

## अंतर-विश्वविद्यालय त्वरक केंद्र

INTER-UNIVERSITY ACCELERATOR CENTRE

(विश्वविद्यालय अनुदान आयोग का स्वायत्त निकाय)

(An Autonomous Centre of UGC)

अरुणा आसफ अली मार्ग, नई दिल्ली-110067

Aruna Asaf Ali Marg, New Delhi - 110067

### ई-निविदा आमंत्रण सूचना/ NOTICE INVITING E-TENDER

निविदा संख्या: आईयूएसी/एनआईटी/ 21/प भ/2022-23

दिनांक: 04/10/22

Tender Number: IUAC/NIT/21/PB/2022-23

Dated: 04/10/2022

अंतर-विश्वविद्यालय त्वरक केंद्र (आई.यू.ए.सी.) पात्र/अनुभवी पार्टियों से दो बोली प्रणाली नामतः तकनीकी और वित्तीय बोली के तहत ई-प्रोक्योरमेंट पोर्टल के माध्यम से निदेशक, अंतर-विश्वविद्यालय त्वरक केंद्र, नई दिल्ली की ओर " आई सी एम एस लेब का वातानुकूलन कार्य (क्लास 10000), डकटिंग, फिल्टर्स सहित" की आपूर्ति के लिए ऑनलाइन बोलियां आमंत्रित करता है।

Inter - University Accelerator Centre (IUAC) invites online bids on behalf of the Director IUAC, New Delhi through e-procurement Portal under two bid system, viz., and Technical and financial bids, from eligible / experienced parties for the work/supply " **Air Conditioning Works (Class 10000) including Ducting and filter works in ICMS Lab**" in IUAC, Aruna Asaf Ali Marg, New Delhi.

निविदा दस्तावेज, सेंट्रल पब्लिक प्रोक्योरमेंट (सीपीपी) पोर्टल <https://eprocure.gov.in/eprocure/app> से मुफ्त में डाउनलोड किए जा सकते हैं। इच्छुक बोलीदाता, जिन्होंने ई-प्रोक्योरमेंट पोर्टल में नामांकन/पंजीकरण नहीं किया है, उन्हें भाग लेने से पहले <https://eprocure.gov.in/eprocure/app> वेबसाइट के माध्यम से नामांकन/पंजीकरण करना होगा। बोलियां केवल <https://eprocure.gov.in/eprocure/app> वेबसाइट पर ऑनलाइन जमा करनी होगी। निविदाकारों/ठेकेदारों/बोलीदाताओं को सलाह दी जाती है कि वे ई-प्रोक्योरमेंट पोर्टल में दिए गए निर्देशों का पालन करें। बोली दस्तावेजों को 100 डी.पी.आई. में ब्लैक एंड व्हाइट स्कैन करें, जो स्कैन किए गए दस्तावेजों के आकार को कम करने में मदद करता है।

Tender Documents may be downloaded from Central Public Procurement (CPP) Portal free of cost <https://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement portal should enroll / register before participating through the website <https://eprocure.gov.in/eprocure/app>. Bids should be submitted online only at website: <https://eprocure.gov.in/eprocure/app>. Tenderer / Contractors / Bidders are advised to follow the instructions provided in the e-procurement portal. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned documents.

केवल ई-प्रोक्योरमेंट पोर्टल के माध्यम से प्राप्त बोलियों को ही खोला जाएगा। जो बोलियाँ उत्पादों/वस्तुओं के कार्य/आपूर्ति के वांछित प्रयोजनों को संपूर्ण रूप से पूर्ण करने में अक्षम होगी, उन बोलियों को अस्वीकार कर दिया जाएगा और केवल

पूर्ण बोलियों पर विचार किया जाएगा। अंतर-विश्वविद्यालय त्वरक केंद्र के पास बिना कोई कारण बताए किसी भी/सभी निविदाओं को आंशिक/पूर्ण रूप से स्वीकार/अस्वीकार करने का अधिकार सुरक्षित है और इस संबंध में आईयूसी का निर्णय सभी बोलीदाताओं के लिए बाध्यकारी होगा।

Only bids received through e-procurement portal will be considered for opening. Bids not covering full scope of work/supply of the products/goods will be rejected and only complete bids will be considered. IUAC reserves the right to accept / reject any / all tenders in part / full without assigning any reasons whatsoever, and the decision of IUAC in this regard will be binding on all the bidders.

ई.एम.डी. का भुगतान करने के लिए बोलीदाता को "ऑनलाइन" भुगतान विकल्प का चयन करना होगा, जो <https://services.sabpaisa.in/pages/iuac.html> लिंक पर जाकर लागू होगा। बयाना राशि ऑनलाइन भुगतान के रूप में होगी और इसे बोली खोलने से पहले जमा किया जाना चाहिए। एम.एस.एम.ई./एन.एस.आई.सी. में पंजीकृत बोलीदाताओं को ई.एम.डी. के भुगतान से छूट दी गई है। एम.एस.एम.ई./एन.एस.आई.सी.(निविदा की गई वस्तु/कार्य के लिए पंजीकृत इकाई) से पंजीकृत निविदाकारों को तकनीकी बोली के साथ वैध पंजीकरण प्रमाणपत्र की प्रति <https://eprocure.gov.in/eprocure/app> वेबसाइट पर अपलोड करनी होगी।

Bidder has to select the payment option as "online" to pay the EMD as applicable by going to the link <https://services.sabpaisa.in/pages/iuac.html> . The Earnest Money Deposit shall be in the form of online payment and it should be deposited before the bid opening. Bidders registered with MSME/ NSIC are exempted from payments of EMD and are required to submit Bid Securing Declaration Form. Bidders registered with MSME/ NSIC are exempted from payments of EMD. Tenderer registered with MSME/NSIC (the unit being registered for the item/work tendered) are required to upload copy of valid registration certificate in the website <https://eprocure.gov.in/eprocure/app> along with technical bid.

बोलीदाताओं को इस बात को विशेष ध्यान में रखने की सलाह दी जाती है कि वे अनिवार्य रूप से उपलब्ध कराए गए प्रारूप में ही अपनी वित्तीय बोलियां जमा करें और कोई अन्य प्रारूप स्वीकार्य नहीं होगा। यदि मूल्य बोली निविदा दस्तावेज के साथ मानक .XLS BOQ प्रारूप के रूप में दी गई है, तो इसे ही डाउनलोड करना होगा और प्रारूप को संशोधित किए बिना ऑनलाइन भरना और जमा करना होगा। यदि बोलीदाता द्वारा BOQ फाइल को संशोधित पाया जाता है, तो बोली को अस्वीकार कर दिया जाएगा।

Bidders are advised to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard .XLS BOQ Format with the tender document, then the same is to be downloaded and to be filled and submitted online without modifying the format. **If the BOQ file is found to be modified by the bidder, the bid will be rejected.**

उपरोक्त निविदा के संबंध में कोई भी शुद्धिपत्र/संशोधन केवल <https://eprocure.gov.in> और [www.iuac.res.in](http://www.iuac.res.in) वेबसाइट पर जारी किया जाएगा। बोलीदाता, अपनी बोली जमा करने से पहले निविदा दस्तावेज से संबंधित, प्रकाशित होने वाले किसी भी शुद्धिपत्र की जानकारी रखें। निदेशक, अंतर-विश्वविद्यालय त्वरक केंद्र के पास बिना कोई कारण बताए किसी भी/सभी निविदाओं को आंशिक/पूर्ण रूप से स्वीकार/अस्वीकार करने का अधिकार सुरक्षित है।

Any Corrigendum / Amendments in respect of above tender shall be issued on website <https://eprocure.gov.in> and [www.iuac.res.in](http://www.iuac.res.in) only. Bidders should take into account any corrigendum published on the tender document before submitting their bids. The Director, IUAC reserves the right to accept/reject any/all tenders in part/full without assigning any reasons thereof.

