

# **CENTRAL UNIVERSITY OF RAJASTHAN**

Bandarsindri – 305817 Distt. Ajmer, Rajasthan



## **TENDER NOTICE & DOCUMENT FOR SUPPLY AND INSTALLATION of “Laboratory Equipment” at Central University of Rajasthan**

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## CENTRAL UNIVERSITY OF RAJASTHAN

(Established under the Central Universities Act 2009)

Bandarsindri – 305817 Distt.:Ajmer, Rajasthan.

www.curaj.ac.in

### 1. Schedule of Tender:

**Tender document for the supply and installation of “Laboratory Equipment” at Central University of Rajasthan.**

Sealed tenders are invited from the reputed OEM/ authorized dealers/firms etc. for **supply and installation of “Laboratory Equipment”** 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.	<b>High-resolution Field Emission Scanning Electron Microscope (FESEM)</b>	01	560000	Rs.1000/- Tender fee Nil, if downloaded from website.
2.	<b>Fluorescence activated cell sorter (FACS)</b>	01	600000	
3	<b>LC-HRMS</b>	01	540000	
4	<b>Pulsed Laser Deposition (PLD)Unit</b>	01	370000	

**Tender Document upload (publish) date/time :** 03/12/2020, up to 01.00 P.M.

**Last Date of Submission of Tender :** 23/12/2020, up to 02.00 P.M.

**Date of opening of Tender (Technical Bid) :** 23/12/2020, at 3.00 P.M.

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

**Mode of EMD and Tender fee:** Bidders should send separate D.D. for Tender Fee (Non-EMD (Refundable without any Interest) in favour of Central University of Rajasthan, payable at Kishangarh/ Bandarsindri.

#### **NOTE:**

1. Separate tender should be submitted for each equipment, if participating for more than one equipment. Name and S. No. of the Equipment should also be mentioned on the Envelope, otherwise tender may be rejected.
2. If the tender is not opened on the above date, due to unforeseen circumstances, then the next working day will be considered as tender opening date.
3. The bidders who fail to submit the required tender fee, if applicable and EMD, their techno financial bids will not be considered for opening.
4. Bidder or their authorized representatives may attend the opening of the tender.

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Bandarsindri – 305817 Distt.:Ajmer, Rajasthan.

www.curaj.ac.in

### 2. TENDER NOTICE

#### Tender Notice for supply and installation of “Laboratory Equipment” at Central University of Rajasthan



**Central University of Rajasthan**  
**NH-8 Bandarsindri, Kishangarh, Distt-Ajmer-305817**  
**Tel: 01463 – 238755 Website [www.curaj.ac.in](http://www.curaj.ac.in).**

CURAJ/Purchase/Tender/2020-21/2361 Dt.03/12/2020

**TENDER NOTICE**

Sealed quotations are invited from the Manufacturers, Authorized Dealers/ Firms for the supply & installation of laboratory 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 23/12/2020 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](http://www.curaj.ac.in) and CPP Portal i.e. <https://eprocure.gov.in>

Registrar

#### राजस्थान केन्द्रीय विश्वविद्यालय में प्रयोगशाला उपकरणों की आपूर्ति एवं स्थापना के लिये निविदा सूचना।



**राजस्थान केन्द्रीय विश्वविद्यालय**  
**राष्ट्रीय राजमार्ग 8, किशनगढ़ जिला अजमेर 305817**  
**दूरभाष: 01463– 238755 वेबसाइट [www.curaj.ac.in](http://www.curaj.ac.in)**

सी०यू०आर०ए०जे०/क्र०य/टेण्डर/2020-21/2361 दिनांक: 03/12/2020

**निविदा सूचना**

विश्वविद्यालय में प्रयोगशाला उपकरणों की आपूर्ति एवं स्थापना के लिये निर्माताओं/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 23.12.2020 को अपराह्न 02.00 बजे तक भेज सकते हैं। प्राप्त निविदायें उसी दिन अपराह्न 3.00 बजे निविदाकर्ताओं की उपस्थिति में खोली जायेंगी, यदि हों। निविदा सूचना एवं विस्तृत जानकारी विश्वविद्यालय वेबसाइट [www.curaj.ac.in](http://www.curaj.ac.in) एवं CPP Portal <https://eprocure.gov.in> पर उपलब्ध है।

कुलसचिव

Central University of Rajasthan, Ajmer, invites sealed tenders as a “2 Bid System” from reputed original equipment manufacturers/ authorized dealers/ suppliers for supply and installation of **Laboratory Equipment at Central University of Rajasthan**, in two parts, “Part A” (Technical Bid) and “Part B” (Financial Bid).

The detailed terms & conditions, name of items etc. can also be downloaded from the website [www.curaj.ac.in](http://www.curaj.ac.in) or CPP Portal i.e. <https://eprocure.gov.in>. All other amendment/ modification/ Corrigendum in future will only be published on the website [www.curaj.ac.in](http://www.curaj.ac.in) or CPP Portal i.e. <https://eprocure.gov.in>

### 3. Important Notes to the Bidder:

1. Central University of Rajasthan, Bandarsindri, invites tenders under “2 Bid system” for supply and installation of **Laboratory Equipment at Central University of Rajasthan** as per the specifications given in the “**Annexure A-1 to A-4**”.
2. Tender document can be downloaded from the University website at URL Link: or Central Public Procurement Portal (CPPP) at [www.eprocure.gov.in](http://www.eprocure.gov.in) and <http://www.curaj.ac.in/tenders>.
3. The bidders are requested to read the tender document carefully and ensure all the compliance with instructions herein. 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 DGS&D 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. **University is entitled for concessional GST @ 5% as per Notification No. 45/2017 –(Central Tax Rate) and Notification No. 47/2017-(Integrated Tax Rate) dated 14-11-2017. This University is also registered with DSIR vide TU/V/RG-CDE(1115)/2018 dated 12-10-2018 for availing concessional Custom Duty.**

4. The prescribed tender documents should be submitted in one sealed envelope duly super scribed with “**Tender for Laboratory Equipment” at Central University of Rajasthan** at Bandarsindri, Ajmer (Rajasthan)” (**Name and S. No. of the equipment**). This sealed envelope should contain three sealed envelopes marked A, B, & C as prescribed as under:
  - a) Envelope A containing appropriate Tender Fee & Earnest Money Deposit (EMD) in the form of Demand Draft in favor of CENTRAL UNIVERSITY OF RAJASTHAN payable at Bandarsindri, Kishangarh/Madanganj. Tender shall be rejected if the Earnest money D.D.’s are not found in proper order.
  - b) Envelop B containing the Technical Bid along with the supporting documents. (See Terms & Conditions for more details)
  - c) Envelop C 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**
5. The complete tender document is to be signed with seal & is to be placed in the separate envelope along with the necessary required documents.
6. 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.
7. 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 on the specified date and time. In the event of the date specified 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.
8. Any clarification regarding tender specification before submission of tender document can be discussed with the Officer Incharge (Purchase) 01463-238757 email id is [oic.purchase@curaj.ac.in](mailto:oic.purchase@curaj.ac.in).
9. 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**

**CENTRAL UNIVERSITY OF RAJASTHAN**

(To Be Filled By the Vendor/ Bidder)

1. Nature of the Equipment/Instrument:
2. Name of the Vendor:
3. Full Address of the Vendor:
4. Telephone/ Mobile No.
5. Fax. No. (If any)
6. Registration No. of Firm
7. PAN
8. GST Registration No.
9. Details of the D.D.

