & Price Bid) for following work(s):

Name of Work: RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19.

The enlistment of the contractors/ASA Certificate should be valid on the last date of submission of tenders. In case the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of tenders.

1. The works involves ‘Annual Operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC)’.
2. The contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted. The firm:
 - Should be Original Engineering Manufacturer (OEM)/Authorized Service Provider of Dunham Bush Make Chiller in India or Enlisted contractor of CPWD in HVAC/Composite category in appropriate class. The enlisted contractor of CPWD in HVAC/Composite category should have written commitment from OEM/ASA of “Dunham Bush make Chiller” to provide AMC and supply the spares/equipment and engineering support during the contract period.
 - Should have valid GST registration & GST return filed up to date.
 - Should have valid Pan no, EPF and ESIC registration.
3. The work is estimated to cost **Rs.69,00,696/-**This estimate, however, is given merely as a rough guide.
4. Agreement shall be drawn with the successful tenderer on prescribed Form No. CPWD 8 which is available as a Govt. of India Publication. Tenderer shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
5. The time allowed for carrying out the work will be **12 months** from the date of start as defined in Schedule „F“ or from the 1st date of handing over of the site, whichever is later, in accordance with the phasing, if any, as indicated in the tender documents.
6. The site for the work is available.
7. Tender documents consisting of plans, specifications, the schedule of quantities of the various types of items to be executed and the set of terms and conditions of contract to be complied with and other necessary documents except Standard General Conditions Of Contract Form can be seen from website www.govtprocurement.delhi.gov.in free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
8. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become

invalid.

9. Earnest money deposit amounting to **Rs. 1,38,014/-** in the form of Demand Draft or Pay order on fixed deposit receipt (**drawn in favour of Registrar GGSIPU, New Delhi**) or Bank Guarantee of any Scheduled Bank shall be scanned and uploaded to the e-tendering website within the period of tender submission and original should be deposited in office of EE UWD GGSIPU, GF Library Block at GGSIPU Sec 16C Dwarka Campus New Delhi-110078 in an envelope marked 'EMD' before the stipulated date and time. The Name of Work, NIT No., due date of opening should be mentioned on the envelope. A part of earnest money is acceptable in the form of Bank Guarantee also. In such case, 50% of earnest money or Rs.20 lakh, whichever is less, will have to be deposit in shape prescribed above, and balance in shape of Bank Guarantee of any scheduled bank which is to be scanned and uploaded by the intending bidders.

The earnest money given by all the tenderers expect the lowest tenderer should be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier.

Copy of Original Manufacturer/Authorized Service Provider of "Dunham Bush" Chiiler in India or enlistment in CPWD in appropriate class and consent of OEM/ASA as applicable, copy of PAN card, GST registration, GST return filed up to date, EPF registration and ESIC registration shall be scanned and uploaded to the e-tendering website within the period of tender submission and certified copy of each shall be deposited by lowest bidder within a work of opening of financial bid.

Online tender documents submitted by intending bidders shall be opened only of those bidders, whose Earnest Money Deposit is found in order.

The bid submitted shall be opened at 03.30 P.M. on 13/08/2018 -.

10. The bid submitted shall become invalid if:
- i. The bidder is found ineligible.
 - ii. The bidder does not upload all the documents as stipulated in the bid document.
 - iii. If Physical EMD is not submitted.
 - iv. if a tenderer quotes nil rates against each item in Item rate tender or does not quote any percentage above/below on the total amount of the tender or any section/subhead in Item rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
11. The contractor whose tender is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within the period specified in Schedule „F“. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs.10,000/-) or Deposit at call receipt of any scheduled bank / Banker's cheque of any scheduled bank / demand draft of any scheduled bank / pay order of any scheduled bank (in case guarantee amount is less than Rs.1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule "F", including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.
12. Intending Tenderers are advised to inspect and examine the site and its surroundings 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, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their 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 his 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 contract 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 specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

13. The competent authority on behalf of the Registrar of GGSIPU, does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
14. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
15. The competent authority on behalf of the REGISTRAR GGSIPU reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
16. The contractor shall not be permitted to tender for works in the GGSIPU Circle, responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in GGSIPU, Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this department.
17. No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.
18. The tender for the works shall remain open for acceptance for a period of **Ninety (90) days** from the date of opening of tenders. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further, the tenderer shall not be allowed to participate in the re-tendering process of the work.
19. This Notice Inviting Tender shall form a part of the contract document. The successful tenderer /contractor, on acceptance of his tender by the Accepting Authority, shall, within Fifteen days from the stipulated date of start of the work, sign the contract consisting of: -
 - (a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming the part of the tender as uploaded at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - (b) Standard CPWD Form 8 with up-to-date correction slips as applicable.
 - (c) Integrity Pact.

EE, UWD, GGSIPU

Letter of Submission
Percentage/Item rate Tender and Contract for Works

(A) Tender for work of RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: **Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19**

- i) To be submitted by **15.00 HRS hours up to 13/08/2018** - to Executive Engineer. UWD, Ground Floor, Library Block, GGSIPU, Sector-16C, Dwarka, New Delhi-110078
- ii) To be opened in presence of tenderers who may be present at **15.30 hours on - 13/08/2018** - in the office of **Ex Engr**, UWD, Ground Floor, Library Block, GGSIPU, Sector-16C, Dwarka, New Delhi-110078

Issued to -----

Signature of officer issuing the documents -----

Designation -----

Date of Issue -----

TENDER

I/ We have read and examined the Notice inviting tender, specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, special condition, particular Specification, Schedule of Quantities & 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 GGSIPU 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 respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for Ninety (90) days/One Hundred twenty (120) days from the due date of opening of tender/ninety days from the date of opening of financial bid in case tenders are invited on 2/3 envelop system and not to make any modifications in its terms and conditions.

The earnest money of **Rs. 1,38,014/-** has been deposited in the shape of fixed deposit receipt of a scheduled bank/ demand draft of a scheduled bank/bank guarantee of scheduled bank issued in favour of Registrar, GGSIPU. If I/we, fail to furnish the

prescribed performance guarantee within prescribed period, I/We agree that the said GGSIPU 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 GGSIPU 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, upto maximum of the percentage mentioned in Schedule „F” and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the clauses of contract. 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 retendering process of the work.

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

Date -----

Signature of Contractor
Postal Address

Witness:

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the GGSIPU for a sum of Rs._____(Rupees _____)

The letters referred to below shall form part of the Agreement:

- a)
- b)
- c)

Executive Engineer,
University Works Department

**GURU GOBIND SINGH INDRAPRASTHA
UNIVERSITY SECTOR-16C, DWARKA, NEW DELHI-
110078****General
Rules &
Direction**

1. Notice Inviting Tender will state the work to be carried out, as well as the date for submission and opening of tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited at the time of purchase of tender. The performance Guarantee to be deposited by the successful tenderer and the amount of security deposit to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.
2. In the event of the tender being submitted by a firm, it must be signed separately by each partner 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, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
3. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

**Applicable
for Item
Rate
Tender
Only
(Form-8)**

4. Any person who submits a tender shall fill up the Schedule of Quantity (Vol.II) form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tenders for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and considering more than fifty paise as rupee one.

In case the lowest tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised offer quoting

rate of each item of the schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.

If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, EE(s) in-charge of major & minor component(s) (also DDH in case Horticulture work is also included in the tender), EE(P) or EE(HQ) of the circle and the lowest contractors those have quoted equal amount of their tenders.