### **E-TENDER DOCUMENT**

Name of Work	<b>Name of work: Air Conditioning Works (Class 10000) including Ducting and filter works in ICMS Lab in IUAC, Aruna Asaf Ali Marg, New Delhi.</b>
Tender No.	TENDER NO: IUAC/NIT/21/PB/2022-23
Tender Value/Estimate	<b>Rs. 420000 (Rupees Four lacs Twenty thousand only)</b>
Earnest Money Deposit	<b>Rs. 8400/-</b>
Online payment of EMD	<a href="https://services.sabpaisa.in/pages/iuac.html">https://services.sabpaisa.in/pages/iuac.html</a>
Bid Submission End Date	<b>27/10/2022 at 3.00 p.m.</b>
Technical Bid Opening Date	<b>28/10/2022 at 3.30 p.m.</b>
Price Bid Opening Date	To be intimated later.
Contact Person	Administrative Officer (S&P)/ Mr. Bishamber Kumar E-mail: <a href="mailto:iuacstores@gmail.com">iuacstores@gmail.com</a> / <a href="mailto:bkg.iuac@gmail.com">bkg.iuac@gmail.com</a> > Phone: 011-24126018, 24126022.

### **REGISTRATION PROCESS ON CPP PORTAL FOR ONLINE BIDDING**

1. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “**Online Bidder Enrollment**” on the CPP Portal which is free of charge.  
**Bidder who registered already may skip the registration process and login to site through their user ID/Password**
2. As part of the enrollment process, the bidders will be required to choose a unique username and assign a password for their accounts.
3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
4. Upon enrollment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g., Sify / nCode / eMudhra/ Nic etc.), with their profile.
5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
6. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

### **SEARCHING FOR TENDER DOCUMENTS**

7. 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, Organization 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 Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
8. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These 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.
9. The bidder should make a note of the unique Tender ID assigned to each tender; in case they want to obtain any clarification / help from the Help desk.

### **PREPARATION OF BIDS**

10. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
11. 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/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
12. 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, GST Certificate etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” 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.

Note: Bidder should take into account any corrigendum published on the tender document before submitting their bids.

### **SUBMISSION OF BIDS**

1. The tender shall be submitted online in two parts, viz., technical bid and financial bid.
2. The offers submitted by hand/Post/Fax/email shall not be considered. No correspondence will be entertained in this matter.
3. All the pages of bid being submitted must be sequentially numbered by the bidder irrespective of nature and content of the documents before uploading.
4. The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. 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.
5. Bidder should log into the site well in advance for bid submission so that they can 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.
6. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
7. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white colored (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 and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
8. 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.
9. 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 unauthorized 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. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
10. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
11. Upon the successful and timely submission of bids (i.e., after Clicking "Freeze Bid Submission" in the portal), 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.
12. The bid summary has to be printed and kept as an acknowledgment of the submission of the bid. This acknowledgment may be used as an entry pass for any bid opening meetings.

### 13. Code of Integrity for Public Procurement

IUAC requires that the bidders, suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the following are defined:

Sr. No.	Term	Meaning
(a)	<b>Corrupt practice</b>	The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution.
(b)	<b>Fraudulent practice</b>	A misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract.
(c)	<b>Collusive practice</b>	Means a scheme or arrangement between two or more bidders, with or without the knowledge of the purchaser, designed to establish bid prices at artificial, non-competitive levels.
(d)	<b>Coercive practice</b>	Means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.
(e)	<b>Anti-competitive practice</b>	any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of the Competition Act, 2002, between two or more bidders, with or without the knowledge of the purchaser, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels
(f)	<b>Conflict of interest</b>	participation by a bidding firm or any of its affiliates that are either involved in the consultancy contract to which this procurement is linked; or if they are part of more than one bid in the procurement; or if the bidding firm or their personnel have relationships or financial or business transactions with any official of purchaser who are directly or indirectly related to tender or execution process of contract; or improper use of information obtained by the (prospective) bidder from the purchaser with an intent to gain unfair advantage in the procurement process or for personal gain
(g)	<b>Obstructive Practice</b>	materially impede the purchaser's investigation into allegations of one or more of the above mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the purchaser's Entity's rights of audit or access to information.

#### **Instructions for Online Bid Submission**

1. The tender documents are available on our website [www.iuac.res.in](http://www.iuac.res.in) & [www.eprocure.gov.in](http://www.eprocure.gov.in).
2. Tender documents may be downloaded from IUAC's website [www.iuac.res.in](http://www.iuac.res.in) and CPPP site <https://eprocure.gov.in/eprocure/app> as per the schedule as given in the tender document.
3. Bids shall be submitted online only at CPPP website: <https://eprocure.gov.in/eprocure/app>. Tenderer/Contractors are advised to follow the instructions provided in the 'Instructions to the Contractors/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>'. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
4. Not more than one tender shall be submitted by one contractor or contractors having business relationship. Under no circumstance will father and his son(s) or other close relations who have business relationship with one another (i.e., when one or more partner(s)/director(s) are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable to rejection.
5. The bidders are advised to visit CPPP website <https://eprocure.gov.in/eprocure/app> at least 3 days prior to closing date of submission of tender for any corrigendum / addendum/ amendment.
6. Bids will be opened as per date/time as mentioned in the **Tender Document**. After online opening and

evaluation of technical bids, the results of their qualification as well Price-Bid opening will be intimated.

7. Submission of a tender by a tenderer implies that he has read all the stipulations contained in this tender document and has acquainted him of the nature, scope and specifications of the items to be followed.
8. The tenderer shall submit all documents after duly filling the same in all respects. Tenders which are found to be vague or incomplete shall be rejected summarily.
9. Tenders shall be submitted ON-LINE; it shall be signed by one who has been authorized by the board of director /director / manufacture/ firm owner /their authorized agents through a resolution/ authority letter. Copy of the resolution/ authority letter in favour of the person signing must accompany the tender.
10. Tenders containing erasures and alterations of the tender documents are liable to be rejected unless these are authenticated by the person signing the Tender Documents.

#### **ASSISTANCE TO BIDDERS**

1. More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.
2. Any queries relating to the 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.
3. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Help desk. The contact number for the help desk is 1800 3070 2232, 91-7878007972 and 91-7878007973.

**Tenderer Signature with Seal**

**SPECIAL INSTRUCTIONS TO BIDDERS FOR REGISTRATION WITH COMPETENT AUTHORITY**

**Bidders Registration**

- 1) Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
- 2) **“Bidder”** for the purpose of this tender (including) the term 'tender', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several person, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated here in before, including any agency, branch or office controlled by such person, participating in a procurement process.
- 3) **“Bidder from a country which shares a land border with India”** for the purpose of this tender means:
  - a) An entity incorporated, established or registered in such a country; or
  - b) A subsidiary of an entity incorporated, established or registered in such a country; or
  - c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d) An entity whose beneficial owner is situated in such a country; or
  - e) An Indian (or other) agent of such an entity; or
  - f) A natural person who is a citizen of such a country; or
  - g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- 4) **“The Beneficial owner”** for the purpose of (3) above will be as under:
- 5) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation: -

  - a) “Controlling ownership interest” means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
  - b) “Control” shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- 6) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- 7) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- 8) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;



- 9) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

“**An Agent**” for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons.

**Sub-contracting in works contracts**

In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

**\*Please note that the bidders shall provide the mandatory Certificates in the formats (as given in annexure VI) on their registered Company's letter heads.**

**Tenderer Signature with Seal**

## GENERAL TERMS & CONDITIONS

**1. Submission of Tender:** Tenders should be uploaded on CPP portal in two parts separately, i.e., "**Technical Bid**" (Part-A) and "**Price Bid / BOQ**" (Part-B). No other mode of submission will be accepted. **Any clarifications/amendments/corrigenda etc., to NIT before last date of submission of bid will only be available on our website: www.iuac.res.in. Therefore, bidders are advised to keep visiting our website.**

**2. 2.1 Technical Bid (Part-A):** In this bid, the bidder shall upload the scan copies of the following: **The following essential documents are required for Technical Qualification:**

