Department of Chemistry, MLSU, Udaipur Standard Bidding Document Single Stage Online Bid under Two-Cover System

# Mohanlal Sukhadia University, Udaipur Department of Chemistry

NOTICE INVITING E-BID MLSU/CHEM/RUSA2/2020-2021/NIBE/01

### **Bidding Document**

(For Procurement of 400 MHz NMR Spectrometer)

Single Stage Online Bid under Two Cover Systems

Last Date for Bid Submission is 08 January 2021



# DEPARTMENT OF CHEMISTRY MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Email: hodchem@mlsu.ac.in

### NOTICE INVITING TENDER THROUGH E-PROCUREMENT

MLSU/CHEM/RUSA2/2020-21/NIBE/01 Dated: 09-12-2020

Online bids are invited from the interested firms under single stage two bid system for procurement of "400 MHz NMR Spectrometer" at Mohanlal Sukhadia University Udaipur Rajasthan. Manual bids shall not be entertained. Tender document may be downloaded from websites SPPP Rajasthan (<a href="https://sppp.rajasthan.gov.in/">https://sppp.rajasthan.gov.in/</a>), e-procurement (<a href="https://eproc.rajasthan.gov.in/">https://eproc.rajasthan.gov.in/</a>) and University website (<a href="https://mlsu.ac.in/">https://mlsu.ac.in/</a>) as per schedule as given in CRITICAL DATE SHEET as under.

**Note:** - Online single stage tender two bid system (technical and financial) must be uploaded strictly in accordance with all the terms & conditions of the University, otherwise the tender shall not be considered and shall be rejected outright. Counter conditions shall not be accepted. Bidders should read these conditions very carefully and comply strictly before submitting their tender. If a bidder has any doubts regarding the interpretation of any of the conditions or specifications mentioned in these documents, before submitting the tender, refer to the Head, Department of Chemistry and obtain clarification. The decision of the Head, Department of Chemistry regarding interpretation of the conditions and specification shall be final and binding on the bidders.

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Head Department of Chemistry Mohanlal Sukhadia University, Udaipur

# DEPARTMENT OF CHEMISTRY MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Email: hodchem@mlsu.ac.in

#### **CRITICAL DATE SHEET, TENDER FEE and EMD**

Tender No	MLSU/CHEM/RUSA2/2020-21/NIB-E/01
Date for issue E-Bid	09-12-2020
Date & Time Publishing	10-12-2020 (09:00 AM)
Document Downloads/ Sale Start Date & Time	10-12-2020 (09:00 AM)
Website for Downloading Bid Documents	https://eproc.rajasthan.gov.in
Bid Submission Start Date & Time	10-12-2020 (09:00 AM)
Bid Submission End Date & Time	08-01-2021 (05:00 PM)
Date & Time for Opening of Bids	09-01-2021 (10:00 AM)
Tender Fee EMD	RISL bid processing fees of Rs. 1000/- for MD RISL, Jaipur payable at Jaipur (Managing Director, RajComp Info Services Ltd.) Rs. 3540/- (For Tender Fee including GST) Rs. 4,00,000/- (For EMD 2%) (All Fess to be paid through RTGS/NEFT. Bank details are as under: Beneficiary Name: HEAD DEPARTMENT OF CHEMISTRY MLSU Bank Name: ICICI BANK Branch Address: RCA, Udaipur Bank Account No.: 693901700524 IFSC Code: ICIC0006939 MICR Code: 313229014 (This is mandatory that UTR Number is provided)
Security Deposit	10 %
Warranty	1 year
Bid Validity	180 days
Address for Communication	Department of Chemistry, University College of Science, Mohanlal Sukhadia University, Durga Nursary Road, Udaipur- 313001



## DEPARTMENT OF CHEMISTRY MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Email: hodchem@mlsu.ac.in

(A bridged Form of Notice Inviting e-Bids to be published in newspapers with UBN Nos.)

#### DEPARTMENT OF CHEMISTRY, MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

NOTICE INVITING E- BID No. MLSU/CHEM/RUSA2/2020-21/NIB-E/01

Two (02) single stage online unconditional bids under two-cover system are invited for the procurement of "400 MHz NMR Spectrometer"(Estimate Cost Rs 2 Crore only) for Research purpose from manufacturers/ authorized distributors/ authorized dealers up to <u>05:00 PM of 08-01-2021</u>.

Details of required number of items, specifications and other terms and conditions etc. may be seen in the Bidding Documents on the website <a href="https://sppp.rajasthan.gov.in/">https://eproc.rajasthan.gov.in</a> and University website <a href="https://sppp.rajasthan.gov.in/">www.mlsu.ac.in</a>

NIB Code	 	
UBN No	 	

Head, Department of Chemistry, Mohanlal Sukhadia University, Udaipur

Email: hodchem@mlsu.ac.in

#### **TECHNICAL SPECIFICATIONS**

S. No.	Component	Specifications	
	Items		
1.	Magnet	1. Latest Technology based stable and actively shielded superconducting magnet (9.4 Tesla) with an operational frequency of 400 MHz for <sup>1</sup> H. Vendor should quote their latest model.	
		<ol> <li>Shortest possible 5G (radial from the center of the magnet (&lt; 0.5 m) and axial from the center of the magnet (&lt; 1.0 m)) fringe field with advanced shielding technology.</li> <li>Bore diameter: 54 mm (standard bore).</li> <li>Expected field drift: &lt; 4 Hz/hr.</li> <li>Liquid Nitrogen hold time: two weeks or more.</li> </ol>	
		6. Liquid Helium hold time: 365 days or more with auto level monitoring and recording (Refill volume should not be more than 130 Ltr) (Please specify the total volume, refill volume, hold time)	
		7. Liquid Helium level meter with alarm function of low Helium level.	
		8. Liquid Nitrogen level meter with alarm function of low Nitrogen level.	
		9. Number of cryo-shims: five or more.	
		10. Minimum of twenty room-temperature shim systems.	
		11. Anti-vibration feet pad for dampening the floor vibrations	
		(frequency damped above 8.0 Hz).	
		<ul><li>12. One set of liq. He and two set of liq. N<sub>2</sub> transfer lines.</li><li>13. All support equipments for cryostate</li></ul>	
	C44	14. Standard test samples (in shield tubes).	
2.	Spectrometer Console	1. Advanced feature based two broadband frequency generation	
	Console	independent RF channels (full frequency range generation) with:	
		<ul> <li>Highest frequency and phase resolution</li> </ul>	
		• fast switching time for all parameters, without any hidden	
		delays ensuring good quality of the spectra.	
		<ul> <li>It should include wave form generators for pulse shaping, amplitude, phase and composite pulse decoupling generator, preamplifiers with standard filters and digital receiver control with oversampling and quadrature detection with digitizers facility for complete elimination of quadrature spikes.</li> </ul>	
		2. Digital <sup>2</sup> H lock channel: lock system with high precision phase- and field-correction, corrections for short-term	
		disturbances (documental evidence is required)	
		3. Receiver system with digital quadrature detection (DQD). Over-sampling (150 KHz or more) and online digital filtering	

		along with complete elimination of the quadrature
		images/spikes, artifacts in the center of the NMR spectrum
		(documental evidence is required).
		4. 2-Channel Amplifier System:
		• Two high performance linear amplifier for observation- or
		decoupling of <sup>1</sup> H or <sup>19</sup> F, with 50W pulse power maximum
		and 140W and above, pulse power maximum in the range
		of ${}^{31}$ P to ${}^{15}$ N (161-39 MHz) or below.
		<ul> <li>All relevant parameters including power, frequency range,</li> </ul>
		maximum pulse duration etc. have to be explicitly
		specified.
		5. Acquisition system with a control of up to a minimum of two
		RF channels. 6. Preamplifier: Multinuclear preamplifier
		Preamplifier for lock and <sup>2</sup> H experiments
		7. Built-in tune/match display:
		<ul> <li>Automatic Tuning and matching unit for the nuclei under</li> </ul>
		study for liquid state samples.
		8. Add-on filters for noise reduction.
		9. Gradient system for Z-shielded gradient with a gradient
		strength of up to 30 G/cm or more for gradient NMR
		experiments in solution. PFG of any desired shape and
		gradient shimming capabilities.
		10. Low- and high-temperature accessories. Variable temperature
		unit to include:
		• Computer controlled temperature with safety alert facility.
		• High temperature range: Ambient to approx +150°C
		Nitrogen cooling system range:
		(i) Ambient to approx100°C
2	Donaham	(ii) Temperature resolution ≤ 0.1°C
3.	Probes:	1. 5mm Z-gradient probe for multinuclear broad-band covering nuclei ranging from <sup>1</sup> H, <sup>19</sup> F, <sup>31</sup> P and <sup>15</sup> N with automatic tuning
		and matching.
		2. Sensitivity: <sup>1</sup> H: 500 or more, <sup>19</sup> F: 500 or more, <sup>13</sup> C 200 and
		more: <sup>31</sup> P: 100 or more and <sup>15</sup> N: 25 or more.
		3. Please provide the technical printed specifications for the
		probe-heads e.g. Sensitivity, resolution and line-shape with
		NMR tube Inner diameter and sample volume etc.
		4. The pulse width required for <sup>1</sup> H nuclei should be less than or
		equal to 10 μs (Single resonance), <sup>19</sup> F nuclei should be less
		than or equal to 18µs (single resonance) and for <sup>13</sup> C nuclei less
	TT T 4 6	or equal to 24 μs.
4.	<b>User Interface:</b>	1. Latest available High performance state-of-the-art workstation
		(Windows operating system) for spectral acquisition and processing that can be easily serviced in India in case of any
		fault: The work station should have latest core (10th
		generation or above) or higher processor, 8 GB RAM, 1 TB
		hard disk capacity with minimum 24" LED display, Graphic
		Card, CD-DVD read-write drives, USB Ports, LAN
		connectivity for offline processing of data
		connectivity for offine processing of data

