

**INDIRA GANDHI NATIONAL OPEN UNIVERSITY**  
**CONSTRUCTION & MAINTENANCE DIVISION**  
**MAIDAN GARHI: NEW DELHI- 110 068**  
**NOTICE INVITING TENDER**

1. Item Rate tenders are invited on behalf of Vice Chancellor, IGNOU from approved and eligible contractors (and those of appropriate list of CPWD/PWD/DOT/DDA/DJB/BSNL/MES) & Specialized agencies for the work of "Operation & Comprehensive maintenance of 319TR package type air-Conditioning plants installed at EMPC building (Sanchar Kendra) IGNOU Campus, Maidan Garhi, New Delhi-68." (276.5TR water cooled electrical and 42.5TR air-cooled typed).
2. The enlistment of the contractor should be valid on the last date of sale of tenders.
3. In case only the last date of sale of tender is extended, the enlistment of contractor should be valid on the original date of sale of tenders.
4. In case both the last date of receipt of application and sale of tenders are extended, the enlistment of contractor should be valid on either of the two dates i.e. original date of sale of tender or the extended date of sale of tenders.
5. The work is estimated to cost ₹ 21,96,000/- (Rupees Twenty One Lac Ninety six thousand only). This estimate, however, is given merely as a rough guide.
6. The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NIT's for calling the tenders. He will also nominate Division, which will deal with all matters relating to the invitation of tenders. For composite tenders, besides indicating the combined estimated cost put to tender, should clearly indicate the estimated cost of each component separately. The eligibility of tenderer will correspond to the combined estimated cost of different components put to tender.
7. The tenders will be issued to eligible contractors provided they produce definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority of having satisfactorily completed similar works of magnitude as specified in the advertisement.
8. 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.
9. The time allowed for carrying out the work will be one year from the date of start as defined in the Schedule 'F' or from the first date of handing over the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.
10. The site for the work shall be made available in parts as specified below:  
  
Site is available.
11. Applications for issue of forms shall be received by ----- (2:30 PM) and tender documents shall be issued by Executive Engineer (E) (upto 2.30 p.m.). Tender documents consisting of plans, specifications, the schedule of quantities of various classes of work to be done and the set of terms and conditions of contract to be complied with by the contractor whose tender may be accepted and other necessary documents can be seen in the office of the Executive Engineer between hours of 11.00 a.m. & 4.00 p.m. from \_\_\_\_\_ to \_\_\_\_\_ everyday except on Saturdays/Sundays and Public Holidays. Tender documents, excluding standard form, will be issued from his office, during the hours specified above, on payment of ₹ 500/- in cash (non-refundable) as cost of tender.

12. Earnest Money of ₹ 43,920/- in shape of Pay Order/Demand Draft of a schedule Bank issued in favour of IGNOU, New Delhi should accompany the tender.
13. Tenders, which should always be placed in sealed envelope, with the name of work and due date written on the envelopes, will be received by the Executive Engineer (E) upto 3.00 p.m. on ----- and will be opened by him or his authorized representative in his office on the same day at 3.30 p.m.
14. 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 ₹ 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 ₹ 1,00,000/-) or Government securities of Fixed deposit receipts or Guarantee bonds of any Scheduled bank or the State Bank of India in accordance with the prescribed form.
15. Description of work is given at Page No. 1 may be seen. Copies of other drawings and documents pertaining to the works will be open for inspection by the tenderers at the office of the above mentioned officer. 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 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 plants etc will be issued to him by the IGNOU and local conditions other factors having a bearing on the execution of work.
16. The competent authority on behalf of Vice Chancellor, Indira Gandhi National Open University does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all tenders received without assignment of any reasons. All tenders in which any of the prescribed condition is not fulfilled or any conditions including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
17. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractor who resorts to canvassing will be liable to rejection.
18. The competent authority on behalf of Vice Chancellor, Indira Gandhi National Open University 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.
19. The contractor shall not be permitted to tender for work in IGNOU (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 grade of Suptd. 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 relative to any gazetted officer in the University. Any breach of this condition by the contractor would render him liable to be removed from the approved list of the contractors of this department.

