CENTRAL UNIVERSITY OF RAJASTHAN

Bandarsindri – 305817 Distt. Ajmer, Rajasthan

TENDER NOTICE & DOCUMENT FOR
"DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ABSL-3 LABORATORY WITH EQUIPMENT ON TURNKEY BASIS

CENTRAL UNIVERSITY OF RAJASTHAN

(Established under the Central Universities Act 2009)
Bandarsindri – 305817,Distt.:Ajmer, Rajasthan.
Website: www.curaj.ac.in

1. Schedule of Tender:

Tender Document for the **Design, Supply, Installation and Commissioning of ABSL-3 Laboratory on Turnkey Basis** at Central University of Rajasthan.

Sealed tenders are invited from the reputed OEM/Channel partners/authorized dealers/firms etc. for **Design, Supply, Installation and Commissioning of ABSL-3 Laboratory on Turnkey Basis** with "Part A" as Technical Bids and "Part B" as Financial Bids. The details are as follows:

S. No.	Name of the Equipment	Quantity	Amount of E.M.D (Rs	Tender Fee
1.	**Design, Supply, Installation and Commissioning of ABSL-3 Laboratory with equipment**	**01**	**16,00,000/-**	**Tender documents may be downloaded from University website/CPP Portal.**

a. Tender Document upload (publish) date/time: 15 March 2024, up to 5.00 P.M.
b. Last date for inspection of the site: : 26 March 2024 up to 11.00 AM
b. Pre-Bid Meeting : 27 March 2024, 11:30 AM onwards
c. Last Date of Submission of Tender : 05 April 2024, up to 02.00 P.M.
d. Date of opening of Tender (Technical Bid) : 05 April 2024, up to 03.00 P.M.

Type of Tender: Two Bid Systems. (Rule 163 GFR 2017)

2. Mode of EMD and Tender fee: Bidders should send separate D.D. for Tender Fee (Non refundable) and EMD (Refundable without any Interest) in favor of Central University of Rajasthan, payable at Kishangarh/ Bandarsindri Distt. Ajmer. EMD to be submitted at the time of pre-bid meeting and site visit, as site visit and presence in the pre-bid meeting is mandatory to understand and assess the requirements of the above project.

NOTE:

2.1 Tender number, its submission date and Name of the Equipment should be mentioned on the top the Envelope of bid,

2.2 If the tender is not opened on the above notified date, (due to any unforeseen circumstances), then the next working day will be considered as tender opening date.

2.3 The bidders who fail to submit the required tender fee, (if applicable) and EMD, their bids will not be considered for opening.

2.4 Bidder or their authorized representatives may attend the pre-bid meeting and opening of the tender.

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2. **TENDER NOTICE**

राजस्थान केन्द्रीय विश्वविद्यालय में प्रयोगशाला उपकरण Design, Supply, Installation and Commissioning of ABSL-3 Laboratory with equipment की आपूर्ति एवं स्थापना के लिये निविदा सूचना।

राजस्थान केन्द्रीय विश्वविद्यालय
राष्ट्रीय राजमार्ग 8, किशनगढ़ जिला अजमेर 305817
दूरभाष: 01463– 257515 वेबसाइट www.curaj.ac.in

सी0यू0आर0ए0जे0/क्र0य/टेण्डर/2024/ 4484 **दिनांक: 15-03-2024**

निविदा सूचना

राजस्थान केन्द्रीय विश्वविद्यालय में प्रयोगशाला उपकरण **Design, Supply, Installation and Commissioning of ABSL-3 Laboratory with equipment** की आपूर्ति एवं स्थापना के लिये निर्माताओं/चैनल पार्टनर/अधिकृत विक्रेताओं/फर्मों से मुहर बंद निविदायें आमंत्रित की जाती हैं। इच्छुक निविदाकर्ता मुहर बंद लिफाफे में पूर्ण रूप से भरी हुई निविदा (तकनीकी और वित्तीय) अधोहस्ताक्षरकर्ता के कार्यालय में दिनांक **05-04-2024 को अपराह्न 02.00 बजे** तक भेज सकते हैं। प्राप्त निविदायें **उसी दिन अपराह्न 3.00 बजे** उपस्थिति निविदाकर्ताओं **के समक्ष** (यदि उपस्थिति हों) खोली जायेंगी, निविदा सूचना एवं विस्तृत जानकारी विश्वविद्यालय वेबसाइट **www.curaj.ac.in** एवं CPP Portal **https://eprocure.gov.in** पर उपलब्ध है।

कुलसचिव

Tender Notice for Design, Supply, Installation and Commissioning of ABSL-3 Laboratory with equipment at Central University of Rajasthan

Central University of Rajasthan
NH-8 Bandarsindri, Kishangarh, Distt-Ajmer-305817
Tel: 01463 – 257515 Website www.curaj.ac.in.

CURAJ/Purchase/Tender/2024/4484 **Dt. 15.03.2024**

TENDER NOTICE

Sealed quotations are invited from the Manufacturers, Authorized Channel Partners/ Dealers/Firms for **Design, Supply, Installation and Commissioning of ABSL-3 Laboratory with equipment,** at Central University of Rajasthan. Quotations completed in all respects along with technical and price bids should reach the office of the undersigned on or **before 05-04-2024- up to 02.00 P.M.** Technical Bids will be opened on **same day at 03.00 P.M.** in the presence of available bidders, if any. For further details, please visit our website **www.curaj.ac.in** and CPP Portal i.e. https://eprocure.gov.in

Registrar

3. Important Notes to the Bidder:

3.1 Central University of Rajasthan, Bandarsindri, invites tenders under "2 Bid system" for supply and installation of **Design, Supply, Installation and Commissioning of ABSL-3 with equipment at Central University of Rajasthan** as per the specifications given in the "**Annexure A**".

3.2 Tender document can be downloaded from the University website at URL Link: http://www.curaj.ac.in/tenders. or Central Public Procurement Portal (CPPP) at www.eprocure.gov.in.

3.3 The bidders are requested to read the tender document carefully and ensure all the compliance with instructions there in. Non-compliance of the instructions contained in this document, may disqualify the bidders from the tender process.

All offers should be written in the English and price should be written in both, figures and words. The offer should be typed or written in pen ink or ball pen. Offer in pencil will be ignored. The tenderer shall certify that the rates being quoted are not higher than those quoted for any Govt. Deptt. or Institution or GEM or any organization and that if during the years at any time, the tenderer has quoted rates lower than those quoted against this tender, the University would be given the benefit of Lower rates by the tenderer. The relevant documents should be enclosed with technical bid.

The prescribed tender documents should be submitted in one sealed envelope duly super scribed with **"Tender for Design, Supply, Installation and Commissioning of ABSL-3 Laboratory on Turnkey Basis,** equipment **at Central University of Rajasthan** address at Bandarsindri, Ajmer (Rajasthan). This sealed envelope should contain three sealed envelopes marked A, B, & C, prescribed as under:

Envelope containing appropriate Earnest Money Deposit (EMD) in the form of Demand Draft in favor of CENTRAL UNIVERSITY OF RAJASTHAN payable at Bandarsindri, Kishangarh/Madanganj, be submitted. Tender shall be rejected if the Earnest money in the form of D.D.'s is not found in proper order.

a) Envelop A containing the Technical Bid along with the supporting documents. (See Terms & Conditions for more details)

c) Envelop B containing the Financial Bid.
The tender document should be sent to:
The Registrar
Central University of Rajasthan
N.H.-8 Road, Jaipur-Ajmer Highway,
Bandarsindri, Kishangarh,Distt. Ajmer,
Rajasthan- 305817

1. The complete tender document is to be sealed and signed by authorized official of bidder on all pages & is to be placed in the separate envelope along with the necessary required documents.
2. Bidders are required to enclose photocopy of cheque & NEFT Bank Details with tender /quotation to enable us to making payment through on line transfer for refund of EMD.
3. All bids must be delivered to the above office up to the date and time indicated above. Bids will be opened in the presence of Bidders' authorized representatives who choose to attend to present on the specified date and time. In the event of the specified date for bid receipt and opening being declared as a closed holiday for purchaser's office, the due date for submission of bids and opening of bids will be next working day or as announced by the University in the appropriate manner.
4. Any clarification regarding tender specification before submission of tender document can be discussed with the Officer Incharge (Purchase) 01463-237515 or through email id is oic.purchase@curaj.ac.in.
5. Please Note that the tender document is subjected to verification with the original document, and if any discrepancy is found, the tender would be rejected. Tenders (Technical Bid) will be opened first in the presence of the attending vendors.

Registrar
CENTRAL UNIVERSITY OF RAJASTHAN
Bandarsindri, Rajasthan

4. TERMS AND CONDITIONS OF THE TENDER

1. All offers should be written in the English and price should be written in both, figures and words. The tenderer shall certify that the rates being quoted are not higher than those quoted for any Govt. Deptt. or Institution or any organization during last one year. If during the last one year at any time the tenderer has quoted rates lower than those quoted against this tender, the University would be given the benefit of Lower rates by the tenderer. The relevant documents should be enclosed with technical bid.
2. The duly constituted committee appointed by the competent authority of Central University of Rajasthan, Bandarsindri, reserves the right to select some items (in single or multiple units) and reject the others or all items mentioned in the Schedule. The same committee will also reserve the right to revise or alter the specifications before acceptance of any tender with prior notice on the University website and Central Public Procurement Portal (CPPP).
3. Incomplete bid, amendments and additions to bid after opening are liable to be ignored and rejected.
4. The Bid shall be treated as a 2 Bid System. Financial Bid shall be opened for those bidders who have qualified in Technical Evaluation.
5. **Changes/Amendment**: At any time prior to the deadline for submission of tender, the University may amend the tender documents issuing addendum/corrigendum. The University shall have the right at any time, by written notice, in the form of an amendment order, to make any changes, if deems necessary, including, but not limited to, changes in specifications, layout and design.
6. **Bid Validity**- Bids should be valid for a period of 180 days from the date of opening of Technical bid.
7. **Withdrawal of bids**: No bidder will be allowed to withdraw its bid in the interval between the deadline of submission of bids and expiration of period of bid validity. Withdrawal of bid during this period will result in forfeiture of the bidder's bid security (EMD) and other sanctions.
8. **OEM/Channel Partner/Authorized Dealer/agents of Supplier:** when a firm sends quotation for an item manufactured by some different company, the firm is also required to attach, (in its bid,) the manufacturer's authorization certificate and also manufacturer's confirmation of extending the required warranty for that product.
9. **Agency Commission:** The amount of Agency Commission, in case of manufacturer/supplier is from the foreign country (normally not exceeding five percent) payable to the Indian Agent should not be more than what is specified in the Agency agreement (a certified copy should be submitted along with the bid) between the bidder and the Indian Agent. The Indian Agent will be required to submit a certificate along with their Agency Commission bill, confirming that the amount claimed as Agency Commission in the bill has been spent/will be spent, strictly to render services to the foreign Principal, in terms of the Agency Agreement. The Purchaser or their authorized agencies and/or any other authority of the Government of India shall have rights to examine the books of the Indian Agent and defects or misrepresentations in respect of the afore indicated confirmation coming to light during such examinations will make the foreign Principal (i.e. the Contractor) and their Indian Agent liable to be banned/ suspended from having business dealings with the Purchaser, following laid down procedures for such banning/suspension of business dealings.
10. **Conflict of Interest among Bidders/Agent:** The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:
    a. they have controlling partner (s) in common; or
    b. they receive or have received any direct or indirect subsidy/financial stake from any of them; or
    c. they have the same legal representative/agent for purposes of this bid; or
    d. they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder; or
    e. bidder participates in more than one bid in this bidding process. Participation by a bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does
    not limit the inclusion of the components/sub-assembly/assemblies from one bidding manufacturer in more than one bid.

f. in cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:
   I. The principal manufacturer directly or through one Indian agent on his behalf; and
   II. Indian/foreign agent on behalf of only one principal.

g. a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;

h. in case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/common business/ management units in same/similar line of business.

11. Bid Security: Bid Security should remain valid for a period of 45 (Forty Five) days beyond the final bid validity period. The Bid Security can be submitted in the form of an account payee demand draft, fixed deposit receipt, or banker's cheque. The MSEs are provided tender documents free of cost and are exempted from payment of earnest money, subject to furnishing of relevant valid certificate for claiming exemption. A bidder's Bid Security will be forfeited if the bidder withdraws or amends its/his tender or impairs or derogates from the tender in any respect within the period of validity of the tender or if the successful bidder fails to furnish the required Performance Security within the specified period. Bid securities of the unsuccessful bidders should be returned to them at the earliest after expiry of the final bid validity period and latest by the 30th day after the award of the contract. Bid Security should be refunded to the successful bidder on receipt of a performance security.

12. MSE Bidders:, if Micro and Small Enterprises (MSE) participating in tender & quoting price within price band of L1+15 (fifteen) per cent shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply up to 20 (twenty five) per cent of total tendered value. The 20 (twenty) per cent quantity is to be distributed proportionately among these bidders, in case there are more than one MSMEs within such price band. Within this 25% (Twenty five Percent) quantity, a purchase preference of four per cent (that is, 25 (twenty) per cent out of 25 (twenty five) per cent) is reserved for MSEs owned by Scheduled Caste (SC)/Scheduled Tribe (ST) entrepreneurs (if they participate in the tender process and match the L1 price). Provided that, in event of failure of such SC/ST MSE to participate in tender process or meet tender requirements and L1 price, four per cent sub-target shall be met from other MSE. MSEs would be treated as owned by SC/ ST entrepreneurs:

a) In case of proprietary MSE, proprietor(s) shall be SC /ST

b) In case of partnership MSE, the SC/ST partners shall be holding at least 51% (fifty-one percent) shares in the unit

c) In case of Private Limited Companies, at least 51% (fifty-one percent) share shall be held by SC/ST promoters.

13. Public Procurement (Preference to Make in India), Order 2017

As per Public Procurement (Preference to Make in India), revised Order 2017 the 'Class-I local supplier' will get preference over non local suppliers', as defined under the Order,

I. **Class-I 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 this Order.

II. **Local content'** means the amount of value added in India which shall, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

III. **Purchase Preference:** Purchase preference shall be given to 'Class-I local supplier' in procurements in the manner specified here under.

a) If L1 bidder is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1 bidder. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity,

the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly.

b) In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

c) In the procurements of goods or works, which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

I. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.

II. If L1 bidder is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.

III. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price; the contract may be awarded to the L1bidder.

d) "Class-II local supplier" will not get purchase preference in any procurement undertaken by procuring entities.

e) **Margin of Purchase Preference**: The margin of purchase preference shall be 20%.

f) **Exemption of small purchases:** procurements where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order.

g) **Verification of local content:**

a) The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

b) In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

c) False declarations will be in breach of the 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 up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

d) A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment.

NOTE: In this regard, latest GOI guidelines on make in India and preference to MSME will be followed.

14. Restrictions for bidders from countries sharing land border in India

i. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

ii. "Bidder" (including the term 'tenderer', 'consultant' 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 persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

iii. "Bidder from a country which shares a land border with India" for the purpose of this Order 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.

iv. The *beneficial owner* for the purpose of (iii) above will be as under:

1. 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, 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 majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights orshareholders agreements or voting agreements;

2. 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;

3. 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 ofindividuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. 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 in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

v. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

Model Certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of *a country which shares a land border with India,' I certify that this bidder is not* from such a country or, *if from such a* country, has *been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where* applicable, *evidence* ofvalid *registration by the Competent Authority shall be attached.]"*

15. **Performance Security:** On receipt of notification of award from the University, the successful Bidder within 14 days shall furnish the performance security at 5% of the cost of the work order in the form of DD/FDR in favor of The Central University of Rajasthan or in the form of Bank Guarantee issued/confirmed from any of commercial bank in India in an acceptable form. Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligation of the supplier, including warranty obligations. The Performance Security will be forfeited and credited to the University account in the event of a breach of contract by the contractor. It will be refunded to the contractor without interest, after he duly performs and completes the contract in all respects but not later than 60(sixty) days of completion of all such obligations including the warranty under the contract. Failure of the successful bidder to submit the performance security shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the University may make the award to the next lowest evaluated bidder on same rate or call for new bids.
16. **Prices and Taxes:** Prices quoted should be firm and shall remain firm until required deliveries have been completed unless otherwise expressly agreed to, in writing by both parties. The vendor agrees that any price reduction made with respect to Material covered by this order subsequent to placement will be applied to the order.

I. **Elements of Price:** Where the price has several components such as the price of the goods, cost of installation and commissioning, operators' training, and so on, bidders should furnish a cost break-up indicating the applicable prices and taxes for each of such components along with the overall price.

II. **Currency:** domestic tenderers are to quote and accept their payment in Indian currency; Indian agents of foreign suppliers are to receive their agency commission in Indian currency; costs of imported goods, which are directly imported against the contract, may be quoted in foreign currency (currencies) and will be paid accordingly in that currency; and the portion of the allied work and services, which are to be undertaken in India (like installation and commissioning of equipment) are to be quoted and paid in Indian currency.

