



Government of West Bengal
Office of the Principal
Nil Ratan Sircar Medical College
Kolkata – 700014; Phone: 033-2286-0033

Website: www.nrsmc.edu.in; e-mail: principalnrsmc@gmail.com

Memo No. NMC/STORE/ 2793

Date: 12/05/2022

**Re-E-TENDER NOTICE (NIT No: 11/ 22-23) FOR PURCHASE AND INSTALLATION OF
EQUIPMENT FOR MRU OF
NIL RATAN SIRCAR MEDICAL COLLEGE, KOLKATA - 700014.
(Through Pre-qualification)
(Submission of Bid through NIC e- tender portal)**

The Principal, Nil Ratan Sircar Medical College, Kolkata – 700014, is going for e-Tender on behalf of the Health & Family Welfare Department, Government of West Bengal for obtaining the rate of equipment as per list from bonafide Manufacturer/Direct Importer/Authorized Distributors. Necessary earnest money to be submitted for participation in the Tender is appended in the table below. Exemption of EMD is applicable to agencies having valid, item specific certificate issued by appropriate authority of Govt. of West Bengal.

1)

Serial No	Name of equipment	Department	Quantity	Earnest Money
1	HPLC	MRU	01 pc	Rs. 20000.00

All bidders must complete their technical demonstration of their quoted items within ten (10) days from the date of opening of technical bid to the concern Department.

1. General Instructions:

In the event of e-filing, intending bidder may download the tender documents free of cost from the website: <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate or from the Health & Family Welfare Department's website www.wbhealth.gov.in.

2. Submission of Bids:

Both Technical Bid and Financial Bid are to be submitted concurrently duly digitally signed, in the website <http://wbtenders.gov.in>. All papers must be submitted in English language.

3. Time Schedules:

The time schedule for obtaining the bid documents, pre bid meetings, registration with the tendering authorities, the submission of bids and other documents etc. will be as per **the list provided in clause no 23** as given below. Bidder are instructed to wait for uploading any corrigendum arising during pre bid meeting, before submitting their bid online

4. Eligibility for Quoting:

Only Manufacturers/direct Importers/Authorized Distributors are eligible for quoting. The price is to be quoted in Indian Rupees including cost of insurance, packing, forwarding, freight charges, clearing charges and installation of the new instrument and exclusive of GST and other taxes which are to be quoted separately in the BOQ. Agency commission is not permissible.

5. Submission of Tender:

The tender is to be submitted in Two Bid System (Technical Bid or Bid A & Financial Bid or Bid B).

(A) Technical Bid or Bid A:

"BID A": PART I

File containing Technical Bid only - single file with multiple scanned pages containing Statutory and My documents separately.

(a) **STATUTORY** Cover containing the following documents:

(SINGLE FILE MULTIPLE PAGE SCANNED)

Essential Requirements of the Tendering Firm for participation" shall contain all papers related to the essential requirements of the Renderer for participation in the tender viz.

Sl. No.		Page no
1	Duly filled in CHECK LIST in the prescribed format. Page number of documents must be mentioned in the check list before uploading the same.	
2	Application in the prescribed format given in Annexure I	
3	Authorization letter of signatory from Company in Annexure II	
4	Copy of agreement between the manufacturer and the Distributor in Annexure III	
5	No conviction certificate in the form of an Affidavit as per Annexure-IV	
6	A Proof of submission of applicable END	

(b) **NON STATUTORY/MY DOCUMENTS** Cover Containing the following documents:

Essential Requirements of the Tendering Firm for participation" shall contain all papers related to the essential requirements of the Renderer for participation in the tender viz.

Sl. No.	Category	Sub Category	Sub Category Description	Page No
A	Certificates	A1. Certificates	PAN Card of the authorized signatory	
			Professional Tax Registration certificate	
			GST Registration certificate	
B	Copy of Annexure III	C2 : CREDENTIAL 2	A declaration in respect of existence of a fully equipped service centre in or around Kolkata in respect of the relevant item.	
			List of purchaser in Govt. Institutions of repute, for last two years	
C.	FINANCIAL INFO	PAYMENT CERTIFICATE 1	Income Tax Returns submitted for the last three years	
		Audited P/L & BALANCE SHEET	P/L & Balance sheet of the last three years	

BID A": PART II

Technical specifications of Instrument (in PDF/Excel format. Must mention Make, Model, exact features of the offered item against each point given in the specification chart). **Improper filling &/or suppression of facts/false statement will lead to disqualification and penalty in the form of permanent black listing.**

(B) Financial Bid B

COVER "B": Separate file containing financial document only.

