



**DR. RAM MANOHAR LOHIA INSTITUTE OF MEDICAL SCIENCES**

VIBHUTI KHAND , GOMTI NAGAR, LUCKNOW- 226 010

Phones: 0522-4918502, 4918510, Fax 0522-4918506 Website : [www.drrmlims.ac.in](http://www.drrmlims.ac.in)

Ref. No. RMLIMS/MM(eq)/2019-20/ 4759

Date:- 17.12.2019

**RE-TENDER/E-TENDER NOTICE (2<sup>nd</sup> time offer)**

On line offers are invited through e-tender from Manufacturer/Direct Importers/Authorized distributors for the supply of various items. **The offers submitted earlier for the listed items by the bidders against tendered advertisement no. RMLIMS/MM(eq)/2019-20/ 4172 & 1706 dated 25.10.2019 & 30.07.2019 will be treated as cancelled.** Therefore, those who have already submitted their offer against above advertisement are also required to submit again and they are required to deposit tender fee and EMD afresh and enclose its proof in technical bid as per tender terms & conditions, along with their complete offer. Earlier EMD deposited against the above mentioned cancelled tenders will be refunded to the bidder on their request.

For detailed information like Name of Equipments, Date of submission, tender fee and opening of tender etc., you may please visit the e-tender portal [www.etender.up.nic.in](http://www.etender.up.nic.in). The offer will be accepted on line only on e-tender portal with terms and conditions as mentioned in tender document. Any amendment will be uploaded only on the e-tender portal [www.etender.up.nic.in](http://www.etender.up.nic.in). Details are also available in our website [www.drrmlims.ac.in](http://www.drrmlims.ac.in) for reference only.

**Director**

Advertisement no. RMLIMS/MM(eq)/2019-20/4759 dated 17.12.2019

- Start date of Submitting of e-Tender is:- 18.12.2019
- Last date of Submission of e-Tender is:- 02.01.2020 upto 4:00 P.M.
- Date of opening of Technical bid is :- 03.01.2019 from 03:00 P.M. onwards

### **Equipment list**

Sr. no.	Name of Department	Name of Equipment	Qty	Tender Fees including @18% GST	EMD Amount	Total estimated cost
1	Neurosurgery	ETO Machine (2 <sup>nd</sup> time offer)	1	2360	50500	50,00,000.00
2	Biochemistry (Teaching)	Fully Automated Capillary Electrophoresis System (2 <sup>nd</sup> time offer)	1	2360	30500	30,00,000.00
3	Biochemistry (Central Research Lab)	Micro Array (2 <sup>nd</sup> time offer)	1	2360	100500	1,00,00,000.00
4		Liquid Chromatography Tandem - Mass Spectrometry (LCMS/MS) (2 <sup>nd</sup> time offer)	1	2360	200500	2,00,00,000.00
5	PMR	Complete Audiometry Setup (2 <sup>nd</sup> time offer)	1 set	2360	40500	40,00,000.00
6	Common use like ICU, Cardiology etc.	Ventilator (2 <sup>nd</sup> time offer)	20	2360	400500	4,00,00,000.00

## TENDER DOCUMENT 2019-20

### GENERAL TERMS & CONDITIONS FOR INVITING E-TENDER NOTICE NO.

**RMLIMS/MM(EQ)/2019-20/4759 DATED 17.12.2019**

The following terms & conditions should be complied with while submitting the tender:-