Prices should be FOR –Central University of Rajasthan and for imported equipment supplier will be responsible for custom clearance and forwarding the same up to university campus. Custom Duty will be reimbursed on actual basis, after submission of the evidence in original. All prices specified herein include all charges for, but not limited to, inspection, and packaging. Prices set forth shall be inclusive of applicable taxes until and unless specified in the schedule. This University is also registered with DSIR vide TU/V/RG-CDE(1115)/2018 dated 12-10-2018 for availing concessional Custom Duty.

17. Price Fall Clause:- If at any time prior to delivery of the equipment/stores, the bidder/supplier reduces the sale price of such equipment stores as covered under this tender enquiry, to any organization (including Central/State/Deemed university) at price lower than the price quoted under this contract, he shall forthwith reduce the price payable under this tender for the equipment/stores being supplied after the date of coming into force of such reduction, the price of equipment/stores shall stand corresponding reduced.

18. Terms of Payment:

a. Terms of payments for Domestic Goods:

- 60% against receipt of material at site based on the proof of the cost of the material.
- 20% against installation
- 20% against successful validation, certification and handing over the site.

For payment- detailed BOQ wise price or mile stone wise price break up should be submitted for the project after receipt of PO for approval.

b. Documents for Payments of Domestic Goods:

i. Supplier's Invoice indicating, inter alia description and specification of the goods, quantity, unit price, total value;
ii. Packing list;
iii. Insurance certificate, if applicable;
iv. Railway receipt/consignment note;
v. Manufacturer's guarantee/warranty certificate;
vi. Inspection and installation certificate duly signed by the service engineer and university official; and
vii. Any other document(s) as and if required in terms of the contract.
viii. Copy of cancelled check/NEFT detail for making online payment.

c. Terms of payments for Imported Goods:

I. An irrevocable letter of credit (L/C) for 100% of the value of the imported equipment/stores (excluding the value of the Indigenous / Indian equipment / stores, if any) shall be established on submission of the acknowledgement of the order by the successful bidder stating the country of origin and port of shipment, submission of Performance Security @ 5% of the Purchase Order value, four copies of the Performa invoice and confirmed Letter of Credit (LC) opening details.

It shall be the responsibility of the bidder to ensure that all the requisite documents are provided to the purchaser including the Performance Security in original for appropriate denomination and period on priority basis, so as to ensure opening of LC on time.

Out of this, 80% of the value of the imported equipment/stores will be paid against inspection certificate (where applicable) and shipping documents to the Principal through

L/C. Balance 20% will be released within 30 days after due certification by the Purchaser/Institute for successful commissioning of the equipment at the premises and also, after ensuring that the furnished Performance Security is valid for a period of 60 days beyond the date of completion of all contractual obligations of the bidder/supplier including comprehensive maintenance warranty obligations. 100% via wire transfer or foreign DD after successful commissioning of the equipment at the premises and also, after ensuring that the furnished Performance Security is valid for a period of 60 days beyond the date of completion of all contractual obligations of the bidder/supplier including comprehensive maintenance warranty obligations.

d. Documents for Payments of Imported Goods: Documents, which the supplier is to furnish while claiming payment, are specified in the Letter of Credit, but usually are:

i. Supplier's original invoice giving full details of the goods including quantity, value, and so on;
ii. Packing list;
iii. Certificate of country of origin of the goods to be given by the seller or a recognized chamber of commerce or another agency designated by the local Government for this purpose;
iv. Manufacturer's test certificate and guarantee;
v. Certificate of insurance;
vi. Bill of lading/airway bill/rail receipt or any other dispatch document, issued by a Government agency (like the Department of Posts) or an agency duly authorized by the concerned Ministry/Department, indicating:
a) Name of the vessel/carrier;
b) Bill of lading/airway bill;
c) Port of loading;
d) Date of shipment;
e) Port of discharge and expected date of arrival of goods; and any other document(s) as and if required in terms of the contract.

19. Insurance: Wherever necessary, the goods supplied under the contract, shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the contract. If considered necessary, insurance may cover "all risks" including war risks and strike clauses. The amount to be covered under insurance should be sufficient to take care of the overall expenditure to be incurred by the Procuring Entity for receiving the goods at the destination. Where delivery of imported goods is required by the purchaser on CIF/CIP basis, the supplier shall arrange and pay for marine/air insurance, making the purchaser beneficiary. Where delivery is on FOB/FAS basis, marine/air insurance shall be the responsibility of the purchaser.

20. E-Payments: Bidders are required to enclose photocopy of cheque & NEFT Bank Details with tender /quotation to enable purchaser to making payment through on line transfer.

21. Deduction of Income Tax, GST and so on, at source from payment to suppliers: This will be done as per existing law in force during the currency of the contract.

22. Refund from Supplier: if the supplier, after claiming and receiving reimbursements for GST, excise duty, custom duty, and so on, from the purchaser, applies to the concerned authorities for refunds, on genuine grounds, of certain portions of such duties and taxes paid by it and receives the allowable refunds. Such refunds contain the purchaser's share also (out of the payments already made by the purchaser to that supplier) should be refunded to the University.

23. Completion of work: The supply, installation and commissioning of the facility equipment should be completed within a time period of 6 months from the date of award of work.
If the vendor is unable to complete performance at the time specified for delivery, by reason of strikes, labour disputes, riot, war, fire or other causes beyond the Vendor's reasonable control, the university at its option, may elect to take delivery of material and to pay such proportion of the contract price as deemed reasonable by the university.

24. Rescheduling: The University may without liability at least seven days prior to the scheduled delivery date appearing on the order, defer delivery on any or every item under said order by giving

oral notice to the Vendor (confirmed in writing within seven working days) of any necessary rescheduling.

25. **Shipping, Packaging and Labeling:** All Material purchased hereunder must be packed and packaged to ensure its safe delivery in accordance with good commercial practices and where incorporated, the University's packaging specification. The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit, including the final destination. The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in the contract and in any subsequent instructions ordered by the Purchaser. It is the sole responsibility of the vendor to provide/replace the item/goods, if it is lost or broken during the shipping or transportation due to whatever may be the reason. Vendor is responsible to ensure, by contacting the University, that the shipping has been properly done i.e., all the items/goods have properly reached the University.
26. **Inspection and Acceptance:** Material procured from vendor shall be inspected and tested by the University or its designee at vendors cost. If deemed necessary by the University, the Vendor shall provide without charge, all reasonable facilities and assistance for such inspection and test. Any inspection records relating to Material covered by this agreement shall be made available to the University during the performance of the order.
    - **a.** If any Material covered by this agreement is defective or otherwise not conforming to the requirements of this agreement, the University may, by written notice to the Vendor:
        - i. rescind the purchase/supply order as to such non-conforming Material;
        - ii. accept such material at an equitable reduction in price;
        - iii. reject such non-conforming material and require the delivery of suitable replacements
    - **b.** If the vendor fails to deliver suitable replacements promptly, the university, with notice of seven business days, may replace or correct such material and charge the vendor the additional cost occasioned thereby, or terminate this order for default.
    - **c.** No inspection (including source inspection) test, approval (including design approval) or acceptance of material shall relieve the Vendor from responsibility for defects or other failures to meet the requirements of this order. Rights granted to the University in this article entitled INSPECTION is in addition to any other rights or remedies provided elsewhere in this order or in Law.
27. **Invoicing / Payments / Set-Offs:** After completion of supply against the purchase order, the Vendor shall send duplicate invoices including item number to the University's concern Department. Payment of invoice shall not constitute acceptance of Material ordered and shall be subject to appropriate adjustment, if the Vendor failed to meet the requirements of this agreement. The University shall have right at any time to set-off any amounts due to the Vendor, (or any of its associated or affiliated companies) against any amounts owed by the university with respect to this agreement.

28. **Selection of the Bidder:** For the purpose of selection of the bidder, a two-stage bidding process will be followed. The response to the tender should be submitted in two parts viz. Technical Bid & Commercial Bid.

    Note: The tendered facility is non-divisible and on Turnkey basis. Accordingly, the clauses relevant to such tender will be applicable.

    - **a. Technical Bid:** Technical bid should contain information regarding the company/firm registration details, Authorization letter, Clientele list (List of Users), Performance certificate from clients, self-declaration for not black listed, business turnover, experience and other details of the firm to judge the suitability of the bidder. Bidder must ensure the following conditions while going for the bidding:

    I. SPECIFICATIONS: Specifications are basic essence of the product/contract. It must be ensured that the offers must be strictly as per our specifications mentioned at **Annexure-A** at technical

specification section. At the same time it must be kept in mind that merely copying our specifications in the quotation shall not make the parties eligible for consideration of the quotation. A quotation has to be supported with the printed technical leaflet/literature of the quoted model of the item by the quoting party/manufacturer and the specifications mentioned in the quotation must be reflected /supported by the printed technical leaflet/literature. Therefore the model quoted invariably be highlighted in the leaflet/literature enclosed with the quotation.

II. Non-compliance of the above shall be treated as incomplete/ambiguous and the offer can be ignored without giving an opportunity for clarification/negotiation etc. to the quoting party.

III. OEM should be internationally/Nationally reputed Branded Company.

IV. Copy of mandatory test reports, national testing/reliability and endurance test reports etc., certified or conducted at the manufacturing site, granted by the bureaus/quality control departments/national testing laboratories.

V. A write up on service and maintenance capability, mitigation of risks or breakdown and replacement capability, with the escalation support matrix suggested for the University. Vendors must indicate their sales and support service center in India and their plan to address issues about services, maintaining minimum service inventory etc.

VI. Signed & Stamped compliance sheet of the technical specification of the offered equipment with technical printed literature must be enclosed with the technical bid in the prescribed format.

VII. **Prerequisite:**

- Experience of having successfully completed similar work during last 12 years ending one day previous to last date of submission of tenders should as following:
  - Minimum one BSl-3/ABSL-3 laboratory work of not less than 7.00 Crores or two orders of 5.00 Crores each.
- The Bidder shall have the experience and setup for providing Operation and Maintenance Services for at least one BSL-3/ABSL-3/AHF. Details shall be submitted along with copies of work order and satisfactory execution.
- The bidder should not have been blacklisted, debarred or expelled by Union Government/State Governments/ PSU's etc. on the date of submission of Bid. The bidder should submit an undertaking for the same.
- Should have bidding capacity equal to or more than the estimated cost of the work put to tender. The bidder should submit a CA certified certificate for the same. The bidding capacity shall be worked out by the following formula:

  Bidding Capacity = {[AxNx1.5]-B}

  Where,

  A = Maximum turnover in construction works executed in any one year during the last seven years taking into account the completed as well as works in progress. The value of completed works shall be brought to current costing level by enhancing at a simple rate of 7% per annum.

  N = Number of years prescribed for completion of work for which bids have been invited.

  B = Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited.

  (Note: Supporting document to be enclosed to determine the bidding capacity).

VIII. The Bidder shall have an average annual turnover of minimum Rs. 8.00 Crore in the last 3 financial years (i.e., F/Y 2020-21, 2021-22 & 2022-23). Copy of Audited Balance Sheets for all the three financial years shall be submitted.

IX. Self-attested photocopy of annual turnover, IT clearance Certificate, Audited Balance Sheet, etc. for last three years.

X. The bidder/OEM self-declaration stating that he/she is not banned/debarred or black listed by any Central/State Govt. of India/PSU/Organizations/Institutes in India or abroad in prescribed format.

XI. DD for EMD amount as applicable.

XII. University reserves the right to carry out a technical inspection and performance evaluation (benchmarking) of the offers, made by shortlisted vendors. The shortlisted vendors may be asked to come and give out presentation / demonstration.

b. Short listing of Bidder: University will shortlist bidders, who found technically qualifying and the financial bid of only these bidders will be opened. University reserves the right to decide whether the items being quoted are as per the requirement of the University and are of standard/leading brands in the market. University reserves the right to decide which offer best suits the requirement of the university. Further, after opening financial bids of the short listed bidders, if there is a discrepancy between word and figure, the amount indicated in words will prevail.

c. Price Bid/ Financial Bid: Financial bid should contain price of the material required to be supplied as per Price Schedule ***Annexure-B*** as supplied by the University along with tender form, duly filled and signed by the authorized person.

Note: Cost of CMC of the facility with consumables (Fan belts, pre filters, HEPA filters etc.) for 4th to 6th year will also be considered for evaluation of total cost/price for deciding the lowest responsive bidder.

29. **Installation and Commissioning:** Free of cost at University. The OEM must ensure timely installation of the complete unit with necessary support to the purchasers, as per details and lists to be made available to the Stores Section or the purchasing Departments/Centre/Schools.
30. **Conditional Offer** will not be accepted.
31. **Rejection of Bids:**
    a. If bidders give wrong information in their bid, University reserves the right to reject such bids at any stage and forfeit the Earnest Money Deposit / Performance Bank Guarantee and cancel the order, if awarded.
    b. If the technical offer contains any price information the offer will be summarily rejected.
    c. Canvassing in any form in connection with the tender is strictly prohibited and the bids submitted by the bidder who resort to canvassing are liable for rejection.
    d. Unsigned tenders/bids, unattested corrections and over writing by bidders are also liable for rejection.
    e. Bids submitted without supporting documents as mentioned or required to submit with bids are liable to be rejected.
    f. The Tenderers must confirm in their bid acceptance in full of the terms and conditions in this enquiry. Any non-acceptance or deviations from the terms and conditions must be clearly brought out. However, tenderers must note carefully that any conditional offer or any deviation from the terms and conditions of this enquiry may render /liable the Quotation for rejection.
32. **Liquidated damages for delayed supply:** If vendor fails to deliver any of or all products or does not perform the services within the period specified in the contract, the University reserves the right to, without prejudice to its other remedies under the contract, deduct from the bill, a sum equivalent to 1% of the price of undelivered stores at the agreed price for each week to maximum limit of 10% of the value of stores so undelivered. Once maximum is reached, the second party (if curaj) may consider termination of contract.
33. **Assignment / Subcontracting /sublet:** The Vendor shall not assign the order received, any rights under this agreement or to become due hereunder neither delegated nor subcontracted /sublet any obligations or work hereunder without the prior written consent of the University.
34. **Cancellations of tender:** The University reserves Right to Accept any Bid and to Reject any Or all Bids: The Purchaser also reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.

    The University may cancel agreement entered with vendor in whole or in part, for no cause, upon written email to the Vendor, effective when sent, provided such notice is sent ten (10) days prior to the delivery date, specified on the face of this order, in the event that the vendor:

    a. fails to comply with any term or condition of this order including, but not limited to, delivery terms; or
    b. appoints a receiver, liquidator or trustee in bankruptcy or other similar officer over any or all of its property or assets; or
    c. files a voluntary petition in bankruptcy; or

d. has had filed against it an involuntary petition in bankruptcy which remains in effect for thirty (30) days; or

e. voluntarily ceases trading; or

f. merges with or is acquired by a third party; or

g. Assigns any of its rights or obligations under the Order to a third party without the university's prior written consent.

Upon the occasion of any one of the aforesaid and in addition to any remedies which the university may have in Law or in Equity, the university may also cancel this order or any outstanding deliveries hereunder by notifying the Vendor in writing of such cancellation and the Vendor shall thereupon transfer title and deliver to the university such work in progress or completed material as may be requested by the university. The University shall have no liability to the Vendor beyond payment of any balance owing for Material purchased hereunder and delivered to and accepted by the university prior to the Vendor's receipt of the notice of termination, and for work in progress requested for delivery to the university.

35. Warranty: -

a. As mentioned in the Technical specification with the statement of availability of spares, Hardware, Consumables, Electronic Boards etc. for at least 10 years from the date of the installation of equipment, against any manufacturing defects and also give the warranty declaration that everything to be supplied by us hereunder shall be free from all defects and faults in material, workmanship, transportation hazards, and shall be of the highest quality and material of the type ordered, shall be in full conformity with the specifications. During the warranty period, replacement of any part of equipment's or rectification of defects of works will be free of cost.

b. Any deviation in the material and the specifications from the accepted terms may liable to be rejected and the bidders need to supply all the goods in the specified form to the satisfaction / specifications specified in the order / contract and demonstrate at their own cost. The payments shall be made only after receiving the material in the required specifications and quality to the satisfaction of the University authorities.

c. Downtime: During warranty period not more than 5% downtime will be permissible. For downtime exceeding penalty equivalent to 0.50% of the F.O.R. value of the equipment for every week or part thereof may be imposed. Downtime will be counted from the date and time of the filing of complaints within the business hours of the tenderer.

d. The Vendor shall warrant that any Material supplied hereunder shall conform to the generally recognized manufacturing and safety standards of the Vendor's industry or as per Indian Standard Institution (ISI) or similar standard. The Vendor's specifications on performance as detailed in the Vendor's brochures, sales literature and other specifications as may be available to the university.

e. Vendor should provide insurance up to the delivery point (on-site and not up to the nearest international airport) and until the time of installation.

f. Vendor shall provide at least one preventive maintenance service per year during the warranty period.

g. In addition to any other express or implied warranties, the Vendor warrants that the material furnished pursuant to this order will be

(i) Free from defects in design except to the extent that such items comply with detailed designs provided by the university; of merchantable quality and suitable for the purposes, if any, which are stated in the tender/quotation.