(a) Financial Bid: BOQ in INR (in excel sheet)

The folder marked as "Financial Bid" shall contain ALL INCLUSIVE PRICE in INR only and should include base price along with the cost of allied works and services which are to be undertaken (like installation, commissioning of equipment or PC etc.), cost of insurance, packaging, forwarding, delivery charges, clearing charges of the new instrument to be purchased. **GST and any other applicable tax. should be quoted separately. Five years CAMC rate should also be quoted separately** in the template for Bill of Quantities (BOQ). However, the L1 will be determined on base price plus admissible taxes only. GST quoted will be directly remitted to Government account as per existing norms of Finance Department.

The tenderers are required to submit the hard copies of Cover A (Transaction document of EMD , General Documents and Technical Specifications) as per schedule described in the time line vide clause 23, preferably by **speed post/ courier**, to the office of the Principal, NRS Medical College, Kolkata. Submission of hard copy of Cover A to the office of the Principal, Nil Ratan Sircar Medical College, Kolkata, is for reference only while examining the technical bid on line and will not be treated as substitute for on line submission. **Submission of hard copy of Bid B is totally prohibited.**

6. Evaluation of Tender:

During tender evaluation process, "Bid A" will be opened first. Those tenderers who would qualify the Statutory & Non-Statutory requirements on the basis of technical and commercial documents will be identified and "Bid B" i.e. financial bid of only those qualified bidders will be opened. Verification of hard copies of the audited balance sheet and Profit & Loss Accounts of the Tenderers for the last three years will be made if deemed necessary before opening the Financial Bid (Bid B) of the technically qualified bidders. If found suitable on the basis of above pre-qualification, the tenderer quoting the lowest rate, will be considered as successful.

7. Earnest Money:

The earnest money of the tenderer is liable to be forfeited if the tenderer withdraws his tender as a whole or for any particular item or items at any stage after opening of the tender or fails/refuses to enter into written agreement for any or all of the items of his accepted bid within the time specified when requested to do so or fails to furnish Performance Bank Guarantee within the stipulated time. **EMD should be deposited online in the Pooling Account of Government of West Bengal maintained at ICICI Bank, RN Mukherjee Road Branch in the manner as prescribed in Government Order no. 3975-F(Y) dated 28/07/2016. (Order copy is available at the site-www.wbfin.nic.in)** Hard copy of Bid A should reach the office on or before the stipulated date as mentioned in clause 23.

8. Rate:

The price is to be quoted in INR only including cost of insurance, entry tax, packaging, forwarding, delivery charges, clearing charges and installation of the new instrument. The basic rate should be furnished inclusive of Transportation Cost, Insurance, Testing Charges, Incidental Charges etc. but excluding GST and any other applicable taxes etc. which should be quoted separately in the template for Bill of Quantities (BOQ).

9. Order & Supply:

The tendering authority has the liberty to ask for **performance demonstration** of any item during any stage of the tender process, before placing order for supply. In case of dissatisfaction, the authority will have the right to disapprove the offer of L1 bidder and go for the next bidder. Orders for supply of the approved products will be placed with the successful tenderers after execution of agreements and such supply shall have to be made in such installments as may be fixed or spread over the period to be specified in the supply orders to be made in pursuance of the agreements. The equipment is to be transported in such packaging so as to avoid damage to primary package of manufacturer. The successful tenderer will have to supply within the specified time schedule that had been assured at the time of selection as supplier.

The tendering authority will be at liberty to enhance the quantity of the item tendered up to 40% of the original required quantity. Bidder will have to consider the same while bidding as supply of the enhanced quantity will be mandatory as the original one.

10. Withdrawal /Cancellation & Purchase Policy of Tendering Authority:

The tendering authority reserves the right to withdraw any item from the tender at any stage. The selection of such item, if already made in favour of any tenderer, shall be treated as cancelled. The tendering authority reserves the right to reject or accept any tender or part thereof at any stage or to split any tender without assigning any reason. Withdrawal of tender or any revision after submission of tender by the tenderer will not be allowed.