- i** Covering letter on Company's Letter Head
- ii** **Copies of work orders and completion certificates of similar type of works** executed successfully during the last 7 yrs. (ending on the last day of submission of bids) in Government organizations, Govt. Autonomous organizations, public sector units of Central and State Governments, with **at least one work of value not less than Rs. 3.36 lakh or two similar works, each of value not less than Rs. 2.1 lakh or three similar works, each of value not less than Rs. 1.7 lakh .**
- iii** Copies of the audited balance sheets /average turnover certificates duly certified by CA (more than 30% of the estimated tender cost) of the past three financial years along with copies of ITRs
- iv** **Copies of PAN no., GST Reg. no**
- v** Tender acceptance letter (as per annexure - I of tender document) on bidder's letter head duly signed & stamped by the bidder as acceptance of all terms & condition of tender.
- vi** Undertaking for Site Visit has to be submitted as per Annexure – II
- vii** Bid Security Declaration for MSME as per Annexure – III on the Letter Head of the Bidder
- viii** Undertaking On the Letter Head of the Bidder as per Annexure IV
- ix** Declaration by the Bidder for Code of Integrity & conflict of interest On the Letter Head of the Bidder as per the Format given in ANNEXURE-V
- x** Declaration by the Bidder Certificate for Tenders involving procurement (On Bidder's letterhead) as per the Format given in ANNEXURE-VI
- xi** Profile of company (organizational setup, credentials, list of plant, machinery & tools in his possession, contact detail along with email address) as per Annexure – VII
- xii** Check-list for pre-qualification bid as per the Format given in ANNEXURE-VIII

**2.2 Price Bid (Part-B):** In this bid, the tenderer is required to quote his item rates in the BOQ formed in accordance with the scope of work, terms & conditions & technical specifications enclosed. The rates/price quoted by contractor should be all inclusive i.e., should include all material cost, labour, services, plant/machinery/tools & tackles, ladders & scaffolding required for work, freight, Insurance, and all applicable Govt. Duties, **excluding GST (payable separately as/if applicable)**, levies & taxes, transport / cartage of materials / labour and all other expenses not specifically mentioned but reasonably implied. Nothing over and above these rates shall be payable to contractor. However, if any fresh taxes are imposed by State/Central/Statuary bodies during the currency of contract, the same shall be borne by Institute. Further, nothing extra in rates will be considered due to any site difficulties. It is mandatory for bidder to quote all items rate as asked for in the BOQ/ PRICE schedule. Failure in not filling some item rates will lead to be considered them as zero and accepted. No further compensation on that item can be considered later. The bidders should quote unconditional rates.

**3. Validity of Tender:** Tender shall be valid for our acceptance without any change in rates and NIT conditions for a period of 90 days from the date of opening of Price bid. No tenderer can withdraw/or modify

his tender or revoke the same within the said period of 90 days. If a tenderer on his withdraws or revokes the tender or revises or alters or modifies the tender for any item or condition within a period of aforesaid 90 days. The validity of accepted rates is extendable for a period of 180 days from the date of issue of Award Letter, with mutual consent of both the parties.

**4. Earnest Money Deposit:** Bidder has to select the payment option as “online” to pay the EMD as applicable by going to the link <https://services.sabpaisa.in/pages/iuac.html> . The Earnest Money Deposit shall be in the form of online payment and it should be deposited before the bid opening. Bid Security shall be refunded to the un-successful bidders on award of contract and to successful bidders on receipt of Performance Security.

EMD is the mandatory requirement however the MSMEs/NSIC registered with Government Agencies are exempted from payment of Earnest Money Deposit (EMD) subject to conditions given below: -

- i) MSMEs participating in the tender must submit valid & authorized copy of certificate of registration. The MSME’s Bidder to note and ensure that nature of services and goods/items manufactured mentioned in MSME’s certificate matches with the nature of the services and goods /items to be supplied as per Tender.
- ii) The registration certificate issued by agencies must be valid as on Bid closing date of the tender. Bidder shall ensure validity of registration certificate in case bid closing date is extended.
- iii) The MSMEs who have applied for registration or renewal of registration with any of the authorized agencies / bodies, but have not obtained the valid certificate as on close date of the tender, are not eligible for exemption / preference.

## **5. Bid Opening and Evaluation of Bids**

### **Opening of Bids**

- a) The E-bids shall be opened on-line. The technical bids will be evaluated to short-list the eligible bidders. The technical bids of only eligible bidders shall be considered for further processing (technical evaluation).
- b) Bidder whose technical bid is found to be acceptable and meeting the eligibility requirements as specified in this tender will be considered as technically qualified.
- c) IUAC will open commercial bids of only the technically qualified/short-listed bids.
- d) In case, the day of bid opening is declared a holiday by the government, the E-bids will be opened on the next working day at the same time. No separate intimation shall be sent to the bidders in this regard
- e) Since E-bid is an on-line process, the E-bid opening or any other process may be delayed due to any technical/server issue. If any such issue arises, this will not be tantamount to process delay and IUAC will not be responsible for the same.
- f) On opening of bids on-line, accepting the bid would not mean that the firm is technically or financially qualified.

## **6. Clarification of Bids and shortfall documents**

During the evaluation of Techno commercial or Financial Bids, Indenter on behalf of IUAC may, at its discretion, but without any obligation to do so, ask Bidder to clarify its bid by a specified date. Bidder should answer the clarification within that specified date (or, if not specified, 7 days from the date of receipt of such request). The request for clarification shall be submitted in writing or electronically and no change in prices or substance of the bid shall be sought, offered, or permitted that may grant any undue advantage to such bidder.

If discrepancies exist between the uploaded scanned copies and the Originals submitted by the bidder, the original copy's text, etc., shall prevail. Any substantive discrepancy shall be construed as a violation of the Code of Integrity, and the bid shall be liable to be rejected as non-responsive in addition to other punitive actions under the Tender Document for violation of the Code of Conduct.

IUAC reserves its right to, but without any obligation to do so, to seek any shortfall information/documents only in case of historical documents which pre-existed at the time of the tender opening, and which have not undergone change since then and does not grant any undue advantage to any bidder.

**7. Escalation: No escalation over and above items rates quoted by the bidder shall be paid during the execution of contract.**

**8. Performance Security Deposit :** The successful bidder has to submit a performance security in the form of bank guarantee (including e-Bank Guarantee)/FDR of an amount equal to 3% of total contract value within a period of 15 days from the date of issue of LOI. Performance Security shall remain valid for a period of 60 days beyond the date of completion of all works. If tenderer fails to deposit the said performance security within the period as indicated, the LOI will be automatically stand cancelled without any notice to the tenderer and without prejudice to any other right.

**9. Completion time: 2 ( Two) months ( will be reckoned from 15th day of issue of LOI):** The time shall be the essence of this contract and entire work as titled above is to be completed in all respects within a period of 60 days. The time allowed for the commencement of work to be reckoned from the 15<sup>th</sup> day after the date of issuance of LOI. Under the force-majeure conditions, IUAC may grant suitable time extension without penalty for which the contractor has to request along with the justification/reasons well in advance to IUAC for approval without any prejudice to price escalation. No time extension request shall be considered after the expiry of completion period/contract. The decision of the Director, IUAC regarding time extension will be final and binding on the contractor.

**10. Deviations:** No deviation from the stipulated terms and conditions will be allowed. Tender will be unconditional.

**11. Site Conditions:** Contractor shall acquaint himself fully with the site conditions and the working environment of IUAC before quoting his rates. No Compensation on account of any site difficulties will be entertained, at a later date, after award of the work. (The bidder should sign undertaking as per Annexure –II enclosed in tender)

**12. Terms of Payment: Terms of Payment :**

**i.** 60% Payment will be released after pro rata supply of material (subject to maximum of 3 bills) at site along with material & test certificates etc. as required duly certified by the concerned IUAC Engineer.

**ii.** 30% Payment will be released after satisfactory completion of installation, successful commissioning & acceptance of the system by IUAC

**iii.** Balance 10% will be release in exchange of performance security deposit which shall be 10% of the total contract cost and applicable for one year from the date of satisfactory commissioning & handing over the system to IUAC.

**13. Defect Liability period:** Defect liability period shall be one year from the date of completion & handing over (whichever later) of work. Any defect arising in this period due to contractor's fault will be rectified by him at his own cost. Failure to do so shall lead to forfeiture of security deposit.

**14. Labour Laws :** The contractor will abide by all the rules and regulations related to labour laws, accident, workmen compensation act, workmen insurance etc. This will be the sole responsibility of the contractor. IUAC will not be a party at any stage in any of the disputes relating to the above. In case, IUAC has to bear any expenditure due to non-conformance of the above provisions by the contractor, the same will be recovered from contractor's bills.

Contractor will have his own arrangement to escort the labour to the nearest hospital for treatment in case any injury happens to any worker during execution.