(ii) This warranty provision shall survive any inspection, delivery, acceptance, payment, expiration or earlier termination of this order and such warranties shall be extended to the employees, students, and users of the material. Nothing herein, however, shall limit the University's rights in law or equity for damages resulting from delivery of defective goods or damage caused during the delivery of goods or provision of services.

(iii) Rights granted to the University in this article entitled WARRANTIES are in addition to any other rights or remedies provided elsewhere in this order or in Law.

36. Consumables/spares: All hardware & software including drivers, device interface cards/network adaptor card must be pre-installed & pre-configured in the computer /equipment provided.

Licensed version of system software should be provided in CD (with up-gradable version). if such system is also a part of supply.

Manual - Hard copies of instruction/operation/service manuals should be supplied. List of important Consumable/ Spares and parts having sufficient shelf life for trouble free operation of three years should also be provided.

37. **Training/installation:**
    a. Installation testing: suppliers of the instrument must provide free installation, commissioning and testing of the equipment in the laboratory of the Central University of Rajasthan & training is to be provided as mentioned in technical specifications section.
38. **C.M.C**.: A separate annual maintenance contract will be executed after completion of the warranty period. Hence, bidders must quote price of CMC for next three year (year wise) after the expiry of warranty period. **While evaluating the offers, the cost component towards maintenance of the goods for specified number of years (i.e. three year) may also be added in the evaluated tender value on overall basis to decide the inter se ranking of the responsive tenderers.** On execution of the C.M.C. contract, performance security will be returned to the first party.
39. **Patent Indemnity:** The Vendor shall have to indemnify, hold harmless and defend the University, its employees, and students with respect to all claims, suits, actions and proceedings of actual or alleged infringements of any Letter, Patent, Registered or Industrial Design, Trademark or Trade Name, Trade Secret, Copyright or other protected right in any country resulting from any sale, use or manufacture of any Material delivered hereunder and to pay and discharge all judgments, decrees, and awards rendered therein or by reason thereof and bear all expenses and legal fees (including the University's) associated herewith. The university reserves the right to be represented in any such action by its own counsel at its own expense.
40. **Compliance with Laws**: After acceptance of tender, successful bidder shall have to comply with the requirements of all the existing laws. The Vendor shall also have to comply with the Fair Labour Standards Act and the Occupational Safety and Health Act, and all other applicable laws, ordinances, regulations and codes in the Vendor's performance hereunder. The Vendor will have to indemnify and hold the University and its customers harmless from any loss or damage that may be sustained by the University, by reason of the Vendor's failure to comply with any laws, ordinance, regulations and codes.
41. **Law of the Contract:** The agreement entered with vendor shall be governed by and interpreted in accordance with the laws in existence and the Jurisdiction of Rajasthan.
42. **Site preparation**: The supplier shall inform the University about the site preparation, if any, needed for installation, immediately after receipt of the supply order. Suppliers must provide complete details regarding space and all infrastructural requirements needed for the equipment, which University should arrange before the arrival of equipment to ensure its early installation and smooth operation thereafter. The supplier may offer his advice and render assistance to University in the preparation of the site and other pre-installation requirements.
43. **One-time shifting and re-installation**: Instrument may need shifting and reinstallation. If needed one-time shifting and re-installation is to be done free of cost.
44. The **OEM** (**Original Equipment Manufacturer)** should be an ISO-9000 or ISO-14001 certified company with due credits to energy conservation and green earth compliance. While the above procedures lay down the overall guidelines, Central University of Rajasthan reserves the right to select the vendor based on other parameters, at its discretion.
45. **Delivery and Opening of Tender**: All tender documents should be sent through courier, speed post, registered post or by person. Telegraphic / fax offer will not be considered and ignored straightway. All tender documents received after the specified date and time shall not be considered. The completed tender should be delivered at the Inward Section of the Administrative building of the Central University of Rajasthan, Bandarsindri, Ajmer, Rajasthan-305817.
    The Technical Bid will be opened on **05-04-2024 (at 03.00 P.M.)**

I/We have read all the enclosed Terms and Conditions carefully and ready to accept and according to that I/We are submitting herewith the tender.

Seal & Signature of Vendor

5. TECHNICAL SPECIFICATIONS SECTION

Technical Specifications: The tenderer shall meet the respective minimum technical specifications for the item that is being bid for. Any additional features or specifications in excess of these minimum specifications will be appreciated. A set of desired additional features are mentioned along with the minimum technical specifications, wherever appropriate.

I / We the undersigned am / are ready to supply & install the following facility and instruments along with all other accessories complete as mentioned below with accepting the terms and conditions which are enclosed with this order form and quote for the same

The technical specifications for the Instrument are being placed under this tender have been detailed in the "**Annexure A**". This will also include all the components of the particular instrument / equipment that are being tendered for.

S. No.	Instrument/Equipment	Quantity
1.	**Design, Supply, Installation and Commissioning of ABSL-3 Laboratory with equipment**	**01**

Annexure A

Specifications for ABSL-3 facility with equipment

Design, Supply, Installation, Testing, Validation and Commissioning of ABSL-3 Laboratory containing with equipment:

(1) BSL-3 lab- 2 nos.

(2) Animal Biosafety lab (ABSL-3)

(3) Animal holding area for ABSL-3 lab

(4) Separate autoclave (Wash Area) each for BSL facility

(5) Supporting BSL-2 Facility for Molecular & Cell culture

(6) Support Area like Incharge Room, BMS operator Room. Evaluation Lab Area

Following standard guidelines to be adapted:

- WHO Standard: Laboratory Biosafety Manual– Third edition.
- USA (NIH/CDCP): Biosafety in Microbiological and Biomedical Laboratories– 6th Edition
- European Standard EN12128-1998: Biotechnology-Laboratories for research development and analysis- containment levels of microbiological Laboratories, areas of risks localities and physical safety requirement.
- DBT Guidelines and Standard to be followed for Biosafety Laboratory Guidelines for the Establishment of Containment Facilities: Biosafety level 2 (BSL-2) & (BSL-3) and certification of BSL-3 Facility" issued by Department of Biotechnology, Ministry of science and technology, Government of India in 2020
- Compliance- with CPCSEA Guidelines for Laboratory Animal Facility

Scope of Work:

The Scope of work shall include Design, Supply, Installation, Testing, Commissioning & Validation of the BSL-3 and ABSL-3 facility on **Turnkey Basis**. This includes: Site preparation works as per approved plan & site requirement, plumbing, drainage, finishing of external works and painting, design and construction of drain and sewer line, Utility system, CCTV, BMS, FAS, Clean Room Finishes.

For safe operations as per the guidelines and monitoring of the facility, the system must have necessary controls through a direct digital control (DDC) based system with requisite sensors for controlling indoor conditions/environment including pressure gradient, temperature, humidity, exhaust, etc. An addressable fire detection system, Access Control System and CCTV System shall also be provided. Any other work related to smooth working of the facility shall be treated as a part of scope of the bidder.

In addition to the above-mentioned scope details, the bidder will ensure adherence to all required construction parameters, quality and materials needed for the smooth and complete functioning of the facility.

Warranty- The party shall be responsible for successful maintenance and uninterrupted running of the facility for a minimum period of 3 years after commissioning and handing over the site.

Note: The bidder, in addition to quoting a lump sum price for the BSL3 and ABSL3 facility, will quote break up prices for complete civil works, external electrical line, HVAC and BMS systems, drainage line and water connection and essential BSL-3 equipment like safety cabinets, autoclaves, pass boxes as per unit basis mentioned in BOQs.

The scope under the contract shall cover and include the following works to be executed by the Bidder on "Turnkey Basis":

a) Design Strategies Include

- Use of 100 % fresh air with no recirculation for BSL3/ABSL 3 facility.
- Managed directional flow to ensure air always flows toward the highest area of containment. Negative Pressure monitoring and control.
- Maintain constant temperature of 22±2 Degree C and humidity at 55±5 %. ACPH in ABSL-3/BSL-3 lab should be more than 16.
- Supply air should have Three Stage Filtration.
- Exhaust air discharge through HEPA filters with safe Bag in Bag out (BIBO) arrangement at minimum 25 Feet away from AHU intake.
- Audible and visual alarms to alert personnel if a system fails.
- Building management system (BMS) for facility control & monitoring.
- Effluent decontamination system

b) Design, Supply, installation, execution, testing, commissioning, and validation of following items and works on 'Turnkey Basis':

- Site Preparation work as per site requirement, as described by user during site visit & approved drawing.
- Internal work including pre-fabricated partition wall and ceiling, doors, and view panels etc. in complete facility
- Self levelling epoxy flooring in lab area (BSL-3 labs, ABSL-3 lab and corridor).
- Drain piping and water distribution piping in complete facility
- Wiring for light, power, telephone, networking, communication/intercom, fire alarm system, CCTV, access control system etc. in complete facility
- Light fittings and fixtures, switches, sockets, power distribution boards for Light and power including MCB's etc., and main power supply LT panel. in Complete facility
- Fire alarm system, CCTV system, Wi-Fi and LAN network, access control system, telephone handsets in complete facility
- UPS back up for 30 min. – Exhaust, 50% power/light points in each lab, all BSC.
- Condensing Units of appropriate capacity with redundancy.
- Exhaust blowers with redundancy.
- Supply, return and exhaust ducting with insulation, diffusers/grilles, volume control dampers and fire dampers
- Containment HEPA housing with filters for BSL-3 & ABSL-3 Lab supply and exhaust
- Building management system for complete showing the running/fault status of HVAC system including pressure sensors, temperature, heaters & Rh sensors, BSC, Autoclaves. All the motors status of AHUs, Exhaust Blowers, status of VFD's for AHU and Exhaust blower motors should be available on BMS screen.
- Prefabricated Shower module and Shower system.
- Chemical type/Heating Type Effluent decontamination system.
- Class 2 B2 Type Biosafety Cabinets -3 qty with virus burner.
- Class 2A2 Type Biosafety cabinet -1 Qty
- Pass Boxes and Dunk tank as per drawing/site requirement.
- Work station in BSL-3/BSL2 Lab with chairs/stools.
- Double Door Autoclave-3 qty
- Ventilated Garment Cabinet-1
- Garment Cubicle-1
- Portable Fire Extinguishers (CO2 /Dry Powder type) in lab and AHU room
- Water softener

The proposed ABSL-3 facility premises are expected to be equipped with the following rooms/compartments with pressure gradient to be maintained in various areas of laboratory.

Sr. No.	Room/Compartment	Appx. Dimension/Min. Area	Proposed Pressure
1.	Evaluation Lab	10`X10`(140 Sq. Ft.)	ATM- Air-conditioned
2.	In-Charge Room	10`x8` (80 sq ft)	ATM -Air-conditioned
3.	BMS/IT room	As required	ATM- Air-conditioned
4.	Airlocks-(entry/exit)	As per requirement	-5 to +5 Pa

5.	Autoclave Room for BSL area	150 SQ FT.	-20 to -25 Pa
6.	Fumigation area	57 SQ FT	-10 to -20Pa
7.	Clean Corridor	As Requirement	-40 to -50 Pa
8.	BSL-3 – 2nos.	200 SQ FT	-40 to -50 Pa
9.	Animal Holding Area	120 SQ FT	-40 to -50 Pa
10.	Procedure Room	90 SQ FT	-50 to -60 Pa
11.	Aerosol Inhalation Room	80 SQ. FT	-55 to -65 Pa
12.	Animal Quarantine Room	72 SQ FT)	ATM
13.	Autoclave Area	As per requirement	+10 to +15 Pa
14.	Cell Culture lab	9`x11 (99 SQ FT)	-20 to -30 Pa
15	Mol. Bio instrumentation room	9`X9` (81 SQ FT)	-10 to -20 Pa
16.	Utility Area (Mezzanine Floor)	As per site requirement	ATM
17.	Shower area	As per site Requirement	ATM
18.	Storage area for consumables	As per site Requirement	ATM

c. The Drawing given in the Tender Documents is for the purpose of understanding the layout and work requirements. However, the bidders are advised to visit the site and assess the site conditions and work requirements. Bidder must propose the drawing as per the requirement of the facility. CURAJ reserves the right to do minor changes in the approved layout plan submitted by bidder and scope, without any additional cost.

d. General Site Preparation work for Laboratory and Utilities:

- **All contractors/Bidders must visit the site and get acquainted with the available infrastructure and local site conditions and get the site visit endorsed by the authorized person of the institute. as a token of acceptance of the above-mentioned term. The same certificate should be uploaded along with the technical bid. Without the site visit certificate bid will get rejected.**
- All Lab area flooring will be Epoxy/PVC seamless flooring with Coving along the Partitions and Floor. Other than Lab area all floors should have vitrified tiles/PU flooring.
- All drains will be SS pipe lines leading to ETP / kill tank at a suitable location.
- Electrical work/Repairing Civil work /Fire Safety work to be done as per NBC guidelines.
- Site preparatory works including dismantling/demolition of existing walls, clearance of debris, making opening in walls and any other ancillary work required to complete the works. The contractor shall take all precautions not to damage any part of the remaining building and the structure. All the opening and dismantling works required for the execution of the works shall be repaired by the contractor in good condition at no extra cost.

e. Testing and commissioning of all the equipment/s, items, systems, and services supplied and installed in the Laboratory Facility and Validation of the BSL-3/ABSL-3 Laboratory as per the BSL- 3/ABSL-3 Laboratory Certification Guidelines in the presence of representative/s of CURAJ and submission of compiled report.

f. Preparation and submission of 3 sets of 'AS BUILT DRAWINGS' and OPERATION & MAINTENANCE MANUAL AND INSTRUCTIONS' for the complete installation. SOPs for all the items along with its preventive maintenance schedule should be included in this manual. The manual shall also include the detailed product manual along with its specifications and escalation matrix in case of any service required.

g. Providing training to the institute staff on operation, servicing and maintenance of all engineering installations and handling of emergencies due to fire or engineering system failures. One engineer should be stationed for the Routine maintenance of the Facility for period of 2 year from date of completion.

h. There is an existing DG set available and the backup power supply to the proposed laboratories is available. The required power connection including providing cabling from the existing panel to the new LT panel shall be in the scope of bidder.

1. HVAC SYSTEM

The proposed BSL-3 and ABSL-3 Laboratory and support areas shall be air-conditioned through separate dedicated Central AC System comprising of Chiller Pack/Condensing Units, Air Handling Units, Exhaust System, Air Filtration System and Air Distribution System complete in all respect. The system shall be with standby and backup provisions capable to provide uninterrupted continuous 24 x 7 x 365 days operation of the laboratory to maintain the required temperature, humidity, air-change rate, differential pressure gradient and air filtration conditions of the Lab. Submit the HVAC system and BMS design and working drawings for prior approval. The HVAC system shall comply with the given specifications and performance requirements and shall be complete in all respect, as required and approved.

Laboratory and support areas shall be air-conditioned through independent A/C system to maintain the required temperature, humidity, air- change rate, differential pressure gradient and air filtration conditions of the Laboratory Facility. The Air Handling Supply System, Exhaust System,

Air Filtration System and Air Distribution System complete in all respect. The system shall be with standby and power backup provisions in supply Air Handling system, exhaust system and containment HEPA Filter housing capable to provide un-interrupted continuous 24x7x365 days operation of BSL-3 and ABSL-3 Lab. The bidder shall submit the HVAC system and BMS design and working drawings for prior approval. The HVAC system shall comply with the given specifications and performance requirements and shall be complete in all respect, as required and approved. Laboratory Temperature: 220+/- 2 0 C Relative Humidity: 55-60% Negative Pressure gradient: As per approved zoning plan Sound level: 50-60db 100% fresh air no re-circulation ACPH: 16-24 The HVAC system shall include the following items of works, complete in all respect, as required and approved.

ROOM OPERATING PRESSURE: as detailed in reference labs design layout.

Air Conditioning Plant: Inner Laboratory Temperature to be maintained at 220C +/- 20C

Chiller: Supply, installation, testing, and commissioning of CHILLING/Dx UNITS each complete with compressor, motor, insulated chiller, flow switch, condenser fans, vibration isolators, integral refrigerant piping and wiring, accessories as required and called for. The Chiller Pack shall be skid mounted with Air Cooled Condenser, Evaporator/Chiller, Micro-processor control panel including interconnecting control and power wiring, refrigerant charge etc. complete in all respect. To provide backup capacity, the chiller pack shall have multiple compressors. The noise level should not exceed the permissible government standard. It should also have electronic thermostats for tripping the compressors after reaching set temperature. Approved Eco-Friendly Refrigerant R-134 a / R-410 a.