Purchase will; however be made following the existing purchase policy of the Govt. of West Bengal and its amendment(s) made from time to time. The purchase policy of the State Government as provided in the West Bengal Financial Rules, the policy of price preference in particular incorporated under Notification No. 10500-F dated 19.11.04, 5400-F(Y) Dated 25/06/2012 and subsequent relevant orders should be observed in considering the tenders.

11. Important Instruction with regard to Submission of Tender:

The rate should be quoted in Indian Rupees for a particular brand or model (model no. of the offered item only must be mentioned in the appropriate column of the 'Tender Form'. Alternative offer will not be accepted). The tender shall be cancelled for the quotation of item without its brand name, model, model no. etc. Detail information regarding the manufacturer and the item quoted in the 'Tender Form' should be furnished.

12. Spare Parts:

The Bidder will undertake that supplies of necessary maintenance equipment and spare parts will be made available for all items/equipment and the complete system for at least five years on a continuing basis. However, this does not relieve the supplier of any warranty obligations under the contract.

13. Guarantee / Warranty Period:

i) The machine/Instrument should be covered by free on-site comprehensive Warranty for one year after successful installation. The tenderers must quote for 5 (Five) years' comprehensive on-site AMC of entire system (including all spares & labour) after the date of completion of free warranty period. The CAMC charges for 5 years to be quoted in the BOQ, will however be determined on extant Govt. rules in this regard.

ii.) All faults appearing and their rectification shall be periodically advised to the institute, the period being not more than two weeks.

iii.) Any lacuna or lacunae noticed in the functioning of the installation as a result of any design or other feature shall be rectified by the supplier free of cost within 72 hours of call log.

14. After Sales Services and Maintenance Contract:

After sales service must be provided by the supplier, during and after warranty period of the equipment. Selected vendor will remain liable to attract penalty for violation of machine downtime as per agreement. The selected vendor or his authorized servicemen has to attend the machine within 72 hours of Call Log. It is desirable to have a fully equipped service centre in or around Kolkata.

15. Delivery, Installation and Commissioning

- i. Delivery of the goods at the purchaser's premises shall be completed by the Supplier in accordance with the terms specified by the purchaser.
- ii. The installation, testing and commissioning of the proposed system shall be completed in accordance with the order.
- iii. All items are to be delivered within six weeks from the date of placement of order.
- iv. In case of distributor, the firm should be direct distributor of manufacturing unit. **Sub distributor authorization by distributor will not be accepted at all.**

16. Penalty Clauses:

PENALTY FOR FORMATION OF CARTEL OR FURNISHING OF FRAUDULENT/ MISLEADING DOCUMENTS: If during the tender process or at any stage during the validity of the tender period, it is found that a tenderer(s) has formed a cartel in what so ever form or name to fix up the rates or suppliers to the detriment of the fairness of the tender process, penal measures shall be initiated. Similar penal measures shall also be initiated against those tenderers who have submitted false/ misleading/ fraudulent documents or made incorrect declarations. The penal measure will be forfeiture of Earnest Money, forfeiture of Performance Bank Guarantee if enlisted as a supplier in addition to any other legal action against the firm.

17. Appeal:

Appeal against the decision of the Principal, Nil Ratan Sircar Medical College, Kolkata and then to impose such a penalty will lie with Tender Selection Committee. Review against the decision of the Tender Selection Committee (TSC) will lie with Health & F.W. Dept. of the Govt. of W.B. The Special Secretary/Secretary/Principal Secretary will be the appellate authority within the Department of Health & Family Welfare, Government of West Bengal. Before imposing any penalty as per clauses 20, 21 and 22 the concerned supplier may appeal to the authority citing the proper reasons for non- imposing the penalty as stated.

18. Agreement:

On a tender being accepted, intimation of acceptance will be forwarded to the tenderer by Principal, Nil Ratan Sircar Medical College, Kolkata. After communication of the same, the tenderer will have to execute agreement in the prescribed form with the Principal, Nil Ratan Sircar Medical College, Kolkata. In case any direct purchasing unit wishes to go for a separate agreement, the head of the purchasing unit must get written permission to that effect from his controlling authority. This present document and the tender forms filled in by the tenderer or copies thereof in so far as they are not inconsistent with these terms & conditions will be incorporated as part of the agreement. Such agreement will be binding on the tenderer.

