

NOTICE INVITING TENDER

Indian Institute of Science Education and Research (IISER) Berhampur, is an autonomous Institute established under Ministry of Education, Department of Higher Education, Government of India.

Electronic Tenders are invited for supply of Mass Spectrometry based OMICS facility for use at Research laboratories in IISER Berhampur as per the quantities indicated in the section IV – Schedule of Requirement. The potential bidders are required to visit the website <https://www.gerpegov.com/IISERBP> for submission of tender.

NIT No. & Date	IISERBpr/S&P/GTE/2024-25/51 Dt. October 22, 2024		
GTE Relaxation Ref No.	Ministry of Finance Letter No. F.4/1/2023-PPD(pt) Dt 28.06.2024		
Brief Description of the item to be procured	Supply, Installation, Testing and Commissioning of Instruments for Mass Spectrometry based OMICS facility(LC-MS, Nano-LC, GC-MS with ancillary instruments		
Quantity	01		
Bid Estimate	Rs. 7,00,00,000/-		
Tender Category:	Goods		
Tender Type:	OPEN (ADVT.)		
Number of Covers:	TWO BID		
Covers Information / Submission of Bids			
Covers No.	Cover Type	Description	Document Type
1.	Technical	Technical Specification, Tender Document duly signed and stamped on each page, EMD, Schedule of Requirement and Compliance, Bidders Information/ Indian Agent Information, Integrity Pact for more than Rs. 1 Crores, Purchase order copies, and all other formats available in tender documents duly completed in all respects.	To be filled online and Scanned copies to be uploaded for verification.
2.	Financial	Financial Bid	To be filled online
<p>Two Bid System:</p> <p>Part - I: Techno-Commercial Bid.</p> <p>Part - II: Price Bid.</p> <p>The prices should be shown against each item for the purpose of Insurance claims / replacements if any in a separate sheet and price should be quoted in price bid for whole equipment as specified in Annexure 1A of the tender document.</p> <p>In case of any discrepancy in the rates indicated in the Price bid either in figures or words, the rates in words will be considered for evaluation.</p> <p>. Note: The technical offer should not contain any price information. If the price quoted is submitted in technical bid the tender will be rejected at the sole discretion of IISER Berhampur.</p> <p>Initially Technical Bids will be opened and evaluated by the purchase committee. Commercial bids of only Technically qualified bidders will be opened later.</p> <p>Contract/ Purchase Order will be awarded to the lowest bidder(L1) among them.</p>			
Form of Contract:	SUPPLY, installation and commissioning		

EMD Fee Details	Rs. 14,00,000/- should be deposited through SBI I-Collect only, through the web link : https://www.onlinesbi.com/prelogin/collecthome.htm?corpID=644974 https://www.onlinesbi.com/prelogin/collecthome.htm?corpID=644974
Bid validity (Days):	180 days
Period of Work/ Delivery Period (Days):	6-7 months after the release of purchase order.
Contract Type:	Tender
Pre-Bid meeting	October 29, 2024 at 16:00hrs (Transit campus, IISER Berhampur)
Delivery Location:	IISER Berhampur, Permanent Campus
Submission End Date & Time of submission	November 26, 2024, 1100 Hrs
Place of Submission of Bid	Through Online, https://www.gerpegov.com/IISERBP
Bid Opening Date & Time:	November 26, 2024, 11:45 Hrs
Bid Opening Place:	Store & Purchase Section, IISER Berhampur, Transit Campus, Govt. ITI, Engineering School Road, Berhampur, Odisha - 760010
For technical Clarifications please contact:	Dr. Pravat Kumar Parida E-mail: pravatparida@iiserbpr.ac.in
Tender Inviting Authority:	Stores & Purchase Officer on behalf of Director, IISER Berhampur Tel. No.0680 2227-728/709 E-mail: purchase@iiserbpr.ac.in

Other Terms and Conditions (Warranty):

Pre-Qualification criteria: - The bidder must submit the following documents for qualifying the pre-qualifications criteria.

- (i) Bidders must have supplied identical item (same or similar) to other IISERs/IITs/Central Universities/research institutes etc., of national repute in the last three years.
- (ii) Copies of Purchase orders have to be submitted as evidence of supply.
- (iii) The bidders also have to submit certificates from the Institute authorities showing successful functioning of the identical equipment supplied to them for the last three years

Warranty: The warranty of the equipment will be as per the OEM product catalogue and the warranty clause indicated at Section IV of NIT, whichever is beneficial to the buyer (IISER Berhampur). Bidder shall note this requirement while quoting their rate

Signing Authority:

Stores & Purchase Officer

Section II: Instructions to Bidders

1. Preparation and Submission of offers.

- a) The tender shall be accepted only through online e-tendering process and all details pertaining to the tender and guidelines for e-tendering are available on the website <https://www.gerpegov.com/IISERBP>
- b) Intending contractors needs to register themselves on the e-tendering website <https://www.gerpegov.com/IISERBP> to get the USER ID and PASSWORD by paying required registration fee (Annual & Non-Refundable) through e-payment only and completing the steps specified on above referred website.
- c) Bid submission through any other mode will not be accepted. EXCEPT In case of Foreign Bidders without having Indian Agents can submit their e-bids without EMD by duly enclosing an undertaking to this effect on or before the date & time of submission of tender.
- d) All pages of the tender document shall be invariably signed by the authorized Personnel and Company's rubber stamp affixed. Photocopies of all certificates shall be self-attested by the authorized personnel. There shall be no corrections or overwriting in the tender document. Corrections, if any, should be made clearly and countersigned.
- e) Bidders must upload soft copies/scanned copies of all documents while uploading e-tender on the website. Submit hard copies of Challan generated on deposit of EMD through SBI I collect, Certificate and Declaration on non-judicial stamp paper, Security Deposit/ Performance Bank Guaranty.
- f) In a tender, either the Indian agent on behalf of the Principal / OEM or Principal / OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- g) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- h) IISER Berhampur discourages High Sea Sale purchase. All tenders with High Sea Sale will be rejected.
- i) It is mandatory for all Indian Agents to submit copy of Indian Agent Agreement / Authorization letter from OEM / OEMs along with **tender specific authorization from OEM.**
- j) It is mandatory for Indian Agents, Indian subsidiaries and Indigenous bidders to have GSTN Registration No. and should submit duly filled Bidders Information along with the tender document.

2. Validity of the Bid. 90 Days from the last date of submission of bid

3. Cost of Bidding. The Bidder shall bear all costs associated with the preparation and submission of its Bid and the Purchaser shall not be held responsible or liable for those costs incurred regardless of the conduct or outcome of the bidding process.

4. Amendments to Tender Document.

- a) At any time prior to the deadline for submission of bids, IISER Berhampur may, for any justified reason, whether on its own initiative or in response to the clarification sought by a prospective BIDDER may modify the bid document by issuing necessary corrigendum.
- b) All prospective BIDDERS who have downloaded the tender document are requested to visit IISER Berhampur website for any amendments / modifications and make a note of the same, which will be binding on them.

5. **Deadline for Submission of Bids.** Bids must be submitted only through e-tendering mode on <https://www.gerpegov.com/IISERBP> before the due date and time.
6. **Bid Opening Process.**
- a) In case of one bid system, e-technical & e-financial bid will be opened simultaneously in the presence of representatives of the bidders at IISER Berhampur.
 - b) In case of two bid system, The Technical Bid will be opened in the first instance in the presence of Dept. Technical Evaluation Committee(TEC), representatives of the bidders at IISER Berhampur.
 - c) Financial bids of only those bidders, whose bids are found technically qualified, by the Technical Evaluation Committee, will be opened in the presence of the Dept. Technical Evaluation Committee(TEC) vendor's representatives subsequently at a later date for further evaluation. Date and Time of financial bid opening shall be intimated to technically qualified bidders only.
 - d) One authorized representative of each of the bidder would be permitted to be present at the time of opening of the bids.
 - e) The authorized representative of bidders, present at the time of opening of the bids shall be required to sign an attendance register as a proof of having attended the Technical/Commercial bid opening session.
7. **Supplementary Offer / Modification of Original Bid.** desirous to modify their offer/terms may submit their revised / supplementary offer (s) within the extended Tender Opening Date (TOD) by clearly stating to the extent of updation done to the original offer. The purchaser reserves the right to open the original offer along with the revised offer.
8. **Confidentiality**
- a) Information relating to the evaluation of bids, and recommendation of Contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders. On completion of Technical Evaluation by the Committee, Vendors whose offer do not meet with the users Technical Specification will be restricted to participate in commercial bid opening process.
 - b) Any attempt by a Bidder to influence the Purchaser in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
 - c) Notwithstanding, from the time of Bid opening to the time of Contract award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it shall do so in writing.
9. **Deviation, Reservations and Omissions.** During the evaluation of Bids, the following definitions apply: -
- a) **“Deviation”** is a departure from the requirement specified in the Tender Documents;
 - b) **“Reservation”** is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Tender Documents; and
 - c) **“Omission”** is the failure to submit part or all of the information or documentation required in the Tender Documents.
10. **Correction of Arithmetical Errors.** Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis: -

- a) If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
- b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- d) Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with the same, shall result in the rejection of the Bid.

11. **Evaluation of Bid.**

- a) IISER Berhampur will evaluate technical and commercial acceptable offers on landed net Price basis.
- b) In case any BIDDER is silent on any clauses mentioned in this tender documents, IISER Berhampur shall construe that the BIDDER had accepted the clauses as per the invitation to tender no further claim will be entertained.
- c) No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
- d) The prices of the equipment (including indigenous items) and **the warranty of the equipment as per the OEM product catalogue or the warranty clause indicated at Section IV of NIT, whichever is beneficial to the buyer (IISER Berhampur)** all together shall be considered in determining L1.

EMD : All bidders except those specifically exempted shall furnish Bid Security Declaration as per our format in lieu of Earnest Money Deposit, failing which such offers will be rejected. Submission of Bid Security Declaration will be exempted for Govt. Depts and firms/public sector units/ MSE units registered under MSMED Act (subject to Declaration of Udyog Aadhar Memorandum number by the vendors on CPP Portal/Tenderwizard) / firms registered under NSIC and Khadi Board as per applicable govt. directions, and on submission of valid documents/certificates in proof of the same.

If any bidder retracts from or without request of IISER Berhampur revises or amends his bid during its validity period or fails to submit Security Deposit within the stipulated time or fails to execute the required agreement when the contract is awarded or fails to commence the execution of the work on the stipulated date, they will be disqualified from bidding for any contract with IISER Berhampur for a period of Three years from the date of notification, without prejudice to IISER Berhampur right to claim damages and/or other legal recourse. Under taking for bid security should be submitted as per the attached format.

