INDIAN INSTITUTE OF TECHNOLOGY DELHI

HAUZ KHAS, NEW DELHI – 110016

AC DIVISION

TENDER DOCUMENT

NAME OF WORK	:	**Replacement of Packaged ACs of different places in IIT Delhi**
ESTIMATED COST ₹	:	**82,21,831.00**
EMD ₹	:	**1,64,437.00 (No exemption allowed)**
N.I.T. No.	:	**82/IITD/AC/2026-27**
Date of Opening	:	**29-10-2026**

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

NIT for the subject work has been prepared with the following:

1	Amount of NIT (INR)	:	82,21,831.00
2	Earnest money (INR)	:	1,64,437.00
3	Completion time	:	60 days
4	Last date of submission (online)	:	28-10-2026 up to 3 PM
5	Date of opening	:	29-10-2026 after 3 PM
6	Form of NIT	:	CPWD / IITD – 8
7	Schedule applicable	:	Market Rate, DSR (E&M)
8	Material stipulated	:	As per Schedule of Work
9	Chargeable heads	:	35.01.01
10	Work code no.	:	2021/006/1160
11	NIT No.	:	82/IITD/AC/2026-27

Certified that this NIT contains 1 to 59 pages.

Sr. Asstt. (AC) JE (E.), AC

NIT amounting to Rs.82,21,831.00 is approved.

Assistant Executive Engineer in-charge
AC Division

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

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JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

INDIAN INSTITUTE OF TECHNOLOGY DELHI

AC DIVISION

NOTICE INVITING E-TENDER

IITD/WORKS (SP- 5433)/2026

Assistant Executive Engineer-in-charge, AC Division, Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 110016, Ph. No. 011-2659 1746 on behalf of Board of Governors invites online **Item Rate Tender** from **firms / contractors of repute in two bid system** as per details given below.

1	**Name of work**	**:**	**Replacement of Packaged ACs of different places in IIT Delhi**
2	NIT No.	**:**	**82/IITD/AC/2026-27**
3	Estimated Cost (Rs.)	**:**	**82,21,831.00**
4	Earnest Money Deposit (Rs.)	**:**	**1,64,437.00 (No exemption allowed)**
5	Period of completion	**:**	**60 days**
6	Last date & time of bid submission	**:**	**Upto 3 PM of 28-10-2026**
7	Performance Bank Guarantee	**:**	**5 percent of the Estimated cost put to tender (ECPT) or Contract amount whichever is higher**

The bid forms and other details may be downloaded from Central Public Procurement Portal (http://eprocure.gov.in/eprocure/app). Aspiring bidders who have not enrolled / registered in e-procurement should enrol / register themselves before participating through web site http://eprocure.gov.in/eprocure/app. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at "Instructions for online bid submission."

Bidders can access quotation / tender documents on the website (for searching in the NIC site), kindly go to quotation search option and type 'IIT'. Thereafter, click on "GO" button to view all IIT quotations. Select the appropriate quotation / tender and fill them with all relevant information and submit the completed Quotation / Tender document online on the website http://eprocure.gov.in/eprocure/app as per the schedule given in the next page.

No manual bids will be accepted. All bids (both Technical & Financial) should be submitted in the e-procurement portal.

Assistant Executive Engineer-in-charge, AC Division
For & on behalf of BOG, IIT Delhi

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

Ch. Head	:	35.01.01	**PLN**	Work Code	:	2021/006/1160

Copy to: -

1. D.R. (Works Accounts)
2. A.R. (A/C)
3. D.R. (Store Purchase Section)
4. Notice Board
5. Website Administrator, IIT Delhi
6. Office copy

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

SCHEDULE

1	**Name of organisation**	**:**	**Indian Institute of Technology Delhi**
2	Tender / Quotation type (open / limited / EOI / auction / single)	:	Open
3	Tender / Quotation category (services / goods / works)	:	Goods & Works
4	Type of Contract (work / supply / auction / service / buy / empanelment / sell)	:	Work & Supply
5	Form of contract (IITD – 7/8)	:	IITD – 8
6	Work Category (civil / electrical / fleet management / computer systems)	:	Electrical
7	Is multi-currency allowed?	:	No
8	Date of publishing / issue / start	:	21-10-2026 at 15:00 Hrs.
9	Document download start date	:	21-10-2026 at 15:00 Hrs.
10	Document download end date	:	28-10-2026 at 15:00 Hrs.
11	Date & time of pre-bid meeting	:	No pre-bid meeting be held
12	Venue of pre-bid meeting	:	Not applicable
13	Last date & time of uploading of bids	:	Upto 3 PM of 28-10-2026
14	Date & time of opening of Technical Bids	:	29-10-2026 after 3 PM
15	Tender fee	:	Free of cost
16	Earnest Money Deposit (EMD) Rs.	:	**1,64,437.00 (No exemption allowed)**
17	Mode of payment of EMD	:	To be paid through online mode. IIT Delhi Bank details are as under: Name of the Bank A/C : **IITD Revenue Account** SBI A/C No. : **10773572622** Name of the Bank : **State Bank of India, IIT Delhi, Hauz Khas, New Delhi-110016** IFSC Code : **SBIN0001077** MICR Code : **110002156** Swift No. : **SBININBB547** (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-I) N.B. If already deposited, details to be written in Annex-1
18	Bid without EMD	:	To be considered as UNRESPONSIVE and bid shall summarily be rejected
19	No. of bids / covers (1 / 2 / 3 / 4)	:	**2**
20	Address for communication	:	**Assistant Executive Engineer-in-charge, AC Division**, Works Department, IIT Delhi, Hauz Khas, New Delhi – 110016
21	Contact No.	:	011 2659 1746; 1742
22	e-mail address for communication	:	a26984@admin.iitd.ac.in; akbajeet@admin.iitd.ac.in

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

INSTRUCTIONS FOR ONLINE BID SUBMISSION

As per the directives of Department of Expenditure, this quotation / tender document has been published on the Central Public Procurement Portal (URL: http://eprocure.gov.in/eprocure/app). The bidders are required to submit softcopies of their bids electronically on the CPP portal, using valid Digital Signature Certificates (DSC). The instructions given below are meant to assist the bidders in registering on the CPP portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP portal.

More information useful for submitting online bids on the CPP portal may be obtained at http://eprocure.gov.in/eprocure/app

REGISTRATION

1. Bidders are required to enrol on the e-procurement module of the Central Public Procurement portal (URL: http://eprocure.gov.in/eprocure/app) by clicking on the link, "click here to enrol". Enrolment on the CPP portal is free of charge.
2. As part of the enrolment process, the bidders will be required to choose a unique user name and assign a password for their accounts.
3. Bidders are advised to register their valid e-mail address and mobile number as part of the registration process. These would be used for any communication from the CPP Portal.
4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (class 2 or class 3 certificates with signing key usage) issued by any certifying authority recognised by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.) with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
6. Bidder then logs into the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.

SEARCHING FOR TENDER DOCUMENTS

1. There are various search options built in the CPP portal to facilitate bidders to search active tenders by several parameters. These parameters could include tender ID, organisation name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organisation name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP portal.
2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. The tenders can be moved to the respective "My Tenders" folder. This would enable the CPP portal to intimate the

bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
3. The bidder should make a note of the unique Tender ID assigned to each other, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bids. Please note the number of covers in which the bid documents have to be submitted. Any deviations from these may lead to rejection of the bids.
3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black & white option.
4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor's certificates, etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

1. Bidder should log into the site well in advance for bid submission so that he / she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD / Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS (Refer to Schedule, Page no. 3)
4. A standard BOQ Format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the white coloured [unprotected] cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

   OR

   In some cases financial bids can be submitted in PDF format as well (in lieu of BOQ).

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JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorised persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
7. The uploaded tender documents become readable only after the tender opening by the authorised bid openers.
8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
9. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

ASSISTANCE TO BIDDERS

1. Any queries relating to tender document and the terms and conditions contained therein should be addressed to the tender inviting authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP portal in general may be directed to the 24 x 7 CPP Portal Help Desk. The contact number of the helpdesk is 18002337315.

GENERAL INSTRUCTIONS TO THE BIDDERS

1. The tenders will be received online through portal https://eprocure.gov.in/eprocure/app. In the technical bids, the bidders are required to upload all the documents in PDF format.
2. Possession of a valid class II / III Digital Signature Certificate (DSC) in the form of smart card / e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app. Digital Signature Certificates can be obtained from the authorised certifying agencies, details of which are available in the website https://eprocure.gov.in/eprocure/app under the link "Information about DSC".
3. Tenderers are advised to follow the instructions provided in the "Instructions to the tenderer" for the e-submission of the bids online through the Central Public Procurement Portal for e-procurement at https://eprocure.gov.in/eprocure/app.