		(Windows operating system) for processing that can be easily
		serviced in India in case of any fault: The work station should
		at least have 16 GB RAM, 1 TB hard disk capacity, with 24"
		LED display, latest available processor, CD-DVD read-write
		drives, USB Ports, LAN connectivity for offline processing
		of data.
		3. Licensed Software Modules to include:
		• Acquisition, Processing, Plotting, Structure Verification
		and Analysis-1D, 2D, 3D and 4D data, Experiment
		Simulation, Spectra Simulation, Multiplet Analysis,
		Teaching Software, De-convolution, Automation,
		Projection Reconstruction Spectroscopy.
		<ul> <li>Most recent and advanced software for data analysis are</li> </ul>
		required. At least 100 free licenses within the campus for
		data analysis should be provided.
		4. A complete set of operation manuals should be provided. All
		required hardware and software documents, installation
		manuals, CDs/DVDs etc. to be provided. All manuals (service
		and operational) should be provided as hard copies as well as soft copies (on CDs)
5.	Accessories:	1. An ISO-9001 certified imported (3HP) reciprocating air
<i>J</i> .	/1000301103.	compressor complete with desiccant dryer, with minimum 90
		lit buffer tank along with the system. Vendor must specify
		warranty period.
		2. Sample Spinners:
		• For 5 mm NMR tubes: 8 nos. (Suitable for low temperature experiments)
		temperature experiments). 3. 500 high quality 5mm NMR tubes with caps.
6.	UPS System:	
	v	· · · · · · · · · · · · · · · · · · ·
		backup of 2 hour or more. Vendor must specify warranty
		period.
7.	Diesel	• An auto start power generator with following specifications:
	Generator:	Diesel generator: Power 15 KVA, output voltage 230,
		frequency 50hz, RPM 500, No of phase single phase, fuel
		•
8	Installation	
0.	1115ta114t1VII;	
		*
		be borne by the vendor.
9.	Performance:	Satisfactory performance of instrument and after sales service
7.         8.	Generator:  Installation:	<ul> <li>4. 50 lit capacity liquid nitrogen containers along with one transfer line: 4 nos.</li> <li>5. A set of standard samples calibrations.</li> <li>1. A suitable ISO-9001 certified make online UPS (5 KVA) with voltage stabilizer for the whole system with a minimum backup of 2 hour or more. Vendor must specify warranty period.</li> <li>• An auto start power generator with following specifications: Diesel generator: Power 15 KVA, output voltage 230, frequency 50hz, RPM 500, No of phase single phase, fuel diesel, fuel consumption @100% load, less then 5Lt/Hr, alternator voltage regulation ±1%, MoEF Certified power, fuel tank capacity ≥60 Ltr, Comprehensive warranty 2 years critical parts (Cylinder head, crank shaft, cylinder block, connecting road against manufacturing defect, camshaft), warranty 5 years.</li> <li>• Complete installation of the equipment and the liquid helium and liquid nitrogen required for installation should be provided by the NMR supplier.</li> <li>• In case of magnet-quench during the installation or at subsequent times due to faulty design or any other technical failure, the necessary costs for recharging or replacing should be borne by the vendor.</li> </ul>

		from existing users will be considered by the committee in	
		evaluating the technical bid.	
10.	Training:	Initial on-site training to the staff for two weeks after	
		successful installation.	
		Apart from this, there will be on site application training once	
		in a year on mutually convenient dates for the first two years.	
11.	Warranty:	The system should be quoted with 1 year on-site comprehensive	
		warranty including all parts, consumables and labour. Free	
		maintenance, service and regular upgrade of all software during	
		the entire warranty period.	
12.	Installation in	The quoted system or equivalent category system should have at	
	India:	least 5 numbers of installations in India by the vendor. List of	
		such 5 users and copy of their installation report should be	
		enclosed.	
13.	Service facility	Supplier should clearly mention about their service set up in India	
	and down-time	for prompt service support along with contact details of service	
	call attendance:	engineers specially trained on the offered system. Service should	
		be provided within 48 hrs. From the report of technical problem so that machine down time is minimized.	
14.		Supplier should confirm the availability of spares for next 10	
14.		years from the date of installation. All essential spares for day-to-	
	Spares:	day operation needs should be provided as standard supply.	
15.	Pre-Installation	Necessary pre-installation advice should be sent immediately	
13.	Requirement:	after the placement of the order.	
16.	Validity of	Minimum 6 months	
10.	Quotation	William O months	
The technica		technical specification sheets where magnet, probe and electronic	
specification	s can be found. It sh	ould include complete pulse with and power level specification,	
as well as ser	nsitivity and resoluti	ion specifications on stated standard samples for <sup>1</sup> H, <sup>13</sup> C, <sup>15</sup> N, <sup>19</sup> F	
and <sup>31</sup> P for p	probe-heads, quoted.		
2.	<b>Optional Items:</b>	Optional items should be quoted separately.	
		1. Cost of the helium filling for 5 years after installation should	
		be quoted optionally with yearly breakup.	
		2. Special NMR tubes (NMR micro tube assembly) matched	
		with Chloroform-D, Methanol-D, DMSO-D: each 5 no.	
		3. Skilled Manpower for smooth operation and	
		maintenance of the instrument for 6 days in a week basis for 1	
		years.	
		4. Auto sampler with a capacity of 24 NMR samples with	
		necessary accessories including 24 sample spinners which	
		should work in entire temperature range of probe $(-100^{\circ}\text{C to} + 150^{\circ}\text{C})$	
		5. "5mm multinuclear broad-band direct probe with automatic	
		tuning and matching unit, capable of performing the nuclei	
		range 1H, 19F, 31P-15N with decoupling facility between the	
		High Frequency (1H,19F) and Low frequency Channel (31P-	
		15N) using the same probe head."	
		6. AMC for a period of 4 years, which will commence from the	
		completion date of standard warranty period.	
	l .	Tompletion and of students mainting period.	

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#### **TERMS AND CONDITIONS**

#### 1. Pre-condition for applying

The following criteria must be fulfilled by a bidder for submitting bid.

- 1.1 The bidder must be a company/firm registered under the India Company Act, 1956 or a proprietary firm or a firm registered under partnership Act 1932. No consortium is allowed. Necessary certificates must be enclosed.
- 1.2 The bidder must be a manufacturer/authorised dealer /supplier of equipment/ software (as applicable in this bid) of reputed brand used in at least 5 Universities /Educational Institutions in the country.
- 1.3 The manufacturer of the equipment/experiments/software should have been in the business during last three years with dealer/supplier network in different locations in the country.
- 1.4 The manufacturer should have own service engineers capable of installing/servicing equipments/ software at the site of the customer. A certificate from manufacturer must be attached.
  - 1.5 The turnover of the company during last financial year must be Rs 10.0 Cr. or more.

#### 2. Preparation of Bids

The offer/bid should be submitted in online two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details (Technical Specification) along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid in the given format i.e BOQ\_(Annexure-VIIIA & B).

Technical and Financial Bids to be submitted online in PDF format only.

**2.1. Technical Bid Format & Content:** The technical bid shall not include any financial information. A Technical Bid containing material financial information shall be declared non-responsive.

**2.2.** The prospective bidders are requested to go through the Terms and Conditions of the contract carefully. The bid documents (Technical and Financial) are to be uploaded as per Annexure I and VIIIA & VIIIB. The rates quoted in the BOQ (VIIIA and VIIIB) should be inclusive of all charges such as labor, transportation, storage etc. but exclusive of applicable taxes. Incomplete or ambiguous uploaded bids without documentary proof will not be considered.