12. **Price Bid (For Import Supplies).**

- a) Quoting of Price (s): **It is mandatory to quote price in FOB/FCA basis only.**
- b) If the bidder wishes to quote in CIP/DDP, then may be provided the details separately with cost breakup at given format.
- c) If the price is not quoted in Price Bid Form provided in the tender document then, IISER Berhampur will reject bid.
- d) If the bidder wishes to give pricing details, may be filled in in a separate sheet. It is mandatory to quote optional items in separate sheet otherwise your quote will be rejected.

- e) In case of Multiple options of same product, bidders are requested to quote only one best option and not multiple options.
- f) It is mandatory to quote optional items in separate sheet otherwise your quote will be rejected.

13. Price Bid (For Indigenous Supplies).

- a) Quoting of Price (s): **Price quoted should be in Indian Rupees, free delivery at IISER Berhampur Campus at site.**
- b) PRICE BID must be submitted in enclosed Price Bid Form only.
- c) All the taxes including GST and other duties/levies should be shown separately.
- d) If the price is not quoted in Price Bid Form only provided in tender document then, IISER Berhampur will reject bid. If bidder wish to give pricing details, may be attached in separate sheet.
- e) In case of Multiple options of same product, bidders are requested to quote only one best option and not multiple options.
- f) It is mandatory to quote optional items on a separate sheet otherwise your quote will be rejected.

14. Corrupt & Fraudulent Practices.

- a) IISER Berhampur requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy.
- b) The terms set forth below are defined as follows: -
 - i) **“Corrupt practice “** means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of in kind/value to influence the action of a public official in the procurement process or in contract execution;
 - ii) **“Fraudulent practice”** means a misrepresentation or omission of facts in order to influence a procurement.

Process or the execution of a contract.

- iii) **“Collusive practice”** means a scheme or arrangement between two or more bidders, designed to establish bid prices at artificial, non- competitive levels; and
- iv) **“Coercive practice”** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- v) IISER Berhampur will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

15. Cancellation of Tender.

- a) Notwithstanding anything specified in this tender document, Purchaser / IISER Berhampur in his sole discretion, unconditionally and without assigning any reasons, reserves the rights: -
 - i) To accept OR reject lowest tender or any other tender or all the tenders.
 - ii) To accept any tender in full or in part.
 - iii) To reject the tender offer not confirming to the tender terms.
- b) IISER Berhampur will give purchase preference to Public Sector undertakings when applicable as per Govt. Policy/ Guidelines.

c) Offer which deviates from the vital conditions (as illustrates below) of the tender shall be rejected: -

- i) Non-submission of complete offers as mentioned in the tender document,
- ii) Receipt of offers after due date and time and or by email / fax (unless specified otherwise).
- iii) Receipt of offers in open condition.
- iv) Conditional Tenders and Unsigned Tenders will also be rejected.

16. Delivery: The successful BIDDER should deliver the material as per tender document/purchase order. **The successful bidder should emboss stickers of purchase order number on the material to be delivered.**

Special Note: The price bid and other documents have to be Submitted separately online at <https://www.gerpegov.com/ISERBP>. The date of Submission of online Technical and Financial will be as per tender notice.

17. Requirement for Vendors for uploading online tender.

P.C. Connected with internet

Registration with portal <https://www.gerpegov.com/ISERBP>

Class-III Digital signature certificate in the name of the company of the vendor is mandatory (in the name of the company who will be submitting the EMD & general information). This may be obtained by calling our helpdesk (09073677150 and 9674758726). Bids will not be recorded without Digital signature Certificate.

Bidders will have to pay Tender Processing fee (**Amount as per work order including GST**) (Non-Refundable) through e-payment in favour of M/s CEL.

Note: Please check the Digital Signature Certificate. For more details, bidders may visit e-tendering portal and download the help manuals uploaded in the website.

Contact Person: -

Ms. Saswati Mujumdar Mob: 09674758722

Email: helplinetenderwizard@gmail.com

Help Desk No: 09073677150/09073677151/09073677152

Section III: Conditions of Contract

1. Award of Contract.

- a) IISER Berhampur shall award the contract to the technically qualified eligible BIDDER whose bid has been determined as the lowest evaluated commercial bid.
- b) If more than one BIDDER happens to quote the same lowest price, IISER Berhampur reserves the right to award the contract to more than one BIDDER or any BIDDER.

1(A). Purchase preference to Local Manufacturers.

Implementation of Make in India policy of Govt. of India, DIPP Order dated June 15th, 2017, the order is issued in pursuant to Rule 153(iii) of the GFR 2017.

As per instructions of the above order purchase preference shall be given to local suppliers in the following manner: -

where the quantity is divisible

Among all qualified bids, the lowest bid will be termed as L1, if L1 is from a local supplier (Indigenous) the full quantity will be awarded to L1.

If L1 bid is not from a local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the Lowest bidder among the local suppliers, will be invited to match the L1 price for the remaining 50% quantity subject to the local supplier's quoted price falling within the margin of purchase preference i.e. 20%.

Where the quantity is not divisible

If the L1 bidder is local supplier then the contract will be awarded to L1.

If L1 is not from local supplier, the lowest bidder among the local suppliers, will be invited to match the L1 price subject to local supplier's quoted price falling within the margin of purchase preference (20%), and the contract shall be awarded to such local supplier subject to matching the L1 price.

***Here local supplier definition is not explained in the referred letter, however local supplier in the context of Make in India policy is Indigenously produced /processed goods and services.

2. Prices.

- a) The supplier shall pay and bear all other liabilities, taxes and duties not specifically agreed by the Purchaser in the contract.
- b) **For Indigenous Supplies** - The supplier shall pay and bear all other liabilities, taxes and duties not specifically agreed by the Purchaser in the contract.

3. Pre-installation.

- a) Please also mention the pre-installation requirements for the equipment like ambient temperature, humidity, civil work, weather specifications, power specifications, etc. When items are provided full performance satisfaction should be demonstrated.

4. Installation.

- a) BIDDER shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty period and thereafter as mentioned in the contract.
- b) Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site.

5. **Training.**

- a) The BIDDER shall submit training proposal for the operation and maintenance to the personnel of IISER Berhampur on the offered equipment/machinery.
- b) Wherever needed, our technical persons should be trained by the supplier at the project site free of cost. In case the person is to be trained at supplier's site abroad or in India it should be mentioned in the quotation clearly. The supplier should bear all the expenses for such training including 'to & fro' fares and lodging & boarding charges.

6. **Terms of Payment.**

(a) For Indigenous items. 100% payment shall be made against satisfactory, delivery and successful installation & commissioning of the equipment subject to submission/ extension of S.D. of 5% of Purchase order value in form of D.D. / B.G valid till 60 (sixty) days beyond the Warranty period.

(b) For imported items.

- (i) 100% payment shall be made by wire/telegraphic transfer after delivery and acceptance after successful installation subject to submission of SD of 5% in form of DD/BG up to 60 (sixty) days beyond the Warranty period.

OR

- (ii) 100% payment shall be made by Irrevocable Letter of Credit. Out of which 80% will be paid against submission of following documents: -

Air way Bills	– 2 copies
Packing List	– 2 copies
Invoice for shipping	– 4 copies

(c) Balance 20% shall be released after successful installation and commissioning of the equipment subject to submission/ extension of S.D. of 5% of Purchase order value in form of D.D. / B.G valid till 60 (sixty) days beyond the Warranty period.

(d) Warranty payment. Payment shall be released year wise on completion of each year's AMC subject to satisfactory services and submission of tax invoice.

Note. I. All bank charges outside India shall be borne by the supplier.

II. LC will be opened on receipt of unconditional acceptance of purchase order.

III. Accepted term of payment shall be clearly indicated in Tender / Offer document

7. **Legal Matters.** All Domestic and International disputes are subject to Berhampur, Odisha, jurisdiction only.

8. **Transfer and Subletting.** The seller shall not sublet, transfer, assign or otherwise part with the acceptance to the tender or any part thereof, either directly or indirectly, without the prior written permission of the Purchaser.

9. **Force Majeure.** Force Majeure will be accepted on adequate proof thereof.

10. **Penalty/ Liquidated Damages.**

- a) Timely delivery is the essence of the contract and hence if any consignment is delayed, liquidated damages at the rate 0.5% of the price of the delayed consignment, for each week or part whereof shall be levied and recovered subject to a maximum of 10% of total purchase order value.

b) IISER Berhampur reserves the right to cancel the order in case the delay is more than 10 weeks. Penalties if any will be recovered by forfeiting PBG at vendor's cost and risks.

c) **Specification and Samples.** The suppliers shall supply the stores in accordance with the specifications/ descriptions of stores given in the acceptance of tender. The Purchaser reserved the rights to alter the description of stores including drawings given in the acceptance of tender. In the event any such alteration result in any implication to the deliver and price, such implication shall be mutually agreed between the Purchaser and supplier. In case certified sample has been issued by the Purchaser and the Specifications / Drawings also exist in the acceptance of tender then the certified sample will govern the supply to the extent of material, workmanship and finished product.

11. **Supervision of Erection and Commissioning.** Successful BIDDER shall depute concerned specialist, for supervision of erection & commissioning of the machine to be carried out. The successful BIDDER shall make necessary arrangement at their own expenses for stay, transport and other expenses of their specialist during their stay in which also includes imparting free of cost training to IISER Berhampur personnel.
12. **EARNEST MONEY DEPOSIT (GFR 2017 Rule 170).** The Techno-commercial Bids must accompany details of EMD. EMD should be in the form of bank transfer (I-Collect) / Challan at any branch of SBI. If any assistance required:-Bidders may visit by copying the URL (<http://www.iiserbpr.ac.in/pdf-doc/SBI%20Collect%20Guide.pdf>) to download SBI Collect Guide. The Techno-commercial Bids must accompany details of EMD payment. No interest shall be paid on earnest money deposited. Bidders having valid registration with NSIC/MSE for tendered item and value will be considered for exemption from EMD amount as per extant rules. Please submit bank account details for refund of EMD, in the RTGS IISER Berhampur format available on this link http://www.iiserbpr.ac.in/pdf-doc/RTGS%20NEFT%20Form_IISER%20Berhampur.pdf for getting the refund of EMD/Payment. The editable format of RTGS form is also available in <http://www.iiserbpr.ac.in/download-forms.php> in S&P tab.
13. **Performance Guarantee (GFR 2017 Rule 171).**
- (i) Performance Guarantee Bond is mandatory.
 - (ii) Successful tenderer/ bidder should submit performance guarantee as prescribed above to be sent to Acting Stores & Purchase Officer, IISER Berhampur on or before 15 days from the due date of issue of order acknowledgment. The PGB to be furnished in the form of bank guarantee as per attached proforma with the tender documents, for an amount covering 5% of the purchase order value.
 - (iii) The Performance Guarantee should be established in favour of "The Director, IISER Berhampur".
 - (iv) PBG to be established through any of the National Banks (whether situated at Berhampur or outstation) with a clause to enforced the same on their local branch of Berhampur or any scheduled bank (other than national bank) situated at Berhampur. Bonds issued by co-operative banks will not be accepted.
 - (v) Performance Guarantee Bond shall be for the due and faithfully performance of the contract and shall remain binding, notwithstanding such variations, alterations for extensions of time as may be made, given, conceded or agreed to between the successful tenderer and the purchaser under the terms & conditions of acceptance to the tender.
 - (vi) The successful tenderer is entirely responsible for due performance of the contract in letter and spirit and all other documents referred to in the acceptance of tenders.
 - (vii) The PBG shall be kept valid during the period of contract and shall continue to be enforceable for a period of 60 days beyond warranty period (i.e. Warranty period + 60 days) from the date of order acknowledgement. In case PBG needs extensions up to 60 days

beyond warranty period then supplier shall initiate extensions to PBG one month prior to expiry of PBG.