Air Handling Unit (AHU):

SITC of Double skin air handling units with 2 mm thick thermal break aluminium profile, 46±2 thick PUF panel having a density not less than 40 kg/m3. Panel shall have 0.6mm precoated G.I sheet as outer skin and 0.6mm thick plane GI inner skin. The Unit shall be suitable for clean room applications with coving inside. The AHU shall consists of fresh air intake with air intake louvre, bird screen, filter sections with 50mm thick metal viscous/ washable pre-filters (EU4), cooling coil section with chilled water cooling coil having aluminum finned copper tubes with GI casing, aluminum fins, 20 swg SS insulated drain pan, fan section with DIDW centrifugal backward curved fan with TEFC squirrel cage induction motor with provision for variable speed drive, direct driven motor suitable for 415 + 10% volts, 50Hz, 3 phase, A.C Supply. Fine filter section with rigid media type fine filters (EU7) filter. AHU under shall have HEPA Filter section with H13 HEPA Filters. AHU shall be complete with Aluminium low leakage volume control damper for fresh air and supply air dampers. Fan & filter sections shall have service door not less than 500 mm width.

Air Flow: No recirculation, one pass design. Air control by a series of motorized damper with Controlled actuator. Pressure is measured by digital type pressure differential gauge and feedback into the control software for pressure setting, maintenance, and alarm setting.

Air Filtration System: All incoming air filtered by three stages Filtration in AHU. All main lab exhaust air pass through BIBO HEPA. The HEPA housing must accommodate gas decontamination and filter testing (gas tight dampers and housing

Ultra Violet Germicidal Irradiations (UVGI) System: Supply, installation, testing, commissioning, and handling of the UVGI System for maintaining the indoor air quality. The components of the system must be in strict conformity with the specifications. The prices to include all inter connected wiring between the UVGI lamps. The UVGI system shall be installed in supply air ducts or AHU itself.

Three Stages for supply Pre - Filtration:

As per ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) ASHRAE 1st stage 30% efficiency

ASHRAE 2nd stage 90% efficiency Final Stage HEPA Filtration 99.99% efficiency

HEPA filters for Exhaust: BIO HEPA Filter 0.3 micron @ 99.99% efficient

Ducting and Insulation for Supply and Exhaust Ducts: The supply air and exhaust ducting shall be carried out in GI sheet (class VIII with zinc coating of 120 gm/sqm). All duct fabrication work, thickness of sheet metal, supports, hangers shall conform to Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) standards. All joints shall be sealed with silicone sealant.

Duct Insulation: Closed cell, fire-retardant, self-extinguishing type crossed linked polyethylene insulation density not less than 24 Kg/sqmm, "K" value not more than 0.028 Kcal/0C with adhesive tape etc., on duct complete as per specification and drawings.

Motorized Airtight Damper: Consists of aluminum casing with factory fitted motorized damper. Casting and attachment should be stainless steel.

Fire Dampers: Fire Dampers provided in the supply and exhaust air systems shall be interlocked with the AHU blower motors such that in case of fire, the AHU fan motor should trip automatically. Fire dampers may be linked to the control panel.

Sound Damper: For reducing the noise level of the air travelling through the duct. To be placed after the air throwing machines to absorbs the extra noise and make the surrounding noise proof.

Control Pressurization: Laboratories should be maintained at a higher negative pressure than the corridors/airlocks and other non-laboratory spaces.

Ultra Violet Germicidal Irradiations (UVGI) System: Supply, installation, testing, commissioning, and handling of the UVGI System for maintaining the indoor air quality. The components of the system must be in strict conformity with the specifications. The prices to include all inter connected wiring between the UVGI lamps. The UVGI system shall be installed in supply air ducts or AHU itself.

2. **BUILDING MANAGEMENT SYSTEM (BMS):**

A customized Building Management System shall be designed, programmed, including pressure sensors, temperature & Rh sensors, VAV for BSL-3 Lab, VFD's for AHU and Exhaust blower motors, control wiring and BMS Control Panel with PLC with software, complete as required.

Building Management System shall provide control and monitor the operation of HVAC system and laboratory operating parameters in the BSL-3 Lab rooms/zones:

- Room/Area/zone pressure
- Room/Area/zone temperature & RH
- Ambient temperature & RH
- AHU and Exhaust Blower operating status
- VFD status & VAV status
- OPEN/Close dampers status
- BSC ON/OFF
- Autoclaves ON/OFF

- The Building Management System shall allow START/STOP operation of the Complete HVAC system in AUTO Mode. However, the system shall have the provision to over- ride the parameters (password protected) and to enable START/STOP operation of the HVAC system in MANUAL mode, as well.
- The BMS shall provide alarm in case of HVAC system failure, collapse in room/zone negative pressure and deviation of any operating parameter from the set limits. Each BSL-3 Laboratory Rooms/Zones area

shall be provided with Pressure Sensors, Temperature Sensors, and RH Sensors, wired and integrated with the BMS to display the operating conditions.

- The Building Management System shall be complete with PLC, Sensors, Controllers, power and control wiring, customized Software and other associated field devices, hardware and accessories complete in all respect, as per requirement and approved design.
- The HVAC system START and STOP sequence shall be interlocked to prevent positive pressurization of the BSL-3 laboratory, at any point of time. A dedicated desktop PC shall be provided for the BMS operation and control along with a parallel secondary display screen at the BSL-3 laboratory entrance to show the operating parameters.
- The BMS control panel shall be powered through UPS. Upon restoration of power after a power failure HVAC Control instrument system with interconnected wiring.
- **BMS SOFTWARE:** Supply, Installation, Testing and Commissioning of the BMS System Software: Graphical software meeting the requirements in the Given I/O summary and technical specifications including configuration and facility to create / provide the graphic mapping for all I/O summary points, configurable password protection for Building Mgmt. System as per Specifications. Software shall be able to communicate with BACnet, Modbus devices simultaneously, with unlimited web user license capacity. Same software can be used as programming/commissioning software.
- **BMS PANEL**: Automation stations/ Direct Digital Controller with I/O module etc. The networkable controllers shall be 32 bit, UL listed microprocessor with built in networkable (IP) type with real time clock with SD-CARD programmable memory. Minimum one networkable DDC (32 bit, UL Listed) should have inbuilt graphics display with knob operation. The networkable DDC's shall be capable of either direct sitting on IP LAN or peer to peer communication with lockable MS mounting cabinets duly powder coded connector strip, internal wiring and space to house controller & relays, connector etc. as per IO summary.
- **CCTV System:** CCTV System shall be provided for surveillance of the Laboratory. The number of Cameras will be as per the floor plan with one Camera in each room except shower and changing room. The CCTV system shall be complete with wall/ceiling mounted high resolution colour cameras, multiplexer cum DVR of 16 Channel, LCD color monitor 32" size (as required), associated power and control cabling etc. and required hardware and software. The output of the CCTV system cameras shall be displayed on LCD monitor, to be installed at approved location. The cameras shall be high resolution colour cameras and shall be suitable for indoor installation. The multiplexer cum DVR shall be suitable for saving up-to 16 channels analog data, audio, text data and event data with play back feature. The DVR memory/Hard disk capacity shall be 1 TB. For convenient backups the DVR shall be compatible with Windows based OS so that it can be backed up through a PC.
- **Fire Detection and Alarm System:** The complete BSL-3 Laboratory and support areas shall be provided with Addressable type Fire Detection and Alarm System. The Fire Detection & Alarm System shall be complete with Smoke detectors, Heat detectors, Fire Alarm Panel, manual call points, response indicators, power and control wiring and cabling etc. complete in all respect; Temp/RH/Pressure Sensor, Pressure alarm visual/audio, Emergency panic button (break glass type) - audio all rooms/control room, Emergency door-open" button (For interlock door). Wall-mounted ABC dry chemical fire extinguisher must be mounted near the exit door of the anteroom.

3. **ELECTRICAL SYSTEM AND ASSOCIATED WORKS:**

Electrical power distribution system scheme for the complete BSL-3 Laboratory should be provided. The electrical distribution system shall be designed and installed as per the Indian Electricity Rules and shall conform to NBC. The electrical load calculation sheet, power and light wiring diagrams, GA and Single Line diagrams for Electrical Distribution Panels, cable routing etc., before proceeding with the work.

- **Power Distribution System:** The executing agency shall design and provide the main power distribution (LT) panel, sub distribution boards and panels complete with required switchgears, breakers, circuit breakers, power and control wiring, etc. for complete Laboratory Facility. This will include supply and laying of cabling/wiring for HVAC System and fixed equipment's and systems like Autoclaves, Bio-safety cabinets, access control system, CCTV system etc. As required in lab. For circuit and power distribution, the DB's shall be 8/12-way TPN vertical/Horizontal with double door 3 phase/1 phase, fitted with ELCB, RCCB, MCB etc. complete as required. Only multi-stranded copper conductor wires shall be used for sub-main wiring, circuit wiring, light and power wiring. All joints shall be made at main switches, distribution board socket and switch boxes only. No joint shall be made in conduits and junction boxes. Conductors shall be continuous from outlet to outlet.
- **Internal Light Points, Power Points, Fittings and Fixtures:** The Electrical fittings and fixtures in the BSL-3 and ABSL-3 Laboratory and support areas shall be sealed type, explosion proof, capable to withstand chemical exposures during laboratory fumigation. The Laboratory rooms shall provide 450-500 lighting Lux level and the light fixtures shall be surface mounted type and serviceable from the top of the walkable false ceiling. The switches, sockets and light fixtures in BSL-3 Lab and support areas shall have IP 55 or better protection. All the electrical points, power points, light and power sockets shall be

fully wired with switches, sockets, connections complete in all respect as required. Some of power points / sockets should be suitable for high power consumption instruments like deep freezers, floor model centrifuges, biosafety cabinets etc. and will be decided based on floor map. Only multi-stranded copper conductor wires shall be used for light and power wiring. The internal wiring shall conform to the Indian Electricity Rules and BIS standards. The conduit work for light points, power points, voice and data points, Fire Detection Alarm (FDA) system etc., shall be concealed type and shall be done in rigid PVC as per IS specifications. All the conduit pipes shall be sealed to prevent ingress of air.

- **UPS & Servo Stabilizer:** An online UPS of appropriate capacity shall be provided for un-interrupted power backup to critical components like exhaust motors, Door Interlock , access control system, BMS Operation and shower control panel operation. The power backup through the UPS shall be for minimum 30 minutes. The UPS shall be complete with battery bank, battery rack, interconnecting cabling and wiring, complete in all respect. A Servo Stabilizer of suitable capacity for the laboratories to be considered.
- **Communication Facility (Intercom & LAN):** The Laboratory areas and support and service areas shall be provided with Data (LAN) and Voice points (Intercom) for communication. The system shall be complete with required conduit and wiring. The Data and Voice points shall be fully wired with CAT6 cable complete with output terminals. A suitable EPABX shall be provided for upto 2 incoming lines and 10 outgoing lines for the laboratory for internal communication. All the rooms shall be provided with intercom connection and telephone instrument set.

4. INTERNAL CONSTRUCTION WORKS & FINISHES:

The internal partition walls and ceiling construction in BSL-3 Laboratory, Screening Lab and the support areas shall be carried out with prefabricated, non-particle shredding panels in Powder Coating finish. The ceiling shall be walk-able type for access of services above for maintenance purpose.

- **Modular Wall & View Panels:** Double skin modular wall panels made of 0.8mm thick GPSP (galvanized plain skin pass) sheet powder coating with min. 60 Micron on both sides with PUF of density 40±2kg/m^3 as infill, GI profiles for reinforcement along the periphery, floor track in Painted GI with EPDM rubber below Floor Track using Fastener bolts, self-tapping screws at suitable interval, suitable to accommodate the epoxy floor flush with wall panel. Joints shall be sealed with clean room compatible silicon sealant.
- **Wall panel is sealed airtight**, that ensures air leakage. There are cut-outs on the walls to accommodate electrical outlets, telephone & intercom pipelines, control panels, monitoring devices, emergency warning systems, pass-thru' cabinets and piping where are applicable.

Wall Panel: Thickness - 80-100 mm Cladding Panel Thickness - 50-60 mm

Outer Skin (both sides) - Powder Coated GSS sheet in 0.8 mm thickness Insulation/Filler material - PUF having density of 35-40kg/m3 Shade/Color - As approved

Services: Pre-inserted conduits for electrical wires/cables etc. Sealing of Joints - Silicone Sealant Sealing of Penetration - Silicone Sealant

View Panel: Glass- Toughened, Thickness- 6 -8 mm, Size: as per drawing approved

Magnehelic differential pressure gauge at the entry of each BSL-3 lab, ABSL-3 lab and negative pressure corridor.

- **Ceiling Panels:** Double skin totally flush walkable false ceiling made of 0.8mm thick GPSP (galvanized plain skin pass) sheet powder coating with min 60 micron on both sides with PUF of density 40 ± 2 kg/m^3 as infill, GI profiles for reinforcement along the periphery, including ceiling grid for easy installation and necessary hardware like threaded rods, Fastner Bolts, self-tapping screws, nuts and bolts etc. Joints shall be sealed with clean room compatible silicon sealant. (Load bearing capacity- 150 kg/m2).

  - Double skin modular wall panels made of 0.8mm thick GPSP (galvanized plain skin pass) sheet powder coating. The solid ceiling panels will be placed side by side and fastened together. Ceiling trim (PVC) pieces will be installed on the ceiling to seal the ceiling panel airtight. The GI panel edges are sealed with Room Temperature Vulcanizing (RTV) Silicone to the structural frame and fasten on both sides to form an airtight sealed panel.
  - The wall and ceiling system should be impervious, non-corrosive, antibacterial and antifungal surface finish suitable for use of wide range of chemicals like Hydrogen peroxide, formalin etc. for laboratory decontamination.
  - The solid ceiling panels of size 80mm and 50mm shall be capable to withstand the high negative operating pressure of BSL-3 and shall be suitable for normal walking pressure and strong enough to allow personnel to climb above for installation and servicing via the service access on the side of

the laboratory.

- **The Radius Coving (wall-to-wall, and wall-to-ceiling, from inside to outside corner):** Smooth radius coving should be installed at all wall- to-wall and wall-to-ceiling joints. All seams should be carefully sealed with RTV sealant. Corners at floor - coved from PVC floor sheet to the wall.

- **Flooring:** Flooring shall be in 3 mm self-level epoxy in approved shade, complete with base coat, sealer coat and 3 mm top coat in self- levelling epoxy conforming to IS:4631.

- **Doors:** All Air-Tight Doors (air-lock to the outside of the BSL-3 Laboratory) are constructed with steel and powder-coated (for easy cleaning). 46 mm thick doors made with PU painted 0.8mm thick GPSP sheets on both sides with honeycomb Kraft paper as infill, 1.2 mm thick GPSP powder coated door frames, hardware like SS push plate, SS 'D' handle, SS ball bearing butt hinges, Double glazed view panel with Automatic Concealed door bottom drop seal and 1.2mm thick SS304 kick plate. The door is installed completely with pull-door-handle door, closer and electrical interlock mechanism. The Airlock doors and emergency Exit Door shall be Air-Tight Doors. These Air Tight Doors should have adequate gasket arrangement to provide air tight seal and may have a step- over seal. The interlock logic shall be such that while entering or exiting the facility, traffic from the other side should not get access, to ensure privacy.

5. ESSENTIAL EQUIPMENTS & SYSTEMS

- **BIOSAFETY CABINET:** Class II B2 type (4x2x2). 3 Qty as per specification mentioned. Class II A2 type (4x2x2). 1 Qty as per specifications

- **HORIZONTAL DOUBLE DOOR AUTOCLAVE:** 3: **(1 no Rectangular & 2 nos cylindrical)** shall be double door, rectangular, steam operated, high pressure high vacuum, suitable for horizontal loading of waste. The autoclave shall be with bioseal design. The chamber size shall be approximately 600 mm x 600 mm x 900 mm, of 200 to 320 Ltr capacity or as per site availability. The Autoclave shall be PLC controlled, programmable and shall be loaded with different pre-programmed decontamination and sterilization cycles. The chamber and door plate should be made of non- corrosive stainless steel AISI 316 quality and electric steam generators would be made of stainless steel AISI 304 qualities.
  - The jacket would be made of Boiler Quality steel. The chamber & jacket should be hydraulically tested to 2 times the working pressure. The normal working pressure would be 2.1 Kg/cm2 corresponding to temperature 135^{o}C.
  - The unit should be incorporated with water ring vacuum pump to create vacuum of 24" when the temperature of cooling water to the pump is less than 300C for total evacuation of the air from the chamber, thus allowing complete sterilization of the load in shortest possible time.
  - The system shall be PLC based microprocessor with the facility of HMI (Human-Machine-Interface) which is incorporated with the sterilizer. The Micro-Processor based control Panel will control entire cycle of sterilization and steam pulsing automatically through water ring vacuum pump. The control panel shall house the complete automatic process control arrangement including timers, relays, contactors etc.
  - Warranty three years from the date of installation

- **PASS BOX** shall be provided at required locations as per floor plan for transfer of samples, chemicals and materials into the laboratory. Pass box with UV and inbuilt HEPA filtration system to be provided.
  The Pass Box shall be constructed in 18 swg SS 304. The corners inside the Pass Box chamber shall be coved for easy cleaning. The pass box chamber dimension shall be approximately 610 mm x 610 mm x 610 mm. The unit shall be complete with HEPA filters, blower, motor, door electromagnets, door interlock, UV Lamp with timer, necessary wiring, controls and all other accessories. etc. complete.