For **Tender Fee (Non-Refundable)** : D.D. No. \_\_\_\_\_ dated \_\_\_\_\_

For **E.M.D Amount (Refundable)** : D.D. No. \_\_\_\_\_ dated \_\_\_\_\_

Drawn from the bank \_\_\_\_\_

Seal and Signature of the bidder/Vendor

#### 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 and Central Public Procurement Portal (CPPP) at [www.eprocure.gov.in](http://www.eprocure.gov.in).
3. Incomplete tenders, amendments and additions to tender after opening are liable to be ignored and rejected.
4. The Bid shall be treated as a 2 Bid System. The Technical Bid will be considered for applicants who's Tender Fee, if applicable and Earnest Money Deposit (EMD) is found in order. 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 by 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, design, delivery, testing methods, packing or destination. If any such required changes cause an increase or decrease in the cost of or the time required for performance, an equitable adjustment shall be made in the contract price or delivery schedule, or both. Any claim by the Vendor for adjustment under this clause shall be deemed waived unless asserted in writing within ten (10) days from receipt by the Vendor of notice of change (amendment order). Price increase, extension of time for delivery and change in quantity shall not be binding on the University unless sufficiently justified by vendor and accepted by the university in a form of amendment/ modified Order issued and signed by the University.
6. **Bid Validity-** Bids should be valid for a period of 180 days from the date of opening of financial 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/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. In cases where the manufacturer has itself submitted the bid, the bids of its authorized dealer will not be considered and EMD will be returned.
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:** In tender, participating Micro and Small Enterprises (MSE) 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) 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 Percent) quantity, a purchase preference of four per cent (that is, 25 (twenty) per cent out of 25 (twenty) 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 only the 'Class-I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid.

- 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. **Class-II local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order.
- III. **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.
- IV. **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. 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.
  - b) 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 L1 bidder.
  - c) "Class-II local supplier" will not get purchase preference in any procurement undertaken by procuring entities.
  - d) **Margin of Purchase Preference:** The margin of purchase preference shall be 20%.
  - e) **Exemption of small purchases:** procurements where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order.
  - f) **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.

**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 or shareholders 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 of individuals;
  - 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 of valid 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 material ordered 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. University is entitled for concessional GST @ 5% as per Notification no. 45/2017-Central Tax (Rate) dated 14-11-2017 & Notification No. 47/2017-Integrated Tax (Rate) dated 14-11-2017. 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:** 80% of the total payment shall be released on submission of proof of delivery of complete equipment/stores (stores/consignee receipt), inspection report and on certification of satisfactory installation of the equipment at the consignee's premises and after "ensuring verification of the Performance Security" @ 5% of

the Purchase Order value. Balance 20% of the payment shall be released upon successful Test run of the equipment at least for a month and after ensuring that already 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.

**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.

- II. 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 us to making payment through on line transfer.
- 21. Deduction of Income Tax, Service Tax 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 sales tax, 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) and that should be refunded to the University.
- 23. Delivery Period:** The equipment should the delivered to Central University of Rajasthan and within a time period of 6 months from the date of LC opening and complete installation within 30 days after date of arrival. In case of indigenous purchase supply should be made within 30 days & installation be completed within next 15 days. If any material is not delivered by the date specified therein, the University reserves the right, without liability, to cancel the order for undelivered material not yet shipped or tendered, and to purchase the same from another vendor and to charge the defaulting Vendor for any loss incurred in this transaction. Any provisions thereof for delivery by installment shall not be construed as obligatory unless agreed upon by both the parties. The University shall have the right to refuse deliveries made more than one week in advance of any delivery schedule appearing in the order unless arrangements for such early delivery have been confirmed with the receiving party.  
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.

- 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-A1 to Annexure A-2 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. Clientele list (List of the institutes/organizations, where the similar order has been executed during the last three years) and work done list. Supporting documents (couple of orders without any alteration/modification, copies of installation report and performance certificate) must be enclosed. Past Performance of the Vendors will be judged at the time of Technical Evaluation.
  - VIII. Average Annual turnover of the bidder, for the last three successive years should be **four times** of the approximate cost of the equipment duly certified by the Chartered Accountants.
  - 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 Tender Fee & 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 Vendors:** University will shortlist technically qualifying vendors and the financial bid of only these vendors 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 tenders, 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.
- 29. Installation and Commissioning:** Free of cost at University. The OEM must ensure timely installation of the complete unit with necessary support to the indenters, as per details and lists to be made available by the Stores Section or the indenting 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 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, FAX, or telex notice 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. Three year onsite comprehensive warranty (**or as mentioned in the Technical specification**) with the statement of availability of spares, Hardware, Consumables, Electronic Boards etc. for at least 8 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 warrants that any Material supplied hereunder shall conform to the generally recognized manufacturing and safety standards of the Vendor's industry 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
- h. 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.

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.

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.
- b. Comprehensive training of faculty & staff after installation should be provided, wherever deemed appropriate and an update in every six months (3-4 days) for the first two years and every year (1 week) for the next three years.
- c. On-site training to the graduate students after installation.

- 38. A.M.C.:** A separate annual maintenance contract will be executed after completion of the warranty period. Hence, bidders must quote price of AMC for next three year (year wise) after the warranty period. **While evaluating the offers, the cost component towards maintenance of the goods for specified number of years 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 A.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 02/12/2020 (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 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-1 to Annexure A-2**”. This will also include all the components of the particular instrument / equipment that are being tendered for.

S. No.	Instrument/Equipment	Quantity
1.	<b>High-resolution Field Emission Scanning Electron Microscope(FESEM)</b>	01
2.	<b>Fluorescence activated cell sorter (FACS)</b>	01
3.	<b>LC-HRMS</b>	01
4.	<b>Pulsed Laser Deposition (PLd)Unit</b>	01

## 6. Technical specifications for the High-resolution Field Emission Scanning Electron Microscope (FESEM)

S. No.	Features	Specification
1.	<b>Electron Gun</b>	High stability Schottky Field Emission Electron source
2.	<b>Electron Optics</b>	<ul style="list-style-type: none"> <li>• Magnetic/electrostatic objective/compound lens or equivalent lens assembly for high-resolution imaging of all type of materials including magnetic samples at lower working distance.</li> <li>• The lens should be thermally stabilized.</li> <li>• Electron channelling contrast imaging (ECCI) should be possible with the supplied optics</li> </ul>
3.	<b>Image Resolution</b>	<ul style="list-style-type: none"> <li>• 0.7 nm or better @15 kV in high vacuum</li> <li>• 1.0 nm or better @ 1 kV in high vacuum</li> </ul>
4.	<b>Accelerating voltage</b>	Adjustable from 20 V to 30 kV. All the voltage settings should be varied through software
5.	<b>Probe Current</b>	<ul style="list-style-type: none"> <li>• Variable from 2 pA to 300 nA or better.</li> <li>• Noise &lt;1%</li> </ul>
6.	<b>Magnification</b>	Lower mag. x30 or less Higher Mag. x1,000,000 or more
7.	<b>Vacuum System</b>	Suitable vacuum systems having Ion getter pump/sputter ion pump, TMP and dry scroll pump for ultra-clean and fast pumping must be provided. All necessary gauges and valves must be included. Pump downtime should be 5 minutes or less.
8.	<b>Chamber</b>	<ul style="list-style-type: none"> <li>• The chamber should have at least 10 accessory ports.</li> <li>• Integrated plasma cleaner</li> <li>• Infrared chamber scope (IRCCD) for a real-time view</li> </ul>
9.	<b>Stage</b>	<ul style="list-style-type: none"> <li>• All 5 axes fully motorized eucentric piezo stage or equivalent type with</li> <li>• X = 100 mm or higher</li> <li>• Y = 100 mm or higher</li> <li>• Z = 20 mm or higher</li> <li>• Tilt from <math>-5^{\circ}</math> to <math>+70^{\circ}</math> or better</li> <li>• Rotation: 360 degree</li> <li>• Store and recall of sample positions functions to select features, centre and zoom selected feature, multidirectional stage drive, rotation etc., should be possible through the software.</li> </ul>
10.	<b>Sample Holder</b>	<ul style="list-style-type: none"> <li>• Multiple sample holder to be provided which accommodates different varying sample sizes in the range 1 mm to 20 mm or larger</li> <li>• Sample holder for STEM imaging</li> </ul>
11.	<b>Standard Detectors</b>	<ul style="list-style-type: none"> <li>• In chamber secondary electron detector</li> <li>• In-lens/In column secondary electron detector or equivalent for high-resolution imaging in high vacuum</li> <li>• In-lens/In column Backscattered electron detector or equivalent for high-resolution imaging in high vacuum</li> <li>• Pneumatically retractable backscattered detector</li> <li>• Low vacuum detector for non-conducting samples</li> </ul>
12.	<b>Anti-vibration support:</b>	SEM Chamber and electron gun should have a built-in, fully integrated self-levelling Active Anti-vibration isolation suspension system
13.	<b>Computer system and Printer</b>	Two computer system with the latest Windows operating system and all the necessary supporting software for online and offline analysis. Processor: Intel 8th Generation 3.2 GHz or more, Processor