#### 2.3. Format and Signing of Bid

- 2.3.a. The bid forms/templates/annexures etc. wherever applicable in technical bid shall be typed or written in indelible ink and shall be signed (all the pages) by a person duly authorized to sign, in token of acceptance of all the terms and conditions of the bidding document. This authorization shall consist of a written letter of authorization.
- 2.3.b. Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initiated by the authorized person signing the bid.
- 2.3.c. The bid, duly signed (digitally) by Authorized signatory, should be uploaded on the eProc portal in respective file/ format.

#### 2.4. Bid Opening/Opening of tenders

- 2.4.a. The Bid Evaluation Committee will perform the bid opening, which is a critical event in the bidding process.
- 2.4.b. The Technical Bids shall be opened online through e-procurement portal https://eproc.rajasthan.gov. Bidder may access the document online.
- 2.4.c. All the bids uploaded up to specified date and time shall be opened online, on date and time at the specified place in the presence of bidders or their authorized representatives who may choose to be present as per procedure laid down in RTPP Rules 2013. Alternatively, the bidders may also view the bid opening status/ process online at eProc website https://eproc.rajasthan.gov.
- 2.4.d. All the documents comprising of technical bid/cover shall be opened ONLINE on the eProc website (only for the bidders who have submitted the prescribed fee(s) intimated/ submitted transition reference to **Head, Department of Chemistry, Mohanlal Sukhadia University, Udaipur.**

#### 2.5. Evaluation of Technical Bid

2.5.a. The evaluation shall be completed by the Bid Evaluation Committee as early as possible after opening of technical bids.

- 2.5.b. The eligible bidders whose bid is determined to be substantially responsive shall be considered to be qualified in the technical evaluation, unless disqualified pursuant to clause "Conflict of Interest" or "Disqualification."
- 2.5.c. The Technical Evaluation Committee will assess the ability of the agencies to render the requisite services based on its past record, profile and on such other criteria and only those found fit will be eligible for financial bid opening.
- 2.5.d. The firms qualifying in technical evaluation will be informed.
- 2.5.e. The bid evaluation committee shall have full powers to undertake negotiations if any.
- 2.5.f. Tendering authority's Right to accept/reject any or all of the Bids: The tendering authority reserves the right to accept or reject any bid and to cancel the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the bidders.
- 2.5.g. Price/purchase preference in evaluation: Price and/or purchase preference notified by the State Government shall be considered in the evaluation of bids and award of contract.

#### 2.6. Evaluation of Financial Bids

- 2.6.a. The Financial bids/cover or bidders who qualify in technical evaluation shall be opened ONLINE at the notified time, date and place in the presence of the bidders or their representatives who choose to be present. Alternatively, the bidders may also view the financial bid opening status/process online on e-proc website.
- 2.6.b. The process of opening of financial bids/covers shall be similar to that of technical bids.
- 2.6.c. Acceptance of the Tender/Bid:
  - The tendering authority shall award the contract to the bidder whose proposal/bid has been determined to be the lowest value bid.
  - As soon as a bid is accepted by the tendering authority, its written intimation (LOA) would be sent to the concerned bidder asking to execute an agreement.
  - The acceptance of an offer is complete as soon as the letter of communication is posted to the last notified address/correct address of the bidder(s).
  - The acceptance of the bid shall also be placed on website of www.mlsu.ac.in.

- **2.7.** The rates once finalized will not be enhance/ reduced during the currency of contract. In case of foreign currency, conversion rates in INR will be taken on that day when financial bid will open.
- **2.8.** In case the rates quoted by the tenderers are very high or do not suit to the University the negotiation may be undertaken for reducing the quoted rates.
- **2.9.** Merely quoting of lowest rates does not mean that order shall be given to that firm. The purchase committee /competent authority will finally decides on the basis of quality and performance of past installations.
  - **2.10.** Approved tenderer will have to execute an agreement in prescribed format on a non-judicial stamp of Rs. 0.25% of the order value at his own cost within 15 days from receipt of the order along with security money.
  - **2.11.** Prices of Optional items may be considered for price evaluation of bids.

#### **3. EMD**

- 3.1 The Tenderer should submit an EMD amount through RTGS/NEFT/DD. The Technical Bid without EMD would be considered as UNRESPONSIVE and will not be accepted. The EMD will be refunded without any interest to the unsuccessful tenderers after the award of contract.
- 3.2 In case of successful bidder shows inability at any stage, after the contract is finalized and awarded, for whatsoever reason(s), to honour the contract, the EMD / security deposited would be forfeited.

#### 4. Refund of EMD:

The EMD will be returned to unsuccessful tenderers only after the Tenders are finalized. In case of successful Tenderer, it will be retained till the successful, complete installation of the equipment and receipt of performance security.

**5.** Acceptance/ Rejection of bids: The Institute reserves the all right to reject any bid not fulfilling the eligibility criteria.

#### 6. Eligibility Criteria:

6.1 Tenderer should be the manufacturer / authorized dealer. Letter of Authorization from original equipment manufacturer (OEM) specific to the tender should be enclosed.

- 6.2 An undertaking from the OEM is required stating that they would facilitate the tenderer on a regular basis with technology/product updates and extend support for the warranty as well. (Ref. Annexure-II)
- 6.3 OEM should be Internationally reputed company.
- 6.4 Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between tenderer specification and supporting documents etc. may lead to rejection of the bid.
- 6.5 In the 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.
- 6.6 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.

#### 7. Performance Bank Guarantee:

The firm, to whom the tender will be awarded, will have to deposit the performance bank guarantee (Annexure-IV) equal to 5% of total amount at the time of installation of equipment. If services are not found to be satisfactory, the performance security liable to be forfeited. No interest will be paid on performance security.

#### 8. Force Majeure:

The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

- 8.1 For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 8.2 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

#### 9. Risk Purchase Clause:

In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.

#### 10. Packing Instructions:

Each package will be marked on three sides with proper paint/indelible ink, the following:

- Item Nomenclature
- Order/Contract No.
- Country of Origin of Goods
- Supplier's Name and Address
- Consignee details
- Packing list reference number

#### 11. Delivery and Documents:

Delivery of the goods should be made within 06 months from the date of placement of purchase order. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e-mail the full details of the shipment including contract number, railway receipt number/ AAP etc. and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

- Four Copies of the Supplier invoice showing contract number, goods' description, quantity.
- Unit price and total amount.
- Insurance Certificate if applicable.
- Manufacturer's/Supplier's warranty certificate.
- Inspection Certificate issued by the nominated inspection agency, if any.
- Supplier's factory inspection report.
- Certificate of Origin (if possible by the beneficiary).
- Two copies of the packing list identifying the contents of each package.
- The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

#### 12. Liquidated Damages (L.D):

If a supplier fails to execute the order in time as per the terms and conditions stipulated therein, it will be open to the purchaser to recover liquidated damages for delay in delivery and installation from the supplier. The L.D charges can be increased in case of gross violation of the purchase order terms as decided by the Comptroller of the Institute.

Delay upto 1/4th of the time period of supply: 2.5%

Delay 1/4th and above but less than ½ of supply period: 5%

Delay ½ and above but less than 3/4th of the supply period: 7.5%

Delay more than 3/4th of the time period of supply: 10%

#### 13.Prices:

The final price should be inclusive of all charges but exclusive of taxes. The vender should deliver the instrument in the premises of the MLSU-Udaipur. For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes.

#### 14. Progress of Supply:

Wherever applicable, supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:

- 14.1. Quantity offered for inspection and date;
- 14.2. Quantity accepted/rejected by inspecting agency and date;
- 14.3. Quantity dispatched/delivered to consignees and date;
- 14.4. Quantity where incidental services have been satisfactorily completed with date;
- 14.5. Quantity where rectification/repair/replacement effected/completed on receipt of any communication from consignee/Purchaser with date;
- 14.6. Date of completion of entire Contract including incidental services, if any; and
- 14.7. Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).

#### 15. Resolution of Disputes:

The dispute resolution mechanism would be as follows:

15.1. In case of dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Comptroller, MLSU, Udaipur and if he is unable or unwilling to act, the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

15.2. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

15.3 The venue of the arbitration shall be the place from where the order is issued.

#### 16. Applicable Law:

The place of jurisdiction would be Rajasthan.

#### 17. Right to Use Defective Goods:

If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the purchaser's operation.

#### 18. Transfer and Subletting:

The supplier 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.