INFORMATION & INSTRUCTION TO BIDDERS FOR E-TENDERING

Assistant Executive Engineer-in-charge, AC Division, Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 110016, Ph. No. 011-2659 1746 on behalf of Board of Governors invites online **Item Rate Tender** from firms / contractors of repute in two bid system as per details given below:

Sr. No.	NIT No.	Name of Work & Location	Estimated cost put to bid (Rs.)	Earnest money (Rs.)	Period of completion	Last date & time of submission of bid	Time & date of opening of Technical Bid	Time & date of opening of Financial Bid
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	82/IITD/AC/2026-27	Replacement of Packaged ACs of different places in IIT Delhi	82,21,831.00	1,64,437.00 (No exemption allowed)	60 days	Upto 3 PM of 28-10-2026	29-10-2026 after 3 PM	To be decided after assessing Technical Bids

1. The successful bidder shall be required to submit a performance guarantee of 5% of the Estimated cost put to tender (ECPT) or Contract amount whichever is higher in the form of Bank Guarantee or F.D.R. from a Nationalized / Scheduled Bank within fifteen days of issue of letter of intent before award of work. In case of failure by the Contractor to submit the performance guarantee within the specified period, full earnest money will be forfeited by the Institute, and the tender shall be treated as null and void. EMD shall be refunded after submission of PBG. **The performance guarantee shall be initially valid up to the stipulated date of completion (i.e. 60 days) plus 180 days beyond that.**
2. The bid will be treated as abnormally low if the quoted bid is lesser than 80% of the estimated cost put to tender.
3. **Requirement of Additional Performance Guarantee (APG):** In case of abnormally low bids as defined above, the bidder shall be required to submit Additional Performance Guarantee (APG) in addition to the Standard Performance Guarantee (PG) as stated above. The amount of Additional Performance Guarantee (APG) shall be equivalent to the difference between the 80% amount of ECPT and quoted amount. (e.g. if ECPT is A and quoted amount is 0.7A then the amount of APG shall be 0.8A – 0.7A). The Additional

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JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

Performance Guarantee (APG) shall be in the prescribed format of Performance Guarantee and has to be submitted within the time frame prescribed for submission of Performance Guarantee. The other terms and conditions of release etc. of APG shall be same as that of PG.

4. **Earnest money (**EMD) shall have to be deposited / submitted as stipulated in the schedule.

5. Contractors who fulfil the following requirements shall be eligible to apply. Joint ventures are not accepted.

   a. Should have satisfactorily completed the works as mentioned below during the last Seven years ending **last day of the month previous to one in which tenders are invited.**

   i. **Three** similar works each costing not less than **Rs.32,89,000.00**, or **two** similar works each costing not less than **Rs.49,33,000.00**, or one similar work costing not less than **Rs.65,77,000.00.**

6. The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of bids.

7. **Similar work means Supply, Installation, Testing & Commissioning of Air Conditioning Units (except Split & Window ACs upto 2.0 TR capacity) in buildings.**

8. **Work means** work done with some Central Government Department / State Government Department / Central Autonomous Body / *State Autonomous Body* / Central Public Sector Undertaking / *State Public Sector Undertaking* / *City Development Authority* / *Municipal Corporation of City formed under any Act by Central / State Government and published in Central / State Gazette* / any Public Authority / Reputed non-Govt (Private/Corporate) organisation.

9. Completion certificates are required to be got issued by an officer not below the rank of Executive Engineer of similar works completed by the Firm. The work experience certificates submitted by the bidders shall clearly indicate that:

   a. The similar work executed shall be **as per '5' above**

   b. The completed cost of the work

   c. Actual date of completion of the work

10. IITD is committed to follow the principle of transparency, equity, and competitiveness in public procurement. Before submission of bid, **each bidder should sign integrity pact at respective places** and submit the bid. **If duly signed integrity pact is not submitted by bidder, such bid shall not be considered.**

11. **The intending bidder must read the terms and conditions [both commercial & Additional] & IITD - 6 carefully** which will be the part of the Contract. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.

12. Information and Instructions for bidders posted on website shall form part of bid document.

13. 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 e-procure.gov.in free of cost.

14. But the bid can only be submitted after submission/uploading of EMD as prescribed in the schedule.

15. Copy of all mandatory documents as desired in the NIT shall be scanned and up-loaded to the e-Tendering website within the period of bid submission. During scrutiny of technical bids, if required, bidders may be asked to submit original documents for cross checking. However, certified / original copy of all the scanned and up-loaded documents shall have to be submitted by the lowest bidder only within a week physically in the office of the tender inviting authority.

16. Online bid documents submitted by intending bidders shall be opened only of those bidders, who has submitted prescribed EMD, and other documents scanned and uploaded are found in order.

17. Those contractors not registered on the website mentioned above, are required to get registered beforehand. Bidders should refer "Instruction for Online Bid Submission" given earlier for further assistance.

18. When bids are invited in two / three stages systems and if it is desired to submit revised financial bid it shall be mandatory to submit revised financial bid. If not submitted, then the bid submitted earlier shall become invalid.

19. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

20. Contractors must ensure to quote rate of each item.

21. **The bid submitted shall become invalid if:**
    a. The bidder is found ineligible.
    b. The bidder does not upload scanned copies of all the documents stipulated in the bid document.
    c. 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 lowest bidder in the office of bid opening / accepting authority.
    d. 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 / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
    e. EMD not deposited as specified.

22. **Equipment to be supplied shall satisfy Class-1 criteria. 'Class – 1 Local Supplier'** means a supplier or service provider, whose goods, services or works offered for procurement has local content equal to or more than 50% as defined under Order No. P-45021/2/2017-PP(BE-II) dated 04-06-2020 issued by Department for Promotion of Industry and Internal Trade (Public Procurement Section), Ministry of Commerce and Industry, Govt of India.

    a. 'Local Content' means the amount of value added in India which shall unless and otherwise prescribed by the nodal ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all domestic duties) as a proportion of the total value, in percent.

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JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

b. For the purpose of verification of 'Local Content', the Class-1 Local Supplier / Service Provider at the time of bidding, tender or solicitation shall be required to indicate percentage of local content and provide self-certification that the items offered meet the local content requirement for Class – 1 Local Supplier. They shall also give details of the location(s) at which the local value addition is made.

c. In cases of procurement for a value in excess of 10 crore, the Class – 1 Local Supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in case of the companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

d. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-certifications and auditor's / accountant's certificates on random basis and in the case of complaints.

e. False declarations will be in breach of Code of Integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for upto two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

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JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

List of MANDATORY DOCUMENTS to be scanned and uploaded within the period of bid submission:

Sr. No.	:	Details of Document
1	:	Annexure – 1 duly filled in and got signed by the bidder
2	:	Annexure – 3 duly filled in and got signed by the bidder
3	:	Proof of online EMD deposit
4	:	Certificate of work experience as desired (vide clauses 5 to 9 above)
5	:	Certificate of GST Registration, if already obtained by the bidder.
6	:	Affidavit as per provision of clause 1.2.2 of IITD-6 vide in the following page (To be submitted on stamp paper (not less than One Hundred Rupees only) and date of affidavit and purchase of stamp paper shall not be earlier than the publication of NIT. NIT number, Name of work and matter of the clause 1.2.2 shall be written on the 1st page of the Stamp Paper and can be continued up to the backside of the page. **No separate annexure paper should be attached. The affidavit shall be duly notarised.** Bidder will be required to resubmit a fresh Affidavit if any deviations are noticed. N.B. A sample Affidavit write-up is illustrated for the convenience of the bidder vide Annexure-4
7	:	Acceptance to execute INTEGRITY PACT (see integrity pact) [vide pg 21] N.B. If the Contractor is a partnership or a consortium, this pact must be signed by all the partners or by one or more partners 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 authorised by Board Resolution.
8	:	IITD 7 / 8 duly signed
9	:	EPFO & ESIC registration with upto date paid challan (challan shall be not older than two months from the month on which the tender is invited)
10	:	Valid Electrical Licence in the name of the contractor. *if the bidder does not possess electrical licence in his own name, he shall have to submit an undertaking on their letter head and* the bidder shall scan and upload following undertaking along with other bid documents. a. *"I/We undertake that, if I/we do not possess in my/our name a valid electrical license as required, I/we shall associate an agency having such a licence for execution of work which requires such a licence".*
11	:	Power of Attorney, as applicable, as per following

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JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

		"In the event of 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 authorising 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."
12	**:**	Bid specific **OEM Authorisation Certificate in favour of the bidder for Pkg. AC.** The certificate should include following two lines: a) The OEM will unconditionally support the bidder technically throughout the execution of contract as well as for Comprehensive Maintenance Contract for the useful life of the system, and b) OEM shall provide all spares required for healthy functioning of the equipment for at least seven years from the date of supply of the Packaged AC units N.B. Original ink-signed certificate needs to be submitted by the bidder. Name of signing Authority, its designation, contact number, e-mail ID be mentioned on the Authorisation Certificate.
13	**:**	TDS Certificate downloaded from Website, if the Experience claimed is issued form Private / Corporate organisation (i.e. other than Public Authority)
14	**:**	Any other document as specified

Note:

a. Hard copies of documents are to be submitted as per clause 9.1 of IITD-6
b. Original copies of documents are to be submitted for verifications as and when demanded by the tender inviting authority
c. Bidders are advised to keep the Original Affidavit and other documents 'as it is' in safe custody till finalisation of bid

Assistant Executive Engineer in-charge, AC Division
For & on Behalf of BOG, IIT Delhi

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

CPWD/IITD – 6

INDIAN INSTITUTE OF TECHNOLOGY DELHI
NOTICE INVITING E-TENDER

1.0 Item rate tenders are invited on behalf of The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 110016 from firms / contractors of repute in two bid system as per details given below for the work of **Replacement of Packaged ACs of different places in IIT Delhi**

1.1 The work is estimated to cost **Rs.82,21,831.00.** This estimate, however, is given merely as a rough guide.

1.2 Intending bidder is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below: -

1.2.1 Criteria of eligibility for submission of bid documents: Conditions for intending bidders / contractors

1.2.1.1 **Three** similar works each costing not less than **Rs.32,89,000.00**, or **two** similar works each costing not less than **Rs.49,33,000.00**, or one similar work costing not less than **Rs.65,77,000.00** in last 7 years ending last day of the month previous to the one in which tenders are invited. The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of submission of bid.