1. Competitive e-bids are hereby invited by the Director, Dr. RMLIMS, Gomti Nagar, Lucknow from the Original Equipment Manufacturer/ Direct importers/Authorized distributor for the supply of various items/equipments.
2. The tenderers shall submit the offer **online** in original copy of the tender documents duly signed with seal on each page. The tenderers terms and conditions be clearly typed or legibly written giving the full name and address of the tenderers. The tenderers should quote in figures as well as in words the rates and amount tendered by him/them. Alteration, if any, unless legible and attested by the tenderers, with their full signature, shall invalidate the tender. The tender should be signed by the tenderers himself/themselves or him/their authorized agent on his/their behalf. In case the tender is signed by the agent the authority letter (latest and on original letter head of the OEM with original signature) in his favour shall be enclosed with tender documents. The tenderers should take care that the rates and amounts are written in such a way that interpolation is not possible. No blank space should be left, which would otherwise make the tender liable for rejection.
3. **GST Registration certificate** duly self attested must be enclosed.
4. Bidder must submit last three year income tax return proof duly self-attested with the bid.
5. **The tenderers shall submit the offer online only as specified in <https://etender.up.nic.in>. The offline tender will not be considered under any circumstances.**
6. Tenders should be submitted in two-bid system consisting earnest money, tender fee, technical offer & price bid. The proof of online submission of tender fee & EMD should be submitted in first part along with technical bid and price bid be submitted in second part. The Price Bid should strictly be in the format as specified in e-tendering. **Instruments consisting different parts or items, then item wise price must be quoted in the price bid.**
7. All Quotes shall be FOR DR.RMLIMS, Lucknow. Delivery schedule with definite date of delivery at destination (taking into cognizance of transit facilities) must be indicated. This contractual delivery date/period should be inclusive of all the lead-time.The delivery date, as mentioned in the supply order will be binding on vendors.
8. The tenderers should clearly state whether he/they are Original Equipment Manufacturer/ Direct importers/Authorized distributor (declared by principal firm only) and the authority letter must be attached with technical bid.The tender submitted by third party and subletting of tender will not be entertained.
9. The tenderers submitting his/her tender would be deemed to have considered and accepted all the terms and conditions. No Enquiries, verbal or written, shall be entertained in respect of acceptance or rejection of the tender.
10. The offer shall be unconditional. Any conditional price bid and offer will not be entertained and the tender will be treated as cancelled.
11. The quantity shown in the Schedule may be increased or decreased to any extent depending upon the actual requirement.
12. The tenderer shall specify regarding after sales services facilities within the Guarantee/Warranty period and CMC period.

13. The tenderer shall also confirm the Installation, Commissioning, Demonstration and Training, if required, to the concerned department under intimation to The Joint Director (MM) of the Institute.
14. The Institute reserves the right to reject or accept the tender after reviewing the previous performance to the services given by the vendor in the equipment already supplied by him.
15. The Institute reserves the right to cancel/reject in full or any part of the tender which generally do not fulfill the conditions stipulated in the tender without assigning any reason.
16. The tenderer shall submit the pre-installation information like Civil works/ Electrical details etc. All necessary requirements along with the offer, in order to make the equipment functional and any subsequent request on post supply order will not be entertained.
17. **The firm has to submit an undertaking that the equipment is of latest model & version, has the latest state-of-art technology and till date no revised or amended version has been launched in regard to specification given in tender document. The spare parts will remain available for at least next ten years and Software upgradation, if needed, will be provided free of cost during warranty & CMC period.**
18. Any action on the part of the tenderer to influence anybody of the Institute will make his/their tender liable to rejection.
19. In the case of placement of Purchase Order, the vendor (the tenderers whose tender is accepted) shall have to confirm the purchase order within 7 days from the date of the dispatch of purchase order otherwise it will be deemed that offer is acceptable to the firm. Notwithstanding any other provision, the terms & conditions and any other items given in the Purchase order will be treated as binding with "Errors & omission excepted" basis. However, if the supplier notices any discrepancy in the order, he/ they must bring the same to the notice of the Institute and seek clarifications. Supplier will have to bear the responsibility for failure to take this action.
20. The Institute may, in writing, make any revision or change in the purchase order including additions or subtractions from the quantities originally ordered in the specifications or drawings. If any such revisions/changes affect the price or delivery, the same shall be subject to the adjustment of price/delivery, where required on a reasonable basis by mutual agreement in writing which should be communicated.
21. **PBG:-**
  - The tenderer shall furnish performance bank guarantee/FDR (as security money) @ 15% of FOB/FOR value in favour of Director Dr.RMLIMS, Lucknow at the time of installation of the equipment/goods and the period of PBG/FDR shall be effective from the date of installation of the equipment upto 03 months after the end date of warranty period.
  - PBG/FDR will be returned to the firm on submission of another PBG/FDR @ 15% of total CMC Value of 5 years which will be valid after 03 months from the date of expiry of CMC period.
22. The Institute reserves the right to cancel the purchase order or any part thereof and shall be entitled to revise the contract wholly or in part by a written notice to the vendor, if;-
  - The Vendor fails to comply with the terms of the purchase order including specifications and other technical requirement.
  - The vendor becomes bankrupt or goes into liquidation
  - The vendor fails to deliver the goods in time and or does not replace the rejected goods promptly.A receiver is appointed for any of the property owned by the vendor.
23. Upon receipt of the said cancellation notice, the vendor shall discontinue all works of the purchase order and matters connected with it.