In case of any such lowest contractor in his revised offer quotes rate of any item more than their respective original rate quoted already at the time of submission of tender, then such revised offer shall be treated invalid. Such case of revised offer of the lowest contractor or case of refusal to submit revised offer by the lowest contractor shall be treated as withdrawal of his tender before acceptance and 50% of his earnest money shall be forfeited.

In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest contractors.

Contractor, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work.

**Applicable
for
Percentage
Rate
Tender
only
(Form - 7)**

4A Applicable for Percentage Rate Tender only (CPWD-7)

In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if :-

- 1) The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender.
- 2) The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender
- 3) The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender.

Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.

- 4B In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.

In case any of such contractors refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.

If the revised tendered amount of two more contractors received in revised offer is again found to be equal , the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, EE(s) in-charge of major & minor component(s) (also DDH in case Horticulture work is also included in the tender), EE(P) or EE(HQ) of the circle & the lowest contractors those have quoted equal amount of their tenders.

In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor.

Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work

5. The officer inviting tender or his duly authorized representatives, will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded at the time of purchase of tender shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule-I. In the event of a tender being rejected, the earnest money of unaccepted tenders shall

thereupon be returned to the contractor, without any interest.

6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.
8. The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.
9. The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. Use of correction fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.
- 9A Use of correcting fluid, anywhere in tender documents is not permitted. Such tender is liable for rejection

**Applicable
for Item
Rate
Tender
only
(Form - 8)**

10. Only rates quoted shall be considered. Any tender containing percentage below/ above the rates quoted is liable to be rejected. Rates quoted by the contractor in Item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the contractor does not work out the amount of an item or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both 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 items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

**Applicable
for
percentage
Rate**

- 10A In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be

**Tender
only
(Form- 7)**

accurately filled in figures and words, so that there is no discrepancy.

11. In the case of any tender where unit rate of any item/ items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.

**Applicable
for
Item Rate
Tender
only
(Form- 8)**

12. All rates shall be quoted on the tender form (i.e. Schedule of Quantities Vol. II). The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word „Rs.“ should be written before the figure of rupees and word ‘P’ after the decimal figures, e.g. ‘Rs.2.15 P’ and in case of words, the word, ‘Rupees’ should precede and the word ‘Paise’ should be written at the end. Unless the rate is in whole rupees and followed by the word „only“ it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word „only“ should be written closely following the amount and it should not be written in the next line.

**Applicable
for
Percentage
Rate
Tender
only
(Form- 7)**

- 12A In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word ‘Rs.’ should be written before the figure of rupees and word ‘P’ after the decimal figures, e.g. ‘Rs. 2.15P’ and in case of words, the word ‘Rupees’ should precede and the word ‘Paisa’ should be written at the end

13. i) The contractor whose tender is accepted shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee within the period as specified in schedule- „F“ in the form of an irrevocable bank guarantee bond of any scheduled bank in accordance with the form prescribed, fixed deposit receipt or demand draft in favour of Registrar, GGSIPU
- ii) The contractor whose tender is accepted, will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 2.5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.

14. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.
15. GST or any other tax applicable in respect of inputs procured by the Contractor for this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
16. The contractor shall give a list of both gazetted and non-gazetted GGSIPU employees related to him.
17. The tender for the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
18. The tender for composite work includes, in addition to building work, all other works such sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor (B&R) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply drainage, electrical land horticulture works in the composite tender.
19. The contractor shall submit list of works which are in hand (progress) in the following form:-

Name of Work	Name and particulars of Divn where work is being executed	Value of Work	Position of Work in progress	Remarks
1.	2.	3.	4.	5.

20. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the GGSIPU may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CONDITIONS OF CONTRACT**Definitions**

1. The Contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the GGSIPU and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:
 - i) The expression works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
 - ii) The Site shall mean the land/ or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work, is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
 - iii) The Agency/Contractor/Tenderer shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assigns of such individual, firm or company.
 - iv) The GGSIPU means the Guru Gobind Singh Indraprastha University and his successors.
 - v) The Engineer-in-charge means the Engineer Officer who shall supervise and be incharge of the work and who shall sign the contract on behalf of the President of India as mentioned in Schedule 'F' hereunder.
 - vi) Accepting Authority shall mean the authority mentioned in Schedule „F“.
 - vii) Excepted Risk are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power,

any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of works.

- viii) Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule „F“ to cover, all overheads and profits.
- ix) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the government mentioned in Schedule „F“ hereunder, with the amendments thereto issued upto the date of receipt of the tender.
- x) Department means Guru Gobind Singh Indraprastha University or authorized by GGSIPU to work on their behalf.
- xi) District Specifications means the specifications followed by the State Government in the area where the work is to be executed.
- xii) Tendered value means the value of the entire work as stipulated in the letter of award.
- xiii) Date of commencement of work: The date of commencement of work shall be the date of start as specified in schedule 'F' or the first date of handing over of the site, whichever is later, in accordance with the phasing if any, as indicated in the tender document.
- xiv) GST shall mean Goods and Service Tax – Central, State and Inter state.

Scope and Performance

- 3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- 4. Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
- 5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed and published documents, together with drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be carried out

6. The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule-A) shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of Tender

7. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and Adjustment of Errors

8. The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.

- 8.1 In the case of discrepancy between the schedule of Quantities, the Specifications and/or the Drawings, the following order of preference shall be observed:

- i) Description of items given in Schedule of Quantities.
- ii) Technical Specification, Special Conditions, Additional conditions and Particular Specifications.
- iii) Drawings.
- iv) C.P.W.D. Specifications.
- v) Indian Standard Specifications of B.I.S.
- vi) Decision of Engineer-in-Charge.

- 8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

- 8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

9. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
- i. The notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - ii. Standard C.P.W.D. Form as mentioned in Schedule 'F' consisting of:
 - a) Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexures thereto
 - b) C.P.W.D. Safety Code
 - c) Model Rules for the protection of health, sanitary arrangements for workers employed by CPWD or its contractors.
 - d) CPWD Contractor's Labour Regulations.
 - e) List of Acts and omissions for which fines can be imposed
 - iii. No payment for the work done will be made unless contract is signed by the contractor.

PROFORMA OF SCHEDULES

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

SCHEDULE „A“

Schedule of quantities - (Page 58)

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/ document for the work, if any.

NIL

SCHEDULE „E“

Reference to General Conditions of contract.

GCC 2014 Published with upto date correction slip

Name of work : RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head : Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19

Estimated cost of work :

Rs. 69,00,696/-

i) Earnest money :

Rs. 1,38,014/- (To be returned after receiving performance guarantee)

ii) Performance Guarantee :

5% of tendered value.

iii) Security Deposit

2.5% of tendered value.

Or

2.5% of tendered value plus 50% of PG for contractor involving maintenance of the building and services/other work after construction of same building and services/other work.

SCHEDULE „F“

General Rules & Directions:

General Rules & Direction:

Ex. Engr, UWD, GGSIPU

Officer Inviting Tender :

Ex. Engr, UWD, GGSIPU

Definitions:

2(i) Engineer-in-Charge

Ex. Engr, UWD, GGSIPU

2(ii) Accepting Authority

Ex. Engr, UWD, GGSIPU

- 2 (iii) Percentage on cost of materials and labour to cover all overheads and profits 15%
- 2 (iv) Standard Schedule of Rates Market Rates
- 2 (v) Department GGSIPU
- 2(vi) Contract Form Form 8 with GCC 2014 with upto date Correction slip published by CPWD.