1.2.2 To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under: - *"I / We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I / we shall be debarred for bidding in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee (Scanned copy to be uploaded at the time of submission of bid)"*

2.0 Agreement shall be drawn with the successful bidders on prescribed Form No. IITD 7/8 which is available as IIT Delhi Publication. Bidders shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.

3.0 The time allowed for carrying out the work will be **60 days** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.

4.0 The site for the work is available.

5.0 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 except Standard General Conditions of Contract Form can be seen from the web Site **e-procure.gov.in.**

6.0 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 tender as notified.

7.0 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 tender as notified.

8.0 If it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the tender submitted earlier shall become invalid.

9.0 EMD shall have to be deposited as stipulated in the schedule of the NIT.

9.1 Copy of all 'mandatory documents' and other documents as specified in the press notice shall be scanned and uploaded to the e-tendering website within the period of bid submission. ***However, original affidavit and certified copies of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Original copies of other documents are also to be shown for scrutiny and verifications by the tender opening / accepting authority.***

10.0 The bid submitted shall become invalid if:

10.1 The bidder is found ineligible.

10.2 The bidder does not upload scanned copies of all the documents stipulated in the bid document.

10.3 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 lowest bidder in the office of bid opening / accepting authority.

10.4 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 / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

10.5 EMD not deposited / submitted as specified.

11.0 The contractor whose bid is accepted will be required to furnish **performance guarantee** within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Banks 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. The earnest money deposited along with bid shall be refunded only after receiving the aforesaid performance guarantee as per stipulation.

12.0 Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and subsoil (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 bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder 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.

13.0 The competent authority on behalf of the Board of Governors does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.

14.0 Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.

15.0 The competent authority on behalf of the Board of Governors reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.

16.0 The contractor shall not be permitted to bid for works in the IITD responsible for award and execution of contracts, in which his near relative is posted a 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 the IIT Delhi. Any breach of this condition by the contractor would render him liable to be debarred from bidding process in future in IIT Delhi.

17.0 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 prior permission of the Government of India in writing. This contract 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 bid or engagement in the contractor's service.

18.0 **The bids for the work shall remain open for acceptance for a period of 75 (seventy-five) days from the date of opening of technical bids. Further -**

18.1 If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

18.2 If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

18.3 In case of forfeiture of earnest money as prescribed in para (18.1) and (18.2) above, the bidders shall not be allowed to participate in the rebidding process of the same work.

19.0 This notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the Accepting Authority shall **within fifteen days** from the stipulated date of start of the work, sign the contract consisting of:-

19.1 The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.

19.2 Standard IITD Form –7/8 or other Standard IITD Form as applicable.

20.0 **Integrity Pact:** The contractor shall download the Integrity Pact, which is a part of tender documents, affix his signature and upload the same while submitting online bids. In the event of his failure to sign and upload the Integrity Pact along with other bid documents, his bid shall be rejected.

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

INTEGRITY PACT

To

……..,

……..,
……..

Sub: NIT No. 82/IITD/AC/2026-27 for the work of **"Replacement of Packaged ACs of different places in IIT Delhi"**

Dear Sir,

It is hereby declared that IIT Delhi (IITD) 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 the tender/bid documents, failing which the tender/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 IITD.

Yours faithfully,

Assistant Executive Engineer in-charge, AC Division
For & on Behalf of BOG, IIT Delhi

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

[TO BE SUBMITTED DULY SIGNED BY THE BIDDER ALONGWITH BID DOCUMENTS]

To

Assistant Executive Engineer-in-charge, AC Division,
IIT Delhi, Hauz Khas,
New Delhi – 110016

Subject: Submission of Bid for the work of **"Replacement of Packaged ACs of different places in IIT Delhi"**

Dear Sir,

I / We acknowledge that IIT Delhi 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 / bid 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 IITD. 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, IITD shall have unqualified, absolute and unfettered right to disqualify the tenderer /bidder and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours faithfully,

(Duly signed by authorized signatory of the Bidder)

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

(To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of IITD)

INTEGRITY AGREEMENT

This Integrity Agreement is made at ..... on this ..... day of..... 20.....

BETWEEN

The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 represented through **Assistant Executive Engineer-in-charge, AC Division**, IIT Delhi, (Hereinafter referred as the '**Principal/Owner**', '**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....
.....
(Name and Address of the Individual/firm/Company)

Through.....
..... (Hereinafter referred
(Details of duly authorized signatory)

to 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. 82/IITD/AC/2026-27) (hereinafter referred to as "**Tender/Bid**") and intends to award, under laid down organizational procedure, contract for **" Replacement of Packaged ACs of different places in IIT Delhi "** (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 contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

ARTICLE 1: COMMITMENT OF THE PRINCIPAL / OWNER

1. The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
   1.1. 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

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.1. 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.

1.1.2. 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 (PoC 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 Bidder(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:

2.1. 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.

2.2. 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.

2.3. The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PoC 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.

2.4. 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.

2.5. 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 practices **means a wilful 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 others 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 of 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 rights 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 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 years 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-contractors/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

1. This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 6 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.
2. 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 of IIT Delhi.

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 intensions.
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, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

ARTICLE 8: LEGAL AND PRIOR RIGHTS

1. 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/Contact documents with regard any of the provisions covered under this Integrity Pact.

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

IN WITNESS WHEREOF 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. .....

(signature, name and address)

2. .....
(signature, name and address)

Place: Dated :

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

CPWD/**IITD - 7/8**

INDIAN INSTITUTE OF TECHNOLOGY DELHI

HAUZ KHAS, NEW DELHI - 110016

Percentage Rate Tender / Item Rate Tender & Contract for Works

Tender for the work of **" Replacement of Packaged ACs of different places in IIT Delhi "**

1. To be submitted online by **Upto 3 PM of 28-10-2026**
2. To be opened on **29-10-2026 after 3 PM** online

e-TENDER

I / We have read and examined the Notice Inviting Tender, schedule, A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of Contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

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

We agree to keep the tender open for seventy five (75) days from the due date of its opening / ninety days from the date of opening of financial bid in case tenders are invited on 2/3 envelop system (**strike out as the case may be**) and not to make any modification in its terms and conditions.

A sum of **Rs. 1,64,437.00** is hereby deposited in IIT Delhi Revenue Account No. 10773572622 as earnest money with the Technical Bid. If I / We, fail to furnish the prescribed performance guarantee within prescribed period I / We agree that the said The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 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 the work as specified, I / We agree that The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 or the 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 those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I / We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid I / We shall be debarred for participation in the re-tendering process of the work.

I / We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I / We shall be debarred for tendering in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

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.

Dated:

Signature of Contractor

Witness:

Postal Address

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 110016 for a sum of (Rupees……..……).

The letters referred to below shall form part of this contract agreement:-

(a)

(b)

(c)

For & on behalf of Board of Governors, IIT Delhi

Signature ……..

Dated: Designation …….

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

PROFORMA OF SCHEDULES

SCHEDULE "A"

Schedule of Quantities (PWD-3)

SCHEDULE "D"

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

------- NIL ------

SCHEDULE "E"

Reference to General Conditions of Contract: GCC of Maintenance Work 2023 published by CPWD as amended up to last date of submission of bid.