24. Tender fee and EMD details:-
- A. The tender fee (non-refundable) and Earnest Money Deposit (EMD) be deposited online as per following details and receipt / proof of the same must be attached with the technical bid. Otherwise tender will be treated as cancelled.
- (a) Account Number- **177301088888888**
  - (b) Name of Account – Director, Dr.Ram Manohar Lohia Institute of Medical Sciences, Gomti Nagar, Lucknow
  - (c) Name of Bank and Branch – Indian Overseas Bank, Vibhuti Khand, Gomti Nagar, Luknow, U.P.-226010
  - (d) IFS Code- IOBA0001773
- B. For online refund of EMD, following details be provided by the bidders in technical bid:
- (a) Tender number
  - (b) Name of bidder/tenderer
  - (c) Name of equipment
  - (d) Amount of EMD
  - (e) Name of Bank and Branch
  - (f) IFS Code
  - (g) Name of account
  - (h) Bank Account number of the firm
- i. In non-compliance of terms & conditions of the tender and/or supply order, EMD may be forfeited.
  - ii. The EMD of unsuccessful bidder will be released after the supply is matured.
  - iii. The EMD of successful bidder will be released after execution of supply order satisfactorily.
  - iv. No interest will be paid on EMD amount of successful/ unsuccessful bidders.
25. The tenderers shall deposit the required tender fee (non. refundable) of Rs. 2360.00 i.e. Rs. 2,000.00 + Rs. 360.00 as GST @18% (Rs. Two Thousand only + Three Hundred Sixty as GST @18%) online in favour of Director, Dr.RMLIMS, Lucknow, as per the details given in Clause no. 24. The proof of online submission should be submitted in first part i.e. technical bid.
26. Unless otherwise specified in the order, the order price shall remain firm and will not be subject to escalation of any description during the pendency of the order, notwithstanding the change in the cost of materials, labour and/or variations in taxes, duties and other levies on raw materials and components while the order is under execution even if the execution of the order is delayed beyond the completion date specified in the order for any reason whatsoever.
27. The price should be on F.O.R. Dr. RMLIMS, Lucknow, Central Store basis inclusive of all levies and duties.
28. Prices will be quoted on F.O.B. as well as estimated CIP/CIF upto Dr.RMLIMS, Lucknow, Central Stores (Insurance from Firm's warehouse to Dr. RMLIMS, Lucknow basis) for imported goods.
- The Indian Agency Commission payable to Indian Agent, if any, shall be shown separately and that will be payable in equivalent rupee directly to Indian Agent. Indian Agency Commission payment shall be made on the basis of prevailing exchange rate at the time of payment or calculated as at the time of last date of submission of tender whichever is less. No taxes will be paid on Indian Agency Commission.
- The supplier shall be responsible to get the goods air –freighted/sea freighted & air insured/marine insured up to the Dr.RMLIMS, Lucknow. Please quote price in Format enclosed as **(annexure-D)**.
29. Declare separately the FOB and CIP/CIF prices.

30. The offer of the tenders shall remain valid for a period of at least 180 days from the date of opening of the tender.
31. All goods or materials shall be supplied by the tenderers whose tender is accepted, strictly in accordance with the specifications, drawings, data sheets, other attachments and conditions stated. Any alterations of those conditions shall not be made without the consent of the Institute in writing which must be obtained before any work against the order is commenced. All material furnished by the seller pursuant to this order (irrespective of whether engineering, design data or other information has been furnished, reviewed or approved by the Institute) will be guaranteed to the best quality of their respective kind (unless otherwise specifically authorized in writing by the Institute) and shall be free from faulty design, workmanship and materials, and to be of sufficient size and capacity and of proper materials so as to fulfill in all respects with all operating conditions, if any, specified in this order.  
In case of import, the suitable action will be initiated against the principal firm & tenderer, if equipment is not found in accordance with the specification as laid down in the supply order
32. The Equipment supplied shall carry an unconditional standard warranty for 5 years (60 months) to be declared by OEM from the date of satisfactory Installation and commissioning of the equipment. If any trouble or defect originating with the design, materials, workmanship or operating characteristics of any material arise at any time from the date of Installation, the same shall be promptly make such alteration, repairs and replacement as soon as notified thereof, the seller shall at his own expenses and as promptly as may be necessary to permit the materials functional in accordance with the specification and to fulfill the foregoing guarantee/ warranty and the Institute will enter into CMC agreement from six to ten year (6<sup>th</sup> years to 10<sup>th</sup> years) at the time of end of warranty date of the equipment.
33. i. The firm shall remove and replace/repair such defective parts of the equipment at firm's expense with in the warranty period and the warranty of such spare parts will be given by the firm either upto the original warranty period of the equipment or thirty months (30) whichever is higher.  
ii. If firm fails in the replacing such spare parts within the desired time period, the institute at its option, may get replaced the defective spare parts at firm's expense and the warranty clause written above will be applicable on the replaced spare parts. The cost of such spare parts shall be payable by the firm to the institute either direct or will be claimed from PBG.
34. In the event that the materials supplied do not meet the specifications and are not in accordance with the drawings, data sheets or the terms of this order, rectification is required at site, the RMLIMS shall notify to the seller giving full details of differences. The seller shall attend the site, within seven days of receipt of such notice, meet the representative of the RMLIMS and action required to correct the deficiency.
35. If the seller fails to attend the fault within the prescribed time Dr. RMLIMS, Lucknow shall immediately get the same rectified on costs of the seller/supplier.
36. **Payment Terms :-**
- In case of Indian goods, 100% payment will be released within 30 days from the date of satisfactory installation.
  - In case of purchase of goods/equipment by Letter of Credit mode, the payment schedule will be as follows.
    - A - 75% will be released after shipment by negotiation.
    - B - 25% will be released after satisfactory installation.
37. The mode of payment will be through irrevocable letter of credit or international Bank Draft (IBD). However, Indian Agency Commission or Technical Service charges would be paid in Indian rupee after satisfactory receipt & installation of goods at site duly verified by concerned HOD. Indian Agency Commission will be declared in the price bid. If Indian agency commission is not mentioned in the price bid no claim for it shall be admissible afterward. Please note, in case of IBD, the original bank draft may be handed over to firm only after satisfactory receipt and satisfactory installation of the equipment.