(viii) For successful suppliers, if PBG is not submitted within **15 days** from the date of Order Acknowledgement, then the Purchase Order will be cancelled with forfeiting of EMD.

(ix) **No interest shall be payable by the buyer to the Bidder on PBG.**

Store & Purchase Officer

Section IV

Schedule of Requirements and Compliance

SI No.	Description	No. of Units
1	Supply, Installation, Testing and Commissioning of Instruments for Mass Spectrometry based OMICS facility(LC-MS, Nano-LC, GC-MS with ancillary instruments)	1

Annexure I

Technical Specification

Technical Specification of Ultra High-Resolution Mass spectrometry with nano LC and UHPLC for both Quantitative and Qualitative Applications:

Description	Specification
A]. General Description:	High Resolution Mass Spectrometry should be a combination of Quadrupole with ultrahigh resolution MS with UHPLC and accessories for metabolomics, Pharmaceuticals, and Proteomics applications. The complete workstation should be quoted with all required softwares and all pre-requisites for operation of the system.
B]. Sources:	<ul style="list-style-type: none"> ● The System should have ESI. APCI source capable to handle flow rate from 1ul /min to 1000ul/min or better. ● Nano ESI source handles flow rate from 50nl/min to 2000nl/min for Nano columns up to 50cm length. Desolation temperature 500 DEG C or better ● APCI Source without splitting upgradable to APPI Source in future ● The system should be upgradable to suitable Ion mobility option; enabling identification and quantitation of more proteins.
C]. Mass Analyzer HRMS :	<ul style="list-style-type: none"> ● The MS should have high-performance advance quadrupole design with pre & post filter quadrupole works as precursor isolation from 40-3000da. The quadrupole should work variable precursor isolation width from 0.4 to 1200da for DIA experiments. ● Segmented mass filter, providing variable and step-less precursor isolation width selection from 0.4 Da to full mass range. ● The HRMS should have ultra-high-resolution capability of >1,00,000 FWHM at 200m/z and above. ● The high-resolution MS should have a mass range up to 3000Da. ● System is cable to demonstrate the Mass Accuracy measurement of <3ppm with external calibration and <1ppm with internal calibration. ● For Internal calibrant should be in vacuum for maintaining the accuracy <1ppm without contamination of the API source. ● Sensitivity: MS/MS: 200 fg reserpine on column S/N 100:1, SIM: 200 fg reserpine on column S/N 250:1 or better ● Should and scan speed of 20hz/sec in MS and MS/MS mode. ● Should have Data Dependent Acquisition (DDA), MS2 scan by DDA with Top N experiments. in targeted SIM manner based upon a sample dependent, Triggered MS2 by exclusion mass list .M2 Scan by Data Independent Analysis ● The mass spectrometer must be capable of fast polarity switching acquiring one spectrum in positive and one in negative with <1.4hz cycle time or better ● On-the-fly charge state deconvolution for intelligent ddMS2 on intact proteins applying Smart HCD. ● System should demonstrate in spectrum dynamic range of >5000:1 or better within one spectrum.
D]. Scan Functions :	<ul style="list-style-type: none"> ● The mass spectrometer instrument set up must allow scheduled set up of different events using a graphical user interface

	<ul style="list-style-type: none"> ● Must acquire and display Full Scan mass spectra ● Must acquire and display Selected Ion Monitoring (SIM) scan data for monitoring selected ions for target compound analysis (tSIM) ● Must acquire and display MS/MS spectra ● Must acquire and display Selected Reaction Monitoring/Multiple Reaction Monitoring (SRM/MRM) like data sets (targeted MS/MS scan) ● Must acquire and display multiplexed SIM mass spectra of up to 20 simultaneously detected precursor ions ● Must acquire and display multiplexed MS/MS mass spectra of up to 2 different precursor ions ● All-Ion-Fragmentation scan, fragmenting all ions of a defined mass range with high-resolution, accurate mass acquisition ● Timed SIM for scheduled data acquisition of target compounds ● Timed MS/MS for scheduled data acquisition of target compound fragment spectra ● Must acquire “Data Independent Acquisition” (DIA) data sets with minimum isolation width of 50 u and with max number of DIA scan windows of 20.
E]. Ultra High Performance Liquid Chromatography :	<ul style="list-style-type: none"> ● Fully Bio Compatible Quaternary gradient system with four channel vacuum degasser, auto sampler and column oven for ultra-fast separations ● Flow rate range 0.001 to 2.0 ml or better, programmable in 0.001 ml increment and should be suitable for LC-MS/MS operations. ● pH and salt compatibility 2-12 or better ● Flow accuracy of $\pm 0.1\%$ or better ● Gradient precision 0.15% RSD or better ● Flow path free from stainless steel component suitable for separation of biomolecules. ● Selectable Gradient delay volume 200-1000 ul or better ● Auto sampler should be available with a capacity of 120 vials of 1.5 ml and should be capable of accommodating 96 well plate with injection volume range from 0.1– 25 ul, 0.01 ul increment, Split loop mode with Flow through design. ● Injection volume accuracy $\pm 0.5\%$ or better ● Injection volume precision 0.25% RSD or better ● carry over 0.004% or better ● The system should have sample temperature control auto sampler from 4° - 40°C programmable in 1 ° C increment (ambient temp 20°C) ● Thermostatic column compartment ● Temperature accuracy $\pm 0.5^\circ\text{C}$ or better ● Column capacity: up to 2 columns, depending on column length ● System should have max. pressure 15000 psi or better. ● The HPLC system should have single point software-based control with Mass spectrometer.
F]. Columns:	<ul style="list-style-type: none"> ● Sub 2-micron particle size C18 column -3 Qty ● Suitable MS Columns for HILIC Application -3 Qty ● Suitable MS Column for Metabolomics Application-4 Qty.
G]. System Software and Hardware:	<ul style="list-style-type: none"> ● System software is to be capable of detecting, recording and analyzing the data. It should have following capabilities ● Software packages include latest versions of data acquisition, data processing, qualitative, quantitative analysis, targeted screening, ● Suitable Software/Database for small molecules, Metabolite ID and metabolomics, C13 isotope tracing with most updated library. ● High configuration recent i7 or i9 dual core processor, with 64 GB Ram, 1 TB HDD, 32inch monitor, Graphics card and compatible for Metabolomics and isotope tracing software. ● Licensed MetaboAnalyst 6.0 software should be provided.

HJ. ESSENTIAL PRE-REQUISITE :	<ul style="list-style-type: none"> ● Imported Nitrogen Generator with in-built compressor to supply the required flow at required pressure. ● Branded 15 KVA UPS with Isolation transformer with 1 Hour battery backup with warranty certificate for the battery. ● Suitable LaserJet printer. ● Required Solvent & standards for Initial Installation, demonstration. ● System should be provided with all essentials for smooth running of the instruments.
K. Detail Specifications for Nano LC (i) Nano LC Source :	<ul style="list-style-type: none"> ● Should offer exceptionally stable spray. ● Integrated union: should offer Zero dead volume column to emitter connection ● Should delivers narrower peaks and maximized peak capacity, leading to improved sequence coverage. ● Should offer tool free fitting: Easy to use, finger tight fitting to 1000 bar ● Column with integrated temperature control: ● In-Source column options: Suitable integrated column option to be offered.
L) Nano Liquid Chromatography (nLC) - for Proteomics Application	<ul style="list-style-type: none"> ● Split less Nano LC. ● Must have direct pumping system with Nano flow capability without flow splitting ● System must be compatible with all mobile phase and from acidic to basic pH ● The pump must not require hardware changes to cover the entire flow range specified. ● The pump must have a settable flow range from 1 nL/min to 100 µL/min in 1 nL increments. ● The pump must have active flow control from 1 nL/min to 100 µL/min. ● The pump gradient delay volume contribution must be < 25 nL. ● The pump must be pre-calibrated for usage with common solvents. ● The system must provide a retention time precision of ≤ 0.2% RSD or ≤ 0.1 SD min, whichever is greater for Cytochrome C protein digest peptide based on the installation qualification procedure.
(ii) Auto Sampler:	<ul style="list-style-type: none"> ● The sampler must be able to thermostat samples between 4 and 40°C and stable within +/- 1K. ● The injection principle of the autosampler must be in-line split-loop (also called flow through needle) for high reproducibility injections with no sample loss. ● The sampler must support a sample capacity of four sample racks with any combination of the following types: 54 × 12 mm OD vials (≤ 1.5 mL), 96 × 6, 7 and 8 mm OD vials (≤ 1.2 mL), 16 × 15 mm OD vials (≤ 4 mL), 9 × 22.5 mm OD vials (≤ 10 mL), and well plates (96 and 384, deep and shallow) without the need for external devices such as plate feeder. ● The sampler must offer up to 4 independent wash liquids: outer and inner needle wash, weak and strong each. ● The sampler must offer sample loop and inner needle rinsing with two independent wash liquids. ● The sampler must offer dip rinse and continuous rinse of outer needle surface with two independent wash liquids. ● The sampler must have active pressure monitoring for injection to allow for minimal column shock upon injection. ● The sampler should be able to offer a standard injection volume range of 0.01–25 µL and extendable to 100 µL, settable in 0.01 µL increments. The injection volume range must be extendable for trap-and-elute workflows, i.e. high-volume trapping, by use of a larger sample loop and by multiple draw-and-trap cycles up to 500 µL. ● The sampler must allow forward-flush and back-flush trap-and-elute injections without fluidics exchange.