1.	**Name of work**	:	Replacement of Packaged ACs of different places in IIT Delhi
2.	Estimated cost of work (₹)	:	82,21,831.00
3.	Earnest Money (₹)	:	1,64,437.00 (to be refunded after receiving performance guarantee as per stipulation)
4.	Performance Guarantee	:	5% of the Estimated cost put to tender (ECPT) or Contract amount whichever is higher
4A.	Requirement of Additional Performance Guarantee (APG)		In case of abnormally low bids as defined in the NIT, the bidder shall be required to submit Additional Performance Guarantee (APG) in addition to the Standard Performance Guarantee (PG) as stated above. The amount of Additional Performance Guarantee (APG) shall be equivalent to the difference between the 80% amount of ECPT and quoted amount. (e.g. if ECPT is A and quoted amount is 0.7A then the amount of APG shall be 0.8A – 0.7A). The Additional Performance Guarantee (APG) shall be in the prescribed format of Performance Guarantee and has to be submitted within the time frame prescribed for submission of Performance Guarantee. The other terms and conditions of release etc. of APG shall be same as that of PG.
5.	Security Deposit	:	2.5% (percent) of tendered value

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

SCHEDULE "F"

GENERAL RULES & DIRECTIONS:

Officer inviting tender	:	**Assistant Executive Engineer-in-charge, AC Division**
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3	:	**See below**

DEFINITIONS:

2 (V)	Engineer-in-charge	:	**Assistant Executive Engineer-in-charge, AC Division**
2 (viii)	Accepting authority	:	**Assistant Executive Engineer-in-charge, AC Division**
2 (x)	Percentage on cost of materials and labour to cover all overheads and profits	:	15 percent
2 (xi)	Standard Schedule of Rates	:	Market, DSR 2025
2 (xii)	Department	:	Estate & Works, IIT Delhi
9 (ii)	Reference to General condition of contract	:	CPWD / IITD Form 7 / 8 as modified and corrected upto date, GCC 2023 for Maintenance work of CPWD with latest modifications

CLAUSE 1

i)	Time allowed for submission of Performance Guarantee (including APG, if any) from the date of issue of letter of acceptance	:	15 days
ii)	Maximum allowable extension beyond the period provided in (i) above with late fees @0.1% per day of performance guarantee	:	10 days

CLAUSE 2

(i)	Authority for fixing compensation under Clause 2	:	Institute Engineer

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

CLAUSE 2A

(i)	Whether Clause 2A shall be applicable	:	No

CLAUSE 5

(i)	Number of days from the date of issue of letter of acceptance for reckoning date of start	:	10 days

TABLE OF MILESTONE(S):

Sr. 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)	(2)	(3)	(4)
	--- NOT SPECIFIED ----		

Time allowed for execution of work	:	60 days for SITC

Authority to decide:	**Extension of time**	:	Engineer-in-charge
	Rescheduling of milestones	:	Institute Engineer
	Shifting of date of start in case of delay in handing over of site	:	Engineer-in-charge

CLAUSE 5

Clause applicable 5 / 5A	:	5

CLAUSE 6

MB applicable: Computerised Measurement Book (CMB) / Electronic Measurement Book (EMB)	:	CMB

CLAUSE 7

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

Gross work to be done together with net payment / adjustment of advances for materials collected, if any, since the last such payment for being eligible to interim payment	:	20 Lakhs

CLAUSE 7A

Whether Clause 7A shall be applicable	:	No

CLAUSE 10A

List of testing equipment to be provided by the contractor at site					
1	500 Volt Megger	2	Digital Multimeter	3	Tong tester
4	NIL	5	NIL	6	NIL

CLAUSE 10B (ii)

Whether Clause 10 B (ii) shall be applicable (Yes / No)	:	No

CLAUSE 10 C

Component of labour expressed as percent of value of work	:	15 Percent

CLAUSE 10CC

Whether Clause 10CC shall be applicable	:	Not applicable

CLAUSE 11

Specification to be followed for execution of work	:	CPWD General Specifications for Electrical Works for HVAC Work with other relevant parts as amended upto date

CLAUSE 12

12.2	Deviation limit beyond which clauses 12.2 shall apply for building work / HVAC work	:	**100%**

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

CLAUSE 16

Competent authority for deciding reduced rates	:	Institute Engineer

CLAUSE 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site					
1	500 V megger	2	Digital Multimeter	3	**Tong Tester**
4	**NIL**	5	**NIL**	6	**NIL**

CLAUSE 19C

Authority to decide penalty for each default	:	Engineer-in-charge

CLAUSE 19D

Authority to decide penalty for each default	:	Engineer-in-charge

CLAUSE 19G

Authority to decide penalty for each default	:	Engineer-in-charge

CLAUSE 19K

Authority to decide penalty for each default	:	Not applicable

CLAUSE 25

Constitution of Dispute Redressal Committee (DRC)

Conciliator	:	NIL
Arbitrator Appointing Authority	:	NIL
Place of Arbitration	:	NIL

CLAUSE 32

Requirement of Technical Representative(s) and recovery rate

Sr. 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)	
						Figures	**Words**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Graduate or Diploma Engg.	Electrical or Elect & Electronics or Mechanical	Technical Representative	2 years Graduate or 5 years Diploma	1	Rs.15,000/- per month per Representative	Fifteen Thousand

Assistant Engineers retired from Govt. / IIT Delhi services that are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10-year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

CLAUSE 38

Applicability of Clause 38	:	Not applicable

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

COMMERCIAL AND ADDITIONAL CONDITIONS

1. GENERAL

1.1. This specification covers supply and delivery of materials at site, all preparatory work assembly and installation, commissioning and putting into operation of Packaged type AC units & final testing & commissioning at site.

1.2. Location: **The equipment will be installed in different location at IIT Delhi.**

1.3. The work shall be executed as per CPWD General Specifications for Electrical Works Part-I (Int.) 2023, Part-II (Ext.) 1994, HVAC Work 2024, as amended upto date, relevant I.E. Rules, BIS/IEC and as per directions of Engineer-in- Charge. These additional specifications/conditions are to be read in conjunction with above and in case of variations; specifications given in these additional conditions shall apply. However, nothing extra shall be paid on account of these additional specification and conditions, as the same are to be read along with schedule of quantities for the work.

1.4. The tenderer should in his own interest visit the site and get familiarized with the site conditions before tendering.

1.5. No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

2. COMMERCIAL CONDITIONS:

2.1. **Type of contract:** The work to be awarded by this tender shall be treated as indivisible works contract.

2.2. **Submission and opening of Tenders:**

2.2.1. The tender is in two parts:

2.2.1.1. Part-I -Technical cum Un-priced commercial Bid

2.2.1.2. Part-II-Price Bid

2.3. The tender shall be submitted online, duly completed as per NIT conditions within period of bid submission.

2.4. The tenderers are advised not to deviate from the technical specifications / item, commercial terms and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation etc.

2.5. Technical cum un-priced commercial bid only shall be opened on the due date and time in the presence of tenderers or their authorized representative who wish to remain present.

2.6. Scrutiny/evaluation of the technical-cum-commercial bid shall be done by the department. In case, it is found that the technical-cum-commercial bid of a tenderer is not in line with NIT specifications/requirements and/or contains too many deviations, the department reserves the right to reject the technical bid of such firms(s) without making any reference to the tenderer(s).

2.7. Necessary clarifications required by the department shall have to be furnished by the tenderer within the time given by the department for the same. The tenderer will have to depute his representative to discuss with the officer(s) of the department as and when so desired. In case, in the opinion of the department a tenderer is taking undue long time in furnishing the desired clarifications, his bid will be rejected without making any reference.

2.8. After obtaining clarification from all the tenders, the department will intimate the tenders whose technical cum commercial bids are acceptable.

2.9. The price bids of only those tenderers shall be opened whose technical bids are found to be technically acceptable. The time and date of opening of price bid shall be fixed after the technical cum unpriced commercial bid is accepted and intimated to them by post/Fax/e-mail.

2.10. The department reserves the right to reject any or all the price bids and call for fresh prices/tenders as the case may be without assigning any reason.

3. TERMS OF PAYMENTS

3.1. The following percentage of contract rates for the various items included in the contract shall be payable against the stage of work shown herein: -

3.1.1. 70% after initial inspection and delivery at site in good condition on prorata basis.

3.1.2. 20% after completion of installation in all respect,

3.1.3. Balance 10% will be paid after testing, commissioning, trial run and handing over to the department for beneficial use including inspection.

3.2. Bidder should note that necessary documents (PAN card, cancelled cheque, GST Reg. proof and RTGS mandate form as per prescribed proforma of IIT Delhi) be submitted as soon as the work is awarded to them. Separate Contractor's Code shall be generated in IIT Delhi if the bidder is a new contractor to IIT Delhi ('Code' is perpetual in nature). Payment shall be processed after submission of Invoice and necessary documents / certificates (as mentioned in the NIT). There is a prevailing practice of pre-audit (for total tendered amount more than 6 lakhs) at IIT Delhi before releasing final payment. Bidder shall have to comply all necessary documents as outlined in the Contract as to be desired by the Auditor and or by the accountant. It may take one to two months in the whole process (from submission / acceptance of bill in CMB / MB by the contractor upto processing by Accounts section) to release payment subject to quick compliance of all submittals by the contractor. Applicable Taxes shall be got deducted from the bill as per prevailing orders of the Government. 'GST part of the bill' shall be released after submission of proof of payment of GST, i.e., B2B challan, etc. as may be, by the contractor.

3.3. Income tax, GST, labour cess & other statutory deduction etc. shall be made at source as per the prevalent laws. The deduction of Security Deposit, Income Tax, etc., shall be done after calculation for the above due payment as per clause 3.1 above and net payment shall reduce accordingly.

4. AWARD OF WORK

4.1. Work shall be awarded to the successful bidder only after concurrence of the **Auditor of the Internal Audit Section** of the IIT Delhi as per extant Rules of the Institute.

5. SECURITY DEPOSIT

Security Deposit shall be deducted from bill at the rate of 2.5% of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 2.5% of the tendered amount of the work. **The security deposit shall be released after Defect Liability Period (DLP) is over.**

6. PERFORMANCE GUARANTEE INCLUDING APG

The successful bidder shall be required to submit a performance guarantee of 5% of the Estimated cost put to tender (ECPT) or Contract amount whichever is higher in the form of Bank Guarantee or F.D.R. from a Nationalized / Scheduled Bank within fifteen days of issue of letter of intent before award of work. This guarantee shall be in the form of Demand Draft/Pay order of irrevocable bank guarantee bond of any schedule bank or the State Bank of India in the specified perform a of Government Security, fixed deposit receipt pledged in favour of **Registrar, IIT Delhi** or as specified in the letter of acceptance of tender. The performance guarantee shall be initially valid up to the stipulated date of completion plus 180 days. This bank guarantee shall be kept valid till the recording of completion certificate for the work by the competent authority.