#### 19. Supplier Integrity:

The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract (annexure-VI) using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

#### 20. Installation & Demonstration:

20.1. The supplier is required to do the installation and demonstration of the equipment within two weeks of the arrival of materials at the MLS University, site of installation, otherwise the penalty clause will be the same as per the supply of materials.

20.2. In case of any damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. MLS University, will not be liable to any type of losses in any form.

#### 21. Insurance:

For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes.

#### 22. Warranty:

22.1. Warranty period shall be (as stated in "technical specifications" of this tender) from date of installation of Goods at MLS University. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. The warranty should be comprehensive on site.

22.2. The Purchaser shall promptly notify the supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall arrange to repair or replace the defective goods or parts within 15 days free of cost in MLS University. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 15 days. If the supplier having been notified fails to remedy the defects within 15 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.

**23. AMC:** After the warranty period is over, annual maintenance contract (AMC) up to next four years should be started. The AMC charges will not be included in computing the total cost of the equipment. Tenderer must specify the terms and condition applicable for AMC.

#### 24. Governing Language:

The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.

#### **25. Duties:**

Mohanlal Sukhadia University is exempted from paying custom duty under notification No.51/96 and necessary "Custom Duty Exemption Certificate" can be issued after providing following information and Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute, no certificate will be issued to third party:

- 25.1. Shipping details i.e. Master Airway Bill No. and House Airway No. (if exists)
- 25.2 Forwarder details i.e. Name, Contact No., etc.

#### 26. Payment:

26.1 For imported items payment will be made through irrevocable Letter of Credit (LC). Letter of Credit (LC) will be established in favor of foreign Supplier after the submission of performance security. The letter of credit (LC) will be established on the exchange rates in INR will be taken on that day when financial bid will open. For Imports, LC will be opened for 100% FOB/CIF value. 90% of the LC amount shall be released on presentation of complete and clear shipping documents and 10% of the LC amount shall be released after the installation and demonstration of the equipment at the MLS University, site of installation in faultless working condition for period of 60 days from the date of the satisfactory installation.

26.2 All the bank charges within India will be borne by the Institute and outside India will be borne by the Supplier.

#### 27. User list:

Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided (Ref. Annexure-III).

#### 28. Site Preparation:

The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter.

The supplier may visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.

#### 29. Spare Parts:

The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract. In the event of termination of production of the spare parts; Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.

**30. Defective Equipment:** If any of the equipment supplied by the Supplier is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Supplier with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 30 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, MLS University may consider "Banning" the supplier.

#### 31. Termination for Default:

The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser.
- If the Supplier fails to perform any other obligation(s) under the Contract.

- If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. For the purpose of this Clause: "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the borrower, and includes collusive practice among Tenderer (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.
- In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

#### 32. Downtime:

- During the warranty period, not more than 2% downtime will be permissible. For every day exceeding permissible downtime, penalty of 1/365 of the 1% FOB value will be imposed. Downtime will be counted from the date and time of the filing of complaint with in the business hours.
- Supplier should clearly mention about their service set up in India (preferably in Northern part of India) for prompt service support along with contact details of service engineers specially trained on the offered system.
- In case of machine remain non-operational due to probe breakdown the supplier must arrange alternative probe for the repair time.

#### **33. Training of Personnel:**

The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment as per <u>Annexure VII</u>

#### 34. Compliancy certificate:

This certificate must be provided indicating conformity to the technical specifications. (Annexure-I)

#### 35. Award of Contract:

Mohanlal Sukhadia University shall award the contract to the eligible bidder whose technical bid has been accepted and determined as the lowest evaluated commercial bid based on the Grand Total calculated of all items + taxes etc. of the Price Bids. However, MLS University reserves the right and has sole discretion to reject the lowest evaluated bid.

If more than one bidder happens to quote the same lowest price, MLS University reserves the right to decide the criteria and further process for awarding the contract, decision of MLS University shall be final for awarding the contract.

#### **36. Additional Points:**

If the ITEMS supplied by the Bidder fails during the warranty period, the supplier is required to repair/replace faulty devices or components. If the ITEMS show frequent failure and requires frequent repair during warranty period, the supplier is required to replace the system free of cost.



### DEPARTMENT OF CHEMISTRY MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

#### **ANNEXURE-I**

#### **COMPLIANCE SHEET: TECHNICAL SPECIFICATION**

To: Head, Department of chemistry, Mohanlal Sukhadia University, Udaipur - 313001

Name of Supply: 400 MHz NMR Spectrometer for solution state experiments.	Quantity: 1 nos
Name of Supplier:	
(The <b>Bidder must write Yes/No against each specification</b> of the equipment. Any deviation r	may be mentioned explicitly)

#### TECHNICAL SPECIFICATIONS

S. No.	<b>Component Items</b>	Specifications	Make & model	Compliance	Deviation , if
				(Yes/No)	any
1.	Magnet	1. Latest Technology based stable and actively			
		shielded superconducting magnet (9.4 Tesla)			
		with an operational frequency of 400 MHz for			
		<sup>1</sup> H. Vendor should quote their latest model.			
		2. Shortest possible 5G (radial from the center of			
		the magnet			
		(< 0.5 m) and axial from the center of the			
		magnet (< 1.0 m)) fringe field with advanced			
		shielding technology.			
		3. Bore diameter: 54 mm (standard bore).			
		4. Expected field drift: < 4 Hz/hr.			
		5. Liquid Nitrogen hold time: two weeks or more.			
		6. Liquid Helium hold time: 365 days or more			
		with auto level monitoring and recording			
		(Refill volume should not be more than 130			

		Ltr) (Please specify the total volume, refill
		volume, hold time)
		7. Liquid Helium level meter with alarm function
		of low Helium level.
		8. Liquid Nitrogen level meter with alarm
		function of low Nitrogen level.
		9. Number of cryo-shims: five or more.
		10. Minimum of twenty room-temperature shim
		systems.
		11. Anti-vibration feet pad for dampening the floor
		vibrations (frequency damped above 8.0 Hz).
		12. One set of liq. He and two set of liq. N <sub>2</sub>
		transfer lines.
		13. All support equipments for cryostate
		14. Standard test samples (in shield tubes).
2.	Spectrometer	1.Advanced feature based two broadband
	Console	frequency generation independent RF channels
		(full frequency range generation) with:
		Highest frequency and phase resolution
		fast switching time for all parameters,
		without any hidden delays ensuring good
		quality of the spectra.
		It should include wave form generators for
		pulse shaping, amplitude, phase and
		composite pulse decoupling generator,
		preamplifiers with standard filters and
		digital receiver control with oversampling
		and quadrature detection with digitizers
		facility for complete elimination of
		quadrature spikes.
		2.Digital <sup>2</sup> H lock channel: lock system with
		high precision phase- and field-correction,
		corrections for short-term disturbances
		(documental evidence is required)
		3.Receiver system with digital quadrature
		detection (DQD). Over-sampling (150 KHz or
		more) and online digital filtering along with

complete elimination of the quadrature		
images/spikes, artifacts in the center of the		
NMR spectrum (documental evidence is		
required).		
4. 2-Channel Amplifier System:		
• Two high performance linear amplifier for		
observation- or decoupling of <sup>1</sup> H or <sup>19</sup> F,		
with 50W pulse power maximum and		
140W and above, pulse power maximum in		
the range of $^{31}$ P to $^{15}$ N (161-39 MHz) or		
below.		
<ul> <li>All relevant parameters including power,</li> </ul>		
frequency range, maximum pulse duration		
etc. have to be explicitly specified.		
5. Acquisition system with a control of up to a		
minimum of two RF channels.		
6.Preamplifier: Multinuclear preamplifier		
• <sup>2</sup> H preamplifier for lock and <sup>2</sup> H		
experiments		
7.Built-in tune/match display:		
<ul> <li>Automatic Tuning and Matching unit for</li> </ul>		
the nuclei under study for liquid state		
samples.		
8.Add-on filters for noise reduction.		
9.Gradient system for Z-shielded gradient with		
a gradient strength of up to 30 G/cm or more		
for gradient NMR experiments in solution.		
PFG of any desired shape and gradient		
shimming capabilities.		
10.Low- and high-temperature accessories.		
Variable temperature unit to include:		
• Computer controlled temperature with		
safety alert facility.		
• High temperature range: Ambient to approx		
+150°C		
<ul> <li>Nitrogen cooling system range:</li> </ul>		