20. No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering deptt. of the University is allowed to work as a contractor for a period of one year after his retirement from service, without the previous permission of the University authorities in writing. The contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such person who had not obtained the permission of the University as aforesaid before submission of the tender or engagement in the contractor's service.
21. 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 deptt, then the University shall, without 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.
22. This Notice Inviting Tender shall form a part of the contract document. The successful tenderer/contractor, on acceptance of his tender by the Accepting authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of :
- (a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
  - (b) Standard CPWD form 8.
23. For composite tenders
- (i) The tenderer must associate with himself agencies of the appropriate class eligible to tender for the other components individually.
  - (ii) It will be obligatory on the part of the tenderer to sign the tender document for all the components. (The schedule of quantities, conditions and special conditions etc).
  - (iii) After the work is awarded, the contractor will have to enter into separate agreements for each component with the officer concerned.
  - (iv) Executive Engineer in charge of minor component shall make interim payments in respect of minor component of work. Executive Engineer-In-charge of the major component shall make the payment against final bill of the composite work
  - (v) The Executive Engineer-In-charge of the major component will call tenders for the composite work. The cost of tender document and earnest money will be fixed with respect to the combined estimated cost put to tender for the composite tender. Security deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works. The earnest money will become part of the security deposit of the major component of work.
  - (vi) On acceptance of composite tender by the competent authority, the letter of award will be issued by the Executive Engineer-In-charge of the major component on behalf of Vice Chancellor, IGNOU, making it clear in the letter of award that the contractor will have to execute separate agreements for different components of work with the concerned officers of the respective discipline.

**EXECUTIVE ENGINEER (E)**  
**Engineer-In-charge**  
**For and on behalf of Vice Chancellor, IGNOU**

**INDIRA GANDHI NATIONAL OPEN UNIVERSITY  
CONSTRUCTION & MAINTENANCE DIVISION  
MAIDAN GARHI: NEW DELHI- 110 068**

**Item Rate Tender**

(A) Tender for the work of **Operation & comprehensive maintenance of 319TR package type air- conditioning plants installed at EMPC building (Sanchar Kendra), IGNOU Campus, Maidan Garhi, New Delhi-68. (276.5TR water cooled and 42.5TR air-cooled typed).**

- (i) To be submitted by 3.00 p.m. on \_\_\_\_\_
- (ii) To be opened in presence of tenderers who may be present at 3.30 p.m. \_\_\_\_\_ in the office of the Executive Engineer (E).

Issued to \_\_\_\_\_

Signature of the officer issuing the documents \_\_\_\_\_

Date of issue \_\_\_\_\_

**TENDER**

I/We have read and examined the Notice Inviting Tender schedule A, B, C, D, E & F. Specifications applicable, drawings and design, General Rules and Directions of contract, clauses of contract, special conditions, Schedule of Rate and other contents in the tender document for the work.

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

I/We agree to keep the tender open for ninety (90) days from the due date of its opening and not to make any modifications in its terms and conditions.

A sum of ₹ 43,920/- has been deposited in Pay order/Demand Draft of a scheduled bank as earnest money. If I/We fail to furnish the prescribed Performance guarantee within prescribed period, I/We agree that the said Vice Chancellor, IGNOU 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 Vice Chancellor, IGNOU 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 clauses of the tender form.

Further, I/We agree that in case of forfeiture of earnest money or both earnest money and Performance guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work. 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 satisfy of the state.

Dated:

Signature and address of the contractor

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 Vice Chancellor, IGNOU for a sum of ₹\_\_\_\_\_ (Rupees

The letters referred to below shall form part of this contract Agreement.

(a)

(b)

(c)

For and on behalf of Vice Chancellor, IGNOU

Signature and Designation

## SCHEDULE 'F'

Reference to General conditions of the contract.

Name of work: - **Operation & comprehensive maintenance of 319TR package type air-conditioning plants installed at EMPC building (Sanchar Kendra) IGNOU, Campus, Maidan Garhi, New Delhi-68. (276.5TR water cooled and 42.5TR air-cooled typed).**

Estimated cost of work	₹ 21,96,000/-
Earnest Money	₹ 43,920/-
Performance Guarantee:	5% of tendered value
Security deposit	5% of tendered value

### General Rules & Directions

Officer Inviting tender	Executive Engineer (E), IGNOU
Maximum percentage for quantity of items of work to be Executed beyond which rates are to be determined in Accordance with Clauses 12.2 and 12.3	30%