Requirement of Additional Performance Guarantee (APG): In case of abnormally low bids as defined above, the bidder shall be required to submit Additional Performance Guarantee (APG) in addition to the Standard Performance Guarantee (PG) as stated above. The amount of Additional Performance Guarantee (APG) shall be equivalent to the difference between the 80% amount of ECPT and quoted amount. (e.g. if ECPT is A and quoted amount is 0.7A then the amount of APG shall be 0.8A – 0.7A). The Additional Performance Guarantee (APG) shall be in the prescribed format of Performance Guarantee and has to be submitted within the time frame prescribed for submission of Performance Guarantee. The other terms and conditions of release etc. of APG shall be same as that of PG.

7. RATES

7.1. The work shall be treated as on works contract basis and the rates tendered shall be for complete items of work (except the materials, if any, stipulated for supply by the department) inclusive of all taxes, GST (including works contract tax, if any), duties, and levies etc. and all charges for items contingent to the work, such as, packing, forwarding, insurance, freight and delivery at site for the materials to the supplied by the contractor, watch and ward of all materials (including those, if any, supplied by the department), post installation services till defect liability period etc. for the work at site etc.

8. COMPLETENESS OF TENDER

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

9. STORAGE AND CUSTODY OF MATERIAL

9.1. The agency has to make his own arrangement for storage. No separate storage accommodation shall be provided by the department Watch and ward of the storage and their safe custody shall be responsibility till the final taking over of the installation by the department.

10. CARE OF THE BUILDING

10.1. Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste material arising out of the installation from the site of work.

11. COMPLETION PERIOD

11.1. The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings etc., arrangement of materials & equipment, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-in-charge.

12. GUARANTEE

12.1. The contractor shall guarantee all installation as per specifications both for components and for system as a whole. All equipment shall be guaranteed for the date of commissioning against unsatisfactory performance and / or breakdown due to defective design, workmanship or material upto one year. The equipment or component, or any part thereof, so found defective during guarantee period shall be forthwith replaced free of cost to the satisfaction of the Engineer-in-Charge. In case it is felt by the department that undue delay is being caused by the contactor in doing this, the same will be got done by the department at the risk and cost of the contractor. **Guarantee / Defect Liability Period of the entire AC system shall be upto 01 year after date of commissioning**.

12.2. The tenderer shall guarantee among other things, the following:

12.2.1. Quality, strength and performance of the material used as per manufacturer's standards.

12.2.2. Safe mechanical and electrical stress on all part under all specified conditions of operation.

13. POWER SUPPLY

13.1. Power supply shall be made available by the department at one point near the location of installation free of cost, if required. Further, the arrangement for tapping power supply from this point shall be made by the contractor.

14. EXTENT OF WORK

14.1. The work shall comprise of entire labour including supervision and all material necessary to make a complete installation and such tests and adjustment and commissioning as may be required by the department. The term complete installation shall not only mean major items of the plant and equipment covered by the specification but all incidental sundry components necessary for complete execution and satisfactory performance of installation

with all layout charts whether or not those have been mentioned in details in the tender documents in connection with this contract as this is a turnkey job.

14.2. In addition to supply, installation, testing and commissioning of packaged type AC system including wall mounted indoor units, following works shall be deemed to be included with the scope of work to be executed by the tenderer-

14.2.1. Minor building works necessary for installation of equipment, foundation making of opening in walls or in floors and restoring them to their original condition / finish and necesssssary grouting etc. as required.

15. VALIDITY

15.1. Tenders shall be valid for acceptance for a period 75 days of days from the last date of submission of bid.

16. COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS

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

16.1.1. Factories Act

16.1.2. Indian Electricity Rules

16.1.3. B.I.S. & other standards as applicable

16.1.4. Workmen's compensation Act

16.1.5. Statutory norms prescribed by local bodies like fire department, CEA, Power Supply Co. etc.

17. INDEMNITY

17.1. The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.

18. ERECTION TOOLS

18.1. No tools and tackles either for unloading or for shifting the equipments for erection purposes would be made available by the department. The successful tender shall make his arrangement for all these facilities.

19. COOPERATION WITH OTHER AGENCIES AND OCCUPANTS OF THE BUILDING

19.1. The successful tenderer shall co-ordinate with other working contractors, if any and other occupants of different offices / Labs, etc., and exchange freely all technical information so as to make the execution of this work / contract smooth. No remuneration should be claimed

from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want or cooperation and coordination by the tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of work was not under taken by the tenderer himself.

20. MOBILIZATION ADVANCE

20.1. No mobilization advance shall be paid for this work.

21. INTERPRETING SPECIFICATION

21.1. In interpreting the specification, the following order of decreasing importance shall be followed in case of contradictions:

21.1.1. Schedule of quantities

21.1.2. Technical Specification

21.1.3. Drawing (if any)

21.1.4. General Specification for Electrical Works of CPWD (relevant Parts)

21.1.5. Relevant BIS or other international code in case BIS code is not available.

22. POLICY OF THE INSTITUTE

22.1. **Insti**tute has a policy against **sexual harassment** and is committed to providing an environment free from **sexual harassment of women** at the workplace. Contractor shall have to abide by the policy of the Institute with due diligence. Any violation on the part of the contractor shall be dealt with the extant rules of the Institute.

23. QUALITY OF MATERIALS

23.1. All materials and equipment supplied by the contractor shall be new. They shall be of such design, size and materials as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site. **None of the material/ items/ equipment etc supplied shall be more than one year old from date of supply at site**. Copy of GST Gate Pass/ Invoice/ Shipment / Custom Clearance certificate/ details (in case of imported equipment) shall be submitted to prove the date of manufacture & genuineness of the equipment/ machines supplied.

24. Inspection of Materials and Equipment

24.1. Materials ands equipment to be used in the work shall be inspected by the Departmental officers. Such inspection will be of following categories:

24.1.1. Inspection of materials/ equipment to be witnessed at the manufacturer's premises in accordance with relevant standards of BIS/ Agreement Inspection Procedure.

24.1.2. To receive materials at site with Manufacturer's Test Certificate(s).

24.1.3. To inspect materials at the Authorized Dealer's Go downs to ensure delivery of genuine materials at site.

24.1.4. To receive materials after physical inspection at site.

24.1.5. The Departmental officers will take adequate care to ensure that only tested and genuine materials of proper quality are used in work.

24.1.6. Similarly, for fabricated equipment, the contractor will first submit dimensional detailed drawings for approval before fabrication is taken up in the factory. Suitable stage inspection at factory also will be made to ensure proper use of materials, workmanship and quality control.

24.1.7. The tender specifications will stipulate the inspection requirements or their waiver for various materials/ equipment including norms of inspection in specific cases.

C … Nil I ….. Nil O …… Nil

TECHNICAL SPECIFICATIONS:

AIR- & WATER-COOLED PACKAGED TYPE AC PLANT

The work shall be carried out as per CPWD General Specifications for HVAC works 2024 as amended upto date along with the following changes, CPWD general Specifications for Electrical Works Part – I, II & IV as amended upto date, relevant IE Rules and as per directions of Engineer-in-Charge. For electrical panels, CPWD General Specifications for Electrical Works Part-IV shall be applicable.

[A] AIR COOLED PACKAGED TYPE PLANTS

1.1. General Construction

1.1.1. The air-cooled package unit shall be supplied in two portions –outdoor portion made up of the condenser & condenser fan and indoor unit made up of the evaporator & evaporator fan. The compressor can be provided along with the condenser or the evaporator depending upon the manufacturer's practice or the required application at site.

1.1.2. The two portions shall be piped together at site.

1.1.3. The packaged type plants shall be self-contained units generally conforming to IS: 8148 1976 (packaged air- conditioner). The plant may have a single or multi refrigeration circuit as per design of respective manufacturers. Each compressor, however, shall have an independent condenser, evaporator & refrigerant circuit.

1.1.4. The packaged unit shall be constructed with adequate strength and rigidity to withstand handling, transportation and usage.

1.1.5. The unit shall be fabricated so as to be free from undue noise and vibration. All valves and refrigerant piping shall be suitably clamped.

1.1.6. The internal components of the unit shall be located so as to be easily accessible for inspection and maintenance. All parts which are accident hazard shall be effectively guarded.

1.1.7. Due care shall be taken in the use of materials likely to come in contact with water, namely, condensate tray, etc. by the use of corrosion resistant material, or by treatment with corrosion resistant coating.

1.1.8. The unit shall be completely factory assembled.

2. Cabinet

2.1. The cabinet will have a framework of either M.S. angles or formed M.S. sheet sections in order to provide structural rigidity. Properly formed close fittings and easily removable sheet metal panels shall be provided all around this framework to make a closed & streamlined cabinet. The sheet used shall be of minimum 1.25mm thickness.