19. Validity Period of Agreement:

The contract period will be for a period 01 (one) years from the date of finalization of tender **which can be extended for a further period of 6 months if Tender Selection Committee feels necessary.**

20. Performance Bank Guarantee:

The performance bank guarantee will be mandatory for all suppliers and will not be waived in any case. The successful tenderers shall be required to furnish the 'Performance Bank Guarantee' from any Nationalized/Scheduled Bank acceptable to Govt. of West Bengal for One year @ 10% of quoted base rate per item for which the tenderer has been selected as supplier. The performance bank guarantee will have to be renewed after completion of Free Warranty period, for additional 5 (Five) years under the paid CAMC period before transfer of the CAMC amount to bidder's account. Mentioning of West Bengal Government Pooling Account for Performance Bank Guarantee No. 000605030134 IFS Code ICIC0000006 MICR 70229002 at ICICI Bank, RN Mukherjee Road Branch, Kolkata on the body of Performance Bank Guarantee is made mandatory vide Finance Department GO No. 2691-F(Y) dated 02/05/2017.

21. Inspection: Before submitting the tender, the intending tenderers should thoroughly get acquainted themselves with the proposed supply and installation by local inspection of site and take into consideration the site condition and other criterion for effecting smooth supply. No claim whatsoever will be entertained afterwards.

22. Payment Terms:

Payment will be made electronically by Govt. of West Bengal approved system after execution of due supply and successful installation as ordered, subject to :

i. Submission of Performance Bank Guarantee in terms of Clause 20 and subject to penalty clause in terms of Clauses 16.

ii. Supply of the materials as per specification as provided in the tender documents and the catalogue. Supply of the materials must be made within the stipulated period as specified in the work orders.

iii. On being selected, the successful vendors will have to submit one application to the Principal, Nil Ratan Sircar Medical College, Kolkata stating the name of the payee/recipient, Bank account no with IFS code of the payee/recipient for making e-payment. Payment will only be released after satisfactory installation and verification of following items-

1. Supplier's invoice in original
2. Challan and installation certificate
- 3 Any other thing of importance on the discretion of College Authorities

23. Dates & Information:

S. No	Items	Dates
1	Date of uploading of N.I.T. Documents (online) from this end.	12.05.2022, 5.00 P.M.
2	Documents download start date (Online)	12.05.2022, 5.00 P.M.
3	Date of hoisting of documents at Departmental Website (www.wbhealth.gov.in)	12.05.2022, 5.00 P.M.
4	Date of Pre Bid Meeting and workshop with the intending bidders at the office of the Principal of NRS Medical College	14.05.2022, at 12.30 P.M
5	Bid Submission starting (On line)	15.05.2022, 4.00 P.M. onwards
6	Bid Submission closing (On line)	30.05.2022 at 4 P.M.
7	Bid opening technical bid(online) (Bid A)	01.06.2022 at 4.00 P.M.
8	Date of uploading list for Technically Qualified Bidder (online)(Bid A)	02.06.2022, 10 A.M. onwards.
9	Date & for opening of Financial Proposal (Bid B) (Online)	To be declared later
10	Date of uploading of list of bidders along with the approved rate	To be declared later

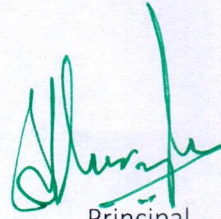
Principal, Nil Ratan Sircar Medical College, Kolkata, reserves the right to change the above schedule in case of any exigencies after putting up a notice in the departmental website and Notice Board of N R S Medical College, Kolkata.

24. Validity of Tender:

- i. The tender will remain valid up to 1 (one) year from the date of finalization of tender **which can be extended for a period of 6 months**. Any objection raised by any bidder in this respect will not be entertained. No informal tenderer will be entertained in the bid further.
- ii. During the scrutiny, if it comes to the notice of tender inviting authority that the credential or any other paper found incorrect/ manufactured/ fabricated, that bidder would not be allowed to participate in the tender and that application will be out rightly rejected without any prejudice.
- iii. Prospective bidders must take training from authorized agencies before submission of their bids.
- iv. The Tender Selection Committee reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.