	<ul style="list-style-type: none"> • The autosampler must be able to fulfill the following injection precision requirements for repeatable analysis: • Injection accuracy must fall within +/- 0.5% for a typical aqueous sample injection of 5 µL • minimum 5 °C or maximum 20 °C below room temperature. Integral 6-port bio-compatible injection valve. Carryover must be <0.05%. Three solvents must be available for repeated custom wash cycles for thorough cleaning of injection needle. • Quote Nano Column -5 No with trap column 5 no each.
iii). Nano LC Columns:	<ul style="list-style-type: none"> • Nano LC Column- Qty 10 • Nano Trap LC Column- Qty 10.(all columns should be provided by phases as when required within 5 years)
iv). Suitable Software/Database Advance option:	<p>Proteomics Data Base:</p> <ul style="list-style-type: none"> • SEQUEST, Mascot, for label free and labeled quantitation. data mining analysis proteomics workflows, from protein and peptide identification to PTM analysis to isobaric mass tagging, and SILAC and label-free quantitation etc. for proteomics application. <p>Metabolomics /Small /Pharmaceutical molecules Advanced Data Base</p> <ul style="list-style-type: none"> • Data analysis software licenses • Online integration with all available chemical database searches. • Easy integration with the compatible third party free Softwares • Free Upgradation within the warranty period for the same software version. • Elemental composition determination using HRAM MS data, including fine isotope and MS/MS fragmentation data. • Automated annotation of spectra with predicted fragments. • One Dedicated high-end PC Workstation Factory Fitted for the Data Acquisition • Two Dedicated High-End PC Workstation for the offline Data analysis with all necessary software. • Data Storage-Extra Storage space 10TB to be supplied. • Licensed MetaboAnalyst 6.0 software should be provided. • Suitable Software/Database for small molecules, Metabolite ID and metabolomics, C13 isotope tracing with most updated library.
I]. Warranty:	<ul style="list-style-type: none"> • All instruments should have a 5 years comprehensive warranty. • Should cover all parts and labor for repair or replacement of defective components due to manufacturing defects or malfunctions. • Breakdowns of instruments should be addressed within three working days of notification • If the instrument breaks down during the warranty, the warranty should be extended by the downtime duration. • Periodical (twice a year) visit of the engineer during the warranty period for the maintenance of the instruments.
J]. Additional Notes:	<ul style="list-style-type: none"> • All the specification to be supported by online literatures and valid data • Training and demonstration should be provided twice/thrice a year throughout the duration of the warranty (1-2 weeks). • Company sponsored expert manpower for first 6-months • Suitable supporting online literatures and back up data to be supported along with the Tender. • The price should be offered up to IISER BERHAMPUR with delivery & clearance. • The committee may seek require additional clarification as an when required.
	Technical Specification for High-Resolution Triple Quadrupole GC-MS System

A: GC Mainframe	<ul style="list-style-type: none"> ● Constant Linear velocity mode, constant pressure, constant flow mode should Triple Quadrupole be available ● Auto Ignition facility is desirable ● Split ratio programming with battery protected memory ● Self-diagnostic function with GLP/GMP support
B. Gas Chromatograph:	<ul style="list-style-type: none"> ● The system should have all temperature and time functions should be controlled by microprocessor-based controller. ● Temperature: Operating Range Ambient +4°C to 450°C or better ● Cooling down rate: from 450 to 50 °C in less than 5 min or better ● Temperature programming facility. ● Maximum oven temperature ramp rate : 120 DEGC / minute or better for all ranges standard feature. ● Should have oven power safety (power off when door is open) ● The system should have touch-screen user friendly interface for direct instrument control in larger routine and method development laboratories. ● Number of Ramps/Plateaus: 30 or more. ● Typical peak area repeatability: < 0.3 % RSD ● Ambient rejection: < 0.01 °C per 1 °C ● Settable column overheat protection
C. INJECTORS: Qty-2	<ul style="list-style-type: none"> ● Independently temperature-controlled injection ports. ● Split / Split less injector for capillary Columns with Septum Purge functions ● Split/Split less Injector: ● Must be able to install 3 independently temperature-controlled injector units simultaneously. ● Split ratio setting range: 0 to 10,000 or higher. ● Maximum operating temperature up to 450°C. ● Number of temperature programming steps: 7 or higher ● Must be able to set total flow range: 0 to 1,200ml/min for He and H2, and advanced/electronic flow control pressure range up to 1000 KPa or higher ● Efficient gas saver mode is desirable to reduce gas consumption during standby without affecting performance.
D. Auto Sampler:	<ul style="list-style-type: none"> ● Auto Injector: ● Sample injection method: Liquid sample injection via micro syringe. ● Number of samples: 150 vials or more ● Number of sample injections: minimum 1-99 injections per sample ● Cross contamination: Less than 10⁻⁴ ● 150 vial carousal samplers ● Faster injection <100ms ● Illuminated syringe compartment for easy syringe viewing and replacement. ● Maximum injection volume: 80 µL (with 100 µL syringe ● Area repeatability <0.3% RSD or better ● Carryover <0.001% or better ● Linearity <4% RSD or better on response factor between 10% and 50% volume
E. Pressure /Flow controller	<p>Integrated Electronic Control/Electronic Pressure Control:</p> <ul style="list-style-type: none"> ● Gas Specification: Up to 17 or more channels of integrated electronic gas control; Split Ratio: Up to 9000:1 or better
F. Performance specification	<p>Typical retention time repeatability: <0.0008 min or better Typical peak area repeatability: <0.3 % RSD or better</p>

G. Ramps/Plateaus	Equal or higher than 25
H. FID Detector:	MDL: Equal or less than <1.2 pg C/s; or better Linear Dynamic Range: >10 ⁷ or better. Integrated Electronic Control/Electronic Pressure Control.
G. Mass Spectrometer:	<ul style="list-style-type: none"> • MS system should be offered with air-cooled >240 Litre single unit vacuum output turbo molecular pump, EI ion source and with the following specifications: • Should have dual filaments in all ionization modes same geometry. Source with Programmable heating at 350 °C or better • It should have accurate regulation of emission current up to 350 µA or more with improved regulation at low current. • It should have Integrated, dual filament assembly mounted with the same geometry with improved filament lifetime and effective regulation of emission current across the available emission current range. • The user definable electron energy should be adjustable from 0-150 eV or more • It should have constant calibration gas pressure for optimum system tuning. • The GC transfer line temperature should be programmable up to 400 °C or more. • The system should have suitable technology to prevent neutrals to enter the main analytical quadrupole without any Helium Burn/bake out process. • The system should have the upgradation facility for changing the source cleaning without venting the vacuum of MS • EI source with maximum temperature of 350 degree C or better • Electron energy up to 150 ev or better • Emission current range - Up to 350 µA or better <p>Sensitivity Specifications:</p> <ul style="list-style-type: none"> • Electron Ionization MRM/SRM and Chemical Ionization source • 1 µL of 100 fg/µL octafluoronaphthalene (OFN) should produce the following minimum signal-to-noise ≥16,000:1 <p><u>Instrument Detection Limit:</u></p> <ul style="list-style-type: none"> • 0.5 fg or less with OFN or lower • Scan speed: 20,000 u/s or better • The Main quadrupole rods should be non-coated, homogeneous, solid metal rod and cleanable. • It should utilize new generation discrete dynode electron multiplier integrated with linear-log electrometer with maximum linear output Lifetime maintenance free detector. [Additional detector as spare should be offered for the warranty period of the detector doesn't come with lifetime warranty] • Electronic dynamic range > 10⁸ or better • Mass Stability: 0.1 u/48 hours or better • Mass Range: 2 –1000 u or more • Resolution: Unit mass resolution maintained over the entire mass range • Scan Rate: Fast quadrupole scanning up to 20,000 u/s or better. • Detector :10KV conversion dynode detector with Overdrive lens • Evacuation System Control: Fully automatic "Auto Startup" and "Auto Shutdown" automatically should execute Turning - on and - off Turbo pumps, fore line pump, and leak valves. • EI source should be inert to active compounds. Should have provision for Selected Ion Monitoring Scan while simultaneously acquiring data in the Full Scan Mode.

H. Ion Source:	<ul style="list-style-type: none"> ● should be Free from any form of complex connection, easy to clean, easy to maintain off-axis ion source, with suitable facility to carry out helium ion burn in source before the main analytical quadrupole. ● The Ion Source should be Front access type for easy maintenance. ● There should be provision for Hydrogen and Nitrogen gas to be used as carrier gas apart from He in the GC.
I. Software and Libraries:	<ul style="list-style-type: none"> ● Software for Control of GC as well as GCMS: ● 32 bit/64 bit windows based Software Should Provide Single Point Control of all GC Parameters, Injectors, detectors. ● Software should have Security, Audit trail, System check, Software integrity and system Suitability test should be included as standard functions ● Flexible report Format i.e for Method, chromatogram, Mass Spectrum, Peak table, Quantitation result, calibration curve, Status Log, texts, graphics. ● It should provide automated tuning & File management functions with Library Search facility. ● There should be User friendly post run analysis facility with flagging. ● Complete Software control of vacuum system with Auto Start-up / Shut-down and vacuum protection against Power Failures. ● Latest NIST License Library with MS/MS ● Suitable Metabolites/Lipid analysis Library/Data base
J. Column:	<ul style="list-style-type: none"> ● Suitable Non Polar Column Qty-4 ● Suitable Mid Polar Column Qty-2 ● Suitable Relatively Polar column Qty-2
K. Workstations /Installation accessories and software specifications: Qty 2	<p>A] One Dedicated high-end PC Workstation Factory Fitted for the Data Acquisition for GC-MS</p> <p>B] One Dedicated High-End PC Workstation for the offline Data analysis for GC-MS.</p> <p>C] Suitable LaserJet printer.</p> <p>D] Suitable Online UPS:</p> <ul style="list-style-type: none"> ● Suitable Branded UPS for 10 KVA with 30 min backup – 1nos. <p>E] Gas Purification system: for N₂, H₂, He, Zero Air with regulator pressure gauge,</p> <ul style="list-style-type: none"> ● On/off Valve and Molecular Sieve Filters, ● Charcoal Filters for moisture trap, oxygen trap. ● Hydrocarbon trap etc. for H₂, N₂, He and Zero Air
Sample Preparation Accessories/Instruments	<ol style="list-style-type: none"> 1. Vortex Mixer 2. Mechanical Shaker, Mixer 3. Ultrasonic Water Bath, Sonicator with macro and micro probe options 4. Tabletop Lyophilizer with chemical trap filters (Lowest temperature: - 85degC and capacity: 4kgs) 5. pH strips 6. Weighing balance 7. Micro pipettes (1000ul, 200ul, 100ul, 20ul, 10ul, 2ul with tips (For the above-mentioned pipettes) 8. Water bath 9. Dry bath 10. Speed Vac 11. Synchronis HILIC Column, 2.1 X 150 Mm, 5µm, 100 Å (Metabolomics) 12. Synchronis HILIC Column, 4.6 X 150 Mm, 5 µm, 100 Å (Metabolomics) 13. Accucore 150- Amide HILIC, 2.6 µm, 250 x 2.1 mm (Metabolomics) 14. 4°C refrigerator