2.2. Inside and outside surfaces shall be finished with polyester epoxy powder coating.

2.3. The fan section and coil section of cabinet shall be insulated with at least 25mm resin bonded fibre glass lining on the inside duly finished with minimum 0.5mm thick aluminium sheet.

2.4. An insulated condensate tray shall be provided beneath the cooling coil so as to avoid dripping over the equipment installed in the lower portion of the cabinet. The drip tray should have a drain connection for leading away the condensate.

2.5. A conditioned air outlet from the cabinet should be provided with suitable flanges in order to connect it to the canvas of the supply air ducting at the cabinet top.

2.6. A return grill of streamlined design shall be provided in the elevation in front of the filter section. This grill should be easily removable for inspection / maintenance of filter.

3. Compressor

3.1. Compressor shall be scroll hermetic or semi hermetic type inverter / microprocessor controlled suitable for CFC/HCFC free green refrigerant.

3.2. It shall be fitted with suction and discharge stop valves, permitting full servicing facilities, built-in safety controls, filters, release valves, control valve and other standard accessories.

3.3. The compressor shall be installed on vibration isolating resilient material, so as to ensure operation with the minimum noise and vibrations.

3.4. Each compressor shall be provided with protection against high refrigerant pressure and low refrigerant pressure, anti-cycle timer, indication lamps, fault alarm etc. through microprocessor controller.

3.5. Compressor shall be designed for 4.4 °C suction temperature and 43.3 °C discharge temperature.

4. Compressor Drive

4.1. The compressor motor shall be squirrel cage induction motor capable of continuous operation at 415 V + 10%, 50 Hz, 3 phase AC supply.

4.2. The motor shall be suction cooled, in case of sealed semi-hermetic type units.

4.3. Motor Starter

4.3.1. The motor starter shall conform to IS: 1822 "Motor starters of voltage not exceeding 1000 volts" and shall be air insulated and suitable for 415 volts± 10%, 50 Hz., 3 phase AC supply. Enclosures shall have protection of IP 42 for Indoor applications and IP 55 for outdoor applications.

4.3.2. Starter for the motor shall be automatic star-delta close transition type or Variable Speed Drive as per the OEM. Starters shall be rated for intermittent duty. Starting current should not exceed two times the full load current.

4.3.3. The starter shall be mounted on the main electrical control panel/ unit mounted/ self-mounted per OEM.

4.3.4. Each starter shall be provided with the following protections:

4.3.4.1. Thermal overload on all the three phases with adjustable settings,

4.3.4.2. Under voltage protection, and

4.3.4.3. Independent single phasing preventor. (current sensing type)

4.3.5. Adequate number of extra NO/ NC contacts for interlocks, indicating lamps etc. shall be provided on the starter/ contactor.

5. Air Cooled Condenser

5.1. Material and Construction

5.1.1. The condenser coil shall be fabricated of seamless hard drawn copper tubes and aluminium fins of 0.18 mm minimum thickness, fins spacing ranging from 3 to 5 fins per cm. The minimum wall thickness of tubes shall be 1.0 mm.

5.1.2. The coil shall normally be 2/3/4 rows deep as per manufacturer's design.

5.1.3. The condenser shall be designed so as to hold 1.25 times the refrigerant charge in the system during the idle periods.

5.1.4. Suitable number and capacity of propeller type fans shall be provided for moving the air through the entire condenser coils. For more uniform flow over the condenser coil, the condenser shall be designed on the draw through principle. The air velocity over the condenser coil shall be maintained upto 200 mpm maximum.

5.2. Connections and Accessories

5.2.1. The following connections and accessories shall be provided on the condenser and conforming to Section "Refrigeration Piping" where applicable.

5.2.2. Hot gas inlet and liquid outlet connections. The liquid outlet connections shall be provided with (a) isolating valves, b) Pressure relief device.

5.3. Pressure Testing

5.3.1. The pressure testing shall be done at 31 kg/sq.cm on refrigerant side.

6. Cooling Coil

6.1. Cooling coil shall be 3 or 4 rows deep, as per manufacturer's standards, made of copper tubes of minimum 0.5 mm thickness and aluminium fins of minimum 0.15 mm thickness, mechanically bonded to the coils.

6.2. Number of fins per cm of tube shall be 4 to 5.

6.3. Coil shall be fitted with equalizing copper distributor to ensure that each coil circuit receives equal amount of refrigerant.

6.4. The coil shall be designed for a face velocity of not more than 155 m/min. Coil shall be thoroughly evacuated, dried and pressure tested to 21 Kg /sq.cm (300 psi).

7. Refrigerant Piping

7.1. The unit shall be complete with refrigerant piping using copper tubes.

7.2. The refrigerant circuit shall include thermo-static / electronic expansion valve as per OEM and suction gas stainer.

7.3. The work shall include provision of suction line insulation as per manufacturer standards.

8. Fan and Drive

8.1. Fan shall be statically and dynamically balanced single/double inlet centrifugal type, designed for quiet operation. The fan wheel shall be constructed of aluminium or galvanised steel. Self-oiling bearing easily accessible for maintenance, with thrust collar shall be provided. Preferably, the bearings shall be life lubricated sealed type, mounted on vibration absorbing resilient supports.

8.2. The fan shall be belt driven through adjustable pulley permitting air quantity to be varied by adjusting the fan speed or direct driven as per OEM. Suitable fan belt tension adjusting arrangement shall be provided.

8.3. The fan motor shall be mounted within the cabinet. This shall be of TEFC enclosure, squirrel cage, induction motor of suitable HP for the duty involved. This shall be located with proper alignment with fan pulley for the belt drive.

8.4. Starter as per OEM and independent SPP shall be provided.

8.5. Separate fans along with their drives shall be provided for the condenser and evaporator portions.

9. The compressor motor shall be interlocked with the following:

9.1. Air flow switch in the evaporator fan discharge.

9.2. Air flow switch in the condenser fan discharge

10. Filters

10.1. Cleanable aluminium wire mesh/ synthetic media type air filters, at least 25 mm thick, shall be provided, swung fit to prevent air bypass.

10.2. Face velocity across the filters shall not exceed 100 m/min.

11. Micro process controller

11.1. Each packaged units shall be equipped with a micro-processor controller having all operating & safety controls.

12. Insulation

12.1. Insulation of packaged units shall be as per manufacturer's standards

[B] WATER COOLED PACKAGED TYPE PLANTS

1. General Construction

1.1.1. The packaged type plants shall be self-contained units generally conforming to **IS:**8148: 2018 (Reaffirmed 2022) (packaged air-conditioner). The plant may have a single or multi refrigeration circuit as per design of respective manufacturers. Each compressor,

however, shall have an independent condenser, evaporator & refrigerant circuit. The two portions shall be piped together at site.

1.1.2. The packaged unit shall be constructed with adequate strength and rigidity to withstand handling, transportation and usage.

1.1.3. The unit shall be fabricated so as to be free from undue noise and vibration. All valves and refrigerant piping shall be suitably clamped.

1.1.4. The internal components of the unit shall be located so as to be easily accessible for inspection and maintenance. All parts which are accident hazard shall be effectively guarded.

1.1.5. Due care shall be taken in the use of materials likely to come in contact with water, namely, condensate tray, etc. by the use of corrosion resistant material, or by treatment with corrosion resistant coating.

1.1.6. The unit shall be completely factory assembled.

2. Cabinet

2.1.1. The cabinet will have a framework of either M.S. angles or formed M.S. sheet sections in order to provide structural rigidity. Properly formed close fittings and easily removable sheet metal panels shall be provided all around this framework to make a closed & streamlined cabinet. The sheet used shall be of minimum 1.25 mm thickness.

2.1.2. Inside and outside surfaces shall be finished with polyester epoxy powder coating.

2.1.3. The fan section and coil section of cabinet shall be insulated with at least 25mm resin bonded fibre glass lining on the inside duly finished with minimum 0.5mm thick aluminium sheet.

2.1.4. An insulated condensate tray shall be provided beneath the cooling coil so as to avoid dripping over the equipment installed in the lower portion of the cabinet. The drip tray should have a drain connection for leading away the condensate.

2.1.5. A conditioned air outlet from the cabinet should be provided with suitable flanges in order to connect it to the canvas of the supply air ducting at the cabinet top.

2.1.6. A return grill of streamlined design shall be provided in the elevation in front of the filter section. This grill should be easily removable for inspection / maintenance of filter.

3. Compressor

3.1.1. Compressor shall be scroll hermetic or semi hermetic type inverter / microprocessor controlled suitable for CFC/HCFC free green refrigerant.

3.1.2. It shall be fitted with suction and discharge stop valves, permitting full servicing facilities, built-in safety controls, filters, release valves, control valve and other standard accessories.

3.1.3. The compressor shall be installed on vibration isolating resilient material, so as to ensure operation with the minimum noise and vibrations.

3.1.4. Each compressor shall be provided with protection against high refrigerant pressure and low refrigerant pressure, anti-cycle timer, indication lamps, fault alarm etc. through microprocessor controller.

3.1.5. Compressor shall be designed for 4.4 °C suction temperature and 43.3 °C discharge temperature.

4. Compressor Drive

4.1.1. The compressor motor shall be squirrel cage induction motor capable of continuous operation at 415 V + 10%, 50 Hz, 3 phase AC supply.