### Definitions

2(i) Engineer Incharge	Executive Engineer (E), IGNOU
2(ii) Accepting Authority	VC (IGNOU)
2(iii) Percentage on cost of material and labour to cover all overheads and profits	15%
2(iv) Standard Schedule of Rates	Market Rates
2(v) Department	CMD (IGNOU)
9(vi) Standard CPWD contract form	CPWD form 8 as Modified upto date

### Clause-1

(i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	15days
(ii) Maximum allowable extension beyond the period provided in 1 (i) above	10 days

### Clause-2

Authority for fixing compensation under clause-2	VC (IGNOU)
--------------------------------------------------	------------

**Clause-2 A**

Whether clause 2-A shall be applicable.

NO

**Clause 5**Number of days from the date of issue of letter of acceptance  
For reckoning date of start

10 days

Mile stone (s) as per table given below:

**Table of Mile Stone(s)**

S.N.	Description of Milestone (Physical)	Time allowed in days (from dt of start)	Amount to be withheld in case of non-achievement of milestone
1.	NA	NA	NA
2.	NA	NA	NA
3.	NA	NA	NA

Time allowed for execution of work

One year

**Clause 6,6A**

Clause applicable 6 or 6A

6

**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

NA

**Clause-10A**

List of testing equipments to be provided by the contractor at site lab

1. \_\_\_\_\_ NA \_\_\_\_\_

2. \_\_\_\_\_ NA \_\_\_\_\_

3. \_\_\_\_\_ NA \_\_\_\_\_

4. \_\_\_\_\_ NA \_\_\_\_\_

**Clause-10B**

Whether clause 10-B (ii) shall be applicable

No

**Cause-10 CA**

Material covered under this clause	Nearest material for which All India wholesale price index is to be followed
1. NA	NA
2. NA	NA
3. NA	NA

**Clause-10CC**

Clause 10-CC to be applicable in contract with stipulated period of completion exceeding the period shown in next column

NA

**Clause-11**

Specification to be followed for execution of work

As Per CPWD general specifications Electrical works part-I & II 2007 part-IV (sub-station) & Air-Conditioning amended upto date i/c scope of work & Special conditions of Tender

**Clause-12**

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

30%

12.5 Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation work.

N.A

**Clause-16**

Competent authority for deciding reduce rates

VC (IGNOU)

**Clause-18**

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

As per site requirement

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_

**Clause 36 (i)**

Requirement of Technical Representative(s) and recovery rates

S.N	Minimum Qualification of Technical Representative	Discipline	Description (Principal Technical/ Technical Representative)	Minimum Experience	Number	Rate of recovery shall be made from the contractor in the event of not fulfilling provisions of clause 36(i)	
						Figure	Words
1	Graduate Engineer	E/M		Nil	1	₹ 10,000/-	Ten Thousand
2	Or Diploma Engineer	E/M		5Yrs	-do-	-do-	-do-

Assistant Engineers retired from Govt services that are holding Diploma will be treated at Par with Graduate Engineers.



**Clause-42**

- (i) (a) Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of DSR 2007 printed by CPWD.
- (ii) Variations permissible on theoretical quantities.
  - (a) Cement for works with estimated cost put to tender not more than ₹ 5 lakh  
  
for works with estimated cost put to tender more than ₹ 5 Lakh
  - (b) Bitumen all works
  - © Steel reinforcement and structural steel sections for each diameter, section and category
  - (d) All other material

} N.A

**RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION**

S.N.	Description of item	Rate in figures and words at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	Less use beyond the permissible variation
1	Cement	-N.A-	-N.A-
2	Steel Reinforcement		
3	Structural sections		
4	Bitumen issued free		
5.	Bitumen issued at stipulated fixed price		

## **Notice Inviting Tender**

**Name of Work** : **Operation & Comprehensive maintenance of 319 TR package type air-conditioning plants installed at EMPC building (Sanchar Kendra), IGNOU Campus, Maidan Garhi, New Delhi-68. (276.5TR water cooled and 42.5TR air-cooled typed).**

**Estimated Cost** : **₹ 21,96,000/-**

**Earnest Money** : **₹ 43,920/-**

**Performance Guarantee** : **5% of tendered cost**

**Period of Contract** : **One year**

**Certified that this NIT contains\_\_\_\_\_ pages.**

**Executive Engineer (E)**

**INDIRA GANDHI NATIONAL OPEN UNIVERSITY  
CONSTRUCTION & MAINTENANCE DIVISION  
MAIDAN GARHI, NEW DELHI  
NOTICE INVITING TENDER**