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 with late fee @ 0.1 % per day Of Performance Guarantee amount beyond the period provided in (i) above. 5 days

Clause 2

Authority for levy compensation Under clause 2. **Superintending Engineer/Registrar GGSIPU**

Clause 2A

Whether Clause 2A shall be applicable **No.**

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start **12 Days**

Mile Stone as per table given below:-

S. No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be with-held in case of non achievement of milestone
1	NIL	NIL	NIL
2	NIL	NIL	NIL

Time allowed for execution of work. **12 months**

Authority to decide

- a) Extension of time Executive Engineer GGSIPU
- b) Rescheduling of milestone Superintending Engineer/ Registrar, GGSIPU
- c) Shifting of date of start in case of delay in handing over of site Superintending Engineer/ Registrar, GGSIPU

Schedule of Handing over of site

As per work

Part	Portion of site	Description	Time Period for handing over reckoned from date of issue of letter of intent.
Part A			
Part B			

Schedule of issue of Designs

Part	Portion of site	Description	Time Period for issue of design reckoned from date of receipt of tender
Part A			
Part B-1			
Part B-2			
Part B-3			

Clause 5.2

Nature of Hindrance Register

Physical

Clause 5.4

Schedule of rate of recovery for delay in submission of the Modified programme in terms of delay days.

S. No.	Contract Value	Recovery
I	Less than or equal to Rs. 1 Crore	500
II	More than Rs. 1 Crore but less than or equal to Rs. 5 Crore	1000
III	More than Rs. 5 Crore but less than or equal to Rs. 20 Crore	2500
IV	More than Rs. 20 Crore	5000

Clause 6 or 6 A

Clause 6A Applicable

- i. For works having estimated cost more than Rs 15 lacs – Clause 6A

Clause 7

Gross work to be done together with net payment/ Adjustment of advances for material collected, if any Since the last such payment for being eligible to Interim payment

Quarterly Payment

Clause-7A

Applicable

Clause-8B

- i. Maintenance or Upgradation Contracts
- ii. Other Works

Not Applicable

Not Applicable

S. No.	Contract Value	Limit Rs.
I.	Less than or equal to Rs 1 Crore	2000
II.	More than 1 Crore but less than or equal to Rs 5 Crore	5000
III.	More than 5 Crore but less than or equal to Rs 20 Crores	25000
IV.	More than Rs 20 Crores	50000

Clause 10 A

List of testing equipment to be provided at site

As required for of fitness of HVAC system.

Clause 10 B(ii)

Whether clause 10B(ii) is applicable

No

Clause 10 C

Component of labour expressed as percent of value of work

Not Applicable

Clause 10 CA

S. No.	Material Covered under this clause:	Nearest Material (other than cement, reinforcement bars, the structural steel and POL) for which all India wholesale Price Index to be followed:	Base Price and its corresponding period of all the Material covered under clause 10 CA
1			
2			

Clause 10 CC

Clause 10CC to be applicable in contracts with Stipulated period of completion exceeding the Period shown in next column

Twelve months

Schedule of component of other materials, labour, POL etc for price escalation

Component of Civil (except for materials covered under clause 10 CA)/Electrical construction value of work

NIL

Component of labour expressed as percent of total value of work

NIL

Component of POL expressed as percent of total value of work

NIL

Clause 11

Specifications to be followed execution of work

CPWD Specification for HVAC works 2017 & CPWD specifications for Electrical Work for 2013 (Part –I, Internal) & 1994 (Part – II, Elect.) amended up to date

Clause 12

Type of Work

Maintenance work

12.2 & 12.3 Deviation limit beyond which

30%

- clause 12.2 & 12.3
- 12.5 i) Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation NA
- ii) Deviation Limit for items mentioned in earth work sub head of DSR and related items

Clause 16

Competent Authority for deciding reduced rates Superintending Engineer/ Registrar, GGSIPU

Clause 18

List of mandatory machinery tools& plants to be deployed by the contractor at site As required for completion within time period.

Clause 25

Place of Arbitration

Delhi

Constitution of Dispute Redressal committee

Chairman

Registrar, GGSIPU

Member

Technical Expert appointed by Hon'ble VC

Clause 36

NIL

S. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/Technical representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)	
						Figure	Words
1							
2							

Clause 42

- i. Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rate 2016 printed by C.P.W.D
- ii. Variations permissible on theoretical quantities:
- a) Cement
- For Works with estimate cost put to tender not more than Rs 5 lakh. 3% plus/minus
- For work with estimate cost put to tender more than Rs 5 lakh. 2% plus/minus
- b) Bitumen All work 2.5% plus & only & nil on minus side.
- c) Steel Reinforcement and structural steel sections for each diameter, section and category 2% plus/minus
- d) All other materials NIL

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S. No.	Description of Item	Rates in figures and words at which recovery shall be made from the contractor	
		Excess beyond permissible variation	Less use beyond permissible variation
1.	Cement	NA	NA
2.	Steel reinforcement	NA	NA
3.	Structural Sections	NA	NA
4.	Bitumen issued free	NA	NA
5.	Bitumen issued at stipulated fixed price	NA	NA

Form of Performance Security (Guarantee) Bank Guarantee Bond

1. In consideration of the Guru Gobind Singh Indraprastha University (hereinafter called "The University") having offered to accept the terms and conditions of the proposed agreement between ----- and ----- (hereinafter called "the said Contractor(s)") for the work ----- (hereinafter called "the said agreement") having agreed to production of a irrevocable Bank Guarantee for Rs.----- (Rupees ----- only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and condition in the said agreement.

We, ----- (hereinafter referred as "the Bank") hereby undertake to
(indicate the name of the Bank)
pay to the University an amount not exceeding Rs.----- (Rupees ----- only) on demand by the University.

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

3. We, the said bank further undertake to pay the University any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We, ----- further agree that the guarantee herein contained shall
(indicate the name of the Bank)
remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the University 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 University certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We, ----- further agree with the University that the University
(indicate the name of the Bank)
shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the University 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 University or any indulgence by the University 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, ----- lastly undertake not to revoke this guarantee except

(indicate the name of the Bank)
with the previous consent of the University in writing.

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

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

Signature & Seal of Bank

FORM OF EARNEST MONEY (BANK GUARANTEE)

WHEREAS, contractor (Name of contractor) hereinafter called “the contractor”) has submitted his tender dated.....(date) for the construction of (name of work) (hereinafter called “ the Tender”)

KNOW ALL PEOPLE by these presents that we (name of bank) having our registered office at (hereinafter called “the Bank”) are bound unto (Name and division of Executive Engineer) (hereinafter called “the Engineer-in-Charge”) in the sum of Rs..... (Rs. In words.....) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this..... day of20...

THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws his tender during the period of validity of tender (including extended validity of tender) specified in the Form of tender;
- (2) If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:
 - a) fails or refuses to execute the Form of agreement in accordance with the instructions to contractor, if required; OR
 - b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and instructions to contractor, OR
 - c) fails or refuses to start the work, in accordance with the provisions of the contract and instructions to contractor, OR
 - d) fails or refuses to submit fresh Bank Guarantee of an equal amount of this Bank Guarantee, against Security Deposit after award of contract.

We undertake to pay to the Engineer-in-Charge up to the above amount upon receipt of his first written demand, without the Engineer-in-Charge having to substantiate his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

The Guarantee will remain in force up to and including the date after the deadline for submission of tender as such deadline is stated in the instructions to contractor or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE.....