4.1.2. The motor shall be suction cooled, in case of sealed semi-hermetic type units.

5. Motor Starter

5.1.1. The motor starter shall conform to IS: 1822 "Motor starters of voltage not exceeding 1000 volts" and shall be air insulated and suitable for 415 volts± 10%, 50 Hz., 3 phase AC supply. Enclosures shall have protection of IP 42 for Indoor applications and IP 55 for outdoor applications.

5.1.2. Starter for the motor shall be automatic star-delta close transition type or Variable Speed Drive as per the OEM. Starters shall be rated for intermittent duty. Starting current should not exceed two times the full load current.

5.1.3. The starter shall be mounted on the main electrical control panel/ unit mounted/ self-mounted per OEM.

5.1.4. Each starter shall be provided with the following protections:

5.1.4.1. Thermal overload on all the three phases with adjustable settings,

5.1.4.2. Under voltage protection, and

5.1.4.3. Independent single phasing preventor. (current sensing type)

5.1.4.4. Adequate number of extra NO/ NC contacts for interlocks, indicating lamps etc. shall be provided on the starter/ contactor.

6. Condenser

6.1.1. Condenser shall be of horizontal shell and tube construction with M.S. shell and integrally finned copper tubes. Thickness of tube shall be minimum 1.0 mm before finning.

6.1.2. The end covers shall be removable type and suitable provision shall be made in the unit cabinet, enabling easy cleaning of condenser tubes.

6.1.3. The condenser shall serve as liquid receiver for the refrigerant circuit & shall be complete with following: -

6.1.3.1. Inlet and outlet refrigerant connections.

6.1.3.2. Inlet and outlet water connections.

6.1.3.3. Relief / purge valve and connections.

6.1.3.4. Drain valve, air vent, test cock connection, facility with valves for descaling of tubes etc.

7. Cooling Coil

7.1.1. Cooling coil shall be 3 or 4 rows deep, as per manufacturer's standards, made of copper tubes of minimum 0.5 mm thickness and aluminium fins of minimum 0.15 mm thickness, mechanically bonded to the coils.

7.1.2. Number of fins per cm of tube shall be 4 to 5.

7.1.3. Coil shall be fitted with equalizing copper distributor to ensure that each coil circuit receives equal amount of refrigerant.

7.1.4. The coil shall be designed for a face velocity of not more than 155 m/min. Coil shall be thoroughly evacuated, dried and pressure tested to 21 Kg /sq.cm (300 psi).

8. Refrigerant Plumbing

8.1.1. The unit shall be complete with refrigerant plumbing using copper tubes.

8.1.2. The refrigerant circuit shall include thermo-static / electronic expansion valve (as per OEM) and suction gas stainer.

8.1.3. The work shall include provision of suction line insulation as per manufacturer standards.

9. Fan and Drive

9.1.1. Fan shall be statically and dynamically balanced single/double inlet centrifugal type, designed for quiet operation. The fan wheel shall be constructed of aluminium or galvanised steel. Self-oiling bearing easily accessible for maintenance, with thrust collar shall be provided. Preferably, the bearings shall be life lubricated sealed type, mounted on vibration absorbing resilient supports.

9.1.2. The fan shall be belt driven / direct driven as per OEM through adjustable pulley permitting air quantity to be varied by adjusting the fan speed or direct driven as per OEM. Suitable fan belt tension adjusting arrangement shall be provided.

9.1.3. The fan motor shall be mounted within the cabinet. This shall be of TEFC enclosure, squirrel cage, induction motor of suitable HP for the duty involved. This shall be located with proper alignment with fan pulley for the belt drive.

9.1.4. Starter as per OEM and independent SPP shall be provided.

10. Interlocking

10.1.1. The compressor motor shall be interlocked with the following:

10.1.1.1. Air flow switch in the evaporator fan discharge

10.1.1.2. Differential pressure switch in the condenser water line

10.1.1.3. Condenser water pump

10.1.1.4. Cooling tower fan motor

11. Filters

11.1.1. Cleanable aluminium wire mesh/ synthetic media type air filters, at least 25 mm thick, shall be provided, swung fit to prevent air bypass.

11.1.2. Face velocity across the filters shall not exceed 100 m/min.

12. Micro process controller

12.1. Each packaged units shall be equipped with a micro-processor controller having all operating & safety controls.

13. Insulation

13.1. Insulation of packaged units shall be as per manufacturer's standards

ANNEXURE - 1

<< Organization Letter Head >>

DECLARATION

I / We, _____ hereby declare that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I / we have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

1	Name & Address of the bidder	**:**	
2	Phone	**:**	
3	E-mail	**:**	
4	Contact person name	**:**	
5	Mobile number	**:**	
6	GSTIN number	**:**	
7	PAN number	**:**	
8	UTR no. for EMD	**:**	
9	Date of deposit / submit of EMD	**:**	
	BANK DETAILS of the Bidder		
10	Bank name	**:**	
11	Branch address	**:**	
12	Branch telephone no.	**:**	
13	MICR Code of the bank	**:**	
14	IFSC code	**:**	
15	Bank Account no.	**:**	
16	Type of account	**:**	
17	Pl attach one cancelled cheque	**:**	

We further declare that our organization has not been blacklisted / delisted or put to any holiday by any Institutional agency / Govt. Department / Public Sector Undertaking in the last three years.

(Signature& name of the bidder)
Seal of the bidder

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

ANNEXURE - 2

ON NON-JUDICIAL STAMP PAPER OF MINIMUM Rs.100

(Guarantee offered by Bank to IIT Delhi in connection with the execution of contracts)

Sample Form of Bank Guarantee for Performance Guarantee

1 Whereas the Assistant Executive Engineer-in-charge of AC Division of IIT Delhi on behalf of the Board of Governors of IIT Delhi (hereinafter called "IIT Delhi") has entered into an agreement bearing number ……..... with …….....(name and address of the contractor) …….. (hereinafter called "the Contractor") for execution of work …… (Name of work) ……... The IIT Delhi has further agreed to accept an irrevocable Bank Guarantee for Rs. ……..…… (Rupees …… only) valid upto …….. (date)..…… as Performance Guarantee/Security Deposit/Mobilization Advance from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

2 We, …… (indicate the name of the bank) ……. (herein after referred to as "the Bank"), hereby undertake to pay to the IIT Delhi an amount not exceeding Rs. …….. (Rupees…….. only) on demand by the Government within 10 days of the demand.

3 We, …… (indicate the name of the Bank) ……, do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. 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).

4 We, …… (indicate the name of the Bank) ……, further undertake to pay the IIT Delhi any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

5 We, …… (indicate the name of the Bank) ……, further agree that the IIT Delhi shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the IIT Delhi against the said contractor 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 or for any forbearance, act of omission on the part of the IIT Delhi or any indulgence by the IIT Delhi to the said Contractor 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 We, …… (indicate the name of the Bank) …….. , further agree that the IIT Delhi at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

	notwithstanding any security or other guarantee IIT Delhi may have in relation to the Contractor's liabilities.
7	This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8	We, …….. (indicate the name of the Bank) ……., undertake not to revoke this guarantee except with the consent of the IIT Delhi in writing.
9	This Bank Guarantee shall be valid up to …….. unless extended on demand by IIT Delhi. 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 the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date .....

Witnesses:

1. Signature……
Name and address

2. Signature ……
Name and address

Authorized signatory
Name
Designation
Staff code no.
Bank seal

*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.
**In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/security deposit/mobilization advance, as the case may be.

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

ANNEXURE - 3

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

Sr. no.	Name of work / project and location	Owner or sponsoring organisation with e-mail ID and Phone No.	Cost of work done (INR)	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Name and address / telephone number of officer to whom reference may be made
1	2	3	4	5	6	7	8
1							
2							
3							

N.B: All columns shall be filled diligently. This is a mandatory document.

(Signature& name of the bidder)
Seal of the bidder

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

ANNEXURE – 4

SAMPLE AFFIDAVIT

(How the write up should be on the stamp paper)

INDIAN NON JUDICIAL

Certificate Issued Date	:	After the publication of NIT
First Party	:	'Name of Bidder' should be written
Second Party	:	'IIT Delhi'
Stamp duty	:	Minimum Rs.100.00 (one hundred)

---------- Please write below this line ----------

Affidavit

NIT No. : Mention NIT number
Name of Work : Write name of the work

I, _____ (name of bidder), resident of _____ (full address) partner / proprietor / authorised representative having power of attorney (write as applicable) do hereby solemnly affirm and state as follows:

"*I / We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I / we shall be debarred for bidding in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee*"

Dated:
Place:

Signature with stamp of the bidder

The Affidavit shall be Notarised & shall have to be submitted in original on demand

(N.B. - This is purely illustrative. Bidder must buy stamp paper and write the above matters in respective space on the front page of stamp paper. For any further clarification, bidder can contact through e-mail or over phone)

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

BID SUBMISSION CHECK LIST

ONLINE BID SUBMISSION:

The bid (complete in all respect) must be uploaded online in **two** Envelops as explained below:-