  The Pass Box doors shall be interlocked by providing suitable electromagnet, so that both the door cannot be opened simultaneously. The interlock shall provide visual indicator for door open/close conditions. The blower motor of Pass Box shall of suitable rating and shall be dynamically and statistically balanced. Magnehelic differential pressure gauge shall be provided to indicate the pass box chamber pressure. The pass box shall be provided with UV light with ON/OFF switch and shall be interlocked with the pass box doors.

  Warranty three years from the date of installation

- **Laboratory Furniture/Work Station:**

  Stainless steel (SS304) case works for BSL 3 & ABSL3 with nonpermeable worktop (Phenolic resin top/Epoxy Top etc.).

For BSL-2 Area CRCA duly epoxy coated case works with granite Top & wall cabinets should be provided.

All chairs/lab stools must be of SS 304. The quantity of furniture should be as per final drawing.

EFFLUENT DECONTAMINATION SYSTEM:

The Chemical based decontamination System for BSL-3 Laboratory effluent.

6. SERVICE & UTILITIES:

- **Water:** Water supply for the BSL-3 Laboratory will be arranged and provided by the bidder from the ILS water storage tank and the BSL-3 Laboratory
- **Drain & Sewer Line:** The drain from the BSL-3 Laboratory, after decontamination, should be connected to the nearest available drain line. All the penetrations should be sealed. Back-flow prevention devices must be installed on all faucets. The bidder should design and construct the drain and sewer line from BSL3 lab to the available drain line.
- **Utilities for laboratory equipment/s:** Utility connections like power, water, drain etc. required for the laboratory equipment should be provided.

7. TESTING, VALIDATION AND COMMISSIONING

a) After completion of the construction and installation works, all the equipment, systems and services shall be commissioned and tested to check the operation and performance of each equipment and system.

b) Once all the equipment and systems are found to be working satisfactory, the validation of the BSL-3 Laboratory shall be carried out by us in the presence of authorized representatives/committee of the Institute. The Validation of the BSL-3 Laboratory shall be carried out in accordance with the NIH Guidelines for commissioning and validation of BSL-3 Laboratories. During the validation process, operation and functioning of complete installations shall be checked to verify that the equipment and systems are delivering the desired and approved performance results. It will be checked to ensure that all the biosafety and biosecurity requirements are met, are in place and functional.

c) Before start of the validation process, we shall submit a detailed validation document giving details of validation checks and tests to be performed, the acceptance criteria as per the approved designs and drawings and the formats for recording the check and test results.

d) The list of test to be performed is as below (other mandatory tests, if needed, for commissioning of BSL-3/ABSL3 may also be demonstrated):
   - Containment Barrier Integrity Test
   - HEPA Filter Leak Test – According to the US Federal Standard 209E
   - Biosafety cabinets: velocity tests and HEPA filter integrity tests
   - Ducting Pre-welding leak test
   - Ducting post-welding leak test
   - Room Differential Pressure test
   - Particle Count Test for Cleanliness
   - Air Velocity/ Pattern smoke Test
   - Room Air change Rate
   - Light intensity Test
   - Noise level Test
   - Temperature and RH

8. DETAILS OF THE WORK TO BE PRESENTED

- Drain and Sewer line design details
- Duct layout
- Electrical Lay out
- Single Line Diagram (SLD) for electrical
- Man-Material movement
- Pressure Zoning
- AHU zoning

9. Laboratory Equipment/Instruments:

SNO		Equipment Name	Quantity
1		**PCR**	1
	• The quoted Thermocycler should be Peltier based heating and cooling PCR system with Touch screen control. • The offered system should be authorized / licensed for PCR applications and the vendor should produce the certificate for the same. • Block to be supplied: Aluminum block, covered with special anodized alloy block Optimized for standard sample consumption in single tubes, 8 well strips and microtiter plates with 96 wells (0.2/0.1 ml), sample volume from 10 µl to 50 µl • Should have gradient span of 20°C and linear gradient tool for programming of equal temperature increments between the 12 columns of the block. • Should have a temperature range of 3-99 °C with control accuracy of ± 0.1 °C. • Should have a ramp rate of 4.0°C/sec (Heating) & 3.3°C/sec (Cooling). • Should have temperature uniformity down to +/- 0.20 °C • Time increments: 1 to 240 sec per cycle, Temperature increments: ±0.1 to 20 °C per cycle • Should have high performance smart heated lid for improving temperature uniformity in the range of 30 °C to 110 °C • Should have auto-restart feature in the event of power failure. • Should have on board controller color Touch screen view for easy programming • Software should have options like Quick start of the last five programs, gradient temperature graph, toggle between User specific quick start of the last five programs, program preview prior to start, toggle between spreadsheet and graphical programming mode, Linear Gradient Tool, generate service info files (SINF), extended self-test, adjustable ramp rates, view gradient temperature graph, PC control via Ethernet, comprehensive user administration tool with individual rights settings • Warranty on system should be minimum 3 years from the date of Installation and commissioning	
2		**RT- PCR**	1
	• Real-Time PCR system capable of qualitative and quantitative detection of nucleic acids and discovery of genetic variations. • The equipment should be with inbuilt stand-alone analysis capabilities for quantification, genotyping, and expression studies and compatible with laptop/ desktop computer. • The equipment should have inbuilt display system for better visualization & data accessibility. • The block lid should have motorized movement for smooth plate set up. • System should have on system memory storage function for at least 750 to 1000 runs. • System should come with fixed block compatible for 96 x 0.1 ml tubes and 96 well plate. • System should have working volume of 5 -50µl. • System should be Gradient enabled. Capacity to test eight temperatures at once to quickly determine the optimal annealing temperature. • Minimum six excitation and six emission channels Each filter should correspond to one colour that ensures smooth differentiation of dyes having high degree of spectral overlap. Excitation range: 450-680 nm, Emission range: 510 - 720nm with capacity to detect 5 or more different fluorescent reporters in the same tube.	

	• System should be pre-calibrated for detecting FAM/SYBR® Green I, Hex, Texas Red, CAL Fluor Red 610, TEX 615, CY5 and Quasar) and capable of calibration for new dye without hardware and filter change. • Temperature range of thermal block should be 0 – 100 °C and temperature accuracy should be about ± 0.2 OC to 0.25° C and temperature uniformity of ± 0.3 to ±0.35 °C. The lid temperature range to 30 –100 °C. Ramping speed up to 4 to 5 °C per sec. • Peltier based Cooling & Heating for uniform temp control across the samples. • No internal reference dye should be required. True 5 Colour Multiplexing with use of 5 different fluorophores without the need of addition of any internal reference dye. • Excitation source can be LED & detection with filtered Photodiode/CCD camera. • Open system capable of running various chemistries so that different chemistries using TaqMan, Molecular Beacon, SYBR green etc can be performed. • Sensitivity of the system demonstrated down to 1 copy with as little as 1.5-fold change in target quantities in single-plex reactions. • should have multiple scan modes with a FAST scan option for reading all wells for quick view. • should be able to run automatic allelic discrimination by end point fluorescence or threshold cycle for up-to 5 fluorophores. • should have Capacity to run Melt curve analysis with high resolution melting as optional feature. • should be capable to perform dye binding thermal shift assays for protein unfolding analysis. • Dedicated licensed full version software for variety of analysis applications including absolute quantification, relative quantification, allelic discrimination, FRET and high-resolution melt curve analysis. • The System should enable remote experiment setup and data management, flexibility to use anywhere and at any time. • The System software should be capable of data collection, perform data analysis like t-test, one-way Anova etc. The system Software should be able to generate publication ready bar charts, volcano plots, box & whisker plot & annotate with p values. • Warranty on system should be minimum 3 years from the date of Installation and commissioning	
3		**Multi-Mode Reader**	1
	General	Multimode Microplate Reader capable of measuring Fluorescence Intensity, Absorbance and Luminescence	
		Software-based temperature control from ≤5°C above ambient up to 55±5°C (≤0.2 °C increments), or better.	
		Should support 6 to 1536 well plate format or better	
		System should have slots for minimum 20 filters at a time (slide/wheel) and should supplier should supply at least 8 filters for absorbance and 10 filters for FI.	
		Adjustable z height ≤20mm	
		Should be capable of plate shaking in linear, orbital & dual/double orbital modes	
		Should support end-point, kinetic & well scanning reading modes	
	Absorbance	Wavelength range: 230-1000 nm	
		Wavelength selection by filters	
		Photometric range: 0 to 4.0 OD, or better	
		Detection: Silicon Photodiode	
		Read speed: 96 well plate less than 1 minute	
		System should be capable of measuring end-points and kinetic, well scanning 10X10 or better	
	Fluorescence (Filter/Monochromator based)	Wavelength range: 250-850 nm	
		Read speed: 96 well plate less than 1 minute	
		System should be capable of top and bottom detection	
		Detection: PMT	

			Sensitivity: ≤0.5 f mol in 96 well/0.2pM in 384 well or better	
		Luminescence (Filter/Monochromator based)	Wavelength range: 300-700nm	
			Read speed: 96 well plate less than 1 minute	
			Dynamic range: 6 decades	
			Detection: PMT	
			Sensitivity: ≤50 a mol in 96 well or ≤5 a mol in 384-well plate or better	
		Computer	Compatible laptop	
		Others	3-years warranty, A record of earlier installations in India.	

- Computer configuration: Latest high end laptop system with latest microprocessor (i7 9th generation or better), 13–16-inch LED display, 16 GB RAM or more, 512 GB SSD or more. Comes with genuine licensed copy of Microsoft Windows 10 or Windows 11 professional and Microsoft Office 2019 or higher.
- **Future upgradations to technologies like TRF, FP and dual dispensers should be possible in the quoted system.**

4	**-20-degree Freezer**	3

- The capacity of system should have capacity 310 liters or more.
- It should have direct cooling.
- Temperature range should be ≤-20°C
- The system should have manual defrost.
- The system should have Microprocessor control system and should have digital display.
- The exterior & Interior of the system should be made of painted steel.
- The system should be environment friendly refrigerant.
- The system should be CE Certified.
- Warranty: Three years from the date of Installation.

5	**Deep Freezer -80 °C**	2

- Freezer should be of 340-400 Liters capacity or more, with a compact design with minimum footprint, so that it can be accommodated in the convenient spaces in the lab.
- System should have Programmable operating temperature from –50°C up to –86°C with 1°C increment
- System should have reduced energy consumption with high efficiency fan, with associated washable front-mounted panel air filter which can be easily accessed without tools, for periodic cleaning & maintenance. It should also have a high efficiency compressor & condenser which would also reduce energy consumption.
- System must be energy efficient and hermetically sealed Refrigeration system of 2-stage cascade cooling system; Compressors used should be commercially available, heavy-duty compressors with minimal failure rate. Defrost method should be Manual.
- Freezer must use Green Sustainable Natural Gas/ Hydrocarbon (HC) refrigerants HFC-free, CFCFREE, HCFC-FREE nonflammable refrigerants, and refrigeration. Refrigerant charge High Stage: R290, Low Stage: R170
- Construction should be of Vacuum Insulation Panels (VIP) and Green Polyurethane foam Insulation; Wall thickness 80 mm.
- System should have Warm up time of 3hrs or longer from -85 °C to -50 °C (with freezer 2/3 full) and 18 hours or longer from -85 °C to 0 °C (freezer 2/3 full) to indicate superiority of the Insulation system
- System should have a Door open recovery (freezer set to -80 °C, recovery to -80 °C)
- Ambient (20oC) to -80oC Pull down time should be less than 140 min or lesser
- Freezer Construction should be Stainless steel grade 304 2B for Interior chamber and Powder coated steel for Exterior
- Should have Door handle Lock system (key), Power switch and Battery switch Secured by lockable plate to keep out unauthorized users
- Freezer should be equipped with self-diagnostic software for the self-diagnosis of faults in electronic systems, probes and/or the cooling system.
- System should have Cabinet uniformity (freezer set to -80 °C) +7.7 °C (-0.0 °C) or lesser indicative of superior electronic control systems utilized for optimal sample safety
- Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE & UL certified.
- Freezer should have electric supply of Electrical rating (1 phase) 230 V/50 Hz, Current

	rating 5.0 A; WEEE, ROHS, REACH agency listing & Certification. All components tested to CE Specification & Certification • Warranty on system should be minimum 3 years from the date of Installation and commissioning	
6	**Circulating Water Bath**	2
	• Designed for controlling above ambient temperatures in external instrumentation or for immersion applications. A very handy tool for general lab requirements and applications. • Should be Compact space saving concept can be placed under or over the workbench. • Should be Effective water/liquid heated circulator for tighter controls. • Reduces tap water consumption thus reducing high cost of water and waste water. • Built in circulator pump for efficient circulating processes. Offers highest level of performance, flexibility, and control for most demanding applications. • Industrial grade energy efficient heaters. • Fitted with Microprocessor based Digital temperature Indicator-Cum-Controller, to control temperature range from Ambient +5°Cto 90°C. • Low noise level. • MOC (Outer): CRC Sheet duly powder coated • MOC (Inner Chamber & Lid): Seamless Stainless-Steel Sheet (joint free) (S.S.-316/304 Grade) • Insulation: Filled with high grade mineral wool • Display: LED display for set value (SV) & process value (PV) • Temperature Accuracy: ±0.5°C. • Temperature Display Resolution: 0.1°C. • Circulating Pump: Powerful pump with 15 Lpm capacity at zero head (for water) • Silicon Tubing: Supplied with 2 No. of rubber tube of 1 mtr each as standard accessory • Work on: 220/230 Volts, 50/60 AC supply. • Warranty on system should be minimum 3 years from the date of Installation and commissioning	
7	**Centrifuge Refrigerated**	2
	• Maximum Speed of 30,130xg /17500 rpm, with a brushless motor • It should be possible to use aerosol tight rotor, aerosol tightness of rotor should be certified by a third-party agency • Temperature Range should be -10 to 40 Deg C, • Should able to maintain 4 Deg C at Maximum Speed. • Instrument should come with 30x1.5/2ml and 6X15/50ml Rotor (1 instrument with Deep-well micro plates rotor) • It should be possible to program with preset date and time • It should be possible to store 50 programs with 5 quick access program keys • Speed setting should be possible in both rpm and rcf • Should possess a separate short spin key for brief spin • it should have condensation drain to drip water from chamber • Should have the flexibility to accommodate rotors for different formats of tubes starting from 0.2ml PCR tubes up to spin column tubes. • Instrument should have a dedicated rotor for 5 ml tubes to accommodate 5ml conical tubes. • Instrument should have automatic rotor recognition facility to automatically recognize and set maximum speeds upon rotor change. • Rotor lids should have a Quick Lock-system for secure lid closing and opening • It should be possible to perform gentle acceleration and deceleration using dedicated key • Noise levels should be <54 db(A) • It should be possible to operate the centrifuge at set rpm, for short spin protocols • Instrument should be CE Certified and have a IVD Conformity • Warranty on system should be minimum 3 years from the date of Installation and commissioning	
8	**Shaker Incubator**	2
	• Temperature Range: Ambient + 5^0C to 60^0C • Temperature Accuracy: +0.50C • MOC Outer: CRC steel sheet duly powder coated	

	• MOC Inner: Chamber and trays made of stainless steel (SS-304) • Safety: Over temperature limiter switch prevents overheating • Insulation: High Density PUF insulation for tighter temperature controls • Temperature Controller: PLC (Program Logic Controller) & HMI Controller with colour touchscreen display • Shaking Motion: Permanent Magnet DC Drive for continuous operations • Light Bank: Consisting of fluorescent lamps to provide illumination for photosynthetic applications • Cyclic Timer: Fitted with cyclic programmable timer. • Flask Holding: Lotus type clamp holder (One set supplied with the unit) • Platform Size: atleast 510 x 510mm • RPM Display: Digital Display • Warranty on system should be minimum 3 years from the date of Installation and commissioning **Certificates to be attached:** • CE • IEC60601-1 • IEC61010-1 • US FDA • RoHS • OHSAS 45001 • ISO13485 • ISO14001 • ISO9001• WHO-GMP • BS-EN 12469		
9		**Inverted Trinocular Microscope**	1
•	• Inverted microscope for live cell observations. • It should give high contrast clear view of cells at 4x, 10x, 20x, and 40x magnification without exchange or re-centre the slit ring. • It should have option for phase contrast system for simple, faster and efficient observation of cells. • It should have universal holder to view cells cultured in a variety of containers such as dishes, microplates and tissue culture flasks. • Illumination: LED • Long Working Distance Plan Infinity Optics • Attachable Mechanical Stage X -Y Coaxial Control, moving range 120 X 78 mm, Petri dish holder (38 mm dia.) , slide glass holder & Terasaki Holder (38 mm dia.). • with long working distance Plan Infinity Phase Contrast objective 40x/0.6 with annular plate • Warranty: 3 Years		
10		**Individual Ventilated Cages (IVC)**	1
-	IVC System should be designed and manufactured as per the International Standards and Guidelines. It should be upgradable with a technology able totrack locomotor activity of the animals in the home cage. Minimum 84 transparent Cage Assemblies in Polysulfone material to be housed in single sidedstainless-steel rack. The rack can be connected to AHU Unit (s) via suitable flexible ducts. A standalone AHU unit is required to maintain desired flow in the cages. **Transparent Cage assembly:** 1. Cage (bottom and top) should be made of Polysulfone plastic material (autoclavable)with minimum 3 years warranty. 2. Cage bottom should have total available floor area of not less than 500 cm sq 3. Overall dimensions of the cages not less than 380 mm x 200mm x 140 mm (LxWxH). 4. The Cage top should be latch free and have half wire bar lid for easy cage changing of animal and supplementation of feed without complete removal of the cage lid. Wire bar lid should be made of AISI 304 grade stainless steel without any sharp edges and V-shapepoints. 5. Preferably, System that locks the top to the base when the cage is closed to avoid accidental opening, without the need of buttons or latches that may obstacle the view inside the cage. 6. Cage bottom should have rounded corners without any projections inside. 7. The cage body must feature an embedded enrichment, to avoid additional inserts as well as extra procedures, to reduce the effort required during the cage change and processing, minimizing the risk of cross-contamination.		