38. Delivery Time as mentioned in Purchase order or date of opening of letter of credit (L/C) or date of issue of letter to supply on the basis of payment through international Bank Draft (Payment through IBD will be made after supply and Installation of the equipment) shall be the essence of the order and no variation shall be permitted except with prior authorization in writing from the Purchaser.
39. In the event of delay in making delivery on the part of the vendor, it will be at purchaser's discretion to receive delivery with a late delivery penalty clause.
40. Force majeure shall mean and be limited to the following:
- \* Any wars or revolutions, hostility, Acts of public enemy, sabotage, fires, explosions, epidemics, quarantine restrictions and freight embargoes.
  - \* Any riot or civil Communication
  - \* Any earthquake, flood, tempest, lightning or other natural disaster
  - \* Any strike, or lock-out (only those exceeding ten continuous day in duration) or other conditions affecting the performance of the seller's obligations.
41. The seller shall advise the RMLIMS by registered letter duly certified by Local Chamber of Commerce of Statuary authorities the beginning and end of the above causes of delay within 7(seven) days of occurrence and cessation of such Force Majeure conditions, in the event of delay lasting over one month, if arising our causes of Force Majeure, the RMLIMS reserves the right to cancel the order and the provisions governing termination state under articles shall apply. For delays arising out of Force Majeure, the seller shall not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither the RMLIMS nor the seller shall be liable to pay extra costs provided it is Mutually established that Force Majeure conditions did actually exist. The seller shall categorically specify the extent of Force Majeure conditions prevalent in his works (such as power restriction etc.) at the time of submitting the bid and whether the same have taken into consideration or not in the quotations. In the event of delay in delivery and/or unsatisfactory manufacturing progress and supply, the RMLIMS has the right to cancel the purchase order as whole or in part without liability of cancellation charges.
- In the event of rejection of non-conforming goods the vendor shall be allowed, without any extension of delivery time to correct the non-conformities, if the vendor fail to do so within stipulated time, the RMLIMS may cancel the order.
42. No payment shall be made for rejected material nor would the tenderer be entitled to claim for such items.
43. Rejected items would be removed by the tenderer from the site within two weeks of the date of rejection at their own cost. In case they are not removed they will be auctioned at the risk and responsibilities of the suppliers without any further notice.
44. **Penalty Clause** :-
- a. In the case of not honouring the supply order, Ram Manohar Lohia Institute of Medical Sciences, will forfeit the EMD.
  - b. The time for the date of delivery/dispatch stipulated in supply order shall be deemed to be the essence of the contract and if the supplier fails to deliver or dispatch any consignment within the period prescribed for such delivery or dispatch in the supply order, liquidated damages may be deducted from the bill @ 0.5% per week or part thereof to maximum of 10% of the basic cost of goods for delayed supply (The delivery period will be calculated from the next day of the dispatch date of purchase order to the previous day of receipt of material in the Institute). The competent authority of the institute may also cancel the supply at the cost & liability of the supplier. In such a case, bid security of the supplier shall stand forfeited. The supply of equipment must be in single consignment, inclusive of all parts & accessories in adherence to the specification so as to make the equipment fully functional at the time of the installation. No installation repeat shall be signed in case of absence of any part as per the specification.