The Executive Engineer (E) Construction Maintenance Division invites on behalf of Vice-Chancellor, Indira Gandhi National Open University, sealed item rate tenders for the following work from the approved and eligible contractors those of appropriate class of CPWD/PWD/DOT/DDA/DJB/BSNL/MES & specialized agencies who have already executed at least one similar work costing 80% or two similar works costing 60% each or three similar works costing 40% each of estimated cost during the last Five years. The tenders will be sold only on production of Original Registration, Electrical licence, PAN No., TIN No., Service tax, latest paid challan of VAT, ESI & EPF (if registered) and proof for satisfactory completion of similar works duly certified by the competent authority of the client department.

Name of Work	Estimated Cost (in ₹)	Earnest Money (in ₹)	Cost of Tender (in ₹) N/R	Last date of receipt & sale of Tender	Date of Opening of tender	Time Allowed
<b>Operation &amp; comprehensive maintenance of 319TR package type air-conditioning plants installed at EMPC building (Sanchar Kendra), IGNOU Campus, Maidan Garhi, New Delhi-68 (276.5TR water cooled and 42.5TR air-cooled typed)</b>	<b>21,96,000/-</b>	<b>43,920/-</b>	<b>500/-</b>	<b>23.02.2015</b>	<b>25.02.2015</b>	<b>One Year</b>

Tender documents can be obtained from the office of the undersigned, Construction & Maintenance Division Indira Gandhi National Open University, Maidan Garhi, New Delhi-68 on any working day upto 2.30 pm on the date given above. The time for submission of Tenders are upto 3.00 pm which shall be opened on the same day at 3.30 pm on the date given above. The undersigned reserves the right to accept or reject any or all tenders without assigning any reason.

**Note:- The tender documents in the website are for information only. Downloaded tender documents will not be considered for bidding. The contractor shall quote their rates in the NIT issued by the department only. If rates quoted in other form will not be considered. Contractors/Agencies have to act as per above NIT.**

**(U. P. Sharma)**  
**Executive Engineer (E)**

## NOTE

In this Agreement wherever the word mentioned under Column 'A' appear the same may be construed to mean the word opposite to it in Column 'B' except for CPWD Contractor Labour Regulation, CPWD Safety Code, CPWD Specification and Delhi Schedule of Rates CPWD.

**'A'**

**'B'**

Central PWD, CPWD

Indira Gandhi National Open University

President of India

Vice –Chancellor, IGNOU

Chief Engineer

Chief Project Officer, IGNOU

Superintending Engineer

Chief Project Officer, IGNOU

Divisional Officer)  
Engineer In charge)

Executive Engineer (E), CMD, IGNOU

Sub-Divisional Officer

Assistant Executive Engineer (E), CMD, IGNOU

**Estimated Cost: Rs.21,96,000/-**

**Earnest Money Deposit: Rs.43,920/- (Demand Draft/Pay order only in favour of IGNOU)**

**Time Allowed: One Year**

**Issued to:-**

**Date of opening:-**

**Name of Work:** Operation & Comprehensive Maintenance of 319 TR Packaged type Air Conditioning Plants installed at EMPC Building (Sanchar Kendra), IGNOU Campus, Maidan Garhi, New Delhi.(276.5 TR Water cooled and 42.5 TR Air Cooled typed)

S.N.	Description	Quantity	Unit	Rate	Amount
1.	Comprehensive maintenance of package type Air-Conditioning units of different capacities, makes and installed at various locations within the EMPC building at IGNOU campus as per scope of work and equipment details enclosed (Annexure 'A' and 'B').Total plant capacity being 319 TR (276.5 TR Water cooled &42.5 TR air cooled typed).	12 Months	Month		
2.	Operation of package type Air-Conditioning units (as described in item No. 1 above) of different capacities, makes and installed at various locations within the EMPC building at IGNOU Campus in the General shift (9.00 AM to 6.00 PM) on all days except Sunday and National Holidays by deputing 04 Nos. A.C plant operators and 02 Nos. helpers.	12 Months	Month		
3.	Operation of Air-Conditioning units beyond the specified timing as per above item No.-2 by deputing 02 Nos. AC plant Operator and 01 No. Helper.	2,000 hrs.	Hrs.		