25. NO- CONVICTION CERTIFICATE:

No conviction certificate in the form of An Affidavit is to be submitted in the prescribed Pro-forma as Annexure-IV attached herewith from Notary Public/ Judicial Magistrate/Executive Magistrate.



Principal
NRS Medical College
Kolkata-14

CHECK LIST (MUST BE PROPERLY FILLED)

NOTE: For Non applicability for some documents please mention "NA" in the check list. Must be mention page number in the check list.

S. No	Item	PI put tick or NA	Page No.
1	Application submitted in Annexure I		
2	Annexure II (Authorization letter of signatory from the Company)		
3	Annexure III (Copy of agreement between the Manufacturer and the Direct Importer/Distributor)		
4	No conviction certificate in the form of an Affidavit as per Annexure-IV.		
5	Income Tax Returns submitted for the last three Assessment years		
6	GST Registration certificate(not provisional)		
7	PAN Card of the organization and authorized signatory.		
8	Manufacturer's guarantee (in case of Distributors and Direct Importer, to be obtained from manufacturer)		
9	Audited P/L & Balance sheet of last three years		
10	Technical specifications of Instrument (in PDF/Excel format. Must mention Make, Model, exact features of the offered item against each point given in the specification chart).		
11	Trade License in the name of participating firm		
12	Certificate of country of origin of the product		
13	Registration with Registrar of Companies		
14	Valid Manufacturing License(if applicable)		
15	Import License with validity (for importers)		
16	List of purchaser in Govt. Institutions of repute, for last two years		
17	A declaration in respect of existence of a fully equipped service centre in or around Kolkata in respect of the relevant item.		
18	A Proof of submission of applicable END		

ANNEXURE-I

APPLICATION FORMAT

(To be furnished in the Company's official letter pad with full address and contact no etc)
To The Principal, Nil Ratan Sircar Medical College, Kolkata-700014.

Sub: Tender No.-----Dt.------(Name of the Item -1)-----2)-----
-----3)-----4)-----

----) for purchase and installation of equipment for department of, Nil Ratan Sircar Medical College, Kolkata-700014.

Ref:-

Sir,

Having examined the pre-qualification & other documents published in the N.I.T, I /we hereby submit all the necessary information and relevant documents for evaluation:

1. That the application is made by me / us on behalf of.....
In the capacity of.....duly authorized to submit the offer. The authorization letter from the Company is attached in Annexure II.
2. We accept the terms and conditions as laid down in the NIT mentioned above and declare that we shall abide by it for throughout the tender period and its extensions, if any.
3. We are offering rate for the following item /items and assured supply to the Health & Family Welfare Department, Government of West Bengal as per Table-1 (Instrument Specification)
4. a. We propose that the order and bill should be raised in our name.
For liasoing, we have appointed M/S having its office at (Address, contact no and e mail address) as C&F agent /Liasoner /Contact person/..... Others (strike out whichever is not applicable) as per clause of the NIT
- b. The agreement between ourselves and the distributor/C&F/Liasoner & other documents as prescribed is attached in annexure III
5. In the event of being selected, supply will be made within the stipulated period excepting the condition which is beyond our control.
6. We understand that:
(a) Tender Selection Committee/ H&FW Dept can amend the scope & value of the contract bid under this project.
(b) Tender Selection Committee/ H&FW Dept reserves the right to reject any application without assigning any reason.

Date :-

Signature of applicant including title
and capacity in which application is made.

Contact details:-

Mobile:

E mail ID:

Annexure II

Authorization letter in favour of the applicant (other than Managing Director/ Proprietor) –
from the competent authority.

FORMAT

(To be furnished in the Company's official letter pad with full address and contact no, E mail
Address etc)

(TO WHOM IT MAY CONCERN)

This is to certify that Mr./Mrs.(Name),
an employee of this Organisation as (Official
Designation) is hereby authorized to submit tender online , Vide NIT
No....., Dated..... on behalf of the Organisation.

Signature of the
competent authority with Seal

.....
(Signature of the Authorized Person)

Signature of Mr./Mrs.
.....is hereby attested.