**SIGNATURE OF THE BANK
SEAL**

WITNESS.....

(SIGNATURE, NAME AND ADDRESS

* Date to be worked out on the basis of validity period of six months from last date of receipt of tender.

INTEGRITY PACT

To

Sub: NIT No. 12/EE/UWD/Elect/2018-19 (Second Call) for the work “RMO GGSIP University, Dwarka Campus, New Delhi. SH :- Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19

Dear Sir,

It is here by declared that GGSIPU is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the GGSIPU.

Yours faithfully

Executive Engineer
(University Works Division)

INTEGRITY PACT

To

Executive Engineer,
GGSIPU, Sector 16C
Dwarka, New Delhi-78

Sub: Submission of Tender for the work of “RMO GGSIP University, Dwarka Campus, New Delhi SH :- Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19

Dear Sir,

I/We acknowledge that GGSIPU is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

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 BID 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/bid is finally accepted by GGSIPU. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 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/bid, GGSIPU shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours Faithfully

(Duly authorized signatory of the Bidder)

INTEGRITY PACT

INTEGRITY AGREEMENT

THIS Integrity Agreement is made at _____ on this _____ day of _____ 20_____

BETWEEN

GGSIPIU represented through Executive Engineer, UWD, (Hereinafter referred as the „**Principal/Owner**“, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

_____ through _____
_____ (Hereinafter referred as the „**Bidder/Contractor**“ and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal/Owner has floated the Tender (NIT No. 12/EE/UWD/Elect/2018-19 (Second Call)) (hereinafter referred to as „**Tender/Bid**“) and intends to award, under laid down organizational procedure, contract for RMO GGSIP University, Dwarka Campus, New Delhi **SH :- Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19**(Name of Work) hereinafter referred to as the „**Contract**“.

And WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement(hereinafter referred to as „**Integrity Pact**“ or „**Pact**“), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants in this pact, the parties hereby agree as follows and this pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principle/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

- a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government/Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The binder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other

actions to restrict competitiveness or to cartelize in the bidding process.

- c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will; not use improperly;, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
 - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
 - 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice **means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of other and/or to influence the procurement process to the detriment of the Government interests.**
 - 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach or this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/Contractor accepts and undertakes

to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. **Such exclusion may be forever or for a limited period as decided by the Principal/Owner.**
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1) the principal/owner apart from exercising any legal right that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The bidder declares that no previous transgressions occurred in the last 5 year with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/holiday listing of the Bidder/Contractor as deemed fit by the Principal/Owner.
- 3) If the Bidder/Contractor can prove that he has resorted/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor

shall be responsible for any violation (s) of the principles laid down in this agreement/Pact by any of its Sub-contractor/Sub-vendors.

- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6: Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor Twelve months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, GGSIPU.

Article 7: Other Provisions

- 1) This pact is subject to Indian Law, place of performance and jurisdiction is the **Head quarters of the Division** of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement/Pact or any action taken by the Owner/Principal in accordance with this **Integrity agreement /pact interpretation thereof shall not be subject to arbitration.**

Article 8: Legal and Prior Rights

All rights and remedies of the parties hereto shall be in addition to all the other legal

rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contract documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHERE OF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and on behalf of Principal/Owner)

(For and on behalf of Bidder/Contractor)

WITNESSES:

1. _____
2. _____

Place:

Dated:

Special Conditions

- 1.0 “CPWD Specifications” wherever appearing in this document would mean Latest edition of CPWD specifications with correction slips issued upto the last date of receipt of tender.
- 2.0 GCC 2014 referred in this document is Govt of India Publication and is available in the market.
 - a) Form 7/8, forming part of ‘GCC 2014’ shall be superceded by this document.
 - b) Wherever “President of India” is appearing in the GCC 2014 same shall be read as GGSIPU.
 - c) Wherever Superintending Engineer is appearing in GCC 2014, it may be read as Superintending Engineer/Registrar GGSIPU.
 - d) Wherever CPWD or PWD is appearing in GCC 2014, it may be read as GGSIPU.
- 3.0 Unless otherwise provided in the schedule of quantities the rates tendered by the contractor shall be all-inclusive and shall apply to all heights, levels, depths, leads, lifts including shafts, machine room & stair cases. The rates for all items of work, unless clearly specified otherwise, shall include the cost of all labour, materials, and other inputs involved in the execution of the items.
- 4.0 No foreign exchange shall be made available by the department for the purpose of procurement of equipment, plants, machinery, materials of any kind or any other items required to be carried out in execution of work.
- 5.0 The contractor or his authorized representative should always be available at the site of work to take instructions from Engineer in charge, and ensure proper execution of work.
- 6.0 No work shall commence in the absence of contractor’s engineers and they shall certify in writing about the correctness of layout alignment and shall ensure stability of all structural work such as partition panel and other related items.
- 7.0 All work and materials brought and left upon the ground by the contractor or by his orders for the purpose of forming part of the works, are to be considered to be the property of the GGSIPU and the same are not to be removed or taken away by the contractor or any other person without consent in writing of the Engineer-in-charge but the GGSIPU is not to be in any way responsible for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or damaged by weather or otherwise.
- 8.0 The contractor shall execute the different items simultaneously, as far as possible, so that minimum breakage and repairs are involved.
- 9.0 The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of environment and waterways. He shall make good at his own cost and to the satisfaction of the Engineer-in-Charge, any damage to public or private property whatsoever caused by the execution of the work or by traffic brought thereon by the contractor. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/users of adjoining buildings.

- 10.0 All associated activities required for obtaining necessary clearances, permissions, approvals, all licenses etc. as required from all concerned authorities in respect of installation and commissioning shall be the responsibility of the contractor, the cost for which shall be deemed to be included in the rates for various items of work of Schedule of Quantities. However, actual statutory fee paid to the concerned authorities for obtaining approvals if any, shall be reimbursed by the University on production of proof of payment made by the Contractor.
- 11.0 The contractor shall be responsible for watch and ward of all the works, equipment and various materials till complete handing over of works.
- 12.0 Wherever any reference to any Indian Standards Specification occurs in the documents relating to this contract the same shall be inclusive of all amendments issued their to or revisions there of if any, upto the date of receipt of tenders.
- 13.0 The site of work may be at one or more places within the campus and at any floor upto ten levels for which nothing extra shall be paid. Nothing extra shall be paid for height on external work.
- 14.0 Labour Cess @ 1% of gross value of work done shall be deducted from the payment as per Delhi Building & other Construction Workers Welfare Cess Act 1996 besides other statutory deduction like income tax, GST etc. as applicable.
- 15.0 The contractor shall be fully responsible for rectifying the defect, which may happen during the use up to Twelve months from the date of completion of the work. The decision of Engineer-in-Charge in this regard shall be final & binding. In case the contractor fails to carry out the said repairs, rectifications, replacement within the specified time, the department shall get the repairs / rectifications / replacement as considered necessary at the cost of the contractor by recovering the cost from the security deposit. In case additional expenditure is incurred by the department on this account, the same shall be borne by the contractor.
- 16.0 The rates quoted by the contractor shall be all inclusive keeping in mind the specifications, special conditions, additional conditions and particular specifications and nothing extra shall be payable whatsoever, unless otherwise specified.
- 17.0 If the work is carried out in more than one shifts or during night to meet the time period of completion or inaccordance with availability of working area, nothing extra shall be paid on this account. The contractor has to work in accordance with programme, time schedule as directed by Engineer-in-Charge.
- 18.0 Contractor shall have to make own arrangement for water & electricity, otherwise 1% of gross amount shall be deducted from the dues of the contractor.
- 19.0 The contractor shall follow the instruction and restrictions imposed by the Administration / Police authorities on the working and movement of labour/material/vehicles etc and nothing extra shall be paid on this account.
- 20.0 The Agency shall be responsible for co-ordinating the activities of all works and shall ensure program and Day to Day maintenance of works as per the laid down programme. All required register like to complaint register, worker diary register, daily material consumption register etc. shall be arranged and maintained by the agency.