		<p>Generation: Intel i7 8700 Core: 6 or more,  RAM: 8GB or more, HDD 1 TB,  Optical Drive: DVD R/W,  <b>Printer No: 01</b>  Colour Laser printer with separate toner and drum,  Paper size: A4, Resolution 600 x 600 dpi or higher,</p>
14.	<b>Digital imaging, processing and storage:</b>	<p>All possible features in the software supplied must be enabled and ready to be used  <b>Image Display:</b></p> <ul style="list-style-type: none"> <li>• 64-bit GUI with Windows 10 or latest version of Windows, keyboard, optical mouse</li> <li>• 24 inch (or better) Full HD LED-backlit IPS display flat screen square monitor.</li> <li>• Images should be viewed live, averaged or integrated</li> <li>• Scanning at different speeds and modes</li> <li>• Point &amp; Line Scan, Image rotation, Image shift, Tilt compensation</li> <li>• Standard data zone should include magnification, working distance scale bar and date custom data zone should be possible.</li> <li>○ Multiple point-to-point and linewidth measurement systems freely adjustable for orientation.</li> <li>○ Line profile display.</li> <li>○ Dynamic focusing and image rotation should be possible on the software interface.</li> </ul>
		<p><b>Image processing:</b>  State of the art image processing options with the following capabilities</p> <ul style="list-style-type: none"> <li>• Design of the imaging and processing should be optimized for field emission scanning electron microscopy</li> <li>• Image frame size selectable up to pixel density of 4096 x 3536 or better</li> <li>• Frame averaging for up to at least 250 frames.</li> <li>• Line averaging for up to at least 250 lines.</li> <li>• Combination of pixel and frame averaging.</li> <li>• Combination of pixel and line averaging.</li> <li>• Image post-processing.</li> <li>• Multi Detectors Display (MDD): Displaying of up to 4 live detector signals simultaneously in four frames side by side</li> <li>• Detector Mixing (DM): Provision for mixing in user-defined ratios &amp; display of different live signals from the same field of view.</li> </ul>
		<p><b>Data Storage:</b></p> <ul style="list-style-type: none"> <li>• Storage of SEM images on a hard disk in standard TIFF, BMP, or JPEG Formats and in 8-bit or 16-bit depth</li> <li>• Operating conditions easily stored and file management through Microsoft Windows operating system</li> </ul>
15.	<b>Auto Functions</b>	The software should have functions like auto-focusing, drift correction, dynamic focus, auto contrast/brightness etc.
16.	<b>EDS System</b>	<p>The supplier would be responsible for the supply of all the necessary hardware and software to prove field integration of EDS system with the FESEM.</p> <ul style="list-style-type: none"> <li>• The EDS detector should be easily retractable to a safe position when not in use.</li> <li>• Peltier cooled liquid nitrogen-free Silicon Drift Detector (SDD) with a pulse processor having an active area of 30mm<sup>2</sup> or larger.</li> <li>• The detectable element range should be from Beryllium (Be) onwards.</li> </ul>

		<ul style="list-style-type: none"> <li>• EDS detector Energy Resolution of 127eV or better at Mn-K<math>\alpha</math>,</li> <li>• The EDS detector movement should be software controlled.</li> </ul>
17.	<b>EDS Software</b>	<p>The EDS system software should allow the user to use standards to enhance the accuracy of quantitative analysis. The EDS server and analysis software should be capable of performing data acquisition, storing and transfer, multitasking type based on the latest operating system and comprising with monitor, CPU etc. and necessary cables and connectors to link with FESEM. It should be able to perform</p> <ul style="list-style-type: none"> <li>• Qualitative and quantitative spectrum analysis for accurate peak identification, background subtraction and automatic peak evaluation.</li> <li>• Deconvolution of spectra for separate element contributions</li> <li>• Quantification software must have options for ZAF or similar corrections</li> <li>• User interactive qualitative and standard less quantification with K, L, M, N line database.</li> <li>• Quantification of elements from Boron in point, Line Scan, Mapping. Real-time elemental mapping with auto elemental identification, quantification based on ZAF or similar correction algorithms. Quantification of phases.</li> <li>• Spectral imaging with up to 4096 x 4096 pixel resolution, online deconvolution and pseudo color mapping.</li> <li>• Storing of spectrums at each point during mapping for online and offline analysis (1 offline license).</li> <li>• Display of quantitative results as atomic and weight percentage. Color-coded concentration distributions (element maps, phase maps) for any number of elements within an arbitrary field of view.</li> <li>• Export of results to MS® Word, Excel and pdf.</li> </ul>
18.	<b>Calibration standard samples</b>	Standard samples to be provided for SEM and EDS
19.	<b>Sputter Coater system</b>	<ul style="list-style-type: none"> <li>• Vacuum pump (turbo, Rotary) and other necessary items to be provided.</li> <li>• High vacuum system allows sputtering of a wide range of oxidizing and non-oxidizing metals suitable for SEM, high-resolution FESEM and thin film applications</li> <li>• Metal Target: Au-Pd to be provided,</li> <li>• 05 set of additional/spare targets is required</li> </ul>
20.	<b>Essential Accessories</b>	<ul style="list-style-type: none"> <li>• Touch alarm safety detector for specimen stage and detectors.</li> <li>• Remote control hardware &amp; network software for online fault diagnosis using internet TCP / IP open protocols.</li> <li>• All essential commissioning and operating accessories like air compressor, vibration and noise-free chillers etc, to be provided</li> <li>• Essential tool kit to be provided</li> <li>• Nitrogen gas cylinders with regulator</li> </ul>
21.	<b>Spares/Consumables</b>	<ul style="list-style-type: none"> <li>• 50 nos of stubs with a single sample and 2 nos of multiple sample holders, (double-sided conducting carbon tapes, silver paste with thinner for three years of use), 2- tweezers and 2 mount grippers for holding stubs</li> </ul>
22.	<b>Upgradation</b>	<ul style="list-style-type: none"> <li>• Up-gradation options for WDXS, Cathodoluminescence, etc. should be available in the equipment.</li> </ul>
23.	<b>Low vacuum or Variable pressure</b>	<ul style="list-style-type: none"> <li>• The microscope must have the ability to image under low vacuum or variable pressure mode.</li> </ul>
24.	<b>Warranty</b>	<ul style="list-style-type: none"> <li>• On-site Comprehensive Warranty (from the date of full installation) of equipment for 3 years along with free software upgrades for the entire system including all the attachments. Warranty shall cover each and every part of the equipment</li> </ul>