		(**) 4 11 10000
		(iii) Ambient to approx. –100°C
		(iv) Temperature resolution ≤ 0.1°C
3.	Probes:	1.5mm Z-gradient probe for multinuclear broad-band covering nuclei ranging from <sup>1</sup> H, <sup>19</sup> F, <sup>31</sup> P and <sup>15</sup> N with automatic tuning and matching.  2.Sensitivity: <sup>1</sup> H: 500 or more, <sup>19</sup> F: 500 or more, <sup>13</sup> C 200 and more: <sup>31</sup> P: 100 or more and <sup>15</sup> N: 25 or more.  3.Please provide the technical printed specifications for the probe-heads e.g. Sensitivity, resolution and line-shape with NMR tube Inner diameter and sample volume etc.  4.The pulse width required for <sup>1</sup> H nuclei should be less than or equal to 10 μs (Single resonance), <sup>19</sup> F nuclei should be less than or
		equal to 18µs (single resonance) and for <sup>13</sup> C
		nuclei less or equal to 24 μs.
4.	User Interface:	1. Latest available High performance state-of-the-art workstation (Windows operating system) for spectral acquisition and processing that can be easily serviced in India in case of any fault: The work station should have latest core (10th generation or above) or higher processor, 8 GB RAM, 1 TB hard disk capacity with minimum 24" LED display, Graphic Card, CD-DVD read-write drives, USB Ports, LAN connectivity for offline processing of data
		2. Processing PC: High performance state-of-the-art workstation (Windows operating system) for processing that can be easily serviced in India in case of any fault: The work station should at least have 16 GB RAM, 1 TB hard disk capacity, with 24" LED display,

		latest available processor, CD-DVD read-write drives, USB Ports, LAN connectivity for offline processing of data.  3. Licensed Software Modules to include:  • Acquisition, Processing, Plotting, Structure Verification and Analysis-1D, 2D, 3D and 4D data, Experiment Simulation, Spectra Simulation, Multiplet Analysis, Teaching Software, De-convolution, Automation, Projection Reconstruction Spectroscopy.  • Most recent and advanced software for data analysis are required. At least 100 free licenses within the campus for data analysis should be provided.  4. A complete set of operation manuals should be provided. All required hardware and software documents, installation manuals, CDs/DVDs etc. to be provided. All manuals (service and operational) should be provided as hard copies as well as soft copies (on CDs)		
5.	Accessories:	<ul> <li>1.An ISO-9001 certified imported (3HP) reciprocating air compressor complete with desiccant dryer, with minimum 90 lit buffer tank along with the system. Vendor must specify warranty period.</li> <li>2.Sample Spinners:</li> <li>For 5 mm NMR tubes: 8 nos. (Suitable for low temperature experiments).</li> <li>3.500 high quality 5mm NMR tubes with caps.</li> <li>4.50 lit capacity liquid nitrogen containers along with one transfer line: 4 nos.</li> <li>5.A set of standard samples calibrations.</li> </ul>		
6.	UPS System:	• A suitable ISO-9001 certified make online UPS (5 KVA) with voltage stabilizer for the whole system with a minimum backup of 2 hour or more. Vendor must specify warranty period.		
7.	Diesel Generator:	An autostart power generator with following		

		_		
		specifications: Diesel generator: Power 15 KVA, output voltage 230, frequency 50hz, RPM 500, No of phase single phase, fuel diesel, fuel consumption @100% load, less then 5Lt/Hr, alternator voltage regulation ±1%, MoEF Certified power, fuel tank capacity ≥60 Ltr, Comprehensive warranty 2 years critical parts (Cylinder head, crank shaft, cylinder block, connecting road against manufacturing defect, camshaft), warranty 5 years.		
8.	Installation:	<ul> <li>Complete installation of the equipment and the iquid helium and liquid nitrogen required for installation should be provided by the NMR supplier.</li> <li>In case of magnet-quench during the installation or at subsequent times due to faulty design or any other technical failure, the necessary costs for recharging or replacing should be borne by the vendor.</li> </ul>		
9.	Performance:	Satisfactory performance of instrument and after sales service from existing users will be considered by the committee in evaluating the technical bid.		
10	Training:	<ul> <li>Initial on-site training to the staff for two weeks after successful installation.</li> <li>Apart from this, there will be on site application training once in a year on mutually convenient dates for the first two years.</li> </ul>		
11.	Warranty:	The system should be quoted with 1 year on-site comprehensive warranty including all parts, consumables and labour. Free maintenance, service and regular upgrade of all software during the entire warranty period.		
12.	Installation in India:	The quoted system or equivalent category system should have at least 5 numbers of installations in India by the vendor. List of such 5 users and copy		

13.   Service facility and down-time set up in India for prompt service support along with contact details of service engineers specially trained on the offered system. Service should be provided within 48 hrs. From the report of technical problem so that machine down time is minimized.  14.   Spares:   Supplier should confirm the availability of spares for next 10 years from the date of installation. All essential spares for day-to-day operation needs should be provided as standard supply.  15.   Pre-Installation   Necessary pre-installation advice should be sent immediately after the placement of the order.  16.   Validity of   Quotation   Minimum six months   Quotation   Minimum six months   Quotation   Compared to the found of the should include technical specification sheets where magnet, probe and electronic specifications can be found. It should include complete pulse with and power level specification, as well as sensitivity and resolution   Compared to the order of the order of the specification, as well as sensitivity and resolution   Compared to the order of the order
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specifications on stated standard samples for <sup>1</sup> H, <sup>13</sup> C, <sup>15</sup> N, <sup>19</sup> F and <sup>31</sup> P for probe-
heads, quoted.
1. Optional Items: Optional items should be quoted
separately.
1.Cost of the helium filling for 5 years after installation should
be quoted optionally with
yearly breakup.
2.Special NMR tubes (NMR
micro tube assembly) matched
with Chloroform-D, Methanol-
D, DMSO-D: each 5 no.
3.Skilled Manpower for
smooth operation and
maintenance of the instrument
for 6 days in a week basis for 1
years.
4. Auto sampler with a capacity

<u> </u>			
	of 24 NMR samples with		
	necessary accessories including		
	24 sample spinners which		
	should work in entire		
	temperature range of probe (-		
	$100^{\circ}$ C to $+150^{\circ}$ C)		
	5."5mm multinuclear broad-		
	band direct probe with		
	automatic tuning and matching		
	unit, capable of performing the		
	nuclei range 1H, 19F, 31P-15N		
	with decoupling facility		
	between the High Frequency		
	(1H,19F) and Low frequency		
	Channel (31P-15N) using the		
	same probe head."		
	6 .AMC for a period of 4 years,		
	which will commence from the		
	completion date of standard		
	warranty period.		
	wairanty period.		

Signature of Tenderer		
		Name:
		Designation:
	Organization Name:	
	Contact No.:	

### ANNEXURE-II << Organization Letter Head >> <u>DECLARATION SHEET</u>

We,	hereby certify that all the information and data
	e tender specifications are true and complete to the best ications, conditions and stipulations in details and agree to fication.
I/We hereby unconditionally accept the tender codocument(s)/corrigendum(s) in its totality/entiret	
Tender. We further certify that our organization r	thorized (Copy attached) by the OEM to participate in neets all the conditions of eligibility criteria laid down in d to support on regular basis with technology / product
The corrigendum(s) issued from time to time by y taken into consideration, while submitting this ac	•
We, further specifically certify that our organization by any Institutional Agency/ Govt. Department/ Pub	has not been Black Listed/De Listed or put to any Holiday olic Sector Undertaking in the last three years.
The prices quoted in the financial bids are subsidi	zed due to academic discount given to MLSU-Udaipur.
NAME & ADDRESS OF	
THE Vendor/ Manufacturer / Agent	
Phone	
Fax	
E-mail	
Contact Person Name	
Mobile Number	
TIN Number	
PAN Number	
(In case of on-line payment of Tender Fees)	
UTR No. (For Tender Fee)	
(In case of on-line payment of EMD) UTR No. (For EMD)	
Other Details	
Name:	(Signature of the Tenderer

**Seal of the Company** 

# ANNEXURE-III << Organization Letter Head >>

#### **LIST OF ORGANIZATION/DEPARTMENT.**

List of organizations for whom the Tenderer has undertaken such work during last three years (must be supported with work orders)

Name of the organization	Name of Contact Person	Contact No.

Name of application specialist / Service Engineer who have the technical competency to handle and support the quoted product during the warranty period.								
Name of the organization	Name of Contact Person	Contact No.						

Signature of Tenderer	
Name:	
Designation:	
Organization Name:	
Contact No.:	

#### **ANNEXURE-IV**

#### FORMAT FOR PERFORMANCE BANK GUARANTEE

(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 UDAIPUR OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT UDAIPUR OR ANY SCHEDULED BANK (OTHER THAN NATIONALISED BANK) SITUATED AT UDAIPUR. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED.)