**15. Rules governing the Contractor's employees working in the IUAC Premises:** Contractor will take due permission for entry of all his workmen in IUAC. No unauthorized person will be allowed to work inside IUAC campus. The contractor's employees working inside the IUAC campus will abide by the Centre's rules & regulations for works inside the campus. Any damage to the IUAC property due to mishandling, carelessness on the contractor's or his workman's part will be recoverable from the contractor's bills. Manpower deployed by the contractor at site for carrying out contract work is strictly prohibited being associated with any other works on the campus.

**16. Liquidated damages:** In case the work is delayed beyond the specified completion period for reasons attributable to the contractor, deductions on account of Liquidated Damages @ 1% of the order value per week will be deducted subject to a maximum of 10% of the total bill value. However, IUAC reserves the right to get balance work done by any other agency at the risk and cost of the existing contractor and excess liability on IUAC to this effect along with 10% overheads will be deductible from his bills/dues.

**17. Extra or substituted item-** If any extra or substituted item appears in the work, contractor shall submit its rate analysis supported with documents which shall be approved by IUAC. If required, IUAC can make its own analysis based on DSR document of CPWD or based on market rates for determining item rate and pay to contractor accordingly.

**18. Water /Electricity for Execution:** Water/Electricity required for execution (if required at any stage) will be provided by the client at free of cost at one point near to site.

**19. Force Majeure:** The right of the contractor to proceed with the work shall not be terminated because of any delay in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the contractor, including not limited to acts of God, or of the public enemy, restraints of a sovereign state, firms, floods, pandemic/epidemic and war.

**20. Termination of Contract:** - The Director, IUAC reserves the right to terminate the contract on account of poor workmanship, failure to mobilize site within ten (10) days, non-compliance of set norms/specifications for the works, delay in progress of work, violation of any contract provisions by the contractor. In such cases, the Performance Security Deposit/Security Deposit held with Centre may be forfeited by IUAC.

**21. Jurisdiction:** Notwithstanding any other courts having jurisdiction to decide the questions forming subject matter of a suit any and all actions and proceedings arising out of or relative to this contract (including any arbitration in terms thereof) shall lie only in the court of competent Civil jurisdiction in this behalf at New Delhi., where this contract is to be signed on behalf of and only the said court shall have jurisdiction to try any such actions and/or proceedings to the exclusion of all other courts.

**22. Dispute Settlement:** It is mutually agreed that all differences and disputes arising out of or in connection with these agreements shall be settled by mutual discussions and negotiations if such disputes and differences cannot be settled and resolved by discussions and negotiations then the same shall be referred to the sole Arbitrator appointed by the Director, IUAC whose decision shall be final and binding on both the parties. The contract shall be governed by laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial

dealings/ processing.

**23. Negotiations:** Normally, there shall not be any negotiation. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the lowest evaluated responsive bidder. Counter offers tantamount to negotiations, shall be treated at par with negotiations.

**25. Termination for Insolvency :** IUAC may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

**26.Samples:** After award of work of the tender contractor shall show the relevant samples at his own cost to Institute before start of work. These samples will be sealed by the IUAC in the presence of the contractor, if he so desires and shall remain in the custody of the IUAC for reference and comparison till the completion of work.

**27.Correspondence:** Tender must mention their postal address and telephone number(s) of the Chief Executive/authorized agent or attorney in the tender. The tender submitted by the tenderer will be rejected if he or his agent cannot be contacted on the last known address or on the intimated telephone number(s) after reasonable search in which event earnest money may be forfeited by the IUAC.

**28. IUAC not to assign any reason for rejection of tender:** Director, IUAC hold absolute discretion to accept or reject the lowest or any other tender without assigning any reason. No claim on this account shall be entertained.

**29.. Amendment in tender documents:** IUAC reserve the right to revise or amend the Bid Documents up to the date prior to the date notified for opening of the tenders and also the right to postpone the date of submission and opening of tenders without assigning any reason, whatsoever.

30. IUAC will not pay any expense, whatsoever incurred by tenderer for the preparation and submission of tenders.

31. IUAC does not bind itself to accept the lowest or any tender and reserves the right to reject any of all tenders without assigning any reason.

**32.** The notice inviting tender, will form part of the contract agreement to be executed by the successful tenderer with the IUAC.

**33.** IUAC also reserves the right to change the quantities of the units while issuing the letter of award of work.

**34. REFERENCE IN TENDER DOCUMENTS:** Director, IUAC, shall be referred as “Owner” in all the documents of Tender documents/contract agreement.

**35. OFFICER INCHARGE:** Where ever the word “In charge.” occurs it shall mean the authorized Officer appointed by the IUAC for the superintendence of the execution or related work.

**Tenderer Signature with Seal**

## **SPECIAL CONDITIONS OF CONTRACT**

### **CARRYING OUT OF WORK**

1. All the work shall be carried out in accordance strictly as per the specifications given in the tender to the total satisfaction of the Institute. In the case of an item for which specification are not available in the said specifications relevant to BIS /CPWD specifications applicable as on the date of tenders shall be followed.
2. The works shall be inspected by our IUAC Engineers or the person nominated by the Director IUAC. The contractor shall extend full co-operation and render all necessary facilities for inspection of the work to the inspecting authority without any additional cost to IUAC. It must be noted that any observations/ comments/ recommendations of the said technical consultants shall be binding on the contractor.

### **CONTRACTOR'S RESPONSIBILITY FOR THE MANNER OF EXECUTION OF WORKS**

3. The contractor shall be solely responsible for the manner and the method of executing the work. The work shall be subject to the approval of IUAC from time to time for purposes of determination of the question whether the work is executed by the contractor in accordance with the contract.

### **SPECIFICATIONS:**

4. During execution of work, the contractor should follow all standard norms of safety measures/precautions as per relevant IS codes and CPWD specifications to avoid accidents/damages to man, machines and buildings, at his own cost.

5. If specifications for an item of work are not covered as per approved Specifications of tender, the same shall be decided by the Institute and shall be binding on the contractor.

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

7. **QUANTITIES AND OTHER ADDITIONS/ALTERATIONS/ DEVIATIONS:** Quantities in the B.O.Q. are estimated quantities which may vary during the execution of the work. Payment shall be made as per actual quantities executed without any change in the contracted rate due to variation in quantity, if any. The successful bidder shall have to make detailed estimation of required quantities before supplying the material at site.

8. The IUAC shall have power to make any alterations or omissions or additions or substitutions in the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out the work in accordance with any instructions which may be given to him in writing signed by the IUAC and such alterations, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work which the contractor may be directed to carry out in the manner above specified as part of the work shall be carried out by the contractor on same conditions in all respects on which he agreed to do the main work. The time for the completion of the work shall be extended in the proportion that the altered additional or substituted work has to the main work at the sole discretion of the IUAC, and his decision in this regard shall be final and binding on the contractor.

9. **QUALITY CONTROL OF MATERIAL :** If it shall appear to the Engineer or the Director, that any work has been executed with unsound, imperfect, or unskillful workmanship or with materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for or otherwise not in accordance with contract, the contractor shall on demand in writing from the Engineer specifying the work materials or articles complained of notwithstanding that the same may have been inadvertently passed, certified and paid for forthwith rectify, or remove & reconstruct the work so specified in whole or in part, as the case may require, or as the case may remove the materials or articles



so specified and provide other proper and suitable material or articles at his own charge and cost and in the event of his failing to do so within a period to be specified by Engineer, in his demand as aforesaid then the contractor shall be liable to pay compensation at the rate of 1% on the contract agreement of work for everyday till rectify or remove, and re-execute the work or replace with other materials or articles complained of as the case may be at the risk and expense in all respects of the contractor.

**10. SITE WORKING RULES AND REGULATIONS:**

- i. The contractor shall furnish IUAC, the Power of Attorney name and signature of his authorized representative who will be in-charge of the execution of the works at site. The contractor shall also furnish the list of technically qualified persons employed by him for execution of the works.
- ii. Save as otherwise specifically provided in this Agreement the rates and prices herein, unless otherwise stipulated elsewhere in this Agreement, include all the costs, expenses and outlays of the contractor for executing the works and fulfilling all the obligations of the Contractor under this agreement.