		<p>including parts that are having limited life.</p> <ul style="list-style-type: none"> <li>• Purchaser is not liable to pay any extra charges on this account during the warranty period.</li> <li>• During the period of warranty, the bidder will ensure at least 2 Maintenance Service per year for the entire period.</li> </ul>
25.	<b>Availability of spares parts</b>	The vendor has to guarantee that all the spares parts for the offered FESEM and attachments will be available for at least the next 10 Years
26.	<b>Documentation</b>	The vendor should specify the model number of the FESEM and submit the brochure that supports all the quoted specifications
27.	<b>Online UPS</b>	A suitable 20 kVA UPS for 2 hours or more backup with a full load. The system and its accessories should be capable of operating at 230V, 50Hz single-phase power supply.
28.	<b>Installation and Training</b>	<ul style="list-style-type: none"> <li>• Onsite installation, demonstration of all specifications quoted. The training at the factory site for 1 Faculty member of the University should be arranged by the vendor. The training for users in the operation of the FESEM-EDS at the university after final tests should be included.</li> <li>• During the warranty period, the bidder will ensure 1 (3 days) training per year at the University after initial installation.</li> </ul>
29.	<b>Optional items</b>	<p><b>STEM detector:</b> Pneumatically retractable STEM detector for BF/DF and HAADF imaging</p> <p><b>EBSD-TKD system</b></p> <ul style="list-style-type: none"> <li>• The EBSD-TKD system should work on the same user as that of the EDS system</li> <li>• 70° Pre-tilted sample holder (2 nos.) for EBSD and suitable holder TKD</li> <li>• Camera Speed: 1500 or higher indexed patterns per second on Ni standard at beam currents of &gt; 2 nA,</li> <li>• Motorized, high-precision camera slide, Touch sensor for collision prevention, Integrated Real (not virtual) Forward Scatter Detector, SEM interface for the camera should contain standard features</li> <li>• EBSD-TKD data collection software includes state of the art features. EBSD-TKD data analysis software (with 3 offline licenses) The EBSD system software should include (i) Data Acquisition Software (ii) Phase Reflector File Creation Software (iii) Pole Figure Software (iv) Mapping Software (v) ODF Software (vi) Imaging and Beam Control Software (vii) Stage Control Software.</li> <li>• Should have suitable materials databases for metals, alloys, intermetallic, ceramics and polymers.</li> </ul>

**Note:**

1. Any accessories that are required to make the equipment (s) operational not mentioned in the document, are required to be incorporated by the bidder as to make the equipment (s) fully & systematically operational.
2. Optional items should be quoted separately.

**Specification: Flow Cytometer Analyzer - High Speed Cell Sorter**

1. A High end flow cytometer cells sorter required with 4 lasers and all lasers should be simultaneously usable. The following lasers should be provided: i) Blue laser 488±5 nm; ii) Red laser 635±10 nm; iii) Violet laser 405±5 nm; and iv) Yellow Green laser 561±5 nm.
2. The system must be upgradable to 6 lasers including UV laser (355 ±5 nm) in future.
3. The system should be based on jet-in air/stream-in air or cuvette based cell sorter.
4. Each laser must have strictly its own individual beam spot/pin hole for simultaneous excitation and there should not be any shared lasers in toggle or co-linear arrangement.
5. The system must have the capability of simultaneous measurement of at least 14 fluorescent colors and 16 parameters.
6. System must have minimum four or more beam spots without any need of customization with the base instrument.
7. The quoted system must be of closed architecture and all electronics, optical fibers, lasers should be cabinet enclosed.
8. A BSL-2 cabinet, compatible for FACS machine housing and operating, is required to be supplied with the machine.
9. The system should have provision to accommodate different sizes of the nozzles (70 to 100 microns) and a set of nozzles should be supplied.
10. The system should be capable of sample input from different volume tubes. The system must be able to sort cells onto tubes or multi-well (6, 24, 48, 96, 384 etc.) plates.
11. System should come with temperature control option for sample inputs and output collection of cells.
12. Instrument should be provided with table Platform.
13. The system must be able to acquire and sort at least 50,000 events/second or more.
14. The system must have built-in sorter capable of 'Four Way' sorting and may have option of single cell sorting in the plate.
15. The system must be able to provide various sheath pressure options.
16. The system must have an option of automatic cell deposition unit which allows slide and plate sorting.
17. Data Management system: Latest PC Workstation from source only (no local supply) with compatible monitors and with latest online software system, must be provided.
18. Offline latest work station (Macintosh) with offline high speed data analysis with software support /dongles for 5-6 users must be provided.
19. The company must offer the latest and updated model and should have a dedicated training center with documented proof of conducting regular training for research applications and preferable conduct onsite training sessions frequently.
20. User lists and performance certificates for the quoted model must be provided preferably from Govt. and related Institution/University of repute.
21. Starter Kits (Tubes, Sheath Fluid, QC beads, calibration bead for 100 tests), online compatible branded UPS to be quoted with at least 30 min backup time.
22. The system must be supplied with 5 years comprehensive warranty.
23. The company should provide a dedicated specialist operator on site for 2 years.

Optional items:

1. A temperature controlled centrifuge with fixed angle rotor(s) for 1.5 ml , 15 ml and 50 ml tubes and a swing bucket rotor with plate and tube blocks/cassettes options.
2. UV laser (355±5 nm) as an add-on laser for the machine.
3. B.O.D. shaker incubator (temperature control range 20-50°C) for sample storage.
4. A refrigerator for sample storage.
5. 2 AC units of 1.5 ton each for the FACS facility.



**Technical Specification of LC-HRMS**

Name of the Equipment: LIQUID CHROMATOGRAPH - HIGH-RESOLUTION MASS SPECTROMETER

**GENERAL INSTRUCTIONS:**

- The instrument will consist of Ion source (ESI/APCI), mass analyzers (Quadruple and TOF/High Resolution mass analyzer) and data analyzing system.
- The quoted LC and MS should be manufactured by the same vendor for efficient performance and compatibility
- Installation certificate will be issued only after satisfactory working of the instrument (Demonstration of all the modules) & onsite training at CURAJ, for faculty, staff and research scholars.
- The vendors may note that the technical specifications provided in following para are minimum to be mandatorily met by the systems quoted by them.
- The vendors should highlight and specify any additional functionalities of their system that enhance the capabilities of the system or the ease with which the user can process and analyze the data and provide information about the value addition from such functionalities.
- The vendor should issue an undertaking for the availability of spare parts for at least TEN YEARS from the date of successful installation.
- The HRMS data submitted by the vendor has to reproduce the same data during installation at CURAJ. In the absence of authenticated & satisfactory HRMS data for samples in the submitted tender, it may be considered as disqualified/cancelled.
- The vendors should provide a detailed list of places where similar instrument has been satisfactorily functional for at least 3 years along with the contact details of the concerned scientist/faculty/officer in-charge. They should also provide a letter of reference from such users.
- The vendors should have good support and service centres located in India and elaborate the proposed service modalities for CURAJ.
- Two preventive maintenances for the complete platform should be performed every year during the warranty period.