To,

Mohanlal Sukhadia University Udaipur-313001 India

#### **LETTER OF GUARANTEE**

	AS Mohanlal		•					vide	Tender 
equipm	ereas the said ten ent /machinery e "Mohanlal Sukh	etc. in respons	e thereto sha	all establish	an irrevo	cable Per	formance G	uarantee	Bond in
	three years from ys from the date				Guarante	ee may be	submitted v	vithin 21	(Twenty-
of the machin	HIS BANK HEREBY conditions referrery, etc. this ban	ed in tender k shall pay to	document / Mohanlal Su	purchase o khadia Univ	order / p	erformand	ce of the ed	quipmen	t /
said Ter	nk further agrees nderer (Seller) has nall be final and b	committed a							
We,		(name o	f the bank & I	oranch) here	eby furthe	r agree th	at the guara	ntee her	ein
	ed shall not be aft a University, Uda		hange in the	constitution	of the Te	nderer (Se	eller) and/ or	Mohanl	al
Notwit	nstanding anythir	ng contained h	erein:						
1.	Our liability unde	r this Bank Gu	arantee shall	not exceed	Rs	(	Indian Rupe	es only).	
2.	This Bank Guaran	tee shall be va	lid up to		(date) an	d			

3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if Institute 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 (Address of local branch).
Yours truly,
Signature and seal of the guarantor:
Name of Bank:
Address:
Date:
<b>Instruction to Bank:</b> Bank should note that on expiry of Guarantee Period, the Original Guarantee will not be returned to the Bank. Bank is requested to take appropriate necessary action on or after expiry of

bond period.

#### **ANNEXURE-V**

#### MANDATE FORM FOR ELECTRONIC FUND TRANSFER/RTGS TRANSFER

																D	ate:	/		/	
The	e Head																				
De	partment of Chemistry	<i>'</i>																			
Mc	hanlal Sukhadia Unive	ersity,	, Uda	aipur																	
Ud	aipur-313001																				
	o: Authorization for relection for relection in the contraction is a second contraction of the contraction in the contraction is a second contraction of the contraction in the contraction of the contraction of the contraction is a second contraction of the con				ıt / d	ues fr	om M	10	hanla	l Su	kha	adia	Univ	/ersit	y, Ud	daipu	ur thr	ougl	h		
1. 2. 3.	Name of the Part Address of the Pa Particulars of Ban	y/Firm irty:			าy/In	stitut	e:														
	Bank Name						Bra	ınc	ch Nar	ne											-
	Branch Place						Bra	nc	ch City	,											
	PIN Code						Bra	nc	ch Coc	le											
	MICR No																				
	(9 Digit number appearing on the MICR Bank of the Cheque supplied by the Bank, Please attach a Xerox copy of a cheque of your bank for ensuring accuracy of the bank name, branch name and code number)																				
	IFS Code:(11 digit alphanumeric code)																				
	Account Type	Savin	ıgs				Current						Cash Credit								
	Account Number:								ĺ												
I he effe Uni fac Pla Dat	ereby declare that the ected for reasons of interestity, Udaipur responsition of reconce:  The entire with the ected for reasons of interestity, use the ected for reasons of reconcerestics.	incom onsible ords fo —	pleto e. I a r pui	e or also u	incor unde e of c	rrect rtake redit	inforr to ac of am	ma dvi nou	ation ise ar unt thi	sh y c	all har	้not nge	hold in th	d Reg e par	istra ticul	r, M ars o	ohan	lal S	Sukha	adia	
Cer	tified that particulars f	urnish	ned a	above	are	corre	ct as	pe	r our	recc	ord	S									
Bar	nkers Stamp:												Da	ite:				_			

Signature of the Authorized Official from the Bank

N.B: Please fill in the information in CAPITAL LETTERS, computer typed; please TICK wherever it is applicable.

## **ANNEXURE VI**

(to be printed on Supplier's letterhead)

# **INTEGRITY PACT**

# **General**

day of the month ofacting through Registrar, Mohan	, b	etween, on or	ne hand, th			
Udaipur-313001 hereinafter M/s repres Officer/ General Manager hereir	sented by Shri .		, D	irector /Cl	nief Exec	and utive
WHEREAS the BUYER proposed Stores/Equipment/Item) and the WHEREAS the TENDERER undertaking/partnership/register law in the matter and the BUYER performing its functions on behavior	e TENDERER/Selle is a priva red export agenc R is an Autonomou	er is willing to te compar y, constituted us Body/Depa	o offer/has ny/public d in accord	offered t company lance with	/Governi the rele	and ment evant
NOW, THEREFORE, to avoid all fo free from any influence/prejudic contract to be entered into with a	ed dealings prior t	o, during and	subsequer	it to the c	urrency o	
/ equipment at a competitive p high cost and the distortionar Tenderer to abstain from bribi	ry impact of cor	ruption on p	ublic proc	urement,	and Enal	bling

contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

officials by following transparent procedures.

### 1. Commitments of the BUYER:

- 1.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favor or any material or immaterial benefit or any other advantage from the TENDERER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the Contract.
- 1.2 The BUYER will, during the pre-contract stage, treat all Tenderer alike, and will provide to all tenderer the same information and will not provide any such information to any particular TENDERER which could afford an advantage to that particular TENDERER in comparison to other Tenderer.
- 1.3 All the officials of the Buyer will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
- 1.4 In case any such preceding misconduct on the part of such official (s) is reported by the TENDERER to the BUYER, with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

## 2. Commitments of TENDERER:

The TENDERER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:

- 2.1 The TENDERER will not offer, directly or through intermediaries, any bribe, consideration, gift, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.
- 2.2 The TENDERER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or

forbearing to show favor or disfavor to any person in relation to the Contract or any other Contract with the Government.

- 2.3 Tenderer shall disclose the name and address of agents and representatives and Indian Tenderer shall disclose their foreign principals or associates.
- 2.4 Tenderer shall disclose the payments to be made by them to agents / brokers or any other intermediary, in connection with this bid/contract.
- 2.5 The TENDERER further confirms and declares to the BUYER that the TENDERER is the original manufacturer/ integrator/ authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER, or any of its functionaries, whether officially or unofficially to the award of the contract to the TENDERER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 2.6 The TENDERER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 2.7 The TENDERER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 2.8 The TENDERER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 2.9 The TENDERER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The TENDERER also undertakes to exercise due and adequate care lest any such information is divulged.
- 2.10 The TENDERER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 2.11 The TENDERER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

- 2.12 If the TENDERER or any employee of the TENDERER or any person acting on behalf of the TENDERER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest/stake in the TENDERER's firm, the same shall be disclosed by the TENDERER at the time of filing of tender. The term relative for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 2.13 The TENDERER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

### 3. Previous Transgression

3.1 The TENDERER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify TENDERER's exclusion from the tender process 3.2 The TENDERER agrees that if it makes incorrect statement on this subject, TENDERER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

### 4. Earnest Money Deposit

- 4.1 While submitting bid, the TENDERER shall deposit an amount mentioned in tender document as Earnest Money, with the University through the following instruments:
- 4.1.1 The tenderer should submit an EMD amount through NEFT/RTGS. The Technical Bid without EMD would be considered as UNRESPONSIVE and will not be accepted. The EMD will be refunded without any interest to the unsuccessful tenderer after the award of contract.
- 4.2 No interest shall be payable by the BUYER to the TENDERER on Earnest Money for the period of its currency.
- 4.3 In case of successful TENDERER, EMD will be returned within 30 days from the date of submission of Performance Bank Guarantee.

#### 5. SECURITY DEPOSIT / PERFORMANCE GUARANTEE:

- 5.1 Performance Bank Guarantee is mandatory.
- 5.2 Successful tenderer should submit performance guarantee as prescribed above to be received in the <u>Head, Department of Chemistry, Mohanlal Sukhadia University Udaipur</u> at the time of installation. The performance bank guarantee to be furnished in the form of Bank Guarantee as per security of the tender documents, for an amount covering 10% of the purchase order value.
- 5.3 The Performance Bank Guarantee should be established in favor of" **Head, Department of Chemistry, Mohanlal Sukhadia University** through any Bank situated at Udaipur or outstation with

a clause to enforced the same on their local branch at Udaipur. Performance Bank Guarantee 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 and conditions of acceptance to tender.

- 5.4 The successful tenderer is entirely responsible for due performance of the contract in all respects according to the speed, intent and meaning of the terms and conditions and specification and all other documents referred to in the acceptance of tender.
- 5.5 The performance bank guarantee shall be kept valid during the period of contract and shall continue to be enforceable for a period of two years from the date of order acknowledgement.