Late supply in the case of Letter of Credit goods the firm may supply the goods after getting written permission from the Institute with late delivery clause @ 0.5 % per week or part thereof to maximum of 10% of the basic cost (FOB/FOR) of goods for delayed supply (The delivery period will be calculated from the next day of the opening of Letter of Credit to the previous day of receipt of material in the Institute).

- c. The standard delivery period shall be Letter of Credit (LC) period FOR/FOB nearest port in India and additional delivery period from nearest port to the Institute shall be not more than fifteen days (15 days).

Delivery period for the Indian/foreign supply will be as per offer made by the bidder in the Technical/Financial bid. (The Institute prefers delivery period not more than 105 days).

45. The firm may be required to facilitate the copy of supply order of other establishments (preferably Government) as mentioned in the installation list in the tender, to justify the tendered rates.
46. List of installations for the offered equipment/items only instead of allied/other range of equipment in India along with performance report duly signed and stamped by the user(s) may be provided with the tender documents.
47. All disputes and questions, if any, arise between the Institute and the bidder out of or in connection with the terms and conditions contained herein or as to the construction of application thereof, or the respective rights and obligations of the parties there under or as to any clause or thing herein contained or by reason of the supply or failure or refusal to supply any material or as to any other matter in any way relating to this offer shall be decided by the Director of the Institute and when the decision would not be accepted by the bidder, then the matter shall be referred to the chairman of the Institute as sole Arbitrator. The chairman of the Institute may appoint any suitable Arbitrator whose decision dully approved by the Chairman of the Institute shall be final and binding upon both parties and subject to adjudication of Lucknow Court. Place for arbitration shall be at Lucknow (U.P.), India. Venue of such arbitration proceedings shall be the Institute. Arbitration and conciliation Act 1996 and rules made there under shall be applied to the proceedings under this clause.
48. A minimum of 95% uptime of equipment is to be maintained during warranty period and also after warranty period during comprehensive maintenance contract for the next five years. If the equipment is not up time upto the above mentioned period suitable action shall be taken against the supplier including imposition of penalty as deemed fit.
49.
  - The supplier should provide comprehensive maintenance contract (with spare/consumables /Accessories including laborer charges) inclusive of customs and all taxes for the next 5 years (i.e. years 6 to 10 inclusive). The CMC Rate for the sixth year should not be more than 5% of FOB and escalation in next year CMC should also not be more than 5% of the prior year CMC rates. If the rates of CMC are not clarified by the bidders, their offer will not be considered for comparison of price and will be treated as cancelled.
  - GST on CMC will be treated as inclusive, if the firm has not mentioned GST rates separately.

The price bid will be opened **online** in the presence of authorized representative of technically qualified tenderer within reasonable time.

- i. The evaluation report of technical bids by the technical committee will be the final decision for qualifying the firm.
- ii. For Foreign Goods the exchange rate (**as per RBI reference rate**) of foreign currency will be the prevailing rate on the last date of submission of Tender .
- iii. The prices for optional items if not required in Technical Specification will be excluded for ranking purpose.

50. **Custom Duty and Custom Clearance Charges** :- The supplier will get the equipment/consignment cleared from the custom. The Custom Duty and Custom Clearance Charges will be reimbursed to the firm on the production of appropriate document and certificate. No demurrage/warehouse charges will be payable by the Institute under any circumstances. No advance payment will be payable for custom duty/ custom clearance.

In addition to the clause no. 06 & 49 above the criteria for determining L-1 would be as followed:-

- (i) Quoted CIP/CIF rates of the equipment with all standard and essential accessories as per specification with 5 years unconditional warranty.



- (ii) Quoted CMC charges including GST after expiry of warranty period from 6<sup>th</sup> to 10<sup>th</sup> year.
- (iii) Price with all accessories as per technical specifications along with Custom duty, Custom Clearance, Insurance, Freight, IGST, turnkey (if applicable) as quoted in price bid will be added for determination of L1 and if the rates are offered in Indian currency, the rates of GST quoted in price bid will be added for determination of L1.

If needed Institute may enquire the rate of taxes and duties at its own and only the correct rates will be applied for calculation of L-1 in the comparative chart.