4.	% Increase / decrease for 2 <sup>nd</sup> year AMC	R/O	_____ %	Increase /decrease of 1 <sup>st</sup> year AMC (Please tick the appropriate option & fill in the blank of % colour).	
----	----------------------------------------------------	-----	---------	----------------------------------------------------------------------------------------------------------------------------	--

**(U.P.SHARMA)**  
**Executive Engineer (E)**

## Scope of work

### ANNEXURE 'A'

Name of work: Operation and Comprehensive Maintenance of 319TR Package type Air-Conditioning Plants installed at EMPC Building (Sanchar Kendra), IGNOU Campus Maidan Garhi, New Delhi. (276.5TR Water Cooled & 42.5TR Air Cooled typed).

Scope of Work : The following works shall carried out as per schedule by the contractor within their quoted rates.

1. Deputing requisite technically qualified staff as in the schedule for satisfactory operation of the plant. Spares consumables etc. required to be provided by the contractor for the purpose.
2. The compressors have to be thoroughly checked for its proper functioning. All the spare parts required shall be supplied by the contractor i.e oil refrigerant gas etc. whenever required. Periodical servicing of the compressor have to be done for smooth functioning & less failure. Nothing extra will be paid for this purpose.
3. Leak testing of the entire refrigeration system and topping up refrigerant gas as & when required shall be done by the agency.
4. All electrical starter & motors i/c other safety devices /control devices for the proper functioning of entire AC system to be checked periodically and any repair/spares needed shall be supplied & fixed without any extra charge.
5. All electrical feeders in different electric panels for the operation of AC plant i/c control; panels etc. are to checked periodically and any repair/spare need shall be supplied & fixed.
6. Periodically testing i/c replacement of safety controls if required such as LP,HP & OP cutouts solenoid valve, thermostat, flow switches and humid stat.
7. Checking for correctness of pressure gauges and thermometers for pumps & in the pipe lines and if required shall be replaced by the contractor.
8. Cleaning of evaporate fan's, coils, filters, Y-strainers with providing cleaning solution as per site requirement/direction of Engineer-in-charge.
9. Periodically Cleaning of Condenser coils, evaporative coils, cooling tower fins, nozzles of sprinklers balancing valves, NRV's & repair/replacement of the same if required for satisfactory operation of the plant as per direction of Engineer-in-charge.
10. Changing of pump/motor bearings i/c greasing as well as repair of blower motor replacement of V belts in blower motor etc. as and when required.
11. To check as well as replacement of strip heaters i/c their controls as and when required.
12. To check all controls such as thermostat humidity stat fire dampers etc. i/c replacement of parts as and when required.

13. Repair/Replacement of water pipe line fitting valves and accessories as and when required.
14. Repair/Replacement leakages in condenser/evaporation coil if required, to be done as and when required.
15. Repair to minor leakages in the water pipelines as and when required to be done by the contractor.
16. Periodically decaling of the plant with providing necessary cleaning solution and arranging machine tools at site for smooth functioning of the AC plant.
17. Painting to all exposed pipelines, i/c cooling towers & motor foundation base once during the contract period i/c replacement of PVC fills from the cooling tower as & when required for satisfactory operation of the plant.
18. Measuring/Recording temperatures of the air-conditioning areas in the logbooks in every 4 hours interval. All items required for this purpose shall have to be arranged by the contractor.
19. Replacement of Pre-filters in the evaporative coils as & when required as per direction of Engineer incharge.

The following works are not covered in the scope of work.

- (i) Replacement/modification to water piping, sheet metal ducting grills/diffusers masonry work, carpenter work reference to existing air-conditioning system.
- (ii) Replacement/modification of electrical cabling electrical switch boards/panels.
- (iii) Repair/replacement of insulation, false ceiling works.
- (iv) Replacement of any major equipment such as compressor, condenser, pumps, motor, cooling tower, PAC units as a whole.

## Annexure 'B'

### EQUIPMENT DETAILS

Name of Work: Operation and Comprehensive Maintenance of 319TR Package type Air-Conditioning Plants installed at EMPC Building (Sanchar Kendra), IGNOU Campus, Maidan Garhi New Delhi. (276.5TR Water Cooled & 42.5TR Air Cooled Typed).