**11. INSPECTION OF WORK**

- a. All work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of Engineer, or his subordinate in-charge of the work and the contractor shall at all times, during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer to visit the works shall have been given to the contractor, either himself be present to receive order and instructions or have a responsible agent/supervisor duly accredited in writing present for that purpose. Orders given to the contractor's agent/ supervisor shall be considered to have the same force as if they had been given to the contractor himself.
- b. The work during its progress shall be inspected by the Engineer or Engineer-in-charge on behalf of and the contractor shall extend all co-operations to the engineers inspecting the work.

**AGENCY'S RISKS**

**12.** All risks of loss of a or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract other than the excepted risks are the responsibility of the contractor.

**13. ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK:** If it shall appear to IUAC, or our representatives, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of any inferior description or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to the contracted for, or otherwise not in accordance with the contract and provide other and suitable materials or articles so specified at his own cost and in the event of his failing to do so within a period to be specified by the IUAC in his demand aforesaid, then the contractor shall be liable to pay compensation at the rate of one percent on the amount of the work order for every week not exceeding ten days while his failure to do so that continue and in the case of any such failure IUAC, may rectify or remove, and re-execute the work or remove and replace with other materials or articles complained of, as the case may be at risk and expenses in all respects of the contractor.

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

**15.** The contractor will arrange all necessary materials, tools, equipment, access ladders & scaffolding, measuring instruments and working consumables etc. needed for execution of the works. Safe custody of all such material will be contractor's sole responsibility. No extra charges will be paid for the same. Watch and ward of all material till the system is taken over by IUAC shall be the sole responsibility of the contractor and pilferage etc. shall be entirely to his account.

**16.** If during the execution of works, any damage is caused to IUAC property by contractor's workers, contractor will duly make good the loss. IUAC has the right to make suitable deduction from contractor's bills along with penalty, if contractor fails to make good the loss.

**17.** No material belonging to the contractor whether consumable or non-consumable should be brought

inside the IUAC campus without proper entry at the Main Gate nor any material should be taken out without proper gate pass issued by the authorized representatives of the Centre. Material delivery challans duly entered at the main gate shall to be submitted.

**18.** During execution of the work, contractor should dispose-off waste material on regular basis and should keep the area of work properly cordoned off and neat and clean as far as possible. After completion of work, contractor should clear the site completely of all unwanted and junk material before submitting his final bill.

**19.** It shall always prevail, unless otherwise specifically stated, that the entire provisions of Tender document been opened upon and accepted for compliance by the contractor without any reservation.

**20.** During execution of work, Engineer can make minor changes in the scope of work as per site conditions or other reasons. Contractor will have no extra claim in his rates for the same.

**21.** During execution of work, the contractor should follow all standard norms of safety measures/precautions as per relevant IS codes and CPWD specifications to avoid accidents/damages to man, machines and buildings, at his own cost. Contractor will have his own arrangement to escort the labour to the nearest hospital for treatment in case any injury happens to any worker during execution of work.

**22.** Contractor will use only approved makes of materials as listed below and will get the samples of these materials approved by IUAC Engineer before incorporating in the work.

**23.** Before working, in area all instrument /machines /system/furniture /electronic item to be covered with tarpaulin /polythene cover to ensure protection and to prevent dust entry. For this no extra payment to be made to contractor. He will do it on his own cost. The same shall be included in rate quoted in respective item

**24.** Contractor may see the site before quoting rate to see the actual condition of work/site. No extra payment to be made later for work.

**25.** Payment for executed work will be made to contractor based on actual measurement only.

**26.** Detailed specification of various items of work with respect to materials and workmanship and method of measurements shall conform to relevant IS codes and CPWD specifications, UNO.

**Seal & Signature of Contractor**

## Scope of Works

**Name of Work : Clean room Class 10000 for ICMS Lab.**

**1. Introduction:** We intend to develop a Geochronology Sample preparation lab. This needs air conditioning and environment of class 10000. The cooled air will be supplied from already installed AHU. Supply and fixing of ducting, HEPA filters, false ceiling, partition wall, door shall be carried out to convert the existing room to class 10000. There will be no re circulation air. The fume hood and laminar flow is being used in the lab so the some of the air will be exhausted through these units.

### **Room Sizes :**

Sec-A : 3800 x 3000x 2400 mm ( Proposed Class 10000 area)

Sec-B : 5520 x 2620 x 2400 mm ( Exhaust / return air from Sec-A shall cool this room)

Sec-C : 3000 x 2000 x 2400 mm ( shall be cooled by the split ac fixed by bidder (provided by IUAC)

**Data :** Electrical equipment and power load:

Total power load (approx)- 10 kW

No. of persons in the room- 3 persons

Electrical fitting load- 06 LED tubes (20W)

No. of air flow exhaust from fume hoods and laminar- 01

### **2. Scope of Supply & Works :**

1. Design and drawings for the clean room Class 10000 (ISO 7) 100% fresh air.
2. Sec-A – Area shall be air conditioned with class – 10000.
3. Sec-B- Cooling / air conditioning o this area shall be carried out by the return / exhaust air from the Room Sec-A.
4. After cooling of both rooms Sec-A and Sec-B, exhaust from the Laminar flow and fume hood, the remaining air shall be exhausted out of the rooms by exhaust fan of suitable capacity.
5. The cooled air for above shall be provided with the existing AHU, situated at distance of 5 meters away from the room.
6. Providing and fixing of roof underdeck insulation inside room.
7. One split unit is installed in the existing area. Same shall be dismantled and shifted to the area Sec-C.
8. Dismantle of existing all false ceiling.
9. Providing and fixing ducting, dampers, insulation as per requirement.
10. Providing and fixing of false ceiling made of double skin, 50 mm thick PUF panels as per requirement including supports / hangers, T/L section, fasteners etc.
11. Wall partition double skin, 50 mm thick PUF panels as per requirement.
12. HEPA Terminals.
13. HEPA Filters, Size - 610x610x75 mm, with acrylic / PVC /Wooden frame as per requirements.
14. Magnehelic Gauges for indication of room pressures and HEPA filter pressure drop / cleanliness condition.
15. Filters shall be replaceable from room side.
16. Wiring, switch, switch box etc. for the motorised damper shall be installed as per requirement in the room entry.
17. Temperature of 22 +\_0.5 °C. RH 50+/- 5 % shall be maintained in the area Sec-A.
18. Digital temperature and RH% Indicators should be installed in each area.
19. Ducting should be inclusive of design, drawing, SITC of ducts, bends , vanes, supports, hangers, clamps, anchor fasteners etc.
20. Thermal insulation of ducting as per specifications.
21. **Bidder should take into account all the implicit items not specified here-in, but are essential for completion of the work. The costs of such items should be in-built in the costing of the item rates. If the items are not taken into account, they should be clearly brought out in the Technical Bid (Part-A) of the**

**bid document.**

**22. THE QUANTITIES SHOWN ON THE PRICE SCHEDULE ARE ONLY TENTATIVE AND THE ACTUAL MEASUREMENTS WILL ONLY BE KNOWN AFTER THE EXACT DESIGN & DRAWING IS FINALISED BY THE SUCCESSFUL BIDDER WITH DUE APPROVAL OF THE OWNER.**

**23. Final payment** will only be made against the actual quantities installed and not on the basis of items supplied. For this a joint measurement by IUAC engineer and the contractor will have to be taken. The responsibility and the facilitation for taking the measurements will rest with the contractor. It is entirely contractor's responsibility to take dimensions, sizes from site, design the system, and take IUAC's engineer's approval before actually proceeding with supply and installation of the same at site.

**24.** After installation, testing & commissioning at site, the contractor shall demonstrate the Clean Room Class 10000 (ISO 7) at rest condition, air temperature, relative humidity, air velocity, flow, pressure & certificate in that respect to be submitted. All the arrangements for material / test instruments / modifications etc. shall be made by bidder for same without any extra cost to IUAC.

**25.** Minor civil works like making openings in walls, support grouting, filling of opening etc shall be in the bidder's scope.