**For calculation of L-1 rates of taxes and duties in value or in percentage may be quoted in price bid prevailing at the time of submission of bid.**

51. Payment to 3<sup>rd</sup> party on behalf of bidder will not be permitted in any circumstances.
52. All the operating and service manuals in duplicate to be provided by the vendor at the time of handing over the machine.
53. If there is any discrepancy in terms between General Terms & Conditions of Tender Document and specification of any equipment, then the details given in General Terms & Conditions of Tender Document will be considered valid and will be binding. Accordingly, the terms of comprehensive maintenance contract will be governed by the General Terms & Conditions of Tender Documents.
54. Catalogue, data sheet, complete module and other necessary document shall be provided in original form. In the shape of Duplicate or photocopier form of documents shall not be accepted.
55. In case of imported goods consignment must reach Indian port within currency of L/C.
56. No financial documents of any tenderer will be entertained after opening of financial bid/ technical bid.
57. The supplier will make atleast quarterly visit for maintenance during warranty period.
58. Unconditional warranty & Guarantee for 5 years to be declared by OEM (Original Equipment Manufacturer) /Tenderer from the date of installation. The warranty/guarantee must cover all parts of the equipment except consumable only.
59. The firm will provide an affidavit to this effect that “THIS IS TO CERTIFY THAT THE RATES QUOTED for the equipment TO DR. RMLIMS, LUCKNOW ARE THE LOWEST ONE. WE HAVE NOT QUOTED/SUPPLIED AT LESSER PRICE TO ANY ORGANISATION WITH THESE SPECIFICATIONS. IN CASE OF NON-SUPPLY IN INDIA, THE AFFIDAVIT TO THIS EFFECT WILL HAVE TO BE SUBMITTED BY THE FIRM.  
WE FURTHER AGREE THAT IF ANY PRICE DISCRIPANCY IS FOUND ON LATER DATE, WE WILL BE LIABLE TO REFUND THE SAME.
60. Subletting of the tender to the sub-distributor is not permissible, if subletting is found, the EMD, submitted by tenderer, will be forfeited. If the same item is quoted by the principal and one or more distributors of same principal firm, the same will be treated as one tender and the lowest rate will be considered.
61. The tenderer shall insure after sales services facilities within the Guarantee/Warrantee period. The warrantee period may be extended for the period of the instruments remained out of order during warrantee period.
62. The Manufacturer or their Indian representative will ensure a proper after sales service as per our requirement from time to time, against the guarantee/warrantee clause as per terms and conditions agreed under negotiations would be provided to our Institute without fail. Any negligence on this account shall be the sole responsibility of foreign vendor as well as indian agent and the liability for compensation will be fixed by the Institute. An undertaking from the manufacturer that in the event of change of Indian Agent, the new agent will provide the CMC on similar terms and conditions or the manufacturer himself undertakes the responsibility of proving the satisfactory after sales services under such events. If the equipment is not rectified by the firm and the equipment is under breakdown for certain period, the Institute will impose the penalty clause for that period as deemed fit.
63. If any information submitted by the bidder is found incorrect then
  - The bidder may be blacklisted by the Institute; and/or
  - The bidder may be debarred from future participation; and/or
  - The Institute may impose such embargo in the bidder as deemed fit and/or

The Institute may take such action against the bidder as deemed fit.

64. **Turnover:-** The tenderer shall have an average annual turnover of not less than two times of the tentative cost of the tendered item/items during the last three financial years. Turnover details should be supported by a copy of balance sheet and Tax audit report duly certified by Chartered Accountant (CA).
65. Details of after sale service support should be provided which will include the followings:  
(a) Corresponding address of service centre.  
(b) Telephone No.(Office).  
(c) Name of Service Engineers along with mobile number & e-mail address.
66. The Price Bid of the technically qualified vendor will be opened on-line after technical evaluation is done.
67. **All fields and columns of price bid must compulsorily be filled.**
68. If, the equipment is of foreign make and quoted in Indian currency (INR), the firm will have to submit the AWB or Packing list of manufacturer/principal firm or Cargo Arrival Notice (CAN) in support of import, pertaining to the Institute, if the order is awarded to him/them. The date of these documents will be preferably of later date of supply order.
69. As per Institute's requirement and tender terms, the equipment need to remain functional during 05 years warranty as well as 05 years CMC period.
70. Any rule / guidelines declared by the Government would prevail over the existing terms and conditions.
71. **HSN code of the equipment/goods must be mentioned in price bid format.**
72. Check list as per annexure-A shall be submitted by the firm in technical bid.
73. Each & Every page or paper of the tender document should be serially numbered, singed & stamped by an authorized signatory of the bidder.