<b>A. Cooling Tower</b>	
(i) Cooling Tower Model No. CM-9, Mihir Make (175 TR Each)	02 Nos.
(ii) Cooling Tower Model No. CM-1, Mihir Make (25 TR)	01 No.
(iii) CT Fan Motor Kirloskar make <u>5.5KW/700r.p.m.</u> AC 7.5 HP 415 volts	02 Nos.
(iv) CT Fan Motor Kirloskar mak <u>1.5KW/1500r.p.m.</u> 2 HP 415 volts AC	01 No.
<b>B. Condenser Water Pump</b>	
(i) CD Pump, kirloskar make <u>18.5KW/2940 r.p.m.</u> 25 HP 415 Volts AC	03 Nos.
(ii) CD Pump, kirloskar make <u>5.5KW/2900 r.p.m.</u> 7.5 HP 415 Volts	02 Nos.
	04 Nos.
<b>C. (i) Main Electric Panel in main AC machine room (G/F) with all switch Gear for incoming and outgoing to individual feeder panels for AC package units only</b>	01 No.
(ii) Main electric Panel with switch gears etc. for future extension of AC Package Units.	02 Nos.
(b) Electric Feeder Panel	02 Nos.
<b>D. Control Panel for AC Package Units</b>	07 Nos.
Control Console (Security & Library room)	02 Nos.
<b>E. Air Cooled Condenser of Capacity 7.5/10 TR</b>	07 Nos.
<b>F. Gate Valves, Strainer etc. approx, quantity</b>	
(i) Butterfly valve 65 mm	20 Nos.
(ii) Butterfly valve 50 mm	16 Nos.
(iii) Butterfly valve 40 mm	08 Nos.
(iv) Butterfly valve 32 mm	11 Nos.
(v) Butterfly valve 20 mm	06 Nos.
(vi) GV 15 mm	02 Nos.
(vii) Butterfly valves 150 mm	10 Nos.
(viii) Butterfly valves 65 mm	02 Nos.
(ix) Butterfly valves 50 mm	04 Nos.
(x) Y-Strainer 150 mm	03 Nos.
(xi) Y-Strainer 50 mm	02 No.



<b>G. First Operational Point (Main A/C machine room, ground floor) with all accessories</b>					
Unit	Make	Capacity	Qty.	Total Capacity	
Package Type	Kirloskar	10 TR	03 Nos.	30 TR	52.5 TR Water Cooled
Package Type	Kirloskar	15 TR	01 Nos.	15 TR	
Package Type	Kirloskar	7.5 TR	01Nos.	7.5 TR	
<b>H. Second Operational Point (Main A/C machine room, first floor) with all accessories</b>					
Package Type	Kirloskar	15TR	06Nos.	90 TR	Water Cooled
<b>I. Third Operational Point (Ground Floor) with all accessories</b>					
Package Type	Voltage	06 TR	04Nos.	24TR	79 TR Water Cooled
Package Type	Kirloskar	15 TR	03 Nos.	45 TR	
Package Type	Kirloskar	10 TR	01Nos.	10TR	
a. Machine Room No-1	Kirloskar	10 TR 15 TR	01Nos. 01 Nos.	10TR 15 TR } = 25TR	
b. Machine Room No-2	Kirloskar	15 TR	02 Nos.	30 TR	
c. Machine Room No-5	Kirloskar	06 TR	04 Nos.	24 TR	
<b>J. Fourth Operational Point (First Floor)</b>					
Package Type	Kirloskar	15 TR	03 Nos.	45 TR	55 TR Water Cooled
Package Type	Kirloskar	10 TR	01 Nos.	10 TR	
a. Machine Room No-3		15 TR 10 TR	01 Nos. 01 Nos.	15 TR 10 TR } = 25TR	
b. Machine Room No-4		15 TR	02 Nos.	30 TR	
<b>K. Fifth Operational Point (First floor, adjacent to future extension room (North &amp; South) With all accessories</b>					
Package Unit	Blue Star	7.5 TR	03 Nos.	22.5 TR Air Cooled	=42.5 TR Air Cooled
Package Unit	Voltas	10 TR	02 Nos.	20 TR Air Cooled	