8. Water bottle should be exterior / outside the top cover and it should make perfect sealing when nozzle inserted into the cage or taken out of the cage. It must feature a self cantering depression.
9. External bottles can be changed independently, without the need of removing, even partially, the cages from the IVC rack, even with the top rows of high rack.
10. Water bottle should be of minimum 250ml capacity and should have silicon gasket on its neck for perfect capping to avoid water leakage.
11. Water bottle nozzle / caps should cone-shaped in order to maximize water availability. Itshould made of welding-free high quality AISI 316 stainless steel cap and features a silicone o-ring on the nozzle in order to provide perfect sealing once the bottle is placed in position.
12. Water bottle must provide good sealing with the bottle cap through a silicone gasketon its neck, avoiding any leakage or undesired de-capping.
13. Cage top cover should have wider microbiological filter with air tight filter retainer. Microbiological filter should have third party certification for more than 99.9% virus andbacterial filter efficiency.
14. The microbiological filter must ensure at least 72 hours of survival time of 5 adult mice in case of static conditions.
15. The filter retainer must assure a high level of sealing through a silicone gasket allaround it or a mechanical locking system.
16. The cage top can be configured with an embedded system of hooks that allows to lift and keep it vertically in the open position, to minimize the risk of contamination and the working area occupancy. Once in the vertical, open position, no contact between the internal parts of the cage and external ones (potentially contaminated) should occur. The system must work without the use of any self-standing top holders that takespace from the working surface.
17. Inlet and outlet air nozzle should be at the rear top of the cage preventing the animals from being exposed to air drafts and consequently from potential anxious behaviour and stress. Inlet and outlet air nozzle not invasive inside the cage, thus avoiding cross-contamination. Air valve are self-closing and protected by silicone O-rings in order to have high level of sealing even when the cage is undocked from the rack.
18. Air speed inside the cage (at 30 and 50 mm from the cage bottom) should not bedisturbing to the animals (< 0.2m/sec). Third party certification is must.
19. Cage should have detachable and autoclavable card holder.
20. The card holder must be placed in a position where it is not affecting the visibility and ithas to do not cover more than 50% of the cage front.
21. Cage assembly should be air tight and the gaskets used for airtight sealing should bemade of silicon material (autoclavable). The quality of the cage must be ensured by a list of dimensional and functional tests,autoclave cycles, and washing cycles.

Rack:

1. It should be double sided AISI 304 Stainless Steel rack on four caster wheels made of Polyphenylsulphone. This plastic should ensure high mechanical strength, very long lifespan, perfectly withstanding many autoclave cycles. Moreover, it needs low force needed to enable/disable the brake.
2. The possibility of the racks and cages to be upgraded at a later stage with a technology able to ensure:

- 24/7 detection of animal activity in the home cage for complementary animal welfare checks and to enrich scientific data set with locomotor activity tracked at individual cage level
- monitoring the constant presence of water and diet in the cages to expand animal welfare capabilities
- provide automated alerts in case of water floods in any IVC cage
- ensure unique cage identification and tracking at all times
- ensure automated cage inventory tracking for location and billing purposes
- optimize "on demand" cage changing schedules to reduce animal stress while saving natural and labor-related resources
- support staff allocation scheduling through a dedicated resource planner

3. Rack must hold minimum number of cages (84 nos. or more in a single sided mode).
4. The height of the rack should not be more than 6.5 feet. Foot print of one rack should

	not be more than 1790 L X 500 W. 5. Rack should have vertical plenums for supply and exhaust air to allow bedding particles and debris to fall by gravity. 6. Rack horizontal plenums must be cylindrical in shape to get the equal air distribution also to avoid the pathogens trapped at exhaust plenums. 7. Rack horizontal plenums should be demountable without tools to enable washing. 8. It should have cage self-locking system and automatic spring free visual indicators for proper fixing of cages in the slots (into air vents). 9. Air changes per hour (ACH) inside the cages at all levels should not vary much from the mean ACH value (+/-15%) and it should be the same even with 50% cages removed from the rack. Third party validation (TÜV) is a must. All parts should be washable and autoclavable. **Air Handling Unit (AHU):** 1. It must be stand-alone unit on wheels with brakes for front two wheels. 2. AHU must be made of AISI 304 stainless steel structure and covered by plastic covers, in order to make easier the cleaning procedures. 3. The AHU with ECM-DC motors must ensure consumption of very low power and low heat loss with consequent low running costs. 4. It should be able to supply air to maximum number of racks (two double sided racks or four single sided racks or one double sided and two single sided racks). 5. It should be able to supply maximum air changes per hour (desired air changes – 80). 6. It should have separate washable pre filters and separate 0.3 micron size HEPA filters for supply and exhaust air (DOP test certification for HEPA filters is a must). 7. Exhaust air from AHU must be connected to room exhaust. 8. AHU should have monitoring device to check the status of the filters. 9. AHU must display temperature, relative humidity and air changes per hour and display should have stand-by screen mode to avoid disturbance to animals. The AHUs should not transmit any vibration to the connected racks. 10. The AHU width should not be more than 13 inches. 11. AHU noise level should not be more than 50dBA. Maximum Power required for the AHU needs to be indicated. 12. Warranty on system should be minimum 3 years from the date of Installation and commissioning **Certifications:** 1. Manufacturing company should have quality management system certification to ISO 9001 and Environmental management system certification according to ISO 14001. 2. OEM/Product Should have Life Cycle Assessment (LCA) according to ISO 14040 and ISO 14044. 3. IVC system should be TÜV certified. HEPA filters should have DOP test certificates	
11	**Inhalation Chamber** • Aerosol generating system to be used in bacterial infection models. • The system can be a floor or table top model. • The system should come with an infection chamber made of anodized aluminum tank preferably. • The chamber should house a stainless steel wire mesh baskets capable of holding at least10-15 mice in each basket. • There should a sturdy clear acrylic lid, impervious to ultraviolet rays, supports the UV lamps and sample port. The lid should perfectly seal the chamber. • The system should come with a glass nebulizer unit with septum for atomizing the suspension under pressure and combining it with the air drawn in from the room to provide the proper mixture to be delivered to the chamber. • There should be a vacuum pump system to provide adjustable flows through the tank. • The easy to read flowmeters to measure the airflow to the chamber. • The exhausted air should pass through an HEPA filter unit that has a minimum efficiency	1

	of 99.;97% on particles as small as .3 micron. Filters should be individually DOP tested at a flow rate of 100 CFM at 1.2"w.g. • The apparatus should be housed in a sturdy SS cabinet, mounted on casters. • The system should have effective decontamination through filtering and ultraviolet lamps and it should operate under negative pressure. • The system should come with Allen programmable control to regulate cycles of the inhalation exposure system (preheat, nebulizing, cloud decay, decontamination) and increases its efficiency. Displays time in seconds. The display screen should display the process taking place. • The system should operate at 240V, 50Hz. • Accessories should be included in the system: UV lamps-02, Intake HEPA-02, Output HEPA-02, Nebulizer-02. • Warranty on system should be minimum 3 years from the date of Installation and commissioning	
12	**Fridge**	4
	• The capacity of the fridge should be 400 Ltrs or more. • Dimension should be appx. (WxDxH) 583 x 715 x 1792 mm • Temperature range should be 2 - 8°C. • It should have door lock. • It should have single door with double tempered 4mm glass • Copper in the compressor and forced air evaporator and condenser with copper tubes and aluminium fins which should result in 30% faster cooling. • It should have at least 4 shelves. • It should have two LED lights. • It should use R134a refrigerant. • The system should have castor wheels. • It should have heat exchanger in the discharge tube for evaporating drain water. • Electricals: 220V/50Hz/1 Phase. • It should have Copper ball bearing with service free sealed IP68 Motor. • Warranty three years from the date of installation.	
13	**Cryopreservation System with nitrogen tank**	1
	LN2 Dewar Flask of min. 70 lit capacity -1 Nos/6000 samples(1 ml/1.5ml/2 ml/5 ml) with racks & LN2 transfer Vessel 3-5 lit Capacity- 1 nos complete set. • Compact design to minimize space requirements while maximizing storage capacity • Suited for both manual and computerized inventory record-keeping methods • Outstanding temperature uniformity: samples are stored below -180°C, even when less than 2 in. (5cm) of liquid nitrogen remains in the vessel • Audible alarm that sounds when nitrogen level falls below safe range; dry remote alarm contact for remote monitoring • Advanced vacuum insulation to minimize liquid nitrogen evaporation and reduces operating costs • Secure locking to prevent unauthorized entry • Warranty three years from the date of installation	
14	**Small table top instruments set**	1
	• Microfuge- 2 Nos. • Vortex mixer with attachment 2 set • Tube rotator with attachments 1 Nos. • Hot plate 1 Nos. • Thermal Dry bath with attachments 1 Nos. • Small Centrifuge with rotors 1 Nos. • 3D Shaker 1 Nos. • Warranty three years from the date of installation	
15	**C02 Incubator**	2

	• Should have at least 170 L or more • Temperature management of at least 4ºC above ambient to 50ºC with control increment of 0.1ºC • Temperature accuracy should be + 0.4 ºC at 37oC and ambient 22oC, Temperature stability of + 0.1ºC at 37°C and ambient 22oC, and • Temperature uniformity of + 0.3ºC at 37 °C and ambient 22oC • CO2 gas range should be at least 0.1 – 20% with control increment of 0.1%, accuracy should be +0.3% at the specified Relative Humidity (RH) at 37oC and ambient 22°C, stability of + 0.1% at 37 °C and ambient 22°C and gas uniformity of + 0.1% at 37 oC and ambient 22°C across the chamber. • CO2 recovery rate of at least of 6 min after door opening and closing event to attain 5% CO2. • Should have optional High-Temperature Disinfection [HTD] of at least 180 ºC for 2 hours. Entire HTD cycle [including the time for warming up and cooling down to incubation temperature (37°C)] should not take more than 14 hours. • Should have Touch Screen display with Advanced User Interface and on-board data log and option to transfer data via USB interface. • Should have option to Retrofit/field upgrade with O_2 option (1-20% &/or 0.1-20%) later on after purchase. • Should have non- segmented glass door for monitoring of samples without disturbing conditions of the chamber, additional contamination prevention and increasing CO2 recovery after door opening; • Should have option to Retrofit/field upgrade with 4- or 8-segmented inner glass doors option later after sale • Should come with an inline pressure regulator to ensure less gas consumption and prevent overshooting of pressure which shortens life span of incubator. • The Inner chamber should be formed from single stainless-steel sheet with deep-drawn and seamless design with no corners, welds or joints for higher capacity and ease of cleaning. • Should have six-sided direct heating elements to ensure even distribution of heat throughout the entire incubator chamber. • Should come with a removable humidity tray for easy cleaning and refilling of distilled water. • Should have option to Retrofit/field upgrade with Humidity package for humidity display and Water level sensor of the humidity water tray. • Should be "fan less" design to reduce chance of contamination, reduce noise level, minimum air turbulence and bigger usable capacity. • Should have 02 Nos. Access ports at the back of the chamber to allow for external probes, etc., for third party monitoring of chamber conditions. • The incubator should come with standard 4 perforated stainless-steel shelves • Co2 Incubator should have one-year Warranty**.** • Should conform to CE certification standards. • Instrument should be supplied with Co2 regulator of ESAB Make Double Stage Regulator Model (Outlet Gauge 0 – 25 PSI) • Instrument should be supplied with filled CO2 Cylinder • Warranty three years from the date of installation	
16	**Tissue homogenizer**	1
	• Hand-held instrument for fast organization homogeneous, separation and emulsification. With different dispersing heads • Should be appropriate for 0.5~250ml liquid sample, • Should have maximum speed is up to 35000rpm. • Working principle is making the sample circularly loop into a narrow space between the high speed and relative motion stator to shear and break the sample. E.g., tissue such as muscle, liver, breast, etc. can be completely homogenization in 10~30 seconds. • Designed smart and light. Can operate in one hand. • Speed adjustable, digital display speed. Speed precisely controlled to avoid splashing. • Suitable for homogeneous dispersion of a small amount of sample in small container. • High-quality stainless-steel dispersing head, anti-corrosion, high temperature resistance • for disinfecting. • Easy to take off the dispersing head for cleaning. • High speed and high efficiency motor, long life. • Power Supply 230V / 50/60HZ	

	• Power (Input / Output) 160W / 110W • Rotor Line Speed 6.3-14m/sec • Noise 72dB(A) • Speed Control Range 8000-35000rpm (digital display) • Dispersing Heads: 0.5-50ml, 1-100ml • Warranty three years from the date of installation	
17	**Bio-Safety Cabinet Type II, B2**	3
	Sizes L X D X H: 4ft X 2ft X 2ft **Cabinet Provides the Product, Person, and Environmental protection** • Class II Biohazard Safety cabinet should provide personnel, product & environment protection. • Class II B2 Cabinets 100% air exhaust through HEPA filter. • Velocity of airflow to the work zone creates class 100 environment for product protection, where the remaining exhaust air is discharged out through (HEPA). **Main body:** SS-304 **Work Surface:** Seamless, Scratch-free, high quality 18-gauge SS-304 **Working tray:** Autoclavable & Removable stainless steel work surface for easy cleaning. **Inner Surface:** Back Wall and Side Wall Made in SS 304 **Air Flow:** 100 % Exhaust through HEPA Filter **Controller:** • ALL SYSTEM AND CONTROL THROUGH A 3.5" TOUCH SCREEN LCD DISPLAY WITH IN-BUILT DATA LOGGING (REAL TIME) AND USB PORT ON FRONT FACIA FOR DATA DOWNLOAD FOR FURTHER TRANSFER TO PC. • Audiovisual alarm for blower tripping and fault acknowledgment. • Alarm triggers in case front door is raised more than 8" • U. V. Light with Hour Meter & interlocking arrangement to put off U. V. light if either side door opens • UV Light with Hour Meter • Alarm for the front door of BSC for safe clear opening **Mini pleat HEPA Filter-** Mounted on aluminum frame, of rating, Prefilter are made from Non-Woven Synthetic with HDPE mesh and Al expanded mesh on air leaving side; conforms to EU -4 /G-4 Grade, with the efficiency of down to 10 microns. These filters can be cleaned by compressed air & also washable. **Pre Filter -** Mounted on an aluminum frame, of rating, Prefilter are made from Non-Woven Synthetic with HDPE mesh and Al expanded mesh on air leaving side; conforms to EU-4 /G-4 Grade, with the efficiency of down to 10 microns. These filters can be cleaned by compressed air & also washable. **Exhaust Filter-** Air drawn through pre-filter is made to pass through highly effective HEPA (High-Efficiency Particular Air) filters. The prefilter fitted extends the life of the HEPA filter drastically. Fitted with HEPA Filter made from water-resistant, fire retardant, imported microfine glass fiber media; conforms to EU - 14 Grade, with an efficiency rating better than 99.999% for 0.3 μ. **Supply/Main Filter**- Air drawn through pre-filter is made to pass through highly effective HEPA (High-Efficiency Particular Air) filters. The prefilter fitted extends the life of the HEPA filter drastically. Fitted with HEPA Filter made from water-resistant, fire retardant, imported microfine glass fiber media; conforms to EU - 14 Grade, with an efficiency rating better than 99.999% for 0.3 micron.	