## Specifications

LIQUID CHROMATOGRAPH - HIGH-RESOLUTION MASS SPECTROMETER	
<b>Ion Source:</b>	<ol style="list-style-type: none"> <li>a. The instrument should include Electro Spray ionization (ESI) and atmospheric pressure ionization (API) capabilities, to allow analysis of single as well as multiple charged mass ions and to cover all areas of applications.</li> <li>b. Easy &amp; automated switch between ESI and APCI without breaking the vacuum.</li> <li>c. Flow rates from 2 mL/min or better for both ESI and APCI ionization sources without splitting.</li> <li>d. Sample introduction by UHPLC with mechanism to clean the sample, remove the neutrals and contaminants.</li> <li>e. The system should have isolation valve to allow source and sampling capillary maintenance without venting the system.</li> <li>f. The instrument must include a standard feature, to facilitate automated exact mass measurements on real time scale.</li> <li>g. A source access door must be incorporated to allow easy access to the spraying elements for cleaning without the need to remove the ion source enclosure. A toughened glass window must be incorporated into the door to allow easy viewing of the source.</li> <li>h. The instrument must be designed in such a way that it must, allow the source elements to be removed and cleaned without breaking instrument vacuum, maximizing instrument uptime.</li> <li>i. The source should include the facility to de-cluster ions formed at atmospheric pressure. The ion source must be able to use standard laboratory grade Nitrogen for all the gas requirements.</li> <li>j. Positive and negative ionization capabilities must be included as standard on the instrument.</li> <li>k. All source voltages must be under data system control and must incorporate active read backs.</li> <li>l. ESI source must be capable of interfacing Analytical and Nano scale Liquid chromatography systems.</li> </ol>
<b>Mass Analyzer</b>	
<p>Mass analyser should be equipped with quadrupole analyser and collision cell followed by equivalent high-resolution mass analyzer/Time of flight mass analyzer system with the below mentioned capabilities:</p> <ul style="list-style-type: none"> <li>• <b>High Mass Quadrupole Mass Filter:</b> System should have quadrupole mass filter equipped with stable design and RF-generator as well as High resolution mass capability.</li> <li>• <b>High-transmission CID collision cell:</b> CID collision cell should be fast and efficient enabling information-rich fragmentation.</li> <li>• <b>Orthogonal time of flight Mass Analyzer/Equivalent High-resolution mass analyzer:</b> TOF analyzer/Equivalent High-resolution mass analyzer with orthogonal mounted ion source and ion reflectron with increased mass resolution &amp; accuracy. It should have positive and negative ion mode</li> </ul>	
<b>Quadrupole Mass Range</b>	Quadrupole precursor ion isolation for MS/MS: 2000 m/z or better
<b>TOF Mass Range</b>	30,000 m/z or better
<b>Mass Resolution</b>	The resolution of mass analyser should be 40,000 FWHM for a mass range about 1000 m/z or better

<b>Mass accuracy</b>	<p>Mass accuracy of 1 ppm or less (calibrated internally) in both MS and MS-MS and 2 ppm or less (calibrated externally) in both MS and MS-MS in a wide dynamic range i.e. independent from sample concentration.</p> <p>Mass accuracy up to at least four decimal points</p>
<b>Acquisitions rate</b>	Capable to acquisitions of 25 spectra/sec or better in MS mode and 30 spectra/sec in MS/MS mode.
<b>Sensitivity (S/N ratio)</b>	<p>High sensitivity for qualitative and quantitative analysis while maintaining high resolution and high scan speed.</p> <p>Should have MS sensitivity at least 1 pg of Reserpine with a minimum of 500:1 S/N ratio. MS-MS sensitivity of Femto-mole with 50:1 S/N ratio or better.</p>
<b>Linear Dynamic Range</b>	System should be capable of quantitative acquisitions with a linear dynamic range of at least four orders of magnitude.
<b>Analysis</b>	<ol style="list-style-type: none"> <li>Be capable of ion selection in MS/MS mode for enhanced sensitivity in both Positive and negative ion modes. Must provide precursor ion resolution between 1-3 Da or better across the mass range</li> <li>The workstation should offer a broad mass range for multiple charged molecules, i.e., for intact molecular weight determination of small and large molecules.</li> </ol>
The above specifications must be demonstrated on installation and the data must be produced for evaluation and validation of claim.	
<b>Gas generators</b>	
<ol style="list-style-type: none"> <li>Must be supplied with branded nitrogen gas generator 99.999% purity with inbuilt compressor and flow rate as required for the MS instrument should be provided</li> <li>It should be complete with all necessary accessories such as arrangement for gas supply through the gas generator, compressor, gas regulators and filters</li> <li>Connector between gas generator and the system that are essential for the running of the instrument should be provided.</li> <li>If any other gas is required for example collision gas should be mentioned and provided with gas cylinder, regulator, connectors etc.</li> </ol>	
<b>UHPLC/UPLC</b>	
<ol style="list-style-type: none"> <li>UHPLC/UPLC system should provide an integrated configuration for solvent and sample management and HPLC and MS system should be controlled by single software. All components should be UPLC based only and no HPLC based component should be quoted.</li> <li>The systems should be equipped with vacuum degasser, autosampler, column oven, PDA/DAD detector. The threshold configuration for each item is given below.</li> </ol>	
<b>Solvent Delivery system</b>	<ul style="list-style-type: none"> <li>Fast pressure liquid chromatography system should have high performance binary pump with on-line vacuum degasser</li> <li>Operating Pressure: Pump should be able to handle the pressure of 18000 psi or better at 1.0 mL/min flow rate setting</li> <li>Operating flow range: 0.001-2.000 mL/min with 0.001 ml/min increment</li> <li>Flow Rate precision: 0.075 % psi</li> <li>Composition precision: &lt;0.2% RSD or 0.02 min SD, whatever is greater.</li> <li>Composition accuracy: ±0.5 % absolute.</li> <li>Total system (including pump &amp; Auto-sampler) should be capable of operating at 15,000 psi or better</li> </ul>
<b>Autosampler</b>	<ul style="list-style-type: none"> <li>Sample handling capacity: 90 or more nos. of 1.5 ml sample vial.</li> <li>Safety features like leak sensor and automatic rack and vial recognition</li> <li>500 Nos. of 1.5 ml sample vials with cap and septa should be offered.</li> </ul>

	<ul style="list-style-type: none"> <li>• Sample injection volume: 0.1-10 microlitre</li> <li>• Carryover: 0.004%</li> </ul>
<b>Column Heater</b>	Column temperature range should be 10 °C below room temperature / ambient to 80 °C or better.
<b>Column</b>	<p>Compatible UHPLC/UPLC columns and guard columns (&lt;2 µm particle size) of C18, C8 of two numbers each should be supplied.</p> <ul style="list-style-type: none"> <li>• Column temperature range should be 20 ° to 80 °C or better.</li> </ul>
<b>Detector</b>	<ul style="list-style-type: none"> <li>• Should be provided with standard flow cell.</li> <li>• Detector type: PDA/DAD</li> <li>• The peak purity analysis should be specified and demonstrated at the time of installation.</li> <li>• Light source: Deuterium &amp;/or Tungsten</li> <li>• Wavelength Range: 190-800 nm</li> <li>• Maximum sampling rate: 80 Hz or better</li> <li>• Standard flow cell volume of 1 µl or less should be provided.</li> </ul>
<b>Computer Software and Hardware</b>	
<ul style="list-style-type: none"> <li>• Suitable computer workstations and all interfacing hardware and software for Instrument control, data acquisition, data storage and data processing</li> <li>• Minimum configuration for PC or suitable configuration that suits the requirements: Memory: 64 GB (8 X 8GB) DDR4 2133Ghz or better, Hard disk: 10 TB or better, i7 Intel processor, Operating system: Windows 7/10 64-bit or better, 27 inch LCD monitor or better with full HD resolution, Laser jet printer, DVD writer with double layer writing capability, External Portable Hard Disc (2TB) for data storage, data handling and reporting with Licensed software for full control of the LC and HRMS systems</li> <li>• The MS control software must have the ability to control both the MS and specified Liquid Chromatography devices.</li> <li>• The software should have capabilities to perform the following functions: Automated mass calibration, resolution, sensitivity check, qualitative, quantitative processing, report creation, self-diagnosis and auto-tuning should be performed by software. Software should be able to control, acquire, store, process and reproduce the data. It should be capable of doing quantitative acquisitions with a linear dynamic range of at least four orders of magnitude.</li> <li>• Software tools for addressing Screening, Spectrum &amp; Chromatogram review and processing, Component Identification &amp; Structural Elucidation workflows. The data processing software may incorporate an elemental composition calculator as standard.</li> <li>• Software with formula finder, automatic online database search, and fragmentation prediction tool to identify unknowns</li> <li>• Software for small molecules data acquisition and for targeted quantitative analysis of small molecules</li> <li>• All hardware and software including drivers, monitor, device interfaces cards/network must be preinstalled and preconfigured on the computer provided.</li> <li>• Software to operate all the detectors should be provided.</li> <li>• All the necessary software should be provided in the CD with legal licenses.</li> <li>• Free software upgradation on both workstations for at least five years.</li> <li>• If the quoted computer is unable to process the total data from multiple samples, then a higher model should be provided free of cost during the warranty period.</li> </ul>	
<b>Warranty</b>	<ul style="list-style-type: none"> <li>• Comprehensive warranty for 3 years and 2 years AMC after completion of third year of warrantee should be quoted for complete system including third party items such as Nitrogen generator, UPS, all spares, electronic parts, boards, hardware consumables etc. and same must be specifically mentioned in the quotation by the vendor or principal. In case, vendor provides the warranty, the principal should certify (authenticate) the extended warranty. Appropriate documents must be attached along with the quotation in this regard.</li> </ul>