**Note:-Please note that separate tender should be quoted for each item/ equipment.**

**Enclosed 1- Annexure A**

(Format of Check List)

**Enclosed 2- Annexure B**

(Specifications of the Equipment)

**Enclosed 3- Annexure C**

(BOQ for items/equipment in Indian Currency)

**Enclosed 4- Annexure D**

(BOQ for items/equipment in Foreign Currency)

**Joint Director (MM)  
for Director  
Dr. RMLIMS,  
Vibhooti Khand, Gomti Nagar,  
Lucknow, (U.P.)**

**Annexure-A**

**Check list**

**e-Bid reference no:** /RMLIMS/MM(eq)/2019-20/4759 dated 17.12.2019

Before submitting the tender, the bidder should check the following enclosures (to be submitted with Technical bid **compulsorily**).

<b>S. No.</b>	<b>Particulars</b>	<b>Page (From)</b>	<b>Page (To)</b>
1	Name of Bidder/Tenderer		
2	Name of Proprietor/ Managing Director of Bidder		
3	Permanent address of Bidder with e-mail and contact no. (Copy should be attached)		
4	The proof of online submission of tender fee & EMD		
5	GST Registration number (copy should be attached)		
6	Income Tax return certificate. (Last three years copy should be attached)		
7	Permanent Account Number (copy should be attached)		
8	The affidavit from a notary that the firm has never been black listed must be attached.		
9	The tenderers should clearly state whether he/they are Original Equipment Manufacturer/ Direct importers/Authorized distributor (declared by principal firm only) and the authority letter must be attached with technical bid.		
10	The tenderer shall specify regarding after sales services within the Guarantee/Warranty period and CMC period.		
11	The firm may be required to facilitate the copy of supply order of other establishments (preferably Government) as mentioned in the installation list in the tender, to justify the tendered rates.		
12	<b>Turnover:-</b> The tenderer shall have an average annual turnover of not less than two times of the tentative cost of the tendered item/items during the last three financial years.		
13	The firm will provide an affidavit to this effect that “ THIS IS TO CERTIFY THAT THE RATES QUOTED for ..... TO DR. RMLIMS, LUCKNOW ARE THE LOWEST ONE. WE HAVE NOT QUOTED/SUPPLIED AT LESSER PRICE TO ANY ORGANISATION WITH THESE SPECIFICATIONS. IN CASE OF NON-SUPPLY IN INDIA, THE AFFIDAVIT TO THIS EFFECT WILL HAVE TO BE SUBMITTED BY THE FIRM. WE FURTHER AGREE THAT ANY PRICE DISCIPANCY IS FOUND ON LATER DATE, WE WILL BE LIABLE TO REFUND THE SAME.		

Name, seal and Signature of bidder

**(1) Technical Specifications of ETO Machine**

SN.	Specification
1	The Ethylene Oxide (ETO) Gas Sterilizer Should be Fully Automatic with software Controlled Operation System Suitable for Low Temperature Sterilization of Heat and Moisture Sensitive Medical and Surgical Item
2	The Chamber Should be Preferably Rectangular with Capacity of 200 to 250 L or 8 Cubic FT.
3	The Chamber Should be double walled and made of suitable material which is resistant to corrosion and gas like T- Grade 6061.
4	The interior of the Chamber should be smoothly finished to minimize gas deposits/Made of Aluminum.
5	The Sterilant Should be 100% ETO Gas.
6	Sterilizer Should have automatic gas puncturing system and work under NEGATIVE PRESSURE ensuring operator safety.
7	The Sterilizer Should Work on single dose Cartridge of ETO with 2 D Barcode for record keeping.
8	The ETO Cartridge Should be EPA registered and should be of the same make of the sterilizer.
9	Sterilizer Should have a UL Certification.
10	Sterilizer Should have System for Variable Parameter Settings of Time , Temperature , Relative humidity (RH), Gas Exposure and Aeration Depending on Load and Composition of materials.
11	The Sterilizer Should have video Screen for display Status of Program Cycle Parameters including Pressure temperature and RH.
12	The Sterilizer Should have Device of data storage for at least 100 cycles as well as facility of Internet and USB Connection for Transfer of data of the Cycle.
13	The Sterilizer Should Operate for the following minimum essential program cycles.
i)	Sterilization cycle for heat Sensitive objects that ensure Temperature from 33 to 55 degree C with Subsequent aeration for protection of the operating personnel.
ii)	Aeration Cycle to extract residual gas out of the sterilized objects after each sterilization Cycle.
iii)	Automatic Chamber evacuation cycle with Subsequent Venting before opening the Door lock to avoid any gas Exposure to Operating Personnel.
14	The Sterilizer Should have Single door with suitable Safety interlocking arrangement so that the Sterilizer process does not start unless the door is properly locked in position.
15	The Equipment Should work on Negative Pressure to avoid any leakage of ETO to the Surroundings and Exposure of Gas to the Operator.