	<ol style="list-style-type: none"> 15. -20⁰ C freezer 16. -80⁰ C freezer 17. Refrigerated micro-centrifuge 18. Refrigerated Benchtop centrifuge 19. Multimode microplate reader 20. pH meter 21. Fine weighing balance 22. Table for LC-MS, Nano LC and GCMS.
<p>Necessary chemicals for sample preparation and method development.</p>	<ul style="list-style-type: none"> • Mass Spectrometry Calibration Solution • Methoxyamine hydrochloride • N-Methyl-N-trimethylsilyl trifluoroacetamide (MSTFA) • N,O-Bis(trimethylsilyl)trifluoroacetamide (BSTFA) • Methanol • Chloroform • Pyridine • Water (with 0.1% formic acid or ammonium acetate/bicarbonate) • Acetonitrile • Formic acid • Ammonium acetate • Ammonium formate • Standards for isotope labeling • Standards for proteomics, lipidomics and metabolomics • Stable universally labeled U-¹³C-glucose, glutamine, acetate, lactate, pyruvate, palmitate, etc. 1g each. • Trypsin • Lys-C, Glu-C (other specific proteases) • Urea • Guanidine hydrochloride • Dithiothreitol (DTT) • Tris(2-carboxyethyl) phosphine (TCEP) • Iodoacetamide (IAM) • Ammonium bicarbonate • Trifluoroacetic acid (TFA) • Methanolic HCl • BF₃ • Hexane • Dichloromethane • Vials and caps for GC-MS and LC-MS • Filtration units (e.g., syringe filters) • Methoxyamine hydrochloride • Mass Spectrometry Calibration Solution
<p>Tender Essential Requirement:</p>	<ul style="list-style-type: none"> • The vendor must also quote all the accessories for the smooth functioning of systems. • The vendor must highlight the desired specifications in their technical brochure sheets, give their website reference for all specifications and mention compliance with proposed specifications. • Suppliers must have active support in the respective areas or nearby. In the bid, the supplier should clearly mention how instrument service and repair time will be minimized. • Suppliers should FastTrack the service response with the minimum instrument down time. • A qualified factory trained engineer shall conduct on site installation, commissioning and training. • The warranty shall commence only upon successful completion of the acceptance test or commissioning.

	<ul style="list-style-type: none"> ● The vendor should provide onsite training at least thrice for 10 users on the system start up, usage, maintenance, quality control, troubleshooting, etc. including comprehensive classroom training. ● The instruments should be provided with necessary toolkits. ● The vendor must provide the list of at least 10-15 installations of similar/Equivalent model in last 1-2 year elsewhere in India ● During Installation the vendor will prepare the site. [Electric Plug points, Minimum wiring for UPS connect, in room MCPs]
Warranty:	<ul style="list-style-type: none"> ● All instruments should have a 5 years' comprehensive warranty. ● Should cover all parts and labor for repair or replacement of defective components due to manufacturing defects or malfunctions. ● Breakdowns of instruments should be addressed within three working days of notification ● If the instrument breaks down during the warranty, the warranty should be extended by the downtime duration. ● Periodical (twice a year) visit of the engineer during the warranty period for the maintenance of the instruments.
Additional Notes :	<ul style="list-style-type: none"> ● All the specification to be supported by online literatures and valid data. ● Training and demonstration should be provided for 15 days upon installation and then twice a year throughout the duration of the warranty. ● Suitable supporting online literatures and back up data to be supported along with the Tender. ● The price should be offered up to IISER BERHAMPUR with delivery & clearance. ● The committee may seek additional clarification as and when required.

Technical Compliance Statement

Annexure IA

Description	Specification	Compliance (Y/N)
A]. General Description:	High Resolution Mass Spectrometry should be a combination of Quadrupole with ultrahigh resolution MS with UHPLC and accessories for metabolomics, Pharmaceuticals, and Proteomics applications. The complete workstation should be quoted with all required Softwares and all pre-requisites for operation of the system.	
B]. Sources:	<ul style="list-style-type: none"> ● The System should have ESI. APCI source capable to handle flow rate from 1ul /min to 1000ul/min or better. ● Nano ESI source handles flow rate from 50nl/min to 2000nl/min for Nano columns up to 50cm length. Desolvation temperature 500 DEG C or better ● APCI Source without splitting upgradable to APPI Source in future ● The system should be upgradable to suitable Ion mobility option; enabling identification and quantitation of more proteins. 	
C]. Mass Analyzer HRMS :	<ul style="list-style-type: none"> ● The MS should have high-performance advance quadrupole design with pre & post filter quadrupole works as precursor isolation from 40-3000da. The quadrupole should work variable precursor isolation width from 0.4 to 1200da for DIA experiments. ● Segmented mass filter, providing variable and step-less precursor isolation width selection from 0.4 Da to full mass range. ● The HRMS should have ultra-high-resolution capability of >1,00,000 FWHM at 200m/z and above. ● The high-resolution MS should have a mass range up to 3000Da. ● System is cable to demonstrate the Mass Accuracy measurement of <3ppm with external calibration and <1ppm with internal calibration. ● For Internal calibrant should be in vacuum for maintaining the accuracy <1ppm without contamination of the API source. ● Sensitivity: MS/MS: 200 fg reserpine on column S/N 100:1, SIM: 200 fg reserpine on column S/N 250:1 or better ● Should and scan speed of 20hz/sec in MS and MS/MS mode. ● Should have Data Dependent Acquisition (DDA), MS2 scan by DDA with Top N experiments. in targeted SIM manner based upon a sample dependent, Triggered MS2 by exclusion mass list .M2 Scan by Data Independent Analysis ● The mass spectrometer must be capable of fast polarity switching acquiring one spectrum in positive and one in negative with <1.4hz cycle time or better ● On-the-fly charge state deconvolution for intelligent ddMS2 on intact proteins applying Smart HCD. ● System should demonstrate in spectrum dynamic range of >5000:1 or better within one spectrum. 	
D]. Scan Functions :	<ul style="list-style-type: none"> ● The mass spectrometer instrument set up must allow scheduled set up of different events using a graphical user interface ● Must acquire and display Full Scan mass spectra ● Must acquire and display Selected Ion Monitoring (SIM) scan data for monitoring selected ions for target compound analysis (tSIM) ● Must acquire and display MS/MS spectra 	

	<ul style="list-style-type: none"> ● Must acquire and display Selected Reaction Monitoring/Multiple Reaction Monitoring (SRM/MRM) like data sets (targeted MS/MS scan) ● Must acquire and display multiplexed SIM mass spectra of up to 20 simultaneously detected precursor ions ● Must acquire and display multiplexed MS/MS mass spectra of up to 2 different precursor ions ● All-Ion-Fragmentation scan, fragmenting all ions of a defined mass range with high-resolution, accurate mass acquisition ● Timed SIM for scheduled data acquisition of target compounds ● Timed MS/MS for scheduled data acquisition of target compound fragment spectra ● Must acquire “Data Independent Acquisition” (DIA) data sets with minimum isolation width of 50 u and with max number of DIA scan windows of 20. 	
E]. Ultra High Performance Liquid Chromatography :	<ul style="list-style-type: none"> ● Fully Bio Compatible Quaternary gradient system with four channel vacuum degasser, auto sampler and column oven for ultra-fast separations ● Flow rate range 0.001 to 2.0 ml or better, programmable in 0.001 ml increment and should be suitable for LC-MS/MS operations. ● pH and salt compatibility 2-12 or better ● Flow accuracy of $\pm 0.1\%$ or better ● Gradient precision 0.15% RSD or better ● Flow path free from stainless steel component suitable for separation of biomolecules. ● Selectable Gradient delay volume 200-1000 ul or better ● Auto sampler should be available with a capacity of 120 vails of 1.5 ml and should be capable of accommodating 96 well plate with injection volume range from 0.1– 25 ul, 0.01 ul increment, Split loop mode with Flow through design. ● Injection volume accuracy $\pm 0.5\%$ or better ● Injection volume precision 0.25% RSD or better ● carry over 0.004% or better ● The system should have sample temperature control auto sampler from 4° - 40°C programmable in 1 ° C increment (ambient temp 20°C) ● Thermostatic column compartment ● Temperature accuracy $\pm 0.5^\circ\text{C}$ or better ● Column capacity: up to 2 columns, depending on column length ● System should have max. pressure 15000 psi or better. ● The HPLC system should have single point software-based control with Mass spectrometer. 	
F]. Columns:	<ul style="list-style-type: none"> ● Sub 2-micron particle size C18 column -3 Qty ● Suitable MS Columns for HILIC Application -3 Qty ● Suitable MS Column for Metabolomics Application-4 Qty. 	
G]. System Software and Hardware:	<ul style="list-style-type: none"> ● System software is to be capable of detecting, recording and analyzing the data. It should have following capabilities 	

	<ul style="list-style-type: none"> • Software packages include latest versions of data acquisition, data processing, qualitative, quantitative analysis, targeted screening, • Suitable Software/Database for small molecules, Metabolite ID and metabolomics, C13 isotope tracing with most updated library. • High configuration recent i7 or i9 dual core processor, with 64 GB Ram, 1 TB HDD, 32inch monitor, Graphics card and compatible for Metabolomics and isotope tracing software. • Licensed MetaboAnalyst 6.0 software should be provided. 	
HJ. ESSENTIAL PRE-REQUISITE :	<ul style="list-style-type: none"> • Imported Nitrogen Generator with in-built compressor to supply the required flow at required pressure. • Branded 15 KVA UPS with Isolation transformer with 1 Hour battery backup with warranty certificate for the battery. • Suitable LaserJet printer. • Required Solvent & standards for Initial Installation, demonstration. • System should be provided with all essentials for smooth running of the instruments. 	
K. Detail Specifications for Nano LC (i) Nano LC Source :	<ul style="list-style-type: none"> • Should offer exceptionally stable spray. • Integrated union: should offer Zero dead volume column to emitter connection • Should delivers narrower peaks and maximized peak capacity, leading to improved sequence coverage. • Should offer tool free fitting: Easy to use, finger tight fitting to 1000 bar • Column with integrated temperature control: • In-Source column options: Suitable integrated column option to be offered. 	
L) Nano Liquid Chromatography (nLC) - for Proteomics Application	<ul style="list-style-type: none"> • Split less Nano LC. • Must have direct pumping system with Nano flow capability without flow splitting • System must be compatible with all mobile phase and from acidic to basic pH • The pump must not require hardware changes to cover the entire flow range specified. • The pump must have a settable flow range from 1 nL/min to 100 µL/min in 1 nL increments. • The pump must have active flow control from 1 nL/min to 100 µL/min. • The pump gradient delay volume contribution must be < 25 nL. • The pump must be pre-calibrated for usage with common solvents. • The system must provide a retention time precision of ≤ 0.2% RSD or ≤ 0.1 SD min, whichever is greater for Cytochrome C protein digest peptide based on the installation qualification procedure. 	
(ii) Auto Sampler:	<ul style="list-style-type: none"> • The sampler must be able to thermostat samples between 4 and 40°C and stable within +/- 1K. • The injection principle of the autosampler must be in-line split-loop (also called flow through needle) for high reproducibility injections with no sample loss. 	