### 6. Sanctions for Violations

- 6.1 Any breach of the aforesaid provisions by the TENDERER or any one employed by it or acting on its behalf (whether with or without the knowledge of the TENDERER) shall entitle the BUYER to take all or any one of the following actions, wherever required:
- 6.1.1 To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the TENDERER. However, the proceedings with the other TENDERER(s) would continue.
- 6.1.2 The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bank Guarantee (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
- 6.1.3 To immediately cancel the contract, if already signed without giving any compensation to the TENDERER.
- 6.1.4 To recover all sums already paid by the BUYER, and in case of an Indian TENDERER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a TENDERER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the TENDERER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- 6.1.5 To encash the advance bank guarantee and performance guarantee/warranty bond, if furnished by the TENDERER, in order to recover the payments, already made by the BUYER, along with interest.
- 6.1.6 To cancel all or any other contracts with the TENDERER. The TENDERER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the TENDERER.
- 6.1.7 To debar the TENDERER from participating in future bidding processes of the Government of India for a minimum period of two years, which may be further extended at the discretion of the BUYER.

- 6.1.8 To recover all sums paid in violation of this pact by the TENDERER(s) to any middleman or agent or broker with a view to securing the contract.
- 6.1.9 In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the TENDERER, the same shall not be opened.
- 6.1.10 Forfeiture of Performance Bank Guarantee in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1.1 to 6.1.10 of this Pact also on the Commission by the TENDERER or any one employed by it or acting on its behalf (whether with or without the knowledge of the TENDERER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the BUYER to the effect that a breach of the provisions of this pact has been committed by the TENDERER shall be final and conclusive on the TENDERER. However, the TENDERER can approach the independent monitor(s) appointed for the purposes of this pact.

### 7. Fall Clause

The TENDERER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/ Department of the Government of India or PSU and if it is found at any stage that similar product/system or subsystem was supplied by the TENDERER to any other Ministry/Department of the Government of India or PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the TENDERER to the BUYER, if the contract has already been concluded.

### 8. Facilitation of Investigation

In case of any allegation of violation of any provisions of this pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the TENDERER and the TENDERER shall provide necessary information & documents in English and shall extend all possible help for the purpose of such examination.

### 9. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and Jurisdiction is the Seat of the BUYER.

## 10. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

## 11. Validity

- 11.1 The validity of this Integrity Pact shall be from date of its signing and extend upto 3 years or the complete execution of the contract to the satisfaction of both the BUYER and the TENDERER/ Seller, including warranty period, whichever is later. In case TENDERER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.
- 11.2 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 intentions.

# 13. The parties hereby sign this Integrity Pact.

Mohanlal Sukhadia University, Udaipur Signature with seal  Date & Place: Date & Place:
Date & Place: Date & Place:
Witness
1
(Indenter)



# DEPARTMENT OF CHEMISTRY MOHANLALSUKHADIA UNIVERSITY, UDAIPUR

Email: hodchem@mlsu.ac.in

# **BID SUBMISSION**

# **Online Bid Submission:**

The Online bids (complete in all respect) must be uploaded online in **Three** Envelops as explained below:-

	Envelope – 1						
01 01		ollowing documents to be provided as single PDF file)					
Sl. No.	Documents	Content	File Types				
1.	Fee Documents	NEFT/RTGS/UTR No and Date/Bank Details Bid Fess RISL Processing Fee EMD Details etc.	.PDF				
		Envelope – 2					
	(Following documents to be provided as single PDF file)						
SI. No. Documents Content File							
1.		Compliance Sheet as per Annexure – I	.PDF				
2.		Organization Declaration Sheet as per Annexure – II	.PDF				
3.		List of organizations/ clients where the same products have been supplied (in last two years) along with their contact number(s). (Annexure-III)	.PDF				
4.	Technical Bid	Format For Performance Bank Guarantee (Annexure IV)	.PDF				
5.		Mandate Form for Electronic Fund Transfer/RTGS Transfer (Annexure V)	.PDF				
6.		Integrity Pact (Annexure VI)	.PDF				
7.		Technical supporting documents in support of all claims made at Annexure-I	.PDF				
		Envelope – 3					
Sl. No.	TYPES	Content	File Type				
1.	Financial Bid	Price bid Annexure-VIIIA	BOQ				
		Annexure-VIIIB	BOQ				
2.		Financial Bid Documents	.PDF				



# DEPARTMENT OF CHEMISTRY MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Email: hodchem@mlsu.ac.in

# **ANNEXURE -VII**

# **Training Requirement**

1.	Product Description	400 MHz NMR Spectrometer
2.	No of Attendees	10
3.	No. of Days	2-3 weeks
		a. Operational Training
4.	Type of Training	b. End User Training
		c. Maintenance Training

TENDERER Signature with seal



# DEPARTMENT OF CHEMISTRY MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Email: hodchem@mlsu.ac.in

# **Annexure-VIII-A**

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	а		_	_

# **Subject: Purchase of <Item> (Following format is used for imported items)**

S.	Currency	Description and Specification of	Qty. in	Unit	Agency	Discount	Ex-works	Packing +	FOB/FCAAi	Insurance	CIF Price
No.		the Item	Units	Price	Commission		price	Handling +	rport Price	+ Freight	(f+g)
				(a)	(If applicable) (b)		(d=a+b-c)	DOC + Inland Freight +	(f=d+e)	(g)	
						(c)		FCA Charges (e)			
1											

Note: At any circumstances, it is the responsibility of the foreign supplier to hand over the material to our forwarder at the origin airport after completing all the inland clearing. No Ex-works consignment will be entertained.

**Authorised Signature (With Seal)** 



# DEPARTMENT OF CHEMISTRY MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

Email: hodchem@mlsu.ac.in

# **Annexure-VIII-B**

For indigenous items please quote as per following format.

S. No.	Description and Specification of the	Qty. in Units	Unit Price in Rs.	GST%	Total Price in Rs.
	Item				
1.					

Note: The above financial template should be strictly followed. Any deviation from the above template (in terms of description and specification of the item) may lead to cancellation of the tender

**Authorised Signature (With Seal)** 

# FINACIAL BID FORM (Please submit in PDF item wise rate)

# To: Head, Department of chemistry, Mohanlal Sukhadia University, Udaipur - 313001

Name of Supply: 400 MHz NMR Spectrometer for solution state experiments.	Quantity: 1 nos
Name of Supplier:	

S. No.	<b>Component Items</b>	Specifications	Rate per unit including all	Current rate of GST, if
		-	cost (F.O.R., Udaipur)	applicable
			including all charges, custom	(University is having
			duty and/or any other tax but	DSIR certificate)
			excluding GST	
1.	Magnet	1. Latest Technology based stable and actively shielded superconducting magnet (9.4 Tesla) with an operational frequency of 400 MHz for <sup>1</sup> H. Vendor should quote their latest model.  2.Shortest possible 5G (radial from the center of the magnet (< 0.5 m) and axial from the center of the magnet (< 1.0 m)) fringe field with advanced shielding technology.  3.Bore diameter: 54 mm (standard bore).  4.Expected field drift: < 4 Hz/hr.  5.Liquid Nitrogen hold time: two weeks or more.  6.Liquid Helium hold time: 365 days or more with auto level monitoring and recording (Refill volume should not be more than 130 Ltr) (Please specify the total volume, refill volume, hold time)  7.Liquid Helium level meter with alarm function of low Helium level.  8.Liquid Nitrogen level meter with alarm function of low Nitrogen level.  9 Number of cryo-shims: five or more		
		8.Liquid Nitrogen level meter with alarm		