**26.** The sample of all the items shall be got approved by IUAC engineer before delivery of material at site.

**27. PRICES QUOTED SHOULD INCLUDE ALL ABOVE SCOPE OF SUPPLY, WORKS, THE MATERIAL, LABOUR, TAXES EX- IUAC SITE BASIS. NO EXTRA COST WILL BE PAID ON WHAT EVER ACCOUNT AND SHALL BE INCLUSIVE OF ALL THE ITEMS REQUIRED FOR COMPLETENESS OF THE SYSTEM, ALTHOUGH THE SAME MAY NOT BE EXPLICITELY MENTIONED IN BOQ OR ELSE WHERE.**

## **Technical Specifications :**

### **1. CLEAN ROOM**

#### **i. WALL PANELING SYSTEM : Made of 50 mm thick double skin Powder coated :**

- 0.8 mm thick pre coated GI Sheets on both sides
- $38 \pm 2$  Kg cum density PUF as infill.
- Wall panel size available in 1200mm, 1000mm and 900mm wide as required.
- Epoxy polyester coating of 60/70 microns forming a smooth surface finish.
- Minimum vertical joints and length to suit the clean room.
- No horizontal joint is allowed.
- Panels shall be covered with sheet in all sides.

**\* PVC wall paper of heavy thickness self adhesive type shall be pasted on both side of the wall.**

#### **CEILING : Made of 50 mm thick double skin walk able totally flush ceiling :**

- Extruded aluminum ceiling grid / Tgrid suitable for easy installation, load bearing, flushed to the ceiling panels.
- 0.8 mm thick Powder coated / Epoxy polystyrene Pre painted GI Sheet on both sides.
- $38 \pm 2$  Kg /cum density PUF as infill.
- Indexing screws for easy mountings of the system.
- Reinforcing clamps and brackets• Turn buckle, threaded rods & other hardware for easy & faster leveling of the system.
- \*All the suspension material in Galvanized finish
- Factory /site finished and sealed cutouts for filter terminals, & light fixtures.
- Suspension Rod: GI of  $\geq 10$  mm diameter (as required)
- Support on: Wall and Ceiling suspension
- Sealant: Silicon

Ceilings to be sealed to prevent ingress of air bearing particles or other contaminants, from the ceiling void.

The ceiling must be strong enough to support the weight of the items that will be installed to meet the performance specifications of the clean room. The loading capacity of the ceiling must be stated.

**PVC wall paper of heavy thickness self adhesive type shall be pasted on bottom side of the ceiling.**

**iii. DOOR :** uPVC Frame door with glass on the lower half and upper half shall be made of uPVC grills for the return air.

**iv. HEPA FILTER TERMINALS :** Ceiling mounted filter box to be made from 1.2 mm thick powder /pre coated GI sheet with a provision of smoke aerosol test point, differential pressure measuring points, VCD with Bevel gear arrangement for operating from below false ceiling. To be fixed in ceiling grids cutouts and sealed to prevent ingress of particles. Size : 670X 670X 250 MM.

**v. Mini Pleat HEPA Filters** of size- 610x610x75 mm, efficiency-99.97 down to 0.3 microns, micro fibre glass media, PVC /acrylic frame, flange type, IPD/FPD –  $<15/<50$  mm WG. (mountable from the inside the room.)

## **2. Air Distribution system**

This specification covers the design, manufacture, construction, features and erection of air distribution system. This covers air distribution system for the air conditioning and ventilation including the local exhaust. The items / workmanship shall conform to the latest applicable Indian/British/USA standards.

### **Codes and standards**

The following standards are applicable where not specifically stated:

IS 3069 for Ducting

IS 655 Specification for Metal air ducts

IS 277 Specification for Galvanized Steel Sheets

All ducts shall be fabricated either from Galvanised Sheet Steel (GSS) conforming to IS: 277 or aluminium sheets conforming to IS:737. The steel sheets shall be hot dip galvanized with MAT finish with coating of minimum 120 grams per square meter (GSM) of Zinc, GI sheets shall be lead free, eco friendly and RoHS compliant

ii) The thickness of sheets for fabrication of rectangular ductwork shall be as under. The thickness required corresponding to the longest side of the rectangular section shall be applicable for all the four sides of the ductwork.

<b>Longest side (mm)</b>	<b>Minimum sheet thickness</b>	
	<b>For GSS</b>	<b>For Aluminium</b>
750 mm and below	0.63	0.80
751 mm to 1500 mm	0.80	1.00
1501 mm to 2250 mm	1.00	1.50
2251 mm & above	1.25	1.80

**4.1** The sheets prior to galvanising shall be annealed and normalised so that crack do not develop on fabrication. The zinc coating shall not be less than 120 gm / sq. m. - Class 3.

**4.2** The thickness of sheets, type of bracings and other fabrication details shall be generally in accordance with details here under.

**4.3** All the ducts shall be fabricated from GI sheet of thickness as required. All sheet metal connections, partitions and plenums required for flow of air through the filters, fans etc. shall be at least 1.25 mm thick galvanised steel sheets, in case of G.I. sheet ducting or 1.8 mm thick aluminium sheet, in case of aluminium sheet ducting and shall be stiffened with 25 mm x 25 mm x 3 mm angle iron braces.

**4.4** All the transverse joints connections shall be made with 25 mm pocket or bar slips or flanged joints not more than 2500 apart.

**4.5** All the bracings between joints shall be made of minimum 25 x 25 x 3 mm MS angle. No bracings are required if transverse connections are 1250 mm or less apart.

**4.6** All the ducts over 450 mm in either dimensions shall be cross broken except to those that will have insulation with cement plaster. It is not necessary to have this for air outlet connections.

**4.7** The seams on the duct corners shall be of the Pittsburgh type. Longitudinal seams will be smooth from inside.

**4.8** The flanges when used for transverse joints shall be joined with each other with GI bolts and nuts of M8 size. The bolts shall be placed at 125 mm apart.

**4.9** The M.S. Angle flanges shall be connected to ducts with rivets at approx. 100 mm apart.

**4.10** The M.S. Angle used for bracings shall be riveted at about 125 mm apart.

**4.11 Duct supports :** The rectangular ducts shall be supported by 10 mm M.S. Rods and 40 x 40 x 3 mm M.S. Angles. The M.S. Rods and angles shall be given a coat of primer. The duct supports shall not be at a distance greater than 1800 mm. The M.S. Rods shall be hung from the building steel. All supporting material will in the scope of bidder. For ducts with thermal insulation, the M.S. Angles and supports shall not be in direct contact with ducts.

**4.12 Flexible connections :** Where the sheet metal duct connects to intake or discharge of fan units a flexible connection of at least 150 mm width shall be provided of closely woven, double layer asbestos / canvas. The material shall be attached to angle iron frames on equipment and to similar frames on duct or casing by means of steel band or collar fitting over the end of the flexible connection and bolted through angle iron frame so as to clamp securely between the band and the angle frame.

**4.13 Diffusers, Grills :** The vendor shall ensure that the diffusers and grills offered of pre-requisite capacity, throw and terminal velocity. The air pressure drop will be taken into account by vendor in duct sizing. The diffusers and grills will be of 18 gauge powder coated extruded aluminum section supply air grills with volume control dampers, return grills and diffusers without volume control dampers. SA grills shall be of adjustable double deflection type and return grill shall be of fixed single deflection type. Suitable vanes shall be provided in the duct collars to have a uniform and proper air distribution. Blank off baffles wherever required shall be provided.

**4.14 Transformation and Breeches :** All the curves, bends, offset and other transformations shall be made for an easy and noiseless flow of air. The throat of every branch duct shall be sized to have the same velocity as in the main duct to which the branch duct is connected.

**4.15 Caulking :** When the duct passes through the wall, all the openings between masonry and duct shall be neatly caulked or sealed to prevent movement of air from one space to the other.

**4.16 Splitters and Dampers :** These shall be provided at suitable points for proportional volume control of the system. They shall be opposed blades, made in 18 gage powder coated GSS, quadrant type with suitable handle and locking device mounted outside of the duct in an accessible location. Close – Open position shall be marked with paint.

**4.17 Bend:** All elbows shall be such that the throat radius is 75% of the width. In case the throat radius is smaller, suitable single thickness vanes of approved details will be provided.

**4.18 Flashing:** For the ducts penetrating the outside the walls, the vendor shall make provisions of flashing.

**4.19 Vanes:** Suitable vanes shall be provided in the duct collars to have a uniform / proper air distribution. Blank off baffles wherever required shall be provided.