	<ul style="list-style-type: none"> • The sampler must support a sample capacity of four sample racks with any combination of the following types: 54 × 12 mm OD vials (≤ 1.5 mL), 96 × 6, 7 and 8 mm OD vials (≤ 1.2 mL), 16 × 15 mm OD vials (≤ 4 mL), 9 × 22.5 mm OD vials (≤ 10 mL), and well plates (96 and 384, deep and shallow) without the need for external devices such as plate feeder. • The sampler must offer up to 4 independent wash liquids: outer and inner needle wash, weak and strong each. • The sampler must offer sample loop and inner needle rinsing with two independent wash liquids. • The sampler must offer dip rinse and continuous rinse of outer needle surface with two independent wash liquids. • The sampler must have active pressure monitoring for injection to allow for minimal column shock upon injection. • The sampler should be able to offer a standard injection volume range of 0.01–25 µL and extendable to 100 µL, settable in 0.01 µL increments. The injection volume range must be extendable for trap-and-elute workflows, i.e. high-volume trapping, by use of a larger sample loop and by multiple draw-and-trap cycles up to 500 µL. • The sampler must allow forward-flush and back-flush trap-and-elute injections without fluidics exchange. • The autosampler must be able to fulfill the following injection precision requirements for repeatable analysis: <ul style="list-style-type: none"> • Injection accuracy must fall within +/- 0.5% for a typical aqueous sample injection of 5 µL • minimum 5 °C or maximum 20 °C below room temperature. Integral 6-port bio-compatible injection valve. Carryover must be <0.05%. Three solvents must be available for repeated custom wash cycles for thorough cleaning of injection needle. • Quote Nano Column -5 No with trap column 5 no each. 	
iii). Nano LC Columns:	<ul style="list-style-type: none"> • Nano LC Column- Qty 10 • Nano Trap LC Column- Qty 10.(all columns should be provided by phases as when required within 5 years) 	
iv). Suitable Software/Database Advance option:	<p>Proteomics Data Base:</p> <ul style="list-style-type: none"> • SEQUEST, Mascot, for label free and labeled quantitation. data mining analysis proteomics workflows, from protein and peptide identification to PTM analysis to isobaric mass tagging, and SILAC and label-free quantitation etc. for proteomics application. <p>Metabolomics /Small /Pharmaceutical molecules Advanced Data Base</p> <ul style="list-style-type: none"> • Data analysis software licenses • Online integration with all available chemical database searches. • Easy integration with the compatible third party free Softwares 	

	<ul style="list-style-type: none"> ● Free Upgradation within the warranty period for the same software version. ● Elemental composition determination using HRAM MS data, including fine isotope and MS/MS fragmentation data. ● Automated annotation of spectra with predicted fragments. ● One Dedicated high-end PC Workstation Factory Fitted for the Data Acquisition ● Two Dedicated High-End PC Workstation for the offline Data analysis with all necessary softwares. ● Data Storage-Extra Storage space 10TB to be supplied. ● Licensed MetaboAnalyst 6.0 software should be provided. ● Suitable Software/Database for small molecules, Metabolite ID and metabolomics, C13 isotope tracing with most updated library. 	
I]. Warranty:	<ul style="list-style-type: none"> ● All instruments should have a 5 years comprehensive warranty. ● Should cover all parts and labor for repair or replacement of defective components due to manufacturing defects or malfunctions. ● Breakdowns of instruments should be addressed within three working days of notification ● If the instrument breaks down during the warranty, the warranty should be extended by the downtime duration. ● Periodical (twice a year) visit of the engineer during the warranty period for the maintenance of the instruments. 	
J]. Additional Notes:	<ul style="list-style-type: none"> ● All the specification to be supported by online literatures and valid data ● Training and demonstration should be provided twice/thrice a year throughout the duration of the warranty (1-2 weeks). ● Company sponsored expert manpower for first 6-months ● Suitable supporting online literatures and back up data to be supported along with the Tender. ● The price should be offered up to IISER BERHAMPUR with delivery & clearance. ● The committee may seek require additional clarification as an when required. 	
	Technical Specification for High-Resolution Triple Quadrupole GC-MS System	
A: GC Mainframe	<ul style="list-style-type: none"> ● Constant Linear velocity mode, constant pressure, constant flow mode should Triple Quadrupole be available ● Auto Ignition facility is desirable ● Split ratio programming with battery protected memory ● Self-diagnostic function with GLP/GMP support 	

B. Gas Chromatograph:	<ul style="list-style-type: none"> ● The system should have all temperature and time functions should be controlled by microprocessor-based controller. ● Temperature: Operating Range Ambient +4°C to 450°C or better ● Cooling down rate: from 450 to 50 °C in less than 5 min or better ● Temperature programming facility. ● Maximum oven temperature ramp rate : 120 DEGC / minute or better for all ranges standard feature. ● Should have oven power safety (power off when door is open) ● The system should have touch-screen user friendly interface for direct instrument control in larger routine and method development laboratories. ● Number of Ramps/Plateaus: 30 or more. ● Typical peak area repeatability: < 0.3 % RSD ● Ambient rejection: < 0.01 °C per 1 °C ● Settable column overheat protection 	
C. INJECTORS: Qty-2	<ul style="list-style-type: none"> ● Independently temperature-controlled injection ports. ● Split / Split less injector for capillary Columns with Septum Purge functions ● Split/Split less Injector: ● Must be able to install 3 independently temperature-controlled injector units simultaneously. ● Split ratio setting range: 0 to 10,000 or higher. ● Maximum operating temperature up to 450°C. ● Number of temperature programming steps: 7 or higher ● Must be able to set total flow range: 0 to 1,200ml/min for He and H2, and advanced/electronic flow control pressure range up to 1000 KPa or higher ● Efficient gas saver mode is desirable to reduce gas consumption during standby without affecting performance. 	
D. Auto Sampler:	<ul style="list-style-type: none"> ● Auto Injector: ● Sample injection method: Liquid sample injection via micro syringe. ● Number of samples: 150 vials or more ● Number of sample injections: minimum 1-99 injections per sample ● Cross contamination: Less than 10-4 ● 150 vial carousel samplers ● Faster injection <100ms ● Illuminated syringe compartment for easy syringe viewing and replacement. ● Maximum injection volume: 80 µL (with 100 µL syringe ● Area repeatability <0.3% RSD or better ● Carryover <0.001% or better ● Linearity <4% RSD or better on response factor between 10% and 50% volume 	
E. Pressure /Flow controller	Integrated Electronic Control/Electronic Pressure Control:	

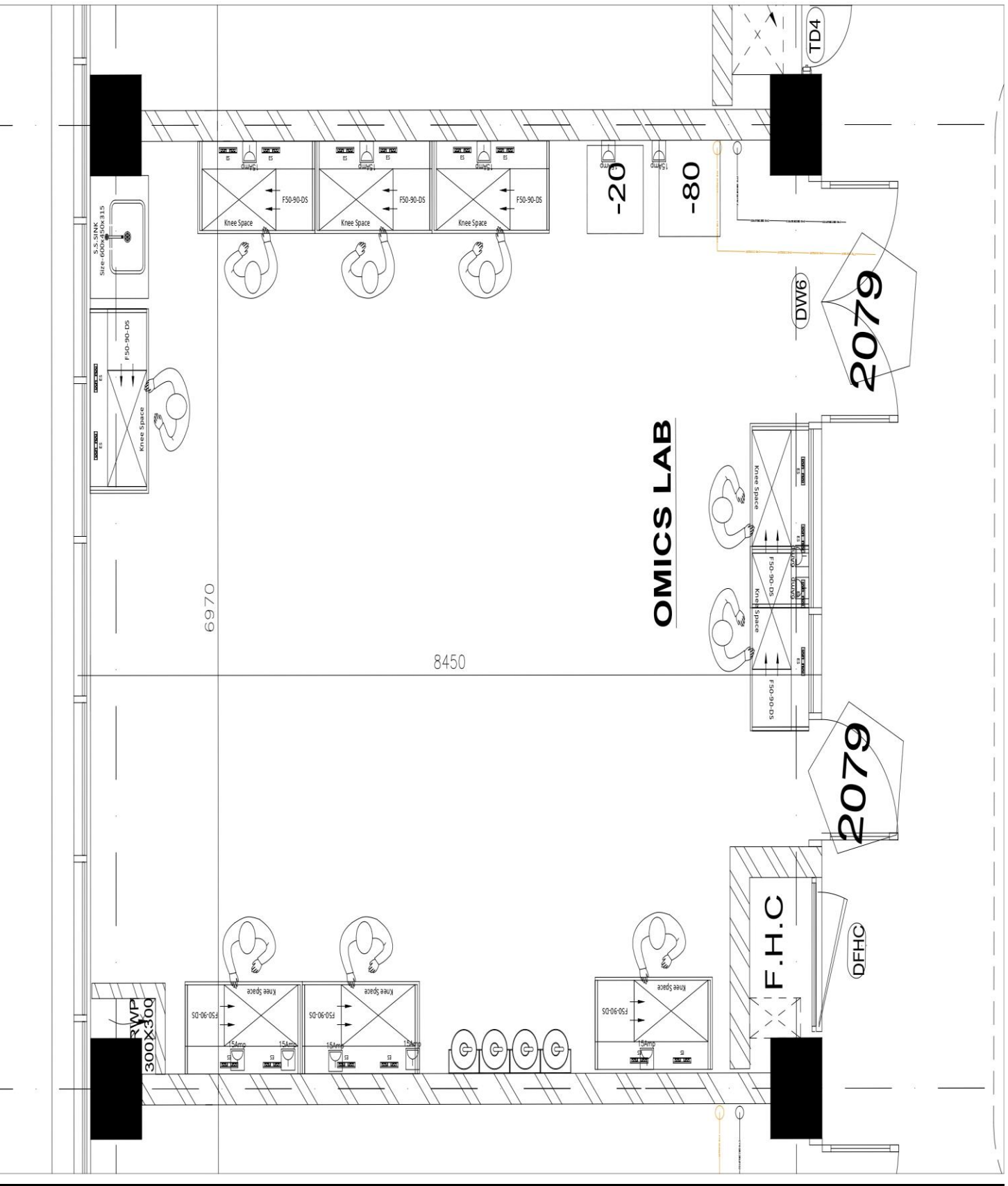
	<ul style="list-style-type: none"> Gas Specification: Up to 17 or more channels of integrated electronic gas control; Split Ratio: Up to 9000:1 or better 	
F. Performance specification	<p>Typical retention time repeatability: <0.0008 min or better</p> <p>Typical peak area repeatability: <0.3 % RSD or better</p>	
G. Ramps/Plateaus	Equal or higher than 25	
H. FID Detector:	<p>MDL: Equal or less than <1.2 pg C/s; or better</p> <p>Linear Dynamic Range: >10⁷ or better.</p> <p>Integrated Electronic Control/Electronic Pressure Control.</p>	
G. Mass Spectrometer:	<ul style="list-style-type: none"> MS system should be offered with air-cooled >240 Litre single unit vacuum output turbo molecular pump, <p>EI ion source and with the following specifications:</p> <ul style="list-style-type: none"> Should have dual filaments in all ionization modes same geometry. Source with Programmable heating at 350 °C or better It should have accurate regulation of emission current up to 350 µA or more with improved regulation at low current. It should have Integrated, dual filament assembly mounted with the same geometry with improved filament lifetime and effective regulation of emission current across the available emission current range. The user definable electron energy should be adjustable from 0-150 eV or more It should have constant calibration gas pressure for optimum system tuning. The GC transfer line temperature should be programmable up to 400 °C or more. The system should have suitable technology to prevent neutrals to enter the main analytical quadrupole without any Helium Burn/bake out process. The system should have the upgradation facility for changing the source cleaning without venting the vacuum of MS EI source with maximum temperature of 350-degree C or better Electron energy up to 150 ev or better Emission current range - Up to 350 µA or better <p>Sensitivity Specifications:</p> <ul style="list-style-type: none"> Electron Ionization MRM/SRM and Chemical Ionization source 1 µL of 100 fg/µL octafluoronaphthalene (OFN) should produce the following minimum signal-to-noise ≥16,000:1 <p><u>Instrument Detection Limit:</u></p> <ul style="list-style-type: none"> 0.5 fg or less with OFN or lower Scan speed: 20,000 u/s or better The Main quadrupole rods should be non-coated, homogeneous, solid metal rod and cleanable. It should utilize new generation discrete dynode electron multiplier integrated with linear-log 	