Envelope – 1 (Following documents to be provided as single PDF file)			
Sl. No.	**Documents**	**Content**	**File Types**
1	**Technical Bid**	Annexure - 1	.PDF
2		Annexure - 3	
3		EMD submission proof	.PDF
4		Certificate of work experience as desired	.PDF
5		Certificate of GST Registration	.PDF
6		Affidavit as per provision on stamp paper	.PDF
7		Acceptance to execute INTEGRITY PACT	.PDF
8		IITD 7 / 8 duly signed	.PDF
9		EPFO & ESIC Registration proof with updated challan	.PDF
10		Valid Electrical Licence / Undertaking	.PDF
11		Partnership Deed, Power of Attorney as applicable	.PDF
12		OEM Authorisation and certificate	.PDF
13		TDS Certificate, if applicable	.PDF
14		Any other document as specified in the NIT	.PDF
Envelope – 2			
Sl. No.	TYPES	Content	
1.	**Financial Bid**	Price bid should be submitted in BOQ format.	.EXL

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

SCHEDULE OF QUANTITY

Name of work: Replacement of Packaged ACs of different places in IIT Delhi

Item No.	Description of Item	Qty.	Unit	Rate	Amount
1	Supplying, installation, testing and commissioning of following capacity **Air cooled type Packaged air-conditioning units** complete with Hermetically sealed Scroll compressors designed for 4.4 °C suction temperature and 43.3 °C discharge temperature, fitted inside the indoor unit & first charge of refrigerant R410A or equivalent permitted green refrigerant & oil, air cooled condenser, fan section with statically/dynamically balanced centrifugal blower driven by a Totally Enclosed Fan Cooled (TEFC) squirrel cage multi speed motor, Multi rows cooling coil of copper with aluminium fins etc. The unit shall be suitable to work on 400 V ±10%, 3 Phase, 50Hz AC power supply. The enclosures shall be fabricated of M.S. The Package unit shall be equipped with synthetic fiber filter, insulated drain pan, controls all encased in a unit. The casing shall be factory powder coated. The unit shall be filled with first charge of the refrigerant and ready for use as required. The cooling capacity of indoor unit will be at air inlet conditions of 27-degree centigrade dry bulb (DB) a 19-degree centigrade wet bulb (WB) temperature. Electrical panel board for Package units shall comprise of control and power panel with including all accessories i/c Voltage scanner, overload, low voltage, high voltage & phase imbalance protection, along with VI Pads complete with all ancillaries including MS painted stand for Outdoor units of suitable size, foundation and allied minor civil works as per instructions of Engineer-in-charge of following ratings including electric control panel & fitting as per CPWD specifications and as per IS: 8148 complete as required as per specifications given in NIT.				
1.01	Not less than 11.0 TR	4	Each		-
1.02	Not less than 16.0 TR	3	Each		-

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

2	Supplying, installation, testing and commissioning of following capacity **DX Water Cooled type Packaged air-conditioning** units complete with Hermetically sealed Scroll compressors designed for 4.4 °C suction temperature and 43.3 °C discharge temperature, fitted inside the indoor unit & first charge of refrigerant R410A or equivalent permitted green refrigerant & oil, water cooled condenser, fan section with statically/dynamically balanced centrifugal blower driven by a Totally Enclosed Fan Cooled (TEFC) squirrel cage multi speed motor, Multi rows cooling coil of copper with aluminium fins etc. The unit shall be suitable to work on 400 V ±10%, 3 Phase, 50Hz AC power supply. The enclosures shall be fabricated of M.S. The Package unit shall be equipped with synthetic fiber filter, insulated drain pan, controls all encased in a unit. The casing shall be factory powder coated. The unit shall be filled with first charge of the refrigerant and ready for use as required. The cooling capacity of indoor unit will be at air inlet conditions of 27-degree centigrade dry bulb (DB) a 19-degree centigrade wet bulb (WB) temperature. Electrical panel board for Package units shall comprise of control and power panel with including all accessories i/c Voltage scanner, overload, low voltage, high voltage & phase imbalance protection, along with VI Pads complete with all ancillaries, foundation and allied minor civil works as per instructions of Engineer-in-charge including electric control panel & fitting as per CPWD specifications and as per IS: 8148 complete as required. The chiller shall be designed for a Water Side working pressure of 150 PSI and hydraulically tested at 1.3 times of design pressure. A number of properly spaced baffles shall be provided for maintaining optimum water velocity and heat transfer and the tubes shall be adequately supported and as per specifications given in NIT.				
2.01	Not less than 11.0 TR	4	Each		-
2.02	Not less than 16.0 TR	7	Each		-
3	Supplying, Installation, testing and commissioning including vaccumisation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of not less than 9 mm thick insulation as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :				
3.01	9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	100	Metre		-
3.02	12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	175	Metre		-

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

3.03	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm	50	Metre		-
3.04	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm	75	Metre		-
4	**GI TRAY SUPPORT:** Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers GI Suspenders i/c base of suitable size GI angle, GI bolts & nuts, fastener etc as required.				
4.01	300 mm width X 50 mm depth X 1.6 mm thickness	75	Metre		-
5	**DRAIN PIPE:** Supplying and laying of ISI marked following size **CPVC pipe of** for draining of sweated water from AC evaporator (indoor) unit including providing tee, joints, elbows, supports, etc. insulated with XLPE class - O tubular insulation / with Class-O closed cell elastomeric nitrile rubber tubular sleeves sections of not less than 9 mm thick etc. complete as required.				
5.01	32 mm	100	Metre		-
5.02	40 mm	100	Metre		-
6	Providing and fixing flexible canvas connection made of denim cloth in the air-conditioning duct plenum, of approved quality and suitable thickness, between the duct and AHU/fan outlet or inlet, including cutting, stitching, fabrication, and fixing with GI/MS cleats or angles and suitable fasteners/rivets/bolts, as required. The canvas connection shall be properly secured and sealed to ensure an air-tight and vibration-isolating joint, preventing transmission of vibration from the equipment to the ductwork. The work shall include all necessary materials, labour, tools, tackles, scaffolding/access arrangements, sealing compound, and incidental works, complete in all respects as per site requirements and to the satisfaction of the Engineer-in-Charge.	18	Job		-
7	Supplying, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports, bends, transitions, reducers, end caps, collars etc as required complete in all respect in confirmation with IS : 655 and approved drawings and specifications of following sheet thickness complete as required.				
7.01	Thickness 0.63 mm sheet	50	sqm		-

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

8	Fabricating, Providing and fixing **M.S. iron frame** fabricated with M.S. C-channel of size 50 mm x 50 mm x 6 mm (thick) for resting the condenser unit on the roof / floor of the building duly supported from the bottom as required including painting and grouting the framework with cement concrete etc. complete as required.	25	Metre		-
9	Supplying and laying of ISI marked **PVC insulated FRLS flexible copper cable of following size** of 1.1 kv grade conforming to IS694:2010 on surface including making connections with end termination with copper lugs, etc. as required.				
9.01	3 core x 1.5 sqmm	175	Metre		-
10	Supplying, fixing, testing and commissioning of BUTTERFLY VALVE (MANUAL) with CI body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified.				
10.01	65 mm dia.	14	Each		-
10.02	50 mm dia.	8	Each		-
11	Supplying, fixing, testing and commissioning of Y - STRAINER of Ductile CI Body flanged ends with stainless steel strainer for chilled / hot water circulation including insulation as specified				
11.01	65 mm dia.	14	Each		-
11.02	50 mm dia.	8	Each		-
12	Providing and fixing in position industrial type (liquid/gel damped) pressure gauges with gun metal / brass valves complete etc. as required.	22	Each		-
13	Providing & fixing in position industrial type mercury thermometers (range shall cover 0 deg C to 30 deg C at least) complete etc. as required.	22	Each		-
14	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 1239/Class -II of IS: 3589 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required.				
14.01	50 mm dia.	20	Metre		-
14.02	65 mm dia.	30	Metre		-
15	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level of grade 1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	1.75	Cum		-

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division

16	Supplying and laying of ISI marked PVC insulated XPLE armoured aluminium conductor cable of following size of 1.1 kV grade conforming to IS:7098 on surface / recess / cable tray /above false ceiling etc. as required. (Acceptable make: Any Reputed make)				
16.01	4 core x 16 sqmm	300	Metre		-
17	Supplying and making end termination with brass compression gland and aluminium / copper lugs (as applicable) for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
17.01	4 X 16 sq. mm (28mm)	50	Each		-
18	Dismantling, lifting, shifting and removal of existing air-cooled/water-cooled package air-conditioning unit of capacity up to 16 TR, including isolation/disconnection of electrical and refrigerant connections, removal of associated supports, piping/connections, existing tray, cables and all necessary dismantling work, complete as directed by the Engineer-in-Charge.	18	JOB		-
19	(-) Less Buy-Back of Old & Outlived 4 x 11.0 TR & 3 x 16.0 TR Air Cooled Packaged Type AC unit and 4 x 11.0 TR & 7 x 16.0 TR Water-cooled AC units outdoor units, other accessories [as is where is basis] (Reserve Price of all old outlived units is Rs.2,81,000.00. Bidder cannot quote below this reserve price)	1	Lot		-
	TOTAL (Summation of amounts from item 1 to 18 minus 19)				

Sr. Asstt. [AC] **JE (E.)** **AEE-in-charge AC Division**

C … Nil I ….. Nil O …… Nil

JE / Sr. Asstt. JE(E), AC AEE-in-charge AC Division