<b>Training</b>	<ul style="list-style-type: none"> <li>• On site operation &amp; maintenance training at the time of installation for Scientists and technicians for a period of one week.</li> <li>• 10 Days advanced training for Scientists and technicians on sample preparation, calibration standards preparation, operation, method development, maintenance, software, data interpretation (qualitative and quantitative, unknown identification), etc. at Central University of Rajasthan.</li> <li>• Apart from these two, there will be application training every year for a period of one week (till warranty period) on a mutually convenient date.</li> </ul>
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**Accessories & Pre-Requisite**

- Instrument must be attended within 48 hours in case of breakdown. Downtime of instrument should be less than 5% of the warranty/AMC. In the event of longer downtime, the vendor shall increase the warranty/AMC by five times of downtime.
- Vendor must give in writing about any new versions due to be released soon and the period (minimum 10 years) for which the quoted version would be supported.
- The equipment must be supplied with branded gas generators with built-in compressor capable of providing all the gases required by all of the Workstation's components at the required purity, pressure and flow rate for the Mass Spectrometer. The compressor should be noise-free.
- Gas Cylinders: The system should be supplied with the required accessories such as gas generator or gas cylinder, branded regulators, compressor, tubing, filters for the operation of the instrument.
- UPS Online UPS – 10 KVA cum stabilizer for the MS and accessories with one hour backup. Battery and battery rack should be provided along with system.
- Appropriate and clear specifications with respect to UPS, PCs, LCD Monitor(s), and other power supplies requirements must be mentioned in the quotations.
- If the PCs, LCD Monitor(s), etc. are integral parts of the equipment, it must be mentioned clearly in the quotation.
- Spares & Consumables Essential Spares and User Consumables/ essential parts for routine maintenance should be included.
- Any other pre- requisite for the smooth operation of machine must be quoted clearly.
- Two (2) cylinders each of all required gases with regulators, gas purifiers and gas manifold for operation of the system should be provided.
- Calibration kits for ESI positive, ESI negative, APCI positive, APCI negative for each system should be quoted.
- HRMS vials, glass inserts (150µL) and recovery vials with cap and septa for low volume sample should be quoted
- Mobile Phase Accessories inline filters, plus dampers, mixers & splitters, bottle tops must be available with installation kit
- UPLC waste reservoir 2 numbers: Capacity up to 8-10 Liters, compatible for storage of polar and non-polar solvents. Should be supplied with 30 meters connecting tube
- Vibration free table should be supplied
- Solvent will be arranged by supplier for the smooth demonstration and qualification of the system.
- Syringe pump or equivalent to inject samples directly to the instrument for MS and MS/MS should be supplied.

**Following items can be quoted separately:**

- 1) CMC for additional 5 years post warranty should be optionally quoted year wise.
- 2) UHPLC/UPLC columns and guard columns (<2 µm particle size) of C18, C8 and HILIC columns (<2 um Particle size, 15 cm length or better 5 no).
- 3) Software for Identification and validation of unknown compound with required Databases and Libraries.
- 4) Automatic library searching against Free and commercially available libraries; Automatic library searching against user defined libraries
- 5) Specific accurate mass libraries for water screening and environmental pollutants like pesticides,

- PFASs, VOCs, PCPs, PAHS, PCBs, pharmaceuticals and other emerging contaminants should be provided. These applications include the identification of new and previously unknown environmental contaminants along with identification of reaction intermediates and metabolites.
- 6) LC/MS grade standards for environmentally relevant compounds > 100 compounds, the compounds should be from the library.
  - 7) Comprehensive library of environmentally relevant compounds with MS and MS/MS spectra containing >1000 compounds or better.
  - 8) The software can have workflow for performing both non/semi targeted (using internal library) and Non targeted (using External library such as ChemSpider, NIST) data processing in a single run without the requirement of reprocessing the data. Alternatives to the above can be mentioned and the relevant technical explanation about the advantages of the alternative should be provided.
  - 9) Proteomics software: Dedicated latest software for protein identification and characterization, peptide sequencing, post translation modifications, database search etc.
  - 10) Metabolomics software: Latest software for metabolite identification and characterization, relative and absolute quantifications. Software for metabolite structure elucidation along with metabolite libraries.
  - 11) Suitable licensed version of the statistical analysis software to perform alignment of multiple data sets, statistical analysis like principal component analysis, partial least square analysis, data mining analysis etc Statistical Software for differential expressions between two or more samples.
  - 12) Visual tools to help us to understand trends within dataset and allow us to exclude outliers in data, for example xenobiotic metabolites or contaminants, before further analysis.
  - 13) Software for empirical formula calculation
  - 14) Multitasking suite of analytical applications and instrument management software operating in Microsoft Windows environment, featuring graphical user interface with multiple windows includes:
    - (i) Mass Spectrometer Control Software.
    - (ii) Spectrum Review and Processing.
    - (iii) Chromatogram Review and Processing.
  - 15) Structural Elucidation:

Software for automated product ion spectra assignment using known precursor and fragment structure. Benefits from accurate mass information. To be used/ performed from spectrum.
  - 16) 5 copies of offline data analysis software.
  - 17) 2-ton AC (Qty : 2).
  - 18) UPS Online UPS – 5 KVA cum stabilizer for the UHPLC/UPLC and accessories with one hour backup, along with battery and battery rack.
  - 19) Any additional gas cylinder, moisture/hydrocarbon traps.
  - 20) Solid-phase microextraction (SPME) for sample extraction with following features: Branded solvent filtration system with vacuum pump full set-1 nos; PVDF Disc filters 13mm,0.22u disposable - (500 nos) should be provided; Solid phase extraction C18 cartridges (200 nos.); X-33  $\mu\text{m}$  Polymeric Reversed Phase SPE Cartridges 30 mg/3ml (200 nos); Syringe filters 13 mm PTFE (0.2  $\mu\text{m}$  pore size) syringe filters – 500 Nos; Vacuum manifold (01) with vacuum pump (01) for solid phase extraction dedicatedly.
  - 21) Spare Syringes- 10 Nos.

22) The vendors should also include rates in their offer for "On site operation" by providing one full time specialized technical staff / personnel/operator for the smooth functioning of the machine / equipment, till the expiry of the warranty period. The rate per year should be mentioned. The person should be a qualified graduate with working experience in handling of HRMS, UHPLC (LCMS-MS) or similar equipment. The supplier should also provide adequate training to maximum persons.

HR-MS instrument is an expensive and advanced equipment; hence it is mandatory that the facility must be multiple-user specific. Also, it is important that the equipment is stable and run for a long time without much trouble.

Responsibility of on-site maintenance by the manufacturer for 24x7 operations.

The full capabilities of the system need to be demonstrated to the complete satisfaction and specify the pre-installation requirement. Company should have dedicated application specialist with a proven track record to provide onsite training.

Operation and maintenance training (service label) should be provided on-site to our faculty/staff/scholars/students. Hands-on training course for the users by experts for using the instrument after the installation process is to be completed on a set of dates given. Downtime response should be provided within 48 to 72 working hours and replacement of parts under warranty should be performed within 2 weeks.