- 21.0 The work shall be carried out as per CPWD specification wherever applicable, or as directed by Engineer-in-Charge or his authorized representative.
- 22.0 No T & P shall be issued to the contractor. All required T&P minimum as defined in Schedule F & other T & P required as per site requirement shall have to be arranged by the contractor at his own. Decision of Engineer-in-charge shall be final and binding.
- 23.0 The contractor shall take all precaution for safety of the workmen. If any accident/mishap occurs, the department shall not be responsible for the same. Consequently any compensation payable shall be at the contractor cost.
- 24.0 The contractor shall comply with all local laws, statutory provisions like minimum wages act, contract labour act, ESIC, EPF and any other law subject to applicability.
- 25.0 The contractor shall pay to his workers not less than the minimum wages notified by the Government of Delhi and revised from time to time. The contractor shall strictly abide by all labour laws applicable to him such as Minimum Wages Act, EPF Act, ESIC Act, Payment of Bonus Act, Payment of Gratuity Act, Contract Labour (R&A) Act and the Rules made there under etc. Any violation of these Acts or Rules made there under shall be taken seriously and action will be taken in accordance with agreement.
- 26.0 The contractor shall have to arrange all tools and plants required to carry out the work timely and satisfactorily at his own cost. GGSIPU shall not issue any tools & plant whatsoever for this purpose. The contractor is advised to inspect the campus, acquaint himself with the scope of work and site conditions. He is also advised to thoroughly understand the complete tender document before quoting the rates.
- 27.0 The contractor shall indemnify and hold GGSIPU harmless from and against all claims, damages, losses and expenses arising out of, or resulting from the works or services provided under this contract.
- 28.0 If any money shall, as the result of any instructions from the labour authorities or claim or application made under any of the Labour Laws, or Regulations, be directed to be paid by GGSIPU, such money shall be deemed to be payable by the contractor to GGSIPU within seven days. GGSIPU shall be entitled to recover the amount from the contractor by deduction from money due to the contractor or from the Performance Guarantee or Security Deposit.
- 29.0 The contractor is not allowed to construct any huts for its workers inside the campus. No cooking or lodging shall be allowed in premises of the University.
- 30.0 The electrical work will be carried out in accordance with the General Specifications 2013 for electrical works in (part I) internal, CPWD specifications 1994 (part II) external, except as otherwise specified in the description of items given in the Schedule of Quantities or in the attached Technical Specification while complying in all respects with the requirements of the latest Indian Electricity Rules in force at the time of execution.
- 31.0 The electrical work shall be carried out simultaneously with the civil and interior works.

- 32.0 The site of work will be handed in parts over a period of contract and the contractor will have to complete the work/site allotted in parts within the time schedule of 7 days.
- 33.0 The works involves petty addition/alternation jobs which at times will be of very minor value. The agency will have to take up all works assigned immediately irrespective of value and complete the same in time schedule of 7 days.

Additional Conditions

1. Comprehensive maintenance shall be carried out in conformity with CPWD specification for HVAC works 2017 with upto date amendment.
2. The firm shall employ skilled personnel, qualified enough to keep the equipment in perfect working order. They shall be able to locate the fault if any and set right the same within reasonable time period.
3. The firm shall depute its maintenance staff to carry out the preventive maintenance and routine checking, adjusting, lubricating, cleaning the equipment periodically and not less than once per month shall be ensured. The record of such visits and maintenance work carried out shall be maintained in the register. In no case time gap between two service should be more than 35 days to ensure that HVAC System is efficient, reliable and safe operation conditions. The maintenance shall be carried out as per schedule given below:-

Schedule of Operation and Maintenance

The section covers the maintenance schedule during operation, routine and comprehensive AMC of HVAC System for one year.

The contractor shall also undertake comprehensive annual maintenance of the complete HVAC System for a period of one year. Periodical checking of all parameters for machines operation and diagnosis, routine checking and cleaning operations, preventive maintenance/overhauling as under and as required for smooth and trouble free operation of complete system shall be carried out by contractor to ensure functioning and achieve desired temperature in the usable area.

The maintenance shall also include a minimum of 12 monthly preventive maintenance visits by qualified person who are thoroughly familiar with the type of equipment and system provided for this project.

Chillar	Monthly inspection and service	<ol style="list-style-type: none"> 1. Check refrigerant level, leak test with electronic leak detector. If abnormal, trace and rectify as necessary, inform department in writing on the rectification. 2. Inspect level and condition of oil. If abnormal, trace fault and rectify as necessary. Inform department in writing on the rectification. 3. Check the liquid line sight glasses for proper flow. 4. Check all operating pressure and temperature. 5. Inspect and adjust, if required, all operating safety controls. 6. Check capacity control, adjust if necessary. 7. Visually inspect machine and associated components and listen for unusual sound or noise for evidence of unusual conditions. 8. Review daily operating log maintained by department's operating personnel. 9. Providing written report to Department, outlining services carried out,
---------	--------------------------------	--

		adjustment made, rectification carried out and if the deficiency is of a major nature, arrange with department for shut-down to rectify equipment.
Chillar	Annual inspection	<ol style="list-style-type: none"> 1. Perform all functions for monthly check. 2. Check all flanges for tightness 3. Replace filter 4. Check oil temperature control 5. Check motor terminals 6. Check connection sin starter <p>Please note that oil filter gasket replacement shall deem to be included in the contract.</p> <ol style="list-style-type: none"> 1. Check motor earthing, meggar motor and connection wiring on each leg. 2. Tighten motor terminals. 3. Check starter contacts. 4. Test and calibrate overload setting. 5. Inspect, calibrate and adjust to original specification all gauges, safety and operating controls including low temperature and high pressure cutout, oil pressure switch, electrical interlocks. 6. Inspect condenser tubes for fouling. If fouling exceeds original specification, the contractor shall carry out cleaning of the tubes at his own expense.
Water pumps	Monthly inspection	<ol style="list-style-type: none"> 1. Inspect all water pumps. 2. Check all seals, pipelines for leaks and rectify as necessary. 3. Check all pump bearings and lubricate with oil or grease as necessary. 4. Check all alignment and condition of all rubber couplings between pumps and drive motors and rectify as necessary. 5. Check all bolts and nuts for tightness and tighten as necessary.
Motor pumps	Annual Inspection	<ol style="list-style-type: none"> 1. Perform all function for monthly checks. 2. Check motor earthing, meggar motor and connection wiring on each leg. 3. Tighten motor terminals. 4. Check starter contacts 5. Test and calibrate overload setting.
Expansion Tank	Annual Inspection	<ol style="list-style-type: none"> 1. Inspect expansion tank, Drain clean and flush out tanks as necessary.
Air Handling units and fancoil units	Monthly inspection	<ol style="list-style-type: none"> 1. Inspect all air handling and fan coil units. 2. Check all air filters and clean or change filters as necessary. 3. Check all water coils, seals and pipelines for leaks and rectify as necessary. 4. Check and re-calibrate modulating valves and controls. Adjust and rectify as necessary to ensure compliance to the original specification. 5. Purge air from all water coils. 6. Check all fan bearings and lubricate with grease as necessary. 7. Check The tension of all belt drives and adjust as necessary. 8. Check and clean all the condensate pans, trays and drains.