**4.20 Plenum:** The plenum chamber or connection to fans, dampers etc. shall be constructed in 18 gauge GSS, supported on 40 x 40 x 6 mm M.S. Angle frames. All the vertical angles shall be riveted at 125 mm apart to the casing. "Pecora" or equivalent caulking compound shall be inserted between the base of the angle and all masonry constructions to which angles are fastened.

**4.21 Duct Thermal Insulation (outdoor service):** Insulation material shall be of Fire retardant closed cell cross linked Poly-ethylene (XLPE) foam with Aluminium foil finish thermal insulation sheet of thickness – 9mm / 12mm, Density - 30 kg/cum, K value of 0.031 Wm/k at 0 Deg. C. Application:- The surface to be insulated shall be thoroughly cleaned and allowed to dry. Fevicol SR 505 synthetic rubber adhesive or equivalent shall be uniformly applied on the surface to be insulated. Fire retardant closed cell cross linked Polyethylene (PE) with inbuilt Aluminium foil finish thermal insulation sheets of 9 mm thickness should be wrapped all around the ducting. Voids will be sealed with suitably cut pieces. Joints should be sealed with Aluminum tape.

**4.22 Duct Thermal Insulation (Indoor service):** Insulation material shall be of Fire retardant closed cell cross linked Poly-ethylene (XLPE) foam with Aluminium foil finish thermal insulation sheet of thickness – 9mm / 12mm, Density - 30 kg/cum, K value of 0.031 Wm/k at 0 Deg. C. Application:- The surface to be insulated shall be thoroughly cleaned and allowed to dry. Fevicol SR 505 synthetic rubber adhesive or equivalent shall be uniformly applied on the surface to be insulated. Fire retardant closed cell cross linked Polyethylene (PE) with inbuilt Aluminium foil finish thermal insulation sheets of 9 mm thickness should be wrapped all around the ducting. Voids will be sealed with suitably cut pieces. Joints should be sealed with Aluminum tape.

**4.23 Acoustic Lining:** Initial 3 m of supply air ducting from the supply air plenum shall be provided with acoustic insulation of 12.5 mm thick nitrile rubber, density 60-70 kg/cum covered with tissue paper and 26 gauge minimum perforated aluminum sheet.

**4.24 Under deck Roof Insulation:** Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Rockwool conforming to IS: 8183, density 48 kg/ m<sup>3</sup>, 50 mm thick, wrapped in 200 G Virgin Polythene bags fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5mm x 24 gauge wire mesh, for top most ceiling of building.

**4.25 Inspection and testing:** The ducts, branches, elbows etc. shall be inspected and the joints and connections are to be checked before they are assembled in position. After assembly the system shall be checked for tightness, vibration and noise.

**4.26 Balancing:** The air distribution system shall be tested and balanced by the vendor so that the requisite temperature and air flow are maintained throughout the space to be air conditioned. All instruments required for testing and balancing the air distribution system should be provided by the vendor.

**4.27 Bird Screen:** It should be made of Expanded welded wire mesh of 2.5 to 3 mm thickness and mesh size of 1/2" square. It should be fixed on a suitable size frame to be fixed on fresh air intake / exhaust air. It should be powder coated / hot deep galvanised.

**4.28 Louvers :** It should be made of 18 gage GSS. Face vel should be less than 500 FPM .

**4.29 Fire Damper :** 1.5 Hours rating fire dampers with fusible link at wall / floor crossing / return duct, as per approved shop drawings. Include limit switch, motorised damper with motor and damper & necessary control wiring



from fire dampers to fire panel and AHU control panel for motor switch off.

**4.30 Measurement** : Measurement of duct quantity will be on the basis of measured running length of installed duct. No measurement will be done for flanges, vanes, splitters etc. They shall be included in cost of duct.

<b>List of Approved Makes</b>		
<b>S. N.</b>	<b>Item</b>	<b>Make</b>
1	Magnehelic Gauges	Dwyer
2	HEPA, Fine, Pre- filter	Dyna, Thermadyne, Spectrum, Puromatic, Camfill, AF
3	HEPA Terminals	Dyna, Thermodyne, Camfill, Puromatic, Anfilco, MEP, SAM, Weiber / Equiv.
4	Polysulphide Sealant	Choksey, Sika Qualcrete, Degussa, Fosroc
5	G.I Sheets	Jindal, SAIL, Nippon
6	FA Louvers, Fire / VC Damper, Diffusers , Grills	Ravistar, Carryaire, Dyna Craft, Zeco, Systemair
7	Damper acuator / motor	Belimo, Honeywell, Johnson Controls, Schneider Electric., Siemens, Anergy.
8	Ducting Insulation	Supreme, Armacel, A-flex, K-flex
9	Thermocol , fibre wool	Beardsell, Trocellene, Twega
9	Tapes	Birla 3M, Supreme
10	ACB, MCCB, MCB	Siemens, Schnider, ABB, Legrand, Havells
11	Power Cables	CCI, Gloster, Incab, Siemens, Universal
12	Control Cables and wires	Finolex, National, Delton, Ecko, Havels, Cord
13	Switches, Sockets	Anchor, Alstom
14	MS / PVC Conduit ISI Marked	BEC, AKG, NIC, Plaza, Kalinga, Precision, Gerard

**ANNEXURE I**

**TENDER ACCEPTANCE LETTER (To be given on Bidders/ Company Letter Head)**

Date: \_\_\_\_\_

To  
The Director  
Inter-University Accelerator Centre  
Aruna Asaf Ali Marg  
New Delhi-110 067.

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: \_\_\_\_\_

Name of Tender / Work: \_\_\_\_\_

Dear Sir,

1. We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: ..... as per your advertisement, given in the above-mentioned website(s).
2. We hereby certify that we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and we shall abide hereby by the terms / conditions / clauses Contained therein.
3. The corrigendum(s) issued from time to time by your department/ organizations too have also been taken into consideration, while submitting this acceptance letter.
4. We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/ Public sector undertaking.
6. We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

**Annexure – II**

This certificate shall be furnished duly signed & stamped with **Technical Bid.**

**Certificate/ Undertaking for site visit**

This is to certify that we have visited the site where .....  
..... **(Name of work)** have to be done in IUAC campus on ..... **(Date of visit)** and assessed the actual situation & nature of site. We have also assessed the amount of work involved at site for tendered work before submitting our offer. We will be able to complete the above work within stipulated time as per site conditions.

We further undertake that no extra cost will be claimed by us later-on for any difficulties/ modifications involved during the execution of tendered works. We understand that work is to be executed in an already operational/ functional institute.

**(Signature of the Bidder, with Official Seal)**

**BID SECURING DECLARATION FORM**  
TO BE SUBMITTED BY MSME ONLY ON COMPANY LETTER HEAD

Tender/Bid No.:





Date:

To  
The Director  
Inter University Accelerator Centre (IUAC)  
New Delhi  
Dear Sir/Madam,

We, the undersigned, solemnly declare that:

We understand that, according to the conditions of this Tender Document, the bid must be supported by a Bid Securing Declaration In lieu of Bid Security.

We unconditionally accept the condition of this Bid Securing Declaration. We understand that we shall stand automatically suspended from being eligible for bidding in any tender in IUAC for a period of two years from the date of opening of this bid if we breach our obligation under the tender conditions, if, we,

  withdraw/amend/impair/derogate, in any respect, from our bid, within the bid validity; or   being notified within the bid validity of the acceptance of our bid by IUAC

- (i) Fail or refuse to sign the contract, or (ii) failed or refused to produce the original documents for scrutiny or the required Performance Security within the stipulated time under the conditions of the tender documents.

We know that this Bid Securing Declaration shall expire if the contract is not awarded to us, upon:

1. receipt by us of your notification
  - a) of cancellation of the entire tender process or rejection of all bids or
  - b) of the name of successful bidder or
2. Forty-five days after the expiration of the bid validity or nay extension to it.

Signed:  
Name:

Dated on \_\_\_\_\_ day of

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

**Annexure IV**

**(Undertaking to be given on Bidders/ Company Letter Head)**

1. I / We (bidder) hereby give an undertaking that:
2. I / We have not been blacklisted / on holiday list / debarred during last three years by any Govt. Department/Govt. Autonomous Body/Institution, etc.
3. I/We do not have any dispute with any of the Govt. Departments/ Govt. Autonomous Bodies/Institutions, etc.
4. I/We have never been certified as 'Unsatisfactory Performer' for the said services provided to the Govt. Departments/ Govt. Autonomous Bodies/ Institutions;
5. I/We have not submitted any fake/forged certificates/ documents and later, if any such 'Certificates/Documents' found to be fake/ forged or contains willful wrong/incorrect information, suitable legal actions may be initiated against me/us/agency and the agencies / bidders shall be debarred from tendering with the Institute.
6. I/We shall not withdraw my/our bid after opening of Technical Bid and if done so, the IUAC and the agencies / bidders shall be debarred from tendering with the Institute.