	<p>electrometer with maximum linear output Lifetime maintenance free detector. [Additional detector as spare should be offered for the warranty period of the detector doesn't come with lifetime warranty]</p> <ul style="list-style-type: none"> ● Electronic dynamic range > 10⁸ or better ● Mass Stability: 0.1 u/48 hours or better ● Mass Range: 2 –1000 u or more ● Resolution: Unit mass resolution maintained over the entire mass range ● Scan Rate: Fast quadrupole scanning up to 20,000 u/s or better. ● Detector :10KV conversion dynode detector with Overdrive lens ● Evacuation System Control: Fully automatic “Auto Startup” and “Auto Shutdown” automatically should execute Turning - on and - off Turbo pumps, fore line pump, and leak valves. ● EI source should be inert to active compounds. <p>Should have provision for Selected Ion Monitoring Scan while simultaneously acquiring data in the Full Scan Mode.</p>	
H. Ion Source:	<ul style="list-style-type: none"> ● should be Free from any form of complex connection, easy to clean, easy to maintain off-axis ion source, with suitable facility to carry out helium ion burn in source before the main analytical quadrupole. ● The Ion Source should be Front access type for easy maintenance. ● There should be provision for Hydrogen and Nitrogen gas to be used as carrier gas apart from He in the GC. 	
I. Software and Libraries:	<ul style="list-style-type: none"> ● Software for Control of GC as well as GCMS: ● 32 bit/64 bit windows based Software Should Provide Single Point Control of all GC Parameters, Injectors, detectors. ● Software should have Security, Audit trail, System check, Software integrity and system Suitability test should be included as standard functions ● Flexible report Format i.e for Method, chromatogram, Mass Spectrum, Peak table, Quantitation result, calibration curve, Status Log, texts, graphics. ● It should provide automated tuning & File management functions with Library Search facility. ● There should be User friendly post run analysis facility with flagging. ● Complete Software control of vacuum system with Auto Start-up / Shut-down and vacuum protection against Power Failures. ● Latest NIST License Library with MS/MS ● Suitable Metabolites/Lipid analysis Library/Data base 	
J. Column:	<ul style="list-style-type: none"> ● Suitable Non Polar Column Qty-4 ● Suitable Mid Polar Column Qty-2 ● Suitable Relatively Polar column Qty-2 	

<p>K. Workstations /Installation accessories and software specifications: Qty 2</p>	<p>A] One Dedicated high-end PC Workstation Factory Fitted for the Data Acquisition for GC-MS B] One Dedicated High-End PC Workstation for the offline Data analysis for GC-MS. C] Suitable LaserJet printer. D] Suitable Online UPS: <ul style="list-style-type: none"> • Suitable Branded UPS for 10 KVA with 30 min backup – 1nos. C] Gas Purification system: for N2, H2, He, Zero Air with regulator pressure gauge, <ul style="list-style-type: none"> • On/off Valve and Molecular Sieve Filters, • Charcoal Filters for moisture trap, oxygen trap. • Hydrocarbon trap etc. for H2, N2, He and Zero Air </p>	
<p>Sample Preparation Accessories/Instruments</p>	<p>23. Vortex Mixer 24. Mechanical Shaker, Mixer 25. Ultrasonic Water Bath, Sonicater with macro and micro probe options 26. Tabletop Lyophilizer with chemical trap filters (Lowest temperature: -85degC and capacity: 4kgs) 27. pH strips 28. Weighing balance 29. Micro pipettes (1000ul, 200ul, 100ul, 20ul, 10ul, 2ul with tips (For the above-mentioned pipettes) 30. Water bath 31. Dry bath 32. Speed Vac 33. Synchronis HILIC Column, 2.1 X 150 Mm, 5µm, 100 Å (Metabolomics) 34. Synchronis HILIC Column, 4.6 X 150 Mm, 5 µm, 100 Å (Metabolomics) 35. Accucore 150- Amide HILIC, 2.6 µm, 250 x 2.1 mm (Metabolomics) 36. 4°C refrigerator 37. -20° C freezer 38. -80° C freezer 39. Refrigerated micro-centrifuge 40. Refrigerated Benchtop centrifuge 41. Multimode microplate reader 42. pH meter 43. Fine weighing balance 44. Table for LC-MS, Nano LC and GCMS.</p>	
<p>Necessary chemicals for sample preparation and method development.</p>	<ul style="list-style-type: none"> • Mass Spectrometry Calibration Solution • Methoxyamine hydrochloride • N-Methyl-N-trimethylsilyl trifluoroacetamide (MSTFA) • N,O-Bis(trimethylsilyl)trifluoroacetamide (BSTFA) • Methanol • Chloroform • Pyridine • Water (with 0.1% formic acid or ammonium acetate/bicarbonate) • Acetonitrile • Formic acid • Ammonium acetate 	

	<ul style="list-style-type: none"> • Ammonium formate • Standards for isotope labeling • Standards for proteomics, lipidomics and metabolomics • Stable universally labeled U-¹³C-glucose, glutamine, acetate, lactate, pyruvate, palmitate, etc. • Trypsin • Lys-C, Glu-C (other specific proteases) • Urea • Guanidine hydrochloride • Dithiothreitol (DTT) • Tris(2-carboxyethyl) phosphine (TCEP) • Iodoacetamide (IAM) • Ammonium bicarbonate • Trifluoroacetic acid (TFA) • Methanolic HCl • BF₃ • Hexane • Dichloromethane • Vials and caps for GC-MS and LC-MS • Filtration units (e.g., syringe filters) • Methoxyamine hydrochloride • Mass Spectrometry Calibration Solution 	
<p>Tender Essential Requirement:</p>	<ul style="list-style-type: none"> • The vendor must also quote all the accessories for the smooth functioning of systems. • The vendor must highlight the desired specifications in their technical brochure sheets, give their website reference for all specifications and mention compliance with proposed specifications. • Suppliers must have active support in the respective areas or nearby. In the bid, the supplier should clearly mention how instrument service and repair time will be minimized. • Suppliers should FastTrack the service response with the minimum instrument down time. • A qualified factory trained engineer shall conduct on site installation, commissioning and training. • The warranty shall commence only upon successful completion of the acceptance test or commissioning. • The vendor should provide onsite training at least thrice for 10 users on the system start up, usage, maintenance, quality control, troubleshooting, etc. including comprehensive classroom training. • The instruments should be provided with necessary toolkits. • The vendor must provide the list of at least 10-15 installations of similar/Equivalent model in last 1-2 year elsewhere in India • During Installation the vendor will prepare the site. [Electric Plug points, Minimum wiring for UPS connect, in room MCPs] 	

	<ul style="list-style-type: none"> • Electrical Basic and required infrastructure, Transformer set up, Earthen , Instrument AC , Window sealing, Aluminum Enclosures, Platforms are to be provided from the Institute. 	
Warranty:	<ul style="list-style-type: none"> • All instruments should have a 5 years' comprehensive warranty. • Should cover all parts and labor for repair or replacement of defective components due to manufacturing defects or malfunctions. • Breakdowns of instruments should be addressed within three working days of notification • If the instrument breaks down during the warranty, the warranty should be extended by the downtime duration. • Periodical (twice a year) visit of the engineer during the warranty period for the maintenance of the instruments. 	
Additional Notes :	<ul style="list-style-type: none"> • All the specification to be supported by online literatures and valid data. • Training and demonstration should be provided for 15 days upon installation and then twice a year throughout the duration of the warranty. • Suitable supporting online literatures and back up data to be supported along with the Tender. • The price should be offered up to IISER BERHAMPUR with delivery & clearance. • The committee may seek additional clarification as and when required. 	