		<p>9. Check measure and re-calibrate all sensors if necessary.</p> <p>10. Check clean and service smoke detectors. Carryout a system test to ensure that the smoke detector will trip the AHU's.</p> <p>11. Check spring vibration isolators for abnormal vibration. Rectify if necessary.</p> <p>12. Coil to be cleaned by (a) spray of high-pressure clean water (not exceeding 30 psi) (b) with chemical spray, if necessary.</p>
Air handling units and fan coil units	Annual inspection	<p>1. Perform all functions for monthly checks.</p> <p>2. Tighten motor terminals.</p> <p>3. Check starter contacts.</p> <p>4. Test and calibrate overload settings.</p>
Air Distribution System	Monthly and annual inspection	<p>1. Check operation of all modulating and fixed dampers controlling air flow through unit. Lubricate all damper bearings and linkages as necessary.</p> <p>2. Carry out space temperature checks on air-conditioned areas with thermo hydrograph. Balance air flow as necessary to compliance with requirements of original specifications. These checks include the calibration of sensors, thermostat etc.</p> <p>3. Check noise level of discharged air from diffusers.</p>
Cooling Tower	Monthly	<p>1. Check the water leakages and take corrective action.</p> <p>2. Check pumps, all seals, bearings and rectify problems.</p> <p>3. Check fins and replace broken fins as required.</p> <p>4. Check alignment, rubber parts, all bolts and nuts for tightness and tighten as necessary.</p> <p>5. Cleaning of sump</p>
	Annual	<p>1. Inspect cooling towers for defects and rectify.</p> <p>2. Descaling of tank and painting</p> <p>3. Check pipeline and replace as required including painting.</p>

4. In addition to routine and periodical maintenance, the firm shall depute its maintenance personnel as and when called for by Engineer-in-charge. The response time shall not be more than two hours. The complaint shall be attended and set right on the same day. In case, the defect cannot be set right on the same day, the Engineer-in-charge shall be kept informed about the progress of the maintenance work at site. The record of all such complaints and defects shall be maintained in the register.
5. All HVAC equipments (high and low side) shall be repaired/ replaced by the firm to ensure trouble free operation, which shall be covered under scope of comprehensive maintenance as per inventory attached as Annexure-(A). The repair/ replacement and maintenance of the parts shall not be limited to the items mentioned in inventory but shall cover all parts, equipment, controls, required for safe and satisfactory operation of the HVAC, whether mentioned there or not.
6. The record of any repair, replacement and inspection shall be maintained in the register.

7. The firm shall be responsible for any accident that occurs due to malfunctioning of the HVAC System due to inadequate maintenance of the HVAC System and allied equipments.
8. On completion of the maintenance contract, the firm shall hand over the installation to the department in perfect working conditions and with a certificate that all the equipment, parts, operations/ safety system are safe and sound on the date of handing over the installation.
9. The comprehensive maintenance of HVAC System including every associated equipment and hardware as per Inventory in proper functional conditions shall be done on all the day including Holidays and Sunday etc. The contractor shall not be paid extra on account of additional staff required for emergency repairs. It includes all repairs maintenance and replacement of spares etc as and when required.
10. Preventive maintenance of HVAC System shall be carried monthly in normal working hours (8:00AM to 8:00 PM), However breakdown maintenance shall be attended on 24 hours basis. No extra payment in this regard shall be paid.
11. The spare parts, consumables, refrigerant and lubricants used for maintenance purpose shall be as per strictly of manufacturer's specifications.
12. The entire spare parts shall be arranged by the agency at their own and nothing shall be paid extra on this account All the parts should be readily available for facilitating the necessary replacement. The spare parts replaced will have to be new only.
13. Agency will maintain current and updated system diagram which shall be displayed in the plant room which will be referred/used by examiners exclusively or firm technicians.
14. As and when the parts are replaced, the same shall be intimated by agency to engineer in charge and recorded in register.
15. And any other routine repair work which is not mentioned above shall be done by the agency time to time.
16. The contractor will attend to complaint within 04 hours of complaint lodged at emergency call service centre in respect of chillers, cooling towers, boilers, pumps and equipment in plant/pump room including AHU/CSU/FCU with accessories & make them functional on same day. If same cannot be make operational within same day due to fault/failure of major parts it will be replaced/repared within 72 hours otherwise a penalty @ Rs. 2000/- per day beyond 72 hours shall be made and recovered from running bills. The agency shall intimate EE or his representative of major fault and give the timeline to make the same operational.
17. In case of major breakdowns the agency shall be free to replace the spares as required or to modify circuit or the component/assemblies after obtaining approval of Engineer-in-charge or his representative. However nothing will be paid extra on this account.

18. Number of staff worker and their staff including supervisor shall have one day weekly off. The deployment schedule and weekly off of the operation & maintenance staff shall be decided by Engineer-in-Charge or his representative.

Minimum qualification and experience for the staff deployed for operation shall be as under:-

i) Supervisor cum Technician: 1 Numbers
 Minimum Experience & Education:- 10 years of experience in operation and maintenance of HVAC system with chillar, AHU's and cooling towers with Diploma in Engineering in Electrical or Mechanical.

ii) Technician 3Numbers
 Minimum Experience & Education: 5 yrs experience in operation and maintenance of HVAC System with ITI in refrigeration or Air-conditioning.

iii) Helper 4 numbers
 Minimum Experience & Education: 2 years experience in operation and maintenance of HVAC System.

19. In case of un-availability of the supervisor and staff, the contractor shall make alternate arrangements well in advance.

20. All the members of operation & maintenance team should be available on mobile phone at any point of time. They shall be provided with all necessary tools & equipped with safety items by the contractor. The details of the tools which is expected to be readily available with the staff is as under:-

No.	S. Description	Qty
1.	Digital thermometer	04
2.	Torch	02
3.	Folding ladder	02
4.	'L' end key set	01 set
5.	Pressure gauge	01 set
6.	Multifunction Tong tester	02
7.	Plier, Screw Driver, Line tester, insulation	1 set, with each

	tape etc.	operator
8.	Screw driver set	1set
9.	Contactless thermometer	1
10.	Ladder	3
11.	Any item required for smooth functioning	

22. The firm will submit the Daily Report having the details regarding energy consumption, complaints during the day and action taken, spares consumed, maintenance carried out etc.
23. The firm will submit the Monthly Report incorporating the detail regarding energy consumption during the month, monthly cost comparison, complaint summary, preventive maintenance detail, work done during the month, areas of concern, breakdown till date, material/ spares consumed etc.
24. The firm will submit the Annual Report having consolidated data for entire year including, comparison for energy consumption, energy cost, spares consumption/ cost, complaint / breakdown analysis maintenance work analysis and recommendation for repairs/ modification / upgrade.
25. The scope of work also includes Cleaning of cooling tower sump. Any other such works in the pumps, compressor which shall be required to keep the plant in good working condition by specialized trained persons. Daily cleaning of AC Plant Room, AHU's rooms.
26. The contractor will have to ensure the following inside condition.
- a) Summer & Monsoon $24^{\circ}\text{C} \pm 01^{\circ}\text{C DB}$
- b) Winter $21^{\circ}\text{C} \pm 01^{\circ}\text{C DB}$
- The penalty of Rs. 300/- per hour per location will be levied if the inside conditions are not maintained for more than 2 hours on account of improper maintenance / operation of the plant.
27. The Contractor will have to ensure that Air Conditioning plant, heating plant and all the AHU's, FCU's are maintained in proper working condition. In case of any break down in Plants, Electrical panel etc. the same shall have to be attended immediately.
28. The contractor shall furnish name & contact number of the person, who should be contacted during emergency.
29. Any staff found missing from duty shall be marked absent and recovery shall be made for the day at the rates given below. (It is the responsibility of the contractor to make alternative arrangement, in case any staff proceeds on leave/ for reliever duty), on failure, the recovery shall be made from bill at the rate given below:-
- a) Technician/Supervisor - 1500 per day
- b) Khallasi - 1000 per day
30. All the cleaning material i.e. soap, duster etc. shall be arranged by the contractor at his own cost. If cleaning of installation is found unsatisfactory at any time, a recovery of Rs. 200/- per occasion shall be made.