	Front Sash Door - Manual sliding sash door made up of Imported poly carbonate sheet or toughened glass with sloping front for better access of samples Front sash door height can be easily adjusted as per required by end-user. **Air Velocity -** 100 ft/min ± 10 **Air Volume -** Up to 500 CFM **LCD Display –** Digital Microprocessor Control System for Operating Fluorescent, Uv Light & Blower. **Ultra violet tube light -** Germicidal i.e., 254 nm **Electrical Socket – Splash Proof** Internal socket inside the chamber,5/15 Amp **Illumination of Work surface-** fluorescent tube light (intensity > 600 lux) provides excellent illumination for work surface & reduces operator fatigue. Fluorescent tube light in set behind front control panel. **Working Noise level:** Low/ should be < 65 dB **Electronic / Electrical panel:** From clean chamber to give better contamination free results. **Electrical Safety:** Electrical components used are standard for better electrical safety for the operator **Heat Emission:** Heat Emission at 25°C.Ambient BTU/hr (kW) **Power supply:** 230 V ± 15%, 50 Hz ± 3% **Drainage Port:** Provide beneath work surface to facilitate easy & better cleaning of the interior & handling of spillage inside the chamber **Blower-Motor Assembly:** Dynamically & statistically balanced Aluminum centrifugal impeller driven by ingle phase, 2800 RPM motor **Virus Burnout Unit:** Virus Burn out unit Placed Biosafety Cabinet at the exhaust. Virus Burn out unit is a controlled unit where temperature is controlled up to 140°C **Ducting: Also Provided** **Certification: CE, IEC60601, IEC61010,ISO13485,14001,45001,13485,9001,EN12469** Warranty three years from the date of installation	
18	**Bio-Safety Cabinet Type II, A2**	02
	1. Class II biosafety cabinet with 70% recirculation & 30% exhaust 2. Transparent UV absorbing single piece sliding vertical door with alarm. 3. 220-230V universal electrical fitting and gas inlet in the working area. 4. The cabinet should be mounted on a supporting stand with caster wheels. 5. Internal working area of approx. 48"x 22" x 27" dimensions should be of stainless steel. 6. Electronic display of all the parameter with alarm indications. 7. Microprocessor controlled system. 8. ULPA filters of >99.667% efficiency at 0.12µm. 9. Electrogalvanized steel outer sheet. 10. Silent operation of the blower with noise level below 60dBA. 11. Single piece SS-304 steel inner back and side walls. 12. Perforated SS-304work tray with drain pan for easier cleaning. 13. The equipment should have exhaust collar for ducting. 14. The equipment should comply to EN 12469 or NSF 49 standard of biosafety and UL-C certification of electrical safety. 15. Warranty three years from the date of installation	
19	**Double Door Autoclave**	3
	As mentioned above at point no.5 of Scope of work	

LIST OF APPROVED MAKES / MANUFACTURERS

ITEM	APPROVED MAKES /MANUFACTURER
Prefabricated wall and ceiling panels	SSV/I-Clean/GMP/Jindal
View Panels	Doorwin/I-Clean/GMP
Laboratory Doors	Doorwin/I-Clean/GMP
Epoxy Coating	Berger/ Apurva / Fosrok
Air Cooled Chiller	Voltas/Blue Star /Carrier/York
Hot water Generator/Calorifier	Rapidcool / Khokar / Emerald
Double skin type AHU	Zeco/Flakt/SSV/VTS/System Air or equivalent
AHU Cooling Coils	ARI Certified
AHU Fan	Kruger/Nicotra/Comferi (AMCA Certified)
Pumps	Kirloskar/Beacon/Greaves/Grundfoss
Motors	Crompton/Siemens/ Bharat Bijlee/ ABB
Centrifugal Blowers	TCF/Kruger/Nicotra/System Air
MS Pipes	Jindal/ Tata/ SAIL
Isolation Damper	Trox/Camfil/YIT/Klenzaids/SSV/Kartos
VAV	Trox/ Aldes/Celmec/Tek-Air (Accutrol)
HEPA Filters	AAF/Camfil/Klenzaids/Thermadyne/Kartos
Containment HEPA Filter housing	Camfil/YIT/Klenzaids/Kartos
VFD	ABB/Seimens/Allen Bradley/Danfoss
Pressure sensor & transmitter	Honeywell/Dawyer/Danfoss/Siemens
Temperature sensor & transmitter	Honeywell/Dawyer/Danfoss/Siemens
Humidity sensor & transmitter	Honeywell/Dawyer/Danfoss/Siemens
BMS system	AllenBradley / Siemens /ABB/Jhonson
PLC	AllenBradley/Siemens/Jhonson
Magnehelic Gauges	Dawyer
Grills/Diffusers	Ravistar/System Air/Airvision/
Biosafety Cabinet	Esco/Nuaire/Klenzaids/Macro/Thermo/ Labconco
Autoclave	Machinfabrik/Precision/Macro/Natsteel/Equitron
Dynamic Pass Box	Esco/Klenzaids/I-Clean/SSV/Kartos
Fire Alarm System	Honeywell/System Sensor/GST/Siemens
Door Interlock & Access Control	HID/LG/ESFL
UPS & Inverter	Tata Emerson/APC/Sukam/equivalent
CCTV Camera	LG/Hikvision/CP Plus
LED for CCTV display	Samsung/LG/Sony/Panasonic
Butterfly Valves	Advance/Audco/ C&R/ Castle/ Arrow/Intervalve
Gate Valves	Leader/ BankimSarkar/ Divinc/ Sant
Balancing Valves	Advance / Audco/Danfoss
Y-Strainers	Sant/Emerald/ Rapidcool/Sandhu
NR Valves	Advance /C&R/ Castle/ Arrow/ Univass
Flow Switch	Jhonson/Honeywell/Staefa
HVAC Control valves	Honeywell/ Johnson/ Danfoss
3-Way Valves	Danfoss/Johnson/ Honeywell/Siemens

Modulating Motors	Honeywell/Jhonson/Siemens/Danfoss/ Belimo
Pressure & Temperature gauges	H. Guru/ Fiebig/ Japsin/Forbesmarshall
G.I. Sheet	Sail/Tata/Jindal
Aluminium sheet	Hindalco/NALCO/Balco
Volume Control & Fire Damper	Ravistar/Caryaire/Airvision
Nitrile Rubber Insulation	Armacell/Armaflex/SupremeA-Flex/Thermaflex
Expanded Polystyrene	Beardsell/Indian Packaging/FGP/Styrene
LT Panel	CPRI approved manufacturer
Electrical Switch Gears/MCCB	L&T/ABB/Siemens/Schneider
Starters	L&T/Siemens/ABB
Distribution Board	Legrand/L7T/AVBB/Havells/Schnieder
Copper Conductor/Wires	Polycab/Havells/RR Kabel/KEI/L&T
LT Cables	Polycab/Universal/Havells/Gloster/KEI
CAT6 cables	AT&T/KABEL/LUCENT/LAPP/Digilink
PVC Conduit and accessories	BEC/AKG/Polycab/Precision
MCB/ELCB/RCCB	Legrand/L&T/Hager/Schneider/Siemens/ABB
Light Fixtures	LED (IP 55 rated) for BSL-3 Lab LED for other areas
Switch & Sockets	CLIPSAL (Schneider) IP 66 rated for BSL-3 Lab Modular-Legrand /Schneider/Crabtree
Protection Relays	ABB/L&T/Siemens/Schneider
Single Phase Preventor	L&T/Minilee
Air Compressor	Atlas Capco / Ingersoll Rand
Centrifuge	Thermo/Eppendorf/Hettich
PCR/RTPCR	Thermo/Bio-Rad/Biometra/Eppendorf
Multi Mode Reader	Teccan/Bio-tech/Perkin/Agilent/BMG_Biotech/Perkin
Freezer -20 deg.	Vestfrost/BlueStar/Thermo/Eppendorf
Ultra Deep Freezer	Thermo/Eppendorf/Panasonic
Water Bath	Macro/Borosil/Neution/Labtop
Shaker Incubator	Macro/Eppendorf/Innova/Labtop/Thermo or equivlent
Trinocular Microscope	Olympus/Zeiss/Nikon/Leica
IVC	Techniplast/Allentown/Orchid
Refrigerators	Cellfrost/Vestfrost/BlueStar/trufrost
Circulating water bath	(Grant/Thermo/Polyscience/Julabo or equivalent
Individual Ventilated Cages	Techniplast/Allentown
Inhalation Chamber	Glas Col/CH Technologies
Cryopreservation system with nitrogen tank	Thermo/Innova or equivalent
CO2 Incubator	Eppendrof/Thermo/Panasonic
Tissue homogenizer	IKA/Elisabeth Pharmacon/ACT Gene/Perkin

(Plan layout attached)

****

(7) TENDER FORM

(Techno Financial UN priced Bid)

Tender No……..

To

The _____

_____

Dear Sir,

1. I/We hereby offer to supply the items as listed in the schedule to this tender hereto/portion thereof as you may specify in the acceptance of Tender at the price given in the said Schedule and agree to hold this offer open for a period of 180 days from the date of opening of the tender. I/we shall be bound by a communication of acceptance issued by you.
2. I/We have understood the Instruction to bidders and Conditions of Contract in the form as enclosed with the invitation to the tender and have thoroughly examined the specifications quoted in the Schedule hereto and am/are fully aware of the nature of the goods required and my/our offer is to supply the goods strictly in accordance with the specifications and requirements.
3. A crossed Bank Draft in favour of the Registrar, Central University of Rajasthan for Rs. ……. (Rupees……..only) as Earnest Money will be submitted in pre-bid meeting. The Draft is drawn on ……..Bank payable at Bandarsindri/Madanganj/Kishangarh.

4. The following have been added to form part of this tender.

   a) Details of items quoted for, as per instructions provided in the schedule of requirement.

   b) Schedule of requirements, quoting the make only duly signed and stamped (without indicating price)

   c) Copy of PAN.

   d) Copy of last audited balance sheet.

   e) Copy of Valid Central/State sales tax/GST registration certificate.

   f) Proof of manufacturing Unit.

   g) Statement of deviations from financial terms & conditions, if any.

   h) Manufacturer's Authorization Certificate on their letter pad.

   i) Technical Specifications Compliance statement along with original Brochure / literature.

   j) Any other enclosure. (Please give details)

5. We undertake to execute all orders which have been placed to meet emergent requirements on priority basis.

6. Certified that the bidder is:

   a) A sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of the sole proprietor,

   OR

   b) A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.

   OR

   c) A company and the person signing the document is the constituted attorney.

   (NOTE: Delete whatever is not applicable. All corrections/deletions should invariable be duly attested by the person authorized to sign the bid document).

   OR

   Otherwise (be specified)

7. We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof shall constitute a binding contract between us.

Yours faithfully,

(Signature of bidder)

Dated this day of _____

Address…

……..

……..

Telephone:_____

FAX_____

E-mail_____

Seal of Bidder Organization

(8) Tender Form (Priced Bid) Part B

To
The _____
_____
_____

Ref: Tender No …….. , Dated

Sir,
Having examined the bidding documents and having submitted the techno Financial un-priced bid for the same, we, the undersigned, hereby submit the priced bid for supply of goods and services as per the schedule of requirements and in conformity with the said bidding documents.

We hereby offer to supply the Goods/Services at the prices and rates mentioned in the enclosed schedule of price.

We do hereby undertake that, in the event of acceptance of our bid, the supply of Goods/Services shall be made as stipulated in the schedule of requirement and that we shall perform all the incidental services.

The prices quoted are inclusive of all charges net F.O.R University. We enclose herewith the complete Financial Bid as required by you. This includes:

i. Price Schedule as per schedule of requirement.
ii. Statement of deviations from financial terms and conditions.

We agree to abide by our offer for a period of 180 days from the date fixed for opening of the bid documents and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and conditions of the bid document and we do hereby undertake to supply as per these terms and conditions. The Financial Deviations are only those mentioned in the statement of deviations from financial terms and conditions.

Certified that the bidder is:
A sole proprietorship firm and the person signing the bid document is the sole proprietor/ constituted attorney of sole proprietor,

Or

A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney,

Or

A company and the person signing the bid document is the constituted attorney.
(**NOTE**: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document.)
We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.

Dated this day of_____
Details of enclosures

Signature of Bidder
Full Address:
Fax No.
E-mail:

Seal of Bidder Organization

Annexure-"B"

(9)Price Schedule

E.M.D._____

D.D. Details_____

Bank Name_____

Date_____

Item No.	Item Name	Basic Price	Taxes and duties (if any) with rate & details	Delivery charges Other charges (if any)	Total Price F.O.R.at Central University of Rajasthan. All inclusive
1					
2					
3					
4					
5					
6					
7					

Total No. of Item(s) quoted_____ **Seal and Signature of the bidder**

Separate rate for Comprehensive onsite Maintenance (for 4th to 6th year, after expiring of 3 years warranty period).

S. No.	Details	Rate of CMC (For 4th year)	Rate of CMC (For 5th year)	Rate of CMC (For 6th year)

Separate rate for Annual Maintenance Contract (for 7th to 10th year, (i.e. after expiring of CMC period).

S. No.	Details	Rate of AMC (For 7th year)	Rate of AMC (For 8th year)	Rate of AMC (For 9th year)	Rate of AMC (For 10th year)

Seal and Signature of the bidder

(10) FORMAT OF PERFORMANCE BANK GUARANTEE

This guarantee should be furnished by a Nationalized Bank / Scheduled Bank, authorized by RBI to issue a Bank Guarantee.
This bank guarantee should be furnished on stamp paper of Rs. 100/-
The stamp paper should have been purchased in the Name of the Bank executing the Guarantee.
In the case of foreign bidder the B.G may be furnished by an international reputed bank acceptable to the PURCHASER countersigned by any Nationalized / Scheduled Bank in India authorized by Reserve Bank of India.
Bank guarantee must be sent to the University directly by the post to the following address:
The Registrar,
Central University of Rajasthan,
Bandarsindri, Distt. Ajmer,
Rajasthan – 305817
However, bidder may submit a copy of the same.
WHEREASM/s ……., having it's registered office at …… hereinafter called the Distributor in India for
……,herein after called "The supplier" for the supply of ……., in consideration of the Central University of Rajasthan, Department of ……., School of ……Central University of Rajasthan, , Kishangarh (hereinafter called "CURAJ") P.O. No. CURAJ / …….. Dated. Placed an order for the due fulfillment by the said supplier of the terms and conditions in the purchase order, on production of a Bank Guarantee for Rs…….. (Rupees……..
…….. Only). We …….. Bank, …… (Rein after referred to as "the Bank") at the request of supplier do hereby undertake to pay to the CURAJ an amount on exceeding to Rs……. (Rupees…….. only).

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

3. We undertake to pay to the CURAJ any money so demanded notwithstanding any dispute or disputes raised by the supplier in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid and discharge of our liability for payment there under and the Supplier shall have no claim against us for making such payment.

4. We the ……Bank further agree that the guarantee herein contained shall remain in full force and affect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the CURAJ under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till Registrar on behalf of the CURAJ certified that the terms and conditions of the said Agreement have been fully and properly carried out by the said …… and accordingly discharges this guarantee.

5. We, the …….. Bank further agreed that the CURAJ shall have the fullest liberty without our consent and without affecting in any manner our obligations here under to vary any of the terms and conditions of the said Purchase Order or to extend the 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 CURAJ against the said supplier 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 supplier or for any forbearance act or omission on the part of the CURAJ or any indulgence by the CURAJ to the said supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

6. This guarantee will not be discharged due to change in the constitution of the bank or the supplier.

7. We, the …….. Bank lastly undertakes not to revoke this guarantee except with the previous consent of the CURAJ in writing.

8. This guarantee shall be valid up to …… unless extended on demand by CURAJ.

Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs……/- (Rupees …….. only).

Notwithstanding anything contained herein

1. Our liability under this bank guarantee shall not exceed Rs……../-(Rupees …….. Only)

2. Bank guarantee shall be valid up to ……..

3. We are liable to pay the guaranteed amount or part thereof under this bank guarantee only and only if you serve upon us a written claim or demand on or before ……..

Dated:

Signature & Seal of the Bank

Note: Theaboveformatcontainsspecificclausesandexpressions.Theseclausesandexpressions can vary depending upon the nature / type of agreement and situation. Basic aspect to be kept in mind is that interest of CURAJ is fully protected.