		11.Anti-vibration feet pad for dampening the	
		floor vibrations (frequency damped above 8.0	
		Hz).	
		11.One set of liq. He and two set of liq. N <sub>2</sub>	
		transfer lines.	
		12.All support equipments for cryostat	
		13. Standard test samples (in shield tubes).	
2.	Spectrometer	1.Advanced feature based two broadband	
	Console	frequency generation independent RF channels	
	Consoic	(full frequency range generation) with:	
		<ul> <li>Highest frequency and phase resolution</li> </ul>	
		• fast switching time for all parameters,	
		without any hidden delays ensuring good	
		quality of the spectra.	
		It should include wave form generators for	
		pulse shaping, amplitude, phase and	
		composite pulse decoupling generator,	
		preamplifiers with standard filters and	
		digital receiver control with oversampling	
		and quadrature detection with digitizers	
		facility for complete elimination of	
		quadrature spikes.	
		2.Digital <sup>2</sup> H lock channel: lock system with	
		high precision phase- and field-correction,	
		corrections for short-term disturbances	
		(documental evidence is required)	
		3.Receiver system with digital quadrature	
		detection (DQD). Over-sampling (150 KHz or	
		more) and online digital filtering along with	
		complete elimination of the quadrature	
		images/spikes, artifacts in the center of the	
		NMR spectrum (documental evidence is	
		required).	
		4. 2-Channel Amplifier System:	
		Two high performance linear amplifier for	
		observation- or decoupling of <sup>1</sup> H or <sup>19</sup> F,	
		with 50W pulse power maximum and 140W	
		and above, pulse power maximum in the	
		range of $^{31}$ P to $^{15}$ N (161-39 MHz) or below.	
		All relevant parameters including power,	
	<u>I</u>	1 F	

		frequency range, maximum pulse duration	
		etc. have to be explicitly specified.	
		5.Acquisition system with a control of up to a	
		minimum of two RF channels.	
		6.Preamplifier: Multinuclear preamplifier	
		• <sup>2</sup> H preamplifier for lock and <sup>2</sup> H experiments	
		7.Built-in tune/match display:	
		Automatic Tuning and Matching unit for the	
		nuclei under study for liquid state samples.	
		8.Add-on filters for noise reduction.	
		9. Gradient system for Z-shielded gradient with a	
		gradient strength of up to 30 G/cm or more for	
		gradient NMR experiments in solution. PFG of	
		any desired shape and gradient shimming	
		capabilities.	
		10.Low- and high-temperature accessories.	
		Variable temperature unit to include:	
		Computer controlled temperature with safety	
		alert facility.	
		High temperature range: Ambient to approx	
		+150°C	
		Nitrogen cooling system range:	
		(v) Ambient to approx. –100°C	
		(vi) Temperature resolution ≤ 0.1°C	
3.	Probes:	1.5mm Z-gradient probe for multinuclear broad-	
		band covering nuclei ranging from <sup>1</sup> H, <sup>19</sup> F, <sup>31</sup> P	
		and <sup>15</sup> N with automatic tuning and matching.	
		2.Sensitivity: <sup>1</sup> H: 500 or more, <sup>19</sup> F: 500 or more,	
		<sup>13</sup> C 200 and more: <sup>31</sup> P: 100 or more and <sup>15</sup> N: 25	
		or more.	
		3.Please provide the technical printed	
		specifications for the probe-heads e.g.	
		Sensitivity, resolution and line-shape with NMR	
		tube Inner diameter and sample volume etc.	
		4. The pulse width required for <sup>1</sup> H nuclei should	
		be less than or equal to 10 µs (Single	
		resonance), <sup>19</sup> F nuclei should be less than or	
		equal to 18µs (single resonance) and for <sup>13</sup> C	
		nuclei less or equal to 24 μs.	
4.	User Interface:	1. Latest available High performance state-of-the-	

		art workstation (Windows operating system) for spectral acquisition and processing that can be easily serviced in India in case of any fault: The	
		<u> </u>	
		easily serviced in India in case of any fault. The	
		· · · · · · · · · · · · · · · · · · ·	
		work station should have latest core (10th	
ı		generation or above) or higher processor, 8 GB	
ı		RAM, 1 TB hard disk capacity with minimum	
		24" LED display, Graphic Card, CD-DVD read-	
		write drives, USB Ports, LAN connectivity for	
ı		offline processing of data	
ı		2. Processing PC: High performance state-of-	
		the-art workstation (Windows operating system)	
ı		for processing that can be easily serviced in	
		India in case of any fault: The work station	
ı		should at least have 16 GB RAM, 1 TB hard	
ı		disk capacity, with 24" LED display, latest	
ı		available processor, CD-DVD read-write drives,	
ı		USB Ports, LAN connectivity for offline	
ı		processing of data.	
ı		3. Licensed Software Modules to include:	
ı		<ul> <li>Acquisition, Processing, Plotting, Structure</li> </ul>	
ı		Verification and Analysis-1D, 2D, 3D and	
ı		4D data, Experiment Simulation, Spectra	
ı		Simulation, Multiplet Analysis, Teaching	
ı		Software, De-convolution, Automation,	
ı		Projection Reconstruction Spectroscopy.	
ı		Most recent and advanced software for data	
ı		analysis are required. At least 100 free	
ı		licenses within the campus for data analysis	
ı		should be provided.	
ı		•	
		4. A complete set of operation manuals should	
		be provided. All required hardware and software	
		documents, installation manuals, CDs/DVDs	
		etc. to be provided. All manuals (service and	
		operational) should be provided as hard copies	
	A	as well as soft copies (on CDs)  1.An ISO-9001 certified imported (3HP)	
5.	Accessories:	reciprocating air compressor complete with	
		desiccant dryer, with minimum 90 lit buffer	
		tank along with the system. Vendor must	
		specify warranty period.	
		2.Sample Spinners:	

		• Apart from this, there will be on site application	
		after successful installation.	
10	Training:	<ul> <li>Initial on-site training to the staff for two weeks</li> </ul>	
		sales service from existing users will be considered by the committee in evaluating the technical bid.	
9.	Performance:	Satisfactory performance of instrument and after	
		for recharging or replacing should be borne by the vendor.	
		or at subsequent times due to faulty design or any other technical failure, the necessary costs	
		• In case of magnet-quench during the installation	
		installation should be provided by the NMR supplier.	
		iquid helium and liquid nitrogen required for	
8.	Installation:	• Complete installation of the equipment and the	
		manufacturing defect, camshaft), warranty 5 years.	
		shaft, cylinder block, connecting road against	
		capacity ≥60 Ltr, Comprehensive warranty 2 years critical parts (Cylinder head, crank	
		±1%, MoEF Certified power, fuel tank	
		diesel, fuel consumption @100% load, less then 5Lt/Hr, alternator voltage regulation	
		RPM 500, No of phase single phase, fuel	
		KVA, output voltage 230, frequency 50hz,	
7.	Diesel Generator:	• An autostart power generator with following specifications: Diesel generator: Power 15	
	D' 1G	more. Vendor must specify warranty period.	
		(5 KVA) with voltage stabilizer for the whole system with a minimum backup of 2 hour or	
6.	<b>UPS System:</b>	• A suitable ISO-9001 certified make online UPS	
		5.A set of standard samples calibrations.	
		4.50 lit capacity liquid nitrogen containers along with one transfer line : 4 nos.	
		3. 500 high quality 5mm NMR tubes with caps.	
		• For 5 mm NMR tubes: 8 nos. (Suitable for low temperature experiments).	

			consumables	we warranty including all parts, and labour. Free maintenance, service upgrade of all software during the	
			entire warran	ty period.	
12.	Installation	n in	The quoted s	system or equivalent category system	
	India:		should have	at least 5 numbers of installations in	
			India by the	vendor. List of such 5 users and copy	
			of their instal	lation report should be enclosed.	
13.	Service fa		Supplier shou	ld clearly mention about their service	
	and down	-time	set up in India for prompt service support along with contact details of service engineers specially		
	call attend	lance:			
			trained on the offered system. Service should be		
			provided within 48 hrs. From the report of technical		
			1	at machine down time is minimized.	
14.	14. Spares:			uld confirm the availability of spares	
			for next 10 years from the date of installation. All		
				ares for day-to-day operation needs	
			should be provided as standard supply.		
15. <b>Pre-Installation</b>		Necessary pre-installation advice should be sent			
Requirement:		immediately after the placement of the order.			
16.	16. <b>Validity of Quotation</b>		Minimum six months		
probe an with and	hnical bid sho nd electronic d power level ations on stat	specification l specification	ons can be foun on, as well as s	cification sheets where magnet, ad. It should include complete pulse ensitivity and resolution H, <sup>13</sup> C, <sup>15</sup> N, <sup>19</sup> F and <sup>31</sup> P for probe-	
1.			tems:	Optional items should be quoted separately.	
				1.Cost of the helium filling for 5	
				years after installation should be	
				quoted optionally with yearly	
				breakup.	
				2.Special NMR tubes (NMR micro	
				tube assembly) matched with	
				Chloroform-D, Methanol-D,	
				DMSO-D: each 5 no.	
				3.Skilled Manpower for smooth	
				operation and maintenance of the	
				instrument for 6 days in a week	
				basis for 1 years.	

4.Auto sampler with a capacity of 24 NMR samples with necessary accessories including 24 sample spinners which should work in entire temperature range of probe (-	
100°C to +150°C) 5."5mm multinuclear broad-band direct probe with automatic tuning and matching unit, capable of performing the nuclei range 1H, 19F, 31P-15N with decoupling facility between the High Frequency (1H,19F) and Low frequency Channel (31P-15N) using the same probe head." 6.AMC for a period of 4 years, which will commence from the	
completion date of standard warranty period.	

Signature of Tenderer		
		Name:
		Designation:
	Organization Name:	
	Contact No.:	