31. The all type log books, worker diary etc. provided by the contractor at his own cost.
32. No T & P shall be issued to the contractor.
33. The contractor shall replace the staff, in the event of misconduct by him.
34. The contractor shall maintain "attendance register" in support of the attendance of the staff and the same shall be got periodically checked from concerned JE (E)/ AE (E).
35. The contractor shall prepare a "fortnightly" duty chart with names and duty hours stated therein. The same shall be submitted to the concerned JE (E)/ AE (E) at least seven days in advance.
36. The contractor is bound to distribute the salary / wages to his worker 7th of each month, positively, by cheque or ECS as feasible and the contractor has to furnish a certificate to this effect duly verified by AE (E) and JE (E). In the absence of this certificate, no payment shall be made / released
37. The contractor shall take all precaution for safety of the workmen. If any accident/mis-happening occurs, the department shall not be responsible for the same. Consequently any compensation payable shall be at the contractor cost.
38. The contractor shall provide uniform along the badge within 15 days of start of work. In the event of no-compliance a recovery of Rs 150/- per day per employee shall be made.
39. Payment to the contractor shall be made, on monthly basis after production of following proof.
 - a) Documentary proof of disbursement of wages to the workers in form of copy of passbook/bank statement of worker.
 - b) Copy of relevant period attendance register.
 - c) Copy of identity card of the staff deployed.
40. The agency will check and intimate leakages in chilled water line, valves and carryout maintenance/repair.
However the cost of pipe, valves shall be borne by University or material will be supplied free of cost. The type of material/valves required including tentative cost shall be provided by agency. The cost of labour/machinery and other operation including insulation etc involved in replacement is deemed to be included in maintenance cost, including digging, excavation and making good.
41. The agency will carryout following activities:
 - 1) Daily cleaning of AC plant room, AHU's
 - 2) Checking of pipeline, pumps, cooling towers, AHU's, FCU's, CSU's etc. for leakage/malfair and report
 - 3) Taking temperature reading of AC areas do adjustments as required.
 - 4) Cleaning of filter, damper, grills.
 - 5) Recording various parameters related to chiller, panels, pumps and HVAC equipment.
 - 6) To check the seepage/leakage in chilled line due to condensation etc.
42. The agency will submit reports of its servicing, inspections preventing maintenance etc related to entire installation on monthly basis.
43. The agency will depute service engineer on fortnight basis during the summer session to check all the electrical Panel including termination, control panel, chiller, cooling tower etc and furnished

certificate regarding health and fitness of the system to ensure trouble free operation. In winter session Dec. to March. The visit of service engineer shall be on monthly basis.

44. In case main contractor deposes the labour contractor for operation of HVAC plant, the labour contractor shall also comply the relevant labour laws failing which the main contractor shall be held responsible for default of labour laws.

INVENTORY FOR OPERATION & Maintenance WORKS

S.No.	DESCRIPTION OF ITEM	UNIT	Total Qty. for operation & maintenance (HVAC)
Part-I HIGH SIDE WORKS			
PART-A :Plant Room& Piping			
1	Chilling Units		
	Operation and maintenance of water cooled Screw chiller completed with rotary screw compressor, squirrel case induction motor, water cooled condenser, chiller, microprocessor based control system, Electrical Panel with closed transition type automatic star delta starter suitable for compressor motor with necessary protections, mounting frame works, etc. suitable for 50HZ.3PH,415±10% A.C. supporting Structure with base plate, anti vibration mounting. interconnecting refrigerant piping, fittings. safety valves, duly charged with Gas R-134a refrigerant, compressor oil etc.	Nos.	4
2	Hot Water Boilers		
	Operation and maintenance of Hot Water Boiler of package type with M.S. shell heaters, electric Control Panels, control Safety, control Pressure gauge, thermometer, insulation, (T.F. quality) complete with fittings and accessories complete with bus duct of 800 Amps. capacity and as required 399 KW.	Nos.	2
3	Cooling Towers		
	Operation and maintenance of FRP cooling towers of 425 TR (1600000 Kcal/Hr.), heat rejection capacity with FRP water basin PVC filling with integral louvers and drift eliminators complete with hot water basin either fitted with self rotating sprinklers, statically and dynamically balanced axial flow fan direct driven through reduction gear box with TEFC induction motor, suction screen make up-quick fill arrangement overflow and drain connection with necessary valves and suitable inspection ladder access arrangement cooling tower interior, cement concrete foundation, steel/ masonry supporting structure etc complete.	Nos.	4
4	Pumps		
4.1	Primary Chilled Water Pumps		
	Operation and maintenance of split casig primary chilled water pump set capable of delivering 3200 LPM of water against 12 M Head, 15 HP Motor, 1500 rpm for primary chilled water pumps	Nos.	5
4.2	Split casigo secondary chilled water pump set	Nos	3
4.3	Operation and maintenance of split casual Condenser water pumps		
	set capable of delivering 5100 LPM of water against 22 M Head, 40 HP Motor, 1500 rpm for Condenser water pumps	Nos.	5
5	Butterfly Valves (Operation and maintenance)		
5.1	350 mm dia	Nos	2
5.2	250 mm dia	Nos	3
5.3	200 mm dia	Nos	13
6	Balancing Valves (Operation and maintenance)		
6.1	250 mm dia	Nos	3