Proposed Electrical Layout for the Facility

TECHNO-COMMERCIAL BID

E-Tender Enquiry No. **IISERBpr/S&P/GTE/2024-25/51** date **22.10.2024**
Supply of Research Equipment for IISER Berhampur

1.	Name of Tendering Company with Registration No. & Date issued by appropriate authorities (Please enclose copy of certificate of registration)			
2.	Do you possess trade license issued by Competent Authorities in India? If so, please enclose a copy.			
3.	Name of Proprietor / Director			
4.	Furnish following particulars of the Registered Office			
	a. Complete Postal Address			
	b. Telephone No.			
	c. Fax. No.			
5.	Furnish following particulars of the Local Branch Office. (if any)			
	a. Complete Postal Address			
	b. Telephone No.			
	c. Fax. No.			
	d. E-Mail Address			
6.	PAN No. (Attach Attested Copy)			
7.	TIN No. (Attach Attested Copy)			
8.	If Manufacturer – Pl. attach the certificate of Registration If Authorized Dealer / Distributer – Pl. attach relevant tender specific authorization certificate.			
9	Financial Turnover for the last three Financial Years (Please attach copy of certificate by Chartered Accountant in original) The bidder should have 50% of the estimated value of the equipment.	2021-22		
		2022-23		
		2023-24		
10	Give details of the major clients – Educational Institutes/Universities, Government Departments, Research Organizations, to whom item/material of the same type have been supplied by the bidder during the last two years in the following format.	Name of Client	PO No. & Date	PO Value
11	The agency should not have been black listed or banned by any Govt. Department, Government Organization, PSU, University, Autonomous Institute etc. .A notarized certificate to this fact should be enclosed with techno-commercial bid as per attached format.			
12	Are you an ISO certified manufacturer? If so, please attach a copy of the certificate.			
13	Please specify the minimum time required to supply the item / material from the date of receipt of the Purchase Order			
14	Additional information, if any (Attach separate sheet, if required)			
15	EMD Details, if exempted please upload relevant certificate.			
16	Price Basis (please mention the appropriate INCO term i.e FOB/FCA/CIP/CIF/FOR)			

17	Country of origin	
18.	Indicate approximate dimensions of the packages	
19.	Total weight of consignment	Not Applicable
20	Furnish details of registration with the competent authority in case procurement from a bidder of a country which shares a land border with India in accordance with Ministry of Finance, Gol order No. F.7/10/2021-PPD(1) dt. Feb 23, 2023.	

FORMAT FOR INTEGRITY PACT

INTEGRITY AGREEMENT

This Integrity Agreement is made at on thisday of 20.....

BETWEEN

Director IISER Berhampur represented through Stores and Purchase Officer, IISER Berhampur, (Hereinafter referred as the institute, „Principal/Owner“, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....
(Name and Address of the Individual/firm/Company)
through (Hereinafter referred to as the (Details of duly authorized signatory)

“**Bidder/Contractor**” and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No) (hereinafter referred To as “**Tender/Bid**”) and intends to award, under laid down organizational procedure, contract for.....
(Name of work)
Here in after referred to as the “**Contract**”.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “**Integrity Pact**” or “**Pact**”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

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

- (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if

any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose (with each tender as per proforma enclosed) any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent **practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**
- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contractor its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/ Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder

or Contractor, or of an employee or a representative or an associate of a bidder or Contractor which constitutes corruption within the meaning of Indian Penal Code (IPC)/Prevention of Corruption Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/ sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, IISER Berhampur.

Article 7- Other Provisions

1. This Pact is subject to Indian Law, place of performance and jurisdiction is the **Headquarters of the Division** of the Principal/Owner, who has floated the Tender.
2. Changes and supplements need to be made in writing. Side agreements have not been made.

3. If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

4. Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

5. It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and on behalf of Principal/Owner)

(For and on behalf of Bidder/Contractor)

WITNESSES:

1.

1.

2.

2.

(signature, name and address)

(signature, name and address)

Place :

Place :

Date :

Date :

FORMAT FOR PERFORMANCE GUARANTEE BOND

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of One Hundred) (TO BE ESTABLISHED THROUGH ANY OF THE NATIONAL BANKS (WHETHER SITUATED AT BERHAMPUR OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT BERHAMPUR OR ANY SCHEDULED BANK SITUATED AT BERHAMPUR. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED.).

To,
The Director,
IISER Berhampur, Govt. ITI Campus, Engineering School Road, Berhampur, Odisha -760010.

LETTER OF GUARANTEE

WHEREAS Indian Institute of Science Education and Research, Berhampur (Buyer) have placed an order for supply of (item name)..... vide Purchase Order Number..... Dt..... and NIT No. dt. ANDWHEREAS

the said Purchase Order requires that any eligible successful tenderer (seller) wishing to supply the equipment / machinery, etc. in response thereto shall establish an irrevocable Performance Guarantee Bond in favour of "The Director, Indian Institute of Science Education and Research, Berhampur" in the form of Bank Guarantee for Rs.....

(10% (Ten percent) of the purchase value) and valid till 60 days beyond warranty period (i.e. Warranty period + 60 days) from the date of issue of Performance Guarantee Bond may be submitted within (Fifteen)15 days from the date of Order Acknowledgement as a successful bidder.

NOW THIS BANK HEREBY GUARANTEES that in the event of the said tenderer (seller) failing to abide by any of the conditions referred in tender document, purchase order / performance of the equipment / machinery, etc. this Bank shall pay to Indian Institute of Science Education and Research, Berhampur on demand and without protest or demur Rs (Rupees.).

This Bank further agrees that the decision of Indian Institute of Science Education and Research, Berhampur (Buyer) as to whether the said Tenderer (Seller) has committed a breach of any of the conditions referred in tender document / purchase order shall be final and binding.

We, (name of the Bank & branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the constitution of the Tenderer (Seller) and/ or Indian Institute of Science Education and Research, Berhampur (Buyer).

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed Rs. (Indian Rupees only).
2. This Bank Guarantee shall be valid up to (date) and
3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if IISER Berhampur serve upon us a written claim or demand on or before (date).

This Bank further agrees that the claims if any, against this Bank Guarantee shall be enforceable at our branch office at situated at (Address of local branch).

Yours truly,
Signature and seal of the guarantor: Name of Bank:
Address:
Date:

Instruction to Bank: Bank should note that on expiry of Bond Period, the Original Bond will not be returned to the Bank. Bank is requested to take appropriate necessary action on or after expiry of bond

**FORMAT FOR CERTIFICATE & DECLARATIO
CERTIFICATE & DECLARATION**

I have carefully gone through the Terms & Conditions as mentioned in the above referred Tender document. I declare that all the provisions of this Tender are acceptable to my company.

2. It has been certified that all information provided in tender form is true and correct to the best of my knowledge and belief. No forged / tampered document(s) are produced with tender form for gaining unlawful advantage. We understand that IISER, Berhampur is authorized to make enquiry to establish the facts claimed and obtain confidential reports from clients.

3 In case it is established that any information provided by us is false / misleading or in the circumstances where it is found that we have made any wrong claims, we are liable for forfeiture of EMD/SD and or any penal action and other damages including withdrawal of all work / purchase orders being executed by us. Further IISER, Berhampur is also authorized to blacklist our firm/company/agency and debar us in participating in any tender/bid in future.

4. I / We assure the Institute that neither I / We nor any of my / our workers will do any act/s which are improper / illegal during the execution in case the tender is awarded to us.

5. Neither I / We nor anybody on my / our behalf will indulge in any corrupt activities / practices in my / our dealing with the Institute.

6. Our Firm/ Company/ Agency is not being blacklisted or banned by any Govt. Department, PSU, University, Autonomous Institute or Any Other Govt. Organization.

Date

Signature of the Tenderer

Place

Stamp

Note: This certificate should be executed on duly notarized` 100/- NJ Stamp Paper.

CERTIFICATE OF COMPLIANCE
(To be given on Company Letter Head)

Date : _____

To,

The Registrar,
IISER Berhampur
Berhampur, Ganjam District
Odisha – 760010

Sub: Certificate of Compliance

Tender Reference No: _____

Name of Tender: _____

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

Yours faithfully,

(Signature of the Bidder, with Official Seal

DECLARATION OF LOCAL CONTENT

(To be given on company letter head - For tender value below Rs.10 crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10 crores)

Date : _____

To,

The Registrar,
IISER Berhampur
Berhampur, Ganjam District
Odisha – 760010

Sub: Declaration of Local content Tender Reference No: _____

Name of Tender : - _____

1. Country of Origin of Goods being offered: _____

2. We hereby declare that items offered has ____% local content.

“Local Content” means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

The bidders cannot claim services such as transportation, insurance, installation, commissioning , training and after sales service support like AMC/CMC etc as local value addition.

“*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for 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.”
Yours faithfully,

(Signature of the Bidder, with Official Seal)

Price Bid
for Indigenous Supplies, Quotes in INR only
NIT No. IISER Bpr/S&P/GTE/2024-25/51 dt. October 22, 2024

Sr. No.	Description of Item & Specification (Specifications as per section IV of NIT)	HSN/SA C Code	Quantity in Units	Unit Price ₹	Discount %	IGST %	CGST %	SGST%	Total Bid Price ₹
1	Supply, Installation, Testing and Commissioning of Instruments for Mass Spectrometry based OMICS facility(LC-MS, Nano-LC, GC-MS with ancillary instruments.		1						
2	Installation and commissioning charges								
	Other Charges Please Specify Details								
Grand Total									

HSN Code: "Harmonized System of Nomenclature Code No." and SAC Code:" Service Accounting Codes

1.	Delivery mode	Delivery at IISER Berhampur, at site only.
2.	Total Bid price	should be inclusive of all taxes and levies transport, loading, unloading etc.
3.	Validity of bid	Minimum 180 days from the date of submission of quotation/tender.
4.	Delivery Period	
5.	Payment Term	

Note : Prices quoted in other currencies will be summarily rejected.

PRICE BID
for Imported Supplies - CIP/DDP
(for procurement against this instant NIT)
NIT No. IISER Bpr/S&P/GTE/2024-25/51 dt. October 22, 2024

Sr. No.	Description of Item & Specification	HSN /SAC Code	Quantity in Units	Currency	*IGST %	Price Basis CIP (Kolkata) /DDP(IISER Berhampur)	Total Bid Price
1	2	3	4	5	6	7	8
1.	Supply, Installation, Testing and Commissioning of Instruments for Mass Spectrometry based OMICS facility (LC-MS, Nano-LC, GC-MS with ancillary instruments. (Specifications as per section IV of NIT)		1				
	Installation and commissioning charges (if any, quote in INR)						
	Agency Commission (if any, quote in Percentage %) in INR Only						
	Other Charges (Please Specify Details)						
Grand Total							

HSN Code: "Harmonized System of Nomenclature Code No." and SAC Code:" Service Accounting Codes Code No."

1.	Delivery Period	
2.	Terms of Payment (L/C, Wire Transfer)	
3.	Validity of bid	180 days
4.	Country of Origin	

Note:- The bidder has to clearly mention the price basis at column No 7.

Price Bid for Optional items / CMC/AMC

(for Optional Items - The Institute will decide based on its requirements and may be evaluated separately)

OEM Default warranty as per product catalogue : _____

Description	INR
Please quote your most competitive Package Rates for extended warranty after the default OEM warranty:	
1 st Year	
2 nd Year	
3 rd Year	
4 th year	
Please quote your most competitive package Rates for Comprehensive Maintenance Contract after the extended warranty :	
1 st year	
2 nd Year	
3 rd Year	
4 th year	
5 th Year	
Please quote your most competitive package Rates for AMC for a period of : One Year	
Two Years	
Three Years	
Please quote prices of Optional items /equipment if any	
1.	
2	
3	
4	
5	
6	
7	
8	

9		
10		