(11) FORMAT FOR MANUFACTURER'S AUTHORIZATION LETTER TO AGENT

(On letter head)

Ref. No. Date:

To
The Registrar,
Central University of Rajasthan,
Bandarsindri, Distt. Ajmer,
Rajasthan – 305817

Sub. : Tender for Supply & Installation of Laboratory Equipment

Dear Sir,

We, _____, who are established and reputed manufacturers of _____, having factory at_____, hereby authorize M/s._____ (name & address of Indian distributor / agent) to bid, negotiate and conclude the order with you for the goods manufactured by us.

We shall remain responsible for the tender/ Agreement negotiated by M/s _____, jointly and severely.

An agency commission of _____ % included in the FOB price is payable to M/s _____. We hereby extend our full guarantee and warranty as per the terms and conditions of tender for the goods offered for supply against this invitation for bid by the above supplier.

1. _____
2. _____

(Specify in detail manufacturer's responsibilities)

The services to be rendered by M/s. _____ _____ are as under:

1) _____
2) _____

(Specify the services to be rendered by the distributor / agent)

In case duties of the Indian agent/distributor are changed or agent/ distributor is changed it shall be obligatory on us to automatically transfer all the duties and obligations to the new Indian Agent failing which we will ipso-facto become liable for all acts of commission or omission on the part of new Indian Agent/ distributor.

Yours faithfully,

[Name & Signature] for and on behalf of M/s. _____ [Name of manufacturer]

(12) <u>DECLARATION REGARDING BLACKLISTING / DEBARRING FOR TAKING PART IN TENDER.</u>

I / We _____ Manufacture / Partner(s)/ Authorized Distributor /agent of M/S. _____ hereby declare that the firm/company namely M/s._____has not been blacklisted or debarred in the past by Union / State Government or organization from taking part in Government tenders in India.

Or

I / We _____ Manufacture / Partner(s)/ Authorized Distributor / agent of M/s. _____hereby declare that the Firm / company namely M/s._____was blacklisted or debarred by Union / State Government or any Organization from taking part in Government tenders for a period of _____ years w.e.f. _____ to _____. The period is over on _____and now the firm/company is entitled to take part in Government tenders.

In case the above information found false I / we are fully aware that the tender / contract will be rejected / cancelled by the Central University of Rajasthan, and EMD / SD shall be forfeited.

In addition to the above, Central University of Rajasthan, will not be responsible to pay the bills for any completed / partially completed work.

Signature with Seal

Name_____

Address _____

_____

Attested:

(Public Notary / Executive Magistrate)

(13) CERTIFICATE OF GUARANTEE/WARRANTY

I/We certify that the guarantee/warranty shall be for a period of 36 months (as applicable) starting from the date of satisfactory installation, commissioning and handing over of the equipment and of the works conducted therewith covered under the Supply order in working order. During the guarantee/warranty period, I/we shall provide free "after sale service" and the replacement of any part(s) of the equipment or rectification of defects of work of the equipment will be free of cost. The replacement of the parts shall be arranged by us, at our own cost and responsibility. We undertake that the above guarantee / warranty shall begin only from the date of satisfactory and faultless functioning of the equipment for 30 days at University premises. The benefit of change in dates of the guarantee / warranty period shall be in the interest of the user/your organization.

During the warranty period, we shall provide at least 02 preventive maintenance visits per year.

Uptime Guarantee: During the guarantee/warranty period, we will be responsible to maintain the equipment in good working conditions for a period 347 days (i.e. 95% uptime) in a block of 365 days.

- All complaints will be attended by us within 2 working days of receipt of the complaint in our office.
- In case there is delay of more than 2 days in attending to a complaint from our side then you can count the number of days in excess of the permissible response time in the downtime. The above said response time of 2 days for attending to a complaint by us will not be counted in the downtime.
- Penalty: We shall pay a penalty equivalent to 0.50% of the FOB value of the equipment for every week or part thereof delay in rectifying the defect.

Note: The right to accept the reason(s) for delay and consider reduction or waive off the penalty for the same shall be at the sole discretion of University.

We certify that the equipment being/quoted is the latest model and that spares for the equipment will be available for a period of at least 10 years and we also guarantee that we will keep the organization informed of any update of the equipment over a period of 10 years.

We guarantee that in case we fail to carry out the maintenance within the stipulated period, University reserves the right to get the maintenance work carried out at our risk, cost and responsibility after informing us. All the expenses including excess payment for repairs/maintenance shall be adjusted against the Performance Bank Guarantee. In case the expenses exceed the amount of Performance Bank Guarantee, the same shall be recoverable from us with/without interest in accordance with the circumstances.

We shall try to repair the equipment at University premises itself. However, the equipment will be taken to our site on our own expenses in case it is not possible to repair the same at University premises. We shall take the entire responsibility for the safe custody and transportation of the equipment taken out for repairs till the equipment is rehabilitated to the University after repair. Any loss of equipment or its accessories under its charge on account of theft, fire or any other reasons shall be at our sole risk and responsibility which will be compensated to University for such losses.

We undertake to perform calibration after every major repair/breakdown/taking the equipment for repair out of University premises.

In case of extended guarantee/Warranty, we undertake to carry out annual calibration of the equipment.

We guarantee that we will supply spare parts if and when required on agreed basis for an agreed price. The agreed basis could be an agreed discount on the published catalogue price.

We guarantee to the effect that before going out of production of spare parts, we will give adequate advance notice to you so that you may undertake to procure the balance of the life time requirements of spare parts.

We guarantee the entire unit against defects of manufacture, workmanship and poor quality of components.

Signature of Bidder

(Name)

Seal of Bidder Organization

(14) Technical specifications compliance Sheet

1. The technical compliance bid must be in this sheet only, otherwise is should be assumed that bidder is not able to offer technically desired product. Information provided elsewhere or in different form will not be considered.

2. All the columns of this sheet should be filled in compulsorily by the bidder, merely asking the office to refer catalogue or brochure will not be entertained.

3. The bidder shall assume full responsibility of the information provided in this sheet. Any false statement should render the breach of basic foundation of the tender.

Name of Equipment / Instrument:

Compliance Check list/ Table

S. No.	**Technical specification**	**Features available in equipment. Specify the range**	**Any deviation from specification**	**Corresponding page no. and S. No./ Para no. of datasheet catalogue/ brochure in support of specification** **(As provided with technical Bid)**
	Technical Specification as per Tender document			
1				
2				
3				
4				
5				
6				
7				

(15) Check list for Terms and Conditions:

To be filled by the bidder and submitted along with the Technical Bid.

S. No.	Technical Information	Page No.	Remarks
1.	Tender Fee, if applicable		
2.	EMD		
3.	Company/ Firm registration details		
4.	Authorization Certificate		
5.	The Bidder shall have an average annual turnover of minimum Rs. 8.00 Crore in the last 3 financial years (i.e., F/Y 2020-21, 2021-22 & 2022-23). Copy of Audited Balance Sheets for all the three financial years shall be submitted.		
6.	Experience		
7.	Income tax return (Last Three Years)		
8.	Audited balance sheet (Last Three Years)		
9.	Original Technical Catalogue of the quoted model and same should be available on the website		
10.	Compliance Statement with relation to the technical specification as mentioned in the bidding document duly supported by the original catalogue.		
11.	Self-declaration for not black listed		
12.	Clientele list (list of users) of quoted model of the items, attach couple of orders without any alteration/modification		
13.	Performance certificate of the same supplied machine (of quoted make and Model) from clients		
14.	Warranty & extended technical support certificate		
15.	Acceptance of all terms / conditions towards after sales / services as mentioned in the bidding document.		
16.	Certificate, to the effect that the bidder is not supplying the quoted item(s) to any other Govt. / Pvt. Organizations / Institutions at the rate lower than the rate quoted against this tender.		
17.	Certificate for 'Class-I local supplier' and 'Class-II local supplier'		
18.	Certificate for verification of local content		
19.	Integrity Pact		
20.	Certificate wrt to clause 3 rate reasonability		
21.	Certificate wrt to clause 14 that the bidder fulfils the requirement for procurement of material from country which shares a land border with India.		
22.	Signed and stamped Compliance sheet wrt clause 28 (vi)		

(16) Price Bid Format

The rates to be quoted for each item of the Price Bid/BOQ in Indian Rupees, both in figures and words for the execution of work on 'Turnkey Basis' including all the required material, labour, accessories, tools & tackles etc., taxes, duties & levies for the complete work, as per Scope of Work, Specifications and approved design & drawings. All the pages shall be stamped and signed by the authorized representative of the Bidder. The Price Schedule with rates and amount duly filled in and signed shall be submitted in a separate sealed envelope, as given in Instructions to Bidder.

Item. No.	Item / Work Description	Unit	Qty.	Rate	Amount
A.					
1	Design, Supply, Installation and Commissioning of ABSL-3 Laboratory on Turnkey Basis, at Central University of Rajasthan in accordance with the Sixth edition of BMBL Guidelines issued by the U.S. Department of Health and Human Services, CDC, USA' and DBT guidelines 2020. The entire lab shall be validated as per the International and National Guidelines and necessary documentation and validation report will be submitted at the time of handling over.	**Lot**	**1**		
2	PCR	**Nos**	1		
3	RT-PCR	**Nos**	1		
4	Multi Mode micro plate reader	**Nos**	1		
5	Deep Freezer (-20Degree)	**Nos**	3		
6	Deep Freezer (-80 Degree)	**Nos**	2		
7	Circulating Water Bath	**Nos**	2		
8	Refrigerated Centrifuge	**Nos**	2		

9	Incubator Shaker	**Nos**	2		
10	Inverted Microscope	**Nos**	1		
11	IVC Cages	**Nos**	1		
12	Refrigerator	**Nos**	4		
13	Cryopreservation System with Nitrogen Tank	**Nos**	1		
14	Co2 Incubator	**Nos**	2		
15	Tissue Homogeniser	**Nos**	1		
16	Inhalation Chamber	**Nos**	1		
17	Set of small table top Equipments	**Nos**	1		
					Signature & Seal of Bidder

Separate rate for each equipment for Comprehensive onsite Maintenance (for 4th to 6th year, after expiring of 3 years warranty period).

S. No.	Details	Rate of CMC (For 4th year)	Rate of CMC (For 5th year)	Rate of CMC (For 6th year)

Separate rate for each equipment for Annual Maintenance Contract (for 7th to 10th year, (i.e. after expiring of CMC period).

S. No.	Details	Rate of AMC (For 7th year)	Rate of AMC (For 8th year)	Rate of AMC (For 9th year)	Rate of AMC (For 10th year)

INTEGRITY PACT

This INTEGRITY PACT is made and executed at……on this day of……20….

BY AND BETWEEN

THE PRESIDENT OF INDIA acting through Registrar (insert name & designation of the officer) of Central University of Rajasthan, Bandarsindri, Kishangarh-305817, Ajmer. (hereinafter referred to as "The Buyer" which term or expression shall, unless excluded by or repugnant to the subject or context, mean and include its successor-in-office, administrators or permitted assignees) of the First Part;

AND

M/s …….. A company incorporated under the Companies Act,……..through its representative/authorized signatory (insert name & designation of the officer) vide resolution dated …… passed by the Board of Directors, having its office at …… (hereinafter referred to as "The Bidder/Contractor which term or expression shall, unless excluded by or repugnant to the subject or context, mean and include its successor-in-office, administrators or permitted assignees) of the Second Part.

PREAMBLE

The Buyer intends to award under laid down organizational procedures, contract/s for..... The Buyer values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and / or Contractor(s).

In order to achieve these goals, the Buyer will appoint Independent External Monitors (IEMs) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Buyer

(1.) The Buyer commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

a. No employee of the Buyer, personally or through family members, will in connection with tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Buyer will during the tender process treat all Bidder(s) with equity and reason. The Buyer will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder{s} confidential /additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

c. The Buyer will exclude from the process all known prejudiced persons.

(2.) If the Buyer obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Buyer will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/Contractor(s)

(1.) The Bidder(s)/Contractor(s) commit themselves to take all measures necessary to prevent corruption. The Bidder(s)/Contractor(s) commit themselves to observe the following principles during participation in the tender process and during the contract execution.

a. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer promise or give to any of the Buyer's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or

during the execution of the contract.

b. The Bidder(s)/Contractor(s) will not enter with other Bidders 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 introduce cartelization in the bidding process.

c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to the others, any information or document provided by the Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s)/Contractors(s) of foreign origin shall disclose the name and address of the Agents/representatives in India if any. Similarly the Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign Buyer, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/ representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is placed at (page no. 6).

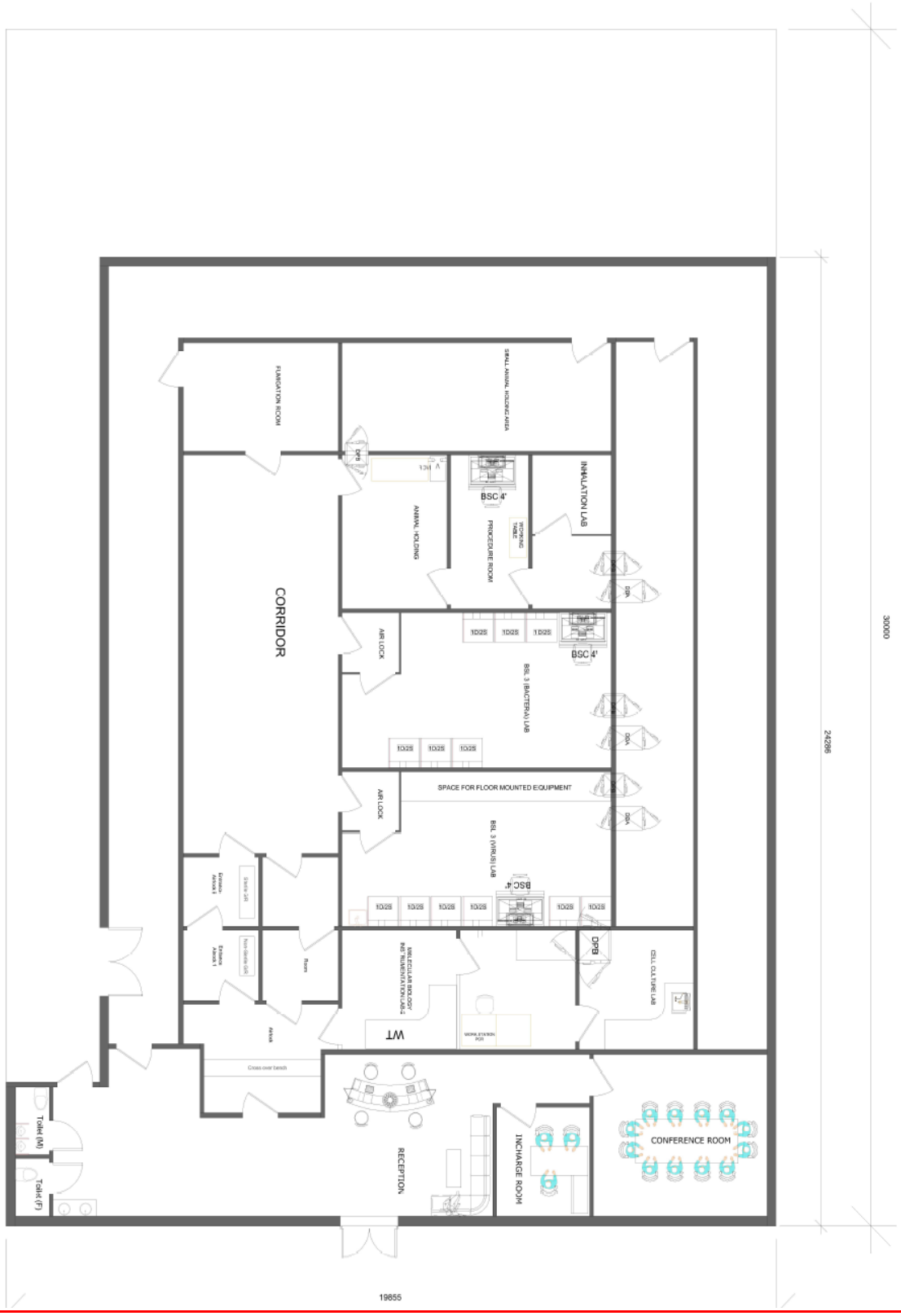
e. The Bidder(s) / Contractor(s) will, when presenting their bid, disclose any and all payments made, is committed to or intend to make to agents, brokers or any other intermediaries in the connection with the award of the contract.

f. Bidder(s) /Contractor(s) who have signed the integrity pact shall not approach the courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2.) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or to be an accessory to such offences.

Signature & Seal of Registrar
Central University of Rajasthan

Signature & Seal of Bidder
Name
Address



End of Tender Document