**The vendor should agree for a one-time relocation and re-installation of the system within the CURAJ premises.**

### Technical Specifications for Pulsed Laser Deposition System

A stand-alone Pulsed Laser Deposition system with Excimer Laser capable of depositing epitaxial films, single layer, multilayer, hetero-structures and superlattices of a variety of materials on a variety of substrates with the following specifications is required.

1.	<b>Technical Specifications for Excimer laser and Associated Accessories</b>	
	(a) Laser Source	<ul style="list-style-type: none"> <li>i. Air cooled version high pulse energy Excimer laser with wavelength: 248 nm (using suitable gases),</li> <li>ii. Pulse energy: 750 mJ</li> <li>iii. Max. rep rate: 10 Hz or more</li> <li>iv. Pulse width: 20 ns (FWHM)</li> <li>v. average power: 7.5 W</li> <li>vi. Inbuilt energy monitor, pulse-to-pulse stability: <math>\leq 0.75\%</math>,</li> <li>vii. Inbuilt oil free vacuum pump and</li> <li>viii. Halogen gas filter.</li> <li>ix. Beam parameters: Beam Dimension: 24 x10 mm (vxh), Beam divergence: 3 x 1 mrad (vxh) and Pointing Stability: <math>\leq 55\mu\text{rad}</math></li> <li>x. Laser should be operable in constant energy and constant voltage modes.</li> <li>xi. An external electrical trigger facility with TTL pulse and synchronous output in internal trigger operations.</li> <li>xii. Electrostatic gas filter for internal gas purification system for extended operation of laser gas.</li> <li>xiii. The system should also have a suitable communications interface such as RS232/USB and be controllable via a software interface on a computer.</li> <li>xiv. The system must operate at 230 V AC single phase.</li> <li>xv. Magnetic Assist Protection for Optimized discharge and long lifetime of Thyatron.</li> <li>xvi. Window cleaning Interval 20 million shots</li> <li>xvii. Thyatron lifetime: 500 million shots.</li> </ul>
	(b) Gases for the Excimer Laser	KrF Premix (49 Litre Cylinder), Helium (5.0 - 50 Litre cylinder), Stainless Steel regulator and Brass Regulator. The gas regulators should be from reputed manufacturer. Supplier will be responsible for getting all clearance from Department of Explosive for import of gases & cylinders.
	(c) Accessories	<ul style="list-style-type: none"> <li>i. 3 pairs of suitable laser goggles for working with 248 nm wavelength laser light.</li> <li>ii. Suitable external energy meter with USB for computer interfacing, 1 mJ – 1 J measurement capability.</li> <li>iii. Halogen filter, varistors (2pcs), fiber optic repair kit, high voltage trigger PCB, capacitor (4pcs), rear mirror, output coupler, o-ring set (2set), optics mount (2pcs), laser valve repair kit and other relevant consumable/spare part items like lens cleaning tissue, polishing powder etc.</li> </ul>
	(d) UPS system	<p>A highly reliable true online 15 kVA UPS with at least 1 hour backup for the operation of the entire deposition unit must be provided.</p> <p>Specify make and model number.</p> <p>Power requirements: 220/240 volts AC, Single phase, Frequency: 50 Hz</p>
2.	<b>Technical Specifications for Deposition Chamber with loadlock</b>	
	(a) Deposition Chamber	<p>12" to 14" diameter cylindrical stainless steel chamber with the following ports.</p> <ul style="list-style-type: none"> <li>i. 1 no 8"/10" OD (CF 150/200) for substrate heater assembly,</li> <li>ii. 1 no 8" OD (CF150) port for target flange and 1 no view port cum quick access door to remove sample in emergency.</li> <li>iii. 6" OD (CF 100) for pump port.</li> <li>iv. One CF 50 for laser port.</li> </ul>



		<ul style="list-style-type: none"> <li>v. Two CF 16 for gas and air inlet.</li> <li>vi. CF 35 for vacuum gauge, for view port for in situ optical characterization (2 nos.)</li> <li>vii. All view ports should have toughened glass windows with Aluminium covers. One set of CF compatible Viton gaskets (one spare set also should be included)</li> <li>viii. Ultra-high vacuum compatibility.</li> <li>ix. Should be leak tested down to <math>1 \times 10^{-9}</math> Torr through He leak detector.</li> </ul>
	(b) Target Holder	<ul style="list-style-type: none"> <li>i. Should hold multi-targets (six nos. of 1 inch dia.) and must be fully computer controlled.</li> <li>ii. The controller should also interface with laser for multi-layer deposition. The target must have raster and rotation motion.</li> <li>iii. Contamination shield allowing only one target to be exposed to the laser at one time.</li> <li>iv. Target flange will be mounted from bottom of chamber</li> </ul>
	(c) Substrate Holder and Heater	<ul style="list-style-type: none"> <li>i. Substrate holder capable of holding substrates of sizes from 1 cm to 1" diameter</li> <li>ii. Substrate heater capable of heating up to 900°C in vacuum well as in inert atmosphere. (Oxygen not allowed)</li> <li>iii. A clip mounting for substrates.</li> <li>iv. Shutter for substrate-heater assembly.</li> <li>v. PID programmable temperature controller. Temperature accuracy should be within <math>\pm 1^\circ\text{C}</math>.</li> <li>vi. manual rotation of the heater to align to load lock arm, bellow sealed up down movement of 25 mm for changing target substrate distance (Min target substrate distance will be 65 mm) and aligning to loadlock</li> <li>vii. All the above mounted on an 8" or 10" OD (CF150/200) flange. Heater flange mounted from top of chamber</li> </ul>
	(d) Pumping System and Gauges	<ul style="list-style-type: none"> <li>i. Turbo molecular pump (Edwards, Pfeifer, or equivalent make) with pumping speed of 250 l/sec or greater; backed with a double stage rotary pump with a capacity <math>10 \text{ m}^3/\text{h}</math> or higher (Edwards or equivalent make).</li> <li>ii. Should be able to achieve <math>5.0 \times 10^{-7}</math> Torr from ambient pressure in reasonable time scale (6 hours).</li> <li>iii. All necessary gauges (penning &amp; pirani from standard companies such as Pfeifer or equivalent make) to measure pressures (from atmosphere to <math>1 \times 10^{-8}</math> Torr).</li> <li>iv. All unused flanges with UHV compatible necessary blanks.</li> <li>v. Operating pressure range: <math>\sim 10^{-7}</math> Torr to 500 mTorr.</li> </ul>
	(e) Gas flow controller assembly	<ul style="list-style-type: none"> <li>i. Stainless steel gate valve with CF100 (6" OD) flanges. Shaft movement should be bellow sealed and gate movement should be viton O ring sealed.</li> <li>ii. One standard digital mass flow controller (100 SCCM max flow) with power supply for process gases like Ar, N<sub>2</sub>, etc with high vacuum compatible fittings (Alicat or equivalent make).</li> <li>iii. A manual vent valve for venting the chamber.</li> </ul>
	(f) Steel frame	Mounting frame for chamber. Powder coated Aluminium covers and aluminium top. Adjustable up and down 1". Castor wheels.
	(g) Beam delivery system	X, Y, Z movement of lens with S1UV grade fused Silica 2" dia lens and fused silica 2" dia disc. And two mirrors to direct beam on target
	(h) Loadlock arrangement	<ul style="list-style-type: none"> <li>i. Loadlock chamber coupled to main chamber using appropriate gate valve.</li> <li>ii. Pumping port, quick access door, gauges and magnetic transfer arm.</li> <li>iii. Pumped using backing pump of main chamber.</li> </ul>