Annexure- III

- a. Copy of agreement between the Manufacturer and the Direct Importer/Distributor in Annexure -III

ANNEXURE-IV

Draft Affidavit Proforma
(Notarized on Rs. 100 Stamp Duty)

I, Sri/Smt.
The Managing Director/Proprietor (etc.) of the Firm,
..... (Name of the firm)
At (address).....
P.O.....
P.S.....Dist.....
do hereby solemnly affirm and declare as follows:

- a. That I am not under conviction of any offence making myself liable to be disqualified to supply of Surgical Equipments/Instruments etc. to any Govt. or Govt. undertaking Organization /Institution in the State of West Bengal or other State or States.
- b. My Firm has not been blacklisted at present as a whole or for any item/ items as quoted in this tender by any Govt. or Govt. undertaking Organization /Institution in the State of West Bengal or other State or States in India.
- c. That no case is pending against me or against my Firm in any criminal court of law in connection with the supply of Surgical/hospital equipment/Instruments to the Govt. or Govt. undertaking Organization / Institution in the State of West Bengal or other State or States (If any case is pending, pl state the details).
- d. *That, I declare that the item or items quoted by me confirms the specification given in the NIT document or higher standard relating to the specification is provided.*
- e. The duly authenticated Technical Data Sheet is uploaded conforming to the prescribed standard.
- f. That, I also declare that if any information subsequently found incorrect or false will it automatically render the tender submitted by me cancelled and make me liable for penal/legal action as per law of the country.
- g. That I do further affirm that the statements made by me in this tender are true to the best of my knowledge and belief and all the documents attached are genuine & correct.

Deponent

GENERAL SPECIFICATIONS

- HPLC and UHPLC features for separation must be provided.
- Fully automated.
- Facility for both autosampler & manual injection should be present.
- Should support both organic & aqueous solvent.
- Should be well operable between pH 1-12.
- Must be operable for long durations and have proper diagnostic record & auto-recovery facility.

PART WISE SPECIFICATIONS

HPLC quaternary solvent manager:

- In built Quaternary Gradient pump (serial/ parallel dual piston, no bubbles, auto purging).
- Integrated four channel or better vacuum degasser chambers with automated piston seal wash.
- Operating pressure minimum 10000 PSI or > for solvent delivery and pump must be capable of reaching maximum 10000 PSI pressure over entire flow rate range.
- Flow ramping, settable from 0.01 to 30.00 minutes to gradually reach flow rates up to 5 mL/min or better.
- Minimum flow rate 0.001 mL/min and maximum 5mL/min or better with 0.001 mL increments.
- Fast resolution, gradient delay volume < 1000 ul, system bandspread < 80 ul or better.
- Must work at both isocratic and gradient method with perfect accuracy and pH tolerance, high precision of solvent selection and mixing.
- The instrument must adjust the injection relative to the gradient start to emulate other HPLC system dwell volumes, without the need to alter the gradient table. It should successfully transfer all the methods in just two or lesser injections.
- Flow rate accuracy of $\pm 1\%$ or better, Precision of <0.06% RSD or better & compositional precision of 0.15% RSD or better having pH range between 1 to 12 or better.
- Gradient composition precision: < 0.2% RSD at 0.2 – 1.0 ml/min. Pulsation Typically < 1.0% or < 0.2 MPa, whichever is greater.
- Must support 3 μ m, 5 μ m and <2 μ m UHPLC and LC-MS Columns.
- Superior degassing facility should be provided.
- Automatic and continuous compressibility compensation throughout the flow.
- Provision of 10 or more gradient curves including Linear, Step, Concave and Convex etc.
- System must support integrated diagnostic data preservation and auto recovery.

HPLC sample manager (Autosampler):

- The system must be integrated with Autosampler or Sample Manager having Rheodyne Flow through needle technology or better (manual injection facility should also be provided with).
- Pressure durability 10000 PSI or better.
- Linearity $r > 0.99999$, must support injection cycle times down to 8 s or lower.
- Injection volume range must be 0.01–100 μ L or better, vial capacity must be 1.5 ml-2.0 ml or better, total accommodable vials maximum 200 and 380 well capacity.

Specifications for High Performance / Pressure Liquid Chromatography (HPLC) Instrument

- Needle wash, temperature control (4⁰ C to 40⁰ C), injector linearity (equal to or better than 0.99999 correlation coefficient), pH tolerance (1-12), injector precision (equal to or less than 0.25% RSD from 5.0 to 1000.0 µL or better) must be accurately programmable.
- System must be highly accurate, reproducible and with minimum to no loss/ carryover (≤0.0004 % or better).
- Automated barcode recognition, sample dilution, proper selection of vials/wells should be accurate.