6.2	200 mm dia	Nos	9
7	Non-Return Valve (Operation and maintenance)		
7.1	200 mm Dia	Nos	5
71	250 mm dia	Nos.	3
8	Suction guide cum strainer (Operation and maintenance)		
8.1	200 mm	Nos	5
8.2	250 mm	Nos	3
8.3	Flow switches	No.	6
9	Condenser Water Pipe & Valves		
9.1	Butterfly Valves (Operation and maintenance)		
9.20	450 mm	No.	3
9.3	250 mm	No	17
9.40	80 mm dia	No	3
10	Balancing Valves (Operation and maintenance)		
	250 mm	No.	13
11	Non Return Valves (Operation and maintenance)		
	Non-return valves completed with companion flanges, nut, bolt, gasket , supports e		
	250 mm	Nos.	5
12	Suction guide cum strainer (Operation and maintenance)		
12.1	250 mm	No	5
13	POT Strainer (Operation and maintenance)		
13.1	450 mm	No	1
14	Operation and maintenance of the followings.		
14.1	Pressure gauge with U-tube & siphone cock	No.	20
14.2	Thermometers	No.	20
14.3	Flow Switch	No.	4
15	Chilled Water Expansion Tank (Operation and Maintenance)		
	Operation and maintenance of 4.75mm thick MS closed type pressurized expansion tank with 6.3mm thick air separator duly/insulated with 75 mm thick expended polystyrene, finished with 0.5 mm thickly minimum sheet clading etc		
	Capacity 7E D litres with Air Separator suitable to handle 12800 LPM water flow	No	1
16	Exhaust Fan (Operation and maintenance)		
	Axila flow fan completed with motor, supporting frame with bird screen,louvers, MS plate and MS Structure etc. complete.		
16.1	20000 CMF 15 MMWG, 3.7 KW	No.	4
16.2	10000 CMF , 10 MMWG, 1.1 KW	No.	4
	Part B Electrical 'works		
	Electrical control panel		
1	Main A. C. Panel	No.	1
2	BUS Duct		
	Operation and maintenance of following rating BUS Duct, totally enclosed, low impudence dust and vermin proof with IP42 protection indoor mounting, 1.6 mm thick CRCA sheet steel with aluminium bus bar rated for insulation voltage of 1000V to withstand fault level 35 KA for one second including the cost of 2Nos., 25X6mm GI earthing strip, fire barriers, elbows, expansion joint, end covers and termination at both end, flexible connections etc as well as suitable brackets to fix the bus duct complete		

2.1	800A TP (For chiller)	RM	64.1 4
2.2	800A TPN (For Boiler)	RM	49.7 6
3	Weather Proof Isolators for cooling tower (Operation and maintenance)		
	32 Amps. pole isolator for cooling towers near cooling towers	No.	8
	Part II: Low Side Works		
	Part -II-A Equipments (Operation and maintenance)		
1	Vertical pumps		
^{1.2}	Tertiary zonal chilled water pumpset of 2356 LPM (620 GPM) at 15 M head, 11 KW motor (1 st. by) SBT	No.	2
1.3	Tertiary zonal chilled water pumpset of 1558 LPM (410 GPM) at 15 M head, 5.5 KW motor (1 st. by) SCT	No.	2
^{1.4}	Tertiary zonal chilled water pumpset of 1976 LPM (520 GPM) at 15 M head, 7.5 KW motor (1 st. by) SLLS	No.	2
1.5	Tertiary zonal chilled water pumpset of 1710 LPM (450 GPM) at 15 M head, 7.5 KW motor (1 st. by) ADMINISTRATION	No.	2
	Tertiary zonal chilled water pumpset of 1976 LPM (520 GPM) at 15 M head, 7.5 KW motor (1 st. by) LIBRARY	No	2
1.6	Tertiary zonal chilled water pumpset of 2356 LPM (620 GPM) at 15 M head, 11 KW motor (1 st. by) SMS	No.	2
1.7	Tertiary zonal chilled water pumpset of 1976 LPM (520 GPM) at 15 M head, 7.5 KW motor (1 st. by) SIT	No.	2
2	AIR Handling Units (Double Skin Type)		
	(Operator and maintenance) of Double Skin sheet metal Air Handling Units as per Specification		
2.1	40 MM static pr. 24480 CMH, HFM type	Nos.	2
2.2	40 MM static pr. 21250 CMH, HFM type	Nos.	2
2.3	50 MM static pr. 18700 CMH, HFM type	Nos.	2
2.4	50 MM static pr. 17000 CMH, HFM type	Nos.	10
2.5	50 MM static pr. 15300 CMH, HFM type	Nos.	1
2.6	50 MM static pr. 12240 CMH, HFM type	Nos.	1
2.7	40 MM static pr. 6800 CMH, VFM type	Nos.	27
2.8	40 MM static pr. 5100 CMH, VFM type	Nos.	35
2.9	40 MM static pr. 5100 CMH, CSU type	Nos.	2
2.10	30 MM static pr. 4250 CMH, VFM type	Nos	4
2.11	30 MM static pr. 3400 CMH, VFM type	Nos	18
2.12	30 MM static pr. 3400 CMH, CSU type	Nos	5
2.13	25 MM static pr. 2720 CMH, CSU type	Nos	11
2.14	25 MM static pr. 2720 CMH, VFM type	Nos	2
2.15	25 MM static pr. 1700 CMH, CSU type	Nos.	27
3	Fan Coil Units		
	Operation and maintenance of ceiling mounted horizontal type fan coil Units	Nos.	88
4	Butterfly Valves (Operation and maintenance)		
4.1	150 MM dia	Nos.	16
4.2	125 mm dia	Nos	2
4.3	100 mm dia	Nos.	11

4.4	80 mm dia	Nos.	19
4.5	65 mm dia	Nos.	20
4.6	50 mm dia	Nos	82
5	Balancing valves (Operation and maintenance)		
5.1	150 mm dia	Nos.	14
5.2	125 mm dia	Nos.	2
5.3	100 mm dia	Nos.	11
5.4	80 mm dia	Nos.	15
5.5	65 mm dia	Nos.	23
5.6	50 mm dia	Nos.	30
5.7	40 mm dia	Nos.	41
6	Non Return Valve (Operation and maintenance)		
6.1	150 mm dia	Nos	12
6.2	125 mm dia	Nos.	2
7	Suction guide cum strainer (Operation and maintenance)		
7.1	150 mm dia	Nos.	8
7.2	125 mm dia	Nos.	2
	Operation and maintenance of the followings.		
8	Pressure Gauge with U-tube siphone cock	Nos	202
9	Thermometers	Nos.	229
10	Automatic air vents	Nos.	61
11	Ball valves (Operation and maintenance)		181
11.1	32 mm dia	Nos.	72
11.2	25 mm dia	Nos.	223
11.3	15 MM dia	Nos.	66
12	3/2-way motorized control valves (Operation and maintenance)		
12.1	150 mm dia 2-way)	No.	6
12.2	125 mm dia 2-way)	No	1
12.3	80 mm dia (3 -way)	No.	3
12.4	65 mm dia (3 -way)	No.	15
12.5	50 mm dia (3 -way)	No	26
12.6	40 mm dia (3 -way)	No.	42
12.7	32 mm dia (3 -way)	No	36
12.8	25 mm dia (3 -way)	No	115
13	Heating/cooling thermostat	No.	237
Part -11-D- ELECTRICAL WORKS (Operation and maintenance)			
1	AHU electrical panels	Set	154
2	Control console type-1	Set	1
3	Control console type-2	Set	5
4	Chilled Water - Piping-Over Ground	Lot	1
5	Chilled Water - Piping-Under Ground	Lot	1
6	Chilled Water - Piping-Inside Building	Lot	1
7	Condenser Water piping	Lot	1
8	Ducting with insulation		

Schedule of Quantities

Name of Work: RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: Annual operation and Comprehensive Maintenance of Heating ventilation Air-conditioning System (HVAC) at GGSIPU, Dwarka during 2018-19

S. No.	Description	Unit	Qty	Rate	Amount
1	Comprehensive maintenance including routine, preventive and breakdown maintenance and operation of complete HVAC system (both high side and low side) comprising equipments installed in air conditioning plant, AHU rooms, CSU, FCU including cooling towers, pumps, electrical panels, switch boards, ducting etc. as per inventory and scope/Schedule of operation and maintenance mentioned in this tender document to ensure functioning of HVAC system and maintain temperature as defined all complete as per terms and conditions and directions of Engineer-in-Charge.	Job per month	12.00		
	Total				

EE/UWD