**Name of work:- Operation & Comprehensive Maintenance of 319TR Package type Air-Conditioning Plants installed at EMPC Building ( Sanchar Kendra ), IGNOU Campus, Maidan Garhi, New Delhi. ( 276.5TR Water Cooled and 42.5TR Air Cooled typed)**

**SPECIFICATION & SPECIAL CONDITIONS:-**

1. Before tendering for work the contractor shall acquaint himself about the general conditions of existing Air-Conditioning plants with packaged units at Sanchar Kendra, IGNOU Campus. No claim on account of cartage of spare parts, Engineering staff including machines and incidental thereof shall be entertained by the University. The contractor has to maintain & operator the A.C. plant as per detailed in Annexure 'A' & 'B' of the tender & scope of work.
2. The Contractor shall operate the plant deputing their technically qualified staff as bellow:
  - a. Mechanic-cum operator -04 Nos. (In General shift)
  - b. Khallasi/Helper -02 Nos. (In General shift)
3. The maximum time allowed for the repair of a Unit (Except compressor) shall be 2 days from the date of its getting out of order. In case, the contractor fails to repair the same within stipulated period of 2 days, the University shall levy penalty of Rs.1000/- per day for the period the Air-Conditioning unit remain out of order, maximum for a period of 07 days.
4. In case of absence of the specified staff as in the tender a penalty will be levied from the contractor as below:
  - a. Mechanic -cum-operator -@Rs. 500/- per day
  - b. Khallasi/Helper -@Rs. 350/- per day
5. The operator shall have to record the temperature of the air-conditioning zones/areas in prescribed logbook every 4 hours intervals. The logbooks, register thermometer etc. required for the purpose shall be arranged by the contractor with in the quoted rates.
6. The repair of the compressor as and when required during the contract period shall be got done from reputed and reliable agency with the approval of EE(E). The maximum time allowed for repair of the same shall be 10 days from the date of its getting out of order. In case the contractor fails to repair the same within the stipulated period of 10 days the University shall levy penalty of Rs.2000/- per day for the period the compressor remain out of order, maximum for a period of 15 days & University will get the same rectified at the risk & cost of contractor.
7. In the first 3 days of the commencement of contract period the Air-conditioning system and the associated equipments will be handed over to the agency in working condition. The contractor will test the same in the presence of Engineer-in-charge or his representative for further maintenance & operation under their custody till the period of contract.
8. In order to avoid delay in the repair of the equipments/installations contractor shall keep petty items/parts ready in advance at site. In case contractor fails to provide the requisite spare parts, the University shall provide the same at his risk and cost.

9. If during the execution of work, any building, door, road, path, machines, appliances and fixtures and fittings get damaged or broken by the contractor then the same shall be rectified by the contractor else otherwise, department will be rectified at the contractor's risk & cost.
10. The AC plant operate in odd hrs & holidays as given in the tender, the contractor has to maintain the record for such operation. Prior permission from Engineer-in-charge for this purpose is to be obtained.
11. The contractor shall be fully responsible to maintain the labour laws for the subject work.
12. The work shall be carried out as per CPWD specifications for electrical Part I & II i/c Air-conditioning works and conforming to statutory Act. Rules & Regulations. Standards and safety Rules etc. amended upto dates. The contractor has to operate and maintain the A.C. plant as per detailed in Annexure 'A' & 'B' and nothing extra shall be entrained.
13. The Engineer-in-charge reserve the right to ask the contractor to remove any staff without assigning any reasons whatsoever. The decision of Engineer-in-charge will be final and binding to the contractor.
14. The contractor shall make his own arrangement of T&P to carryout the subject work.
15. Water and Electricity will be supplied free of cost for carrying out the work if available.
16. After the expire of the contract & direction of Engineer-in-charge the A.C. plant shall be handed over to the department within 03 days in working conditions of all machineries & equipments.
17. The department reserves the right to terminate the contract before the expiry time without assigning any reasons. This will normally be as a result of un-satisfactory performance of contract. The contract can be extended on the same rates, terms & conditions for further period.
18. The rates quoted by the agency shall be inclusive of all taxes & duties. Service tax component is not payable to the contractor. ESI & EPF will be reimburse subject to submit proof of paid challan to the department with respect to cited subject work & detail staff engaged.

**Executive Engineer (E)**