	(i) Water cooling	Water cooling arrangement for cooling heater electrodes
	(j) Accessories	<ul style="list-style-type: none"> <li>i. Appropriate hardware like bolts, washers, nuts, gaskets, view ports, castor wheels, air inlet valve etc.</li> <li>ii. Spare heater element (no.1) for sample holder and spare laser window for chamber (UV grade fused silica window)</li> <li>iii. Standard vacuum oil (to run the rotary pump up to 3 yrs)</li> <li>iv. All other essential accessories required for the full operation of the system.</li> </ul>
	(k) Steering mirror with mirror holder and small frame for support	Mirror to turn the beam to either chamber
	(l) Laser table	Appropriate Powder coated steel frame for the Laser
	(m) Computer	Computer system (i7 processor, 8 GB RAM, 1 TB HDD with monitor) with required software for automation
<b>3</b>	<b>Technical Specifications for Deposition Chamber with RHEED optional port</b>	
	(a) Deposition Chamber	<p>12" diameter stainless steel chamber with the following ports.</p> <ul style="list-style-type: none"> <li>i. 1 no 8" (CF 150) for substrate heater assembly,</li> <li>ii. 1 no 8" OD (CF 150) port for target flange and 1 no view port</li> <li>iii. 6" OD (CF 100) for pump port.</li> <li>iv. One CF 50 for laser port.</li> <li>v. Two CF 16 for gas and air inlet.</li> <li>vi. 1 no CF 63 port for RHEED gun and 1 no CF100 port for RHEED screen</li> <li>vii. All view ports should have toughened glass windows with Aluminium covers. One set of CF compatible Viton gaskets (one spare set also should be included)</li> <li>viii. Ultra-high vacuum compatibility.</li> <li>ix. Should be leak tested down to <math>1 \times 10^{-9}</math> Torr through He leak detector.</li> </ul>
	(b) Target Holder	<ul style="list-style-type: none"> <li>i. Should hold multi-targets (six nos. of 1 inch dia.) and must be fully computer controlled. (self standing controller which can be connected to PC if required)</li> <li>ii. The controller should also interface with laser for multi-layer deposition. The target must have raster and rotation motion.</li> <li>iii. Contamination shield allowing only one target to be exposed to the laser at one time.</li> </ul>
	(c) Substrate Holder and Heater	<ul style="list-style-type: none"> <li>i. Substrate holder capable of holding substrates of sizes from 1 cm to 1" diameter manual rotation and manual in and out movement (for RHEED alignment)</li> <li>ii. Substrate heater capable of heating up to 850°C in vacuum well as Oxygen atmosphere.</li> <li>iii. A clip mounting for substrates.</li> <li>iv. Manual Shutter for substrate-heater assembly.</li> <li>v. PID programmable temperature controller. Temperature accuracy should be within <math>\pm 1^\circ\text{C}</math>.</li> <li>vi. All the above mounted on an 8" or 10" OD (CF150/200) flange. Heater flange mounted from top of chamber</li> <li>vii. Manual rotation of the heater to align to the RHEED bellow sealed in and out movement of 25 mm for changing target substrate distance (Min target substrate distance will be 45 mm)</li> </ul>
	(d) Pumping System and Gauges	<ul style="list-style-type: none"> <li>i. Turbo molecular pump (Edwards, Pfeifer, or equivalent make) with pumping speed of 250 l/sec or greater; backed with a double stage rotary pump with a capacity <math>10 \text{ m}^3/\text{h}</math> or higher (Edwards or equivalent)</li> </ul>

		<p>make).</p> <p>ii. Should be able to achieve <math>5.0 \times 10^{-7}</math> Torr from ambient pressure in reasonable time scale (6 hours).</p> <p>iii. All necessary gauges (penning &amp; pirani from standard companies such as Pfeifer or equivalent make) to measure pressures (from atmosphere to <math>1 \times 10^{-8}</math> Torr).</p> <p>iv. All unused flanges with UHV compatible necessary blanks.</p> <p>v. Operating pressure range: <math>\sim 10^{-7}</math> Torr to 500 mTorr.</p>
	(e) Gas flow controller assembly	<p>i. Stainless steel gate valve with CF100 (6" OD) flanges. Shaft movement should be bellow sealed and gate movement should be viton O ring sealed.</p> <p>ii. Two standard digital mass flow controller (100 SCCM max flow) with power supply for process gases like Ar, O<sub>2</sub>, N<sub>2</sub> with high vacuum compatible fittings (Alicat or equivalent make).</p> <p>iii. A manual vent valve for venting the chamber.</p>
	(f) Steel frame	<p>i. Mounting frame for chamber.</p> <p>ii. Powder coated Aluminium covers and aluminium top.</p> <p>iii. Adjustable up and down 1". Castor wheels.</p>
	(g) Beam delivery system	X, Y, Z movement of lens with S1UV grade fused Silica 2" dia lens and fused silica 2" dia disc.
<b>4</b>	<b>Optional items</b>	
	a) Single crystal substrates and targets	<p>i. One side polished high quality single crystal substrates (10 mm x 10 mm x 0.5 mm, thickness +/-0.05 mm, Orientation: (100) +/-0.5 deg, Surface finish (RMS or Ra) : &lt; 5 A) suitable for epitaxial growth: SrTiO<sub>3</sub>(001), LaAlO<sub>3</sub>(001), Al<sub>2</sub>O<sub>3</sub>(0001), Si wafer(n type and p type) and TiO<sub>2</sub>(001)-each 20 units</p> <p>ii. Standard targets of 1" dia of SrTiO<sub>3</sub>, LaAlO<sub>3</sub>, SrRuO<sub>3</sub>, CoFe<sub>2</sub>O<sub>4</sub>, PbZr<sub>1-x</sub>Ti<sub>x</sub>O<sub>3</sub>, Ni<sub>80</sub>Fe<sub>20</sub> (Permalloy), CoFeB, Co, Fe, Ta, Cr, Cu-each 1 nos.</p>
	(b) Spares	Spare heater element (no.1) for sample holder and spare laser window for chamber (UV grade fused silica window)
	(c) Pumps and gauges	Appropriate vacuum pumps (rotary and turbo pump) and gauges for the loadlock

#### Terms & Conditions:

- Enclose the pre-installation guide for the details on power and room plan
- Vendor should have supplied atleast 5 similar system in India in past 3 years and must have a Local Trained Service engineer to provide after-sales support.
- Detail Users reference list should be provided.
- Installation & Training should be provided by Supplier on user site for at least two days about basic routine maintenance and repair
- One set of soft and hard copy of operating manual and service manual (in English) should be provided with the equipment.
- Warranty: 03 Year. The cost of the Annual Maintenance Contract (AMC) for the period of two years after completion of the warranty period i.e. during 4th and 5th year of the instrument operation should be mentioned in the quotation
- Apart from the specification given above, all the higher specification, resolution, and advance in-built technology model as well preferred.

**(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 is enclosed. 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 Boucher / 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).

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 \_\_\_\_\_

Company seal

**(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:**

**COMPANY SEAL**

## (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

S. No.	Item Name	Rate of AMC (For 1 <sup>st</sup> year)	Rate of AMC (For 2 <sup>nd</sup> year)	Rate of AMC (For 3 <sup>rd</sup> 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.

WHEREASM/s ..... having its 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: The above format contains specific clauses and expressions. These clauses and expressions 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 severally.

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) DECLARATION REGARDING BLACKLISTING / DEBARRING FOR TAKING PART IN TENDER.**

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.

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 60 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 8 years and we also guarantee that we will keep the organization informed of any update of the equipment over a period of 8 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

**(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**

<b>S. No.</b>	<b>Technical specification</b>	<b>Features available in equipment write (yes/No)</b>	<b>Any deviation from specification</b>	<b>Corresponding page no. and S. No./ Para no. of datasheet catalogue/ brochure in support of specification</b>
	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.	Average Annual turnover of the bidder, for the last three successive years should be <b>four times</b> of the approximate cost of the equipment duly certified by the Chartered Accountants.		
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.	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.		
20.	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.		

**End of Tender Document**