HPLC thermal column management:

- Columns up to 300 mm in length & as wide as 4.6 mm ID. Compartment should have both still & forced air facility or better
- Temperature support between 10°C to 80°C or better with Peltier control, accuracy of +/- 0.5 °C, stability of +/- 0.3 °C, stability ±0.05 °C
- Separate programming slots for column compartments (pH durability: 1-12)
- High precision history tracker.

Photo diode array (PDA) detector:

- Wavelength Range must be between 190-800 nm or better with 1024 diode elements.
- Spectral Bandwidth: <1 nm with minimum 0.6nm pixel resolution, linear range up to 2.2 AU or better > 2 AU (5%) at 265 nm
- Wavelength Repeatability ± 0.1 nm or better, Wavelength Accuracy ± 1 nm or better, Optical Resolution must be 1.2 nm or better
- Data Acquisition: Up to 120 Hz or higher. Simultaneous acquisition of eight simultaneous channels along with 3D.
- Light Source: Deuterium lamp and W lamp. Should cover entire range. Have optimum warranty. Optimum performance, upgradation & backup facility. Be highly efficient, sensitive, replaceable.
- High accuracy filters with auto calibration and equipped with advanced technology.
- Proper leak and/or pressure detection and handling facility must be present.
- High precision temperature control.
- Flow cell design must be appropriate and volume small enough (< 8.5 ul) to allow most efficient detection. Thus, efficiently small path length.
- Operating mode: Both 2D and 3D having Digital Resolution of 1.2nm (2D mode) or better, Sensitivity Setting Range must be 0.0001 – 2.0000 AUFS or better
- Must have full provision for 3D Fluorescence Detector, RI Detector, ELSD and MS/ LC-MS or HRMS Detector to be attached for future use.

Column & accessories:

- **Combination of columns must be supplied.** Suitable for detection of protein/peptides/ amino acids/drug/enzymes/hormones other molecules in patient sera. **Amino acid derivatization accessories (all required reagents & kits), Protein Hydrolysis Accessories (vacuum hydrolysis tubes, heating bath, kits & vacuum pumps, SPE manifold & appropriate extraction cartridge).**
 - **C18 column** having End-Capped for high efficiency and chemical stability with a wider usable pH range [pH 1-12] having dimension of 4.6 x 250mm,

Specifications for High Performance / Pressure Liquid Chromatography (HPLC) Instrument

Sum. Sample Preparation accessories must be Quoted for detection of drug and protein level in patient serum.

- **C8 column** (specification as already mentioned).
- **Normal phase column** (specification as already mentioned).
- **Suitable amino acid column or equivalent.**
- **Suitable Protein /enzyme assay column** or equivalent.

Compatible software:


- Compatible software (64 Bit) with full supportable features & security facilities, license term, pre-templates, archives, filters, answer wizards, highly advanced features must be provided with proper PC having LCD/LED monitor.
- Must be upgradable.
- Software must be flexible enough to support UV/VIS, Fluorescence, RI, ELSD, MS/ LC-MS or HRMS any chromatographic data.

Other necessary inclusions:

The instrument must satisfy IQ/ OQ/ PQ along with the Software. Authentic International and National certificates must be provided with. Reputed branded computer and UPS (with at least 30 min back up), all reagents and kits (including buffers, reagents for calibration, standards etc. should be provided. Good quality solvent bottles, highly durable materials and tubings, chemicals must be supplied. Full specifications of the integrated HPLC system must be available on line and provided as hard copy. Vendors must declare the availability of the spares for 10 years from the obsolescence date of the model from the Market. Vendor/Bidder must have Official Service support facility at convenient location and/ or be easily contactable/ reachable.

Warranty: 3 Years comprehensive Warranty must come with the instrument.

#A thorough Demonstration, Commissioning & Detailed training on instrument & its application must be provided by trained reputed personnel on site and assistance must also be provided whenever required in future.


Prof. (Dr.) Rajib Das 05/22
MD, DM-Clinical Haematology
Professor
Department of Haematology
N.R.S Medical College & Hospital, Kol-14
Reg. No: 53827 of WBMC