Seal and Signatures of the Authorized  
Person of the Agency  
Name and designation of the  
Authorized Person of the Agency

Place:

Date:

**Annexure V**

**Format for declaration by the Bidder for Code of Integrity & conflict of interest (On the Letter Head of the Bidder)**

No: \_\_\_\_\_

Date \_\_\_\_\_

To,  
The Director IUAC  
New Delhi

Sir,

With reference to your Tender No. \_\_\_\_\_ dated \_\_\_\_\_ I/We hereby declare that

we shall abide by the Code of Integrity for Public Procurement as in your Tender document and have no conflict of interest.

It is certified that we are not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids / Tender.

The details of any previous transgressions of the code of integrity with any entity in any country during the last three years or of being debarred by any other Procuring Entity are as under:

- a
- b
- c

We undertake that we shall be liable for any punitive action in case of transgression/ contravention of this code.

Thanking you,

Yours sincerely,

Signature

**(Name of the Authorized Signatory)**

**Company Seal**

**Annexure- VI**

**Certificate for Tenders involving procurement (On Bidder's letterhead)**

“I/We have read the clause regarding restrictions of procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I/we certify that we are not from such a country or, if from such a country, have been registered with the Competent Authority and will not sub-contract any work to a contracting from such countries unless such contractor is registered with the Competent Authority. I/we hereby certify that we fulfill all requirements in this regard and is/are eligible to be considered. [Where applicable, evidence of valid registration by the competent Authority shall be attached.]”

**Tenderer Signature and seal**

**Certificate for Tenders for Works involving possibility of subcontracting (On Bidder's letterhead)**

“I/We have read the clause regarding restrictions of procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I/we certify that we are not from such a country or, if from such a country, have been registered with the Competent Authority and will not sub-contract any work to a contracting from such countries unless such contractor is registered with the Competent Authority. I/we hereby certify that we fulfill all requirements in this regard and is/are eligible to be considered. [Where applicable, evidence of valid registration by the competent Authority shall be attached.]”

**Tenderer Signature and seal**

**Annexure-VII****PROFILE OF THE BIDDER (on Bidder's letterhead)**

1.	Name of the Firm / Organization	:	
2.	Postal Address	:	
3.	Telephone No. / Mobile No. & Name of the Contact Person	:	
4.	E-mail ID	:	
5.	Month and Year of establishment	:	
6.	Name of proprietor / partners/director	:	
7.	No. of years of experience in this field, with Reference, Certificates	:	
8.	Annual Turnover during the last three years : (Enclose copies of Audited Financial Statement/Certificate from CA) FY 2019-20 FY 2020-21 FY 2021-22	:	
9.	Whether the firm is an Income Tax Assessee? If: so please give the details of PAN No. ( attach copy)	:	
10.	GST Registration No. ( attach copy)	:	
11.	Name of the OEM and address (if applicable)	:	

**Signature of the Bidder & Seal**



**Annexure- VIII**

**CHECK-LIST FOR PRE-QUALIFICATION BID FOR**

**Air Conditioning Works including Ducting and filters in ICMS Lab in IUAC Campus**

<b>Sl. No.</b>	<b>Documents asked for</b>	<b>Page number at which document is placed</b>
1.	Covering letter on Company's Letter Head	
2.	Bio data of company (Company profile, organizational setup, credentials, list of plant, machinery & tools in his possession).	
3.	Copies of the audited balance sheet / turnover certificate of the past three financial years along with copies of ITRs	
4.	Copies of PAN no., GST Reg. no. (Self-attested)	
5.	Copies of work orders and completion certificates of similar type of civil works executed successfully during last 7 yrs.	
6.	Tender acceptance letter (as per annexure - I of tender document) on bidder's letter head	
7.	Undertaking for Site Visit has to be submitted as per Annexure – II	
8.	Bid Security Declaration for MSME as per Annexure – III	
9.	Undertaking On the Letter Head of the Bidder as per Annexure IV	
10.	Declaration for Code of Integrity and Conflict of Interest on the Letter Head of the Bidder) as per Annexure V	
11.	Declaration/Certificate for Tenders involving procurement as per Annexure VI	
12.	Copy of MSME/NSIC Registration Certificate (If any)	
13.	Copy of the receipt of EMD submission proof	
14.	Any other document asked (If any)	

**(Seal & Signatures of Contractor)**

**(Name and Address of the Bidder)**

**Telephone No.**

**BOQ/PRICE BID**

(Price should be quoted in the standard BOQ format of this tender, Incomplete price bid will be rejected)

**Tender Inviting Authority: INTER UNIVERSITY ACCELERATOR CENTRE**

<b>Bill of Quantity</b>					
<b>Name of Work: Air Conditioning Works (Class 10000) including Ducting and filter works in ICMS Lab in IUAC, Aruna Asaf Ali Marg, New Delhi</b>					
Sr. N.	Item Description	Unit	Qty	Unit Price without GST	Total Price without GST
	( Rates shall be quoted on SITC basis including the attached specifications and scope of work.)				
1	Supply and fixing of Mini pleat HEPA Filters of size- 610x610x75 mm, efficiency-99.97 down to 0.3 microns, micro fibre glass media, PVC / Acrylic frame, flange type, IPD/FPD – <15/<50 mm WG. (mountable from the inside the room.)	nos	6		
2	Supply and fixing of HEPA Terminals Units, ( excluding HEPA Filters), size - 670x670x250 mm, made of 20 G GI sheet, with volume control damper ( provision for flow adjustments from inside room), and outlet flange for HEPA filter mounting.	nos	6		
3	Digital LED Temperature & RH indicator, LED Size-50 mm, 2.5 digits, Wall mountable.	nos	2		
4	Providing and fixing of Magnehelic Gauges for indication of room pressures and HEPA filter pressure drop.	nos	2		
5	Supply, 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 etc. as per approved drawings and specifications of following sheet thickness complete as required. 1. Thickness 0.63 mm sheet	SQM	40		
6	Supplying and fixing of following thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on existing duct after applying <b>suitable adhesive for Nitrile rubber</b> . The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required. 13 mm thick insulation.	SQM	40		
7	Duct sealing with silicon sealant (Food-grade) of Supply air ducts.	Lot	1		
8	Supply, installation, testing and commissioning of Motorized (ON-OFF Type) duct mounted GI / Extruded Al volume control damper	SQM	0.1		
9	Supplying & fixing of powder coated extruded aluminium volume control manual operated dampers as per specifications as required.	SQM	0.1		
10	Ceiling Panel, Double Skin, PUF 50 mm thick including providing & fixing of GI/Al frame work, hangers, screws, jointing and also including the cost of making opening for HEPA filters, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in charge. PVC Sheet 3 mm thickness	SQM	12		
11	Partition Wall made Wall Panel, Double Skin, PUF 50 mm thick, without view glass	SQM	10		
12	PVC wall paper of heavy thickness self adhesive type shall be pasted on bottom side of the ceiling nad both side of the wall. Different shade for wall and ceiling.	SQM	35		

13	Single leaf, PVC / uPVC Door, Size - 900 mm width x 2100 mm height, 44 m thick, including 2" uPVC frame, Lower half with 5 mm thick glass, Upper half with uPVC panel and uPVC Grills of Size-600x450 mm for air exhaust, L-drop, tower bolt complete as per requirement.	Lot	1		
14	Dismantle work of existing false ceiling	SQM	30		
15	Electrical power cable, 3 core, 1.5 sq mm, copper conductor, XPLE insulated for motorized damper.	RM	10		
16	Dismantle and refixing of 2 TR capacity, split air conditioner, including in / out insulated copper piping, cable ( upto 10 m)as per site requirements.	Lot	1		
17	Switch Box with On-Off switch for manual operation of motorised damper.	Set	1		
18	GST				
19	Total Cost				