16	Sterilizer Should have USFDA and EPA Approval.
17	SterilizerShouldhave Inbuilt Alpha-numericGraphicalThermalPrintertoPrintdate,Programtypeand Program Parameters.
18	The Sterilizer Should beCompliant with EN-1422 Guidelines & BS EN ISO 9001:2000.
19	The manufacture should also provide ETO protection kit along with the equipment.
SN	Specification.
20	Sterilizer should be compliant with <b>RoHS Directive 2011/65/EU and WEEE</b> environmental and disposal directive 2012/19/E, ETO Batch -1.
21	Warranty five years from the date of installation & price of AMC and CMC to be quoted separately.
22	Consumables to carry out sterilization cycles min 50 cycles with packaging papers.
23	Incubatory should be provided free of cost for microbial testing of biological indicators.
24	Training and installation should be provided free of cost.
25	<b>2 latest performance certificate should be provided with tender.</b>

**(2) Technical Specifications of Fully Automated Capillary Electrophoresis System**

1. The system should be multi-parametric instrument to perform HbA<sub>1</sub>C, Hb, serum protein, immuno typing.
2. The system should be able to perform Hb electrophoresis and HbA<sub>1</sub>C(simultaneously,if possible) using standard primarytubes.
3. The System should be able to cap piercing capacity for Hb and Hb A<sub>1</sub>C samples for improved workflow and operator safety.
4. At least 500 tests of each parameter (including consumables) must be provided from the vendor in whole/parts (considering the expiry date) before installation.
5. At least 5 additional capillaries should be provided during span of 5 years warranty on as and when required basis.
6. The system should be fully automated electrophoresis system based on capillaryelectrophoresis technology with simultaneous migrations and complete walk away includingmigration and quantitation.
7. The system should use silica capillaries and electrophoresis in liquid flow.
8. The system should use deuterium lamp with optical fibers for emission and reception and should be included in warranty.
9. The system should accept all types of samples (sample cups or primary tubes) with barcode reader.
10. The system should have automatic loading and un-loading of reagent cups.
11. The system should have the capacity to load minimum 20 samples for Hb, HbA<sub>1</sub>C, serum protein and CDT .
12. The system should perform direct analysis on EDTA blood for Hb/ HbA<sub>1</sub>C electrophoresis.
13. The system should have red cell hemolysate preparation is automatically performed on the instrument for Hb & HbA<sub>1</sub>C electrophoresis.
14. The system should not use any staining procedures and should not use any densitometer for quantification.
15. Software should be provided for automatic curve analysis with long-term storage capacity forresults.
16. The system should have automatic sample dilution for immuno typing.
17. Software should be provided for automatic curve analysis with long-term storage capacity forresults.
18. The system should have quality control set up and Levy Jennings graph.
19. The system software should allow the operator to take patient report in PDF format.
20. The system software should allow the operator to view pathological samples.
21. Suitable PC, printer, online 2 KVA UPS with one hour backup should be provided.
22. The bidders should be ready to provide HIS connectivity at their expense.
23. The vendor should be agree to do rate contract with institute at the time of finalization of bid.

**(3) Technical Specifications of Micro Array**

A reputed brand make high resolution Micro Array Scanner, providing a compact open format solution for imaging of regular and high density microarrays of nucleic acids and protein. The system should support chip/ slide or bead array technology. **The manufacturer of scanner must be manufacturer of arrays in chip or slide format as mandatory condition.**

1. The system must have validated and optimized Kits for applications such as: uncovering new regulatory pathways, Pre and post natal genetic screening, confirming mechanisms of action, validating drug targets, classifying diseases, analyzing toxicological responses.
2. Sample requirement should be low.
3. The system must offer a sensitivity of 16 bit or better. The system should be such that targets present with very low signals must also be detected.
4. The system must offer a resolution of 3 micron or less.
5. The system must come with an autoloader capacity, so that multiple slides/chips can be processed without manual intervention.
6. A QC instrument (through capillary electrophoresis based system) must be supplied for checking quality of DNA and RNA by DQS (40000 bp) and RQS (6000 nt) or equivalent.
7. The customization should be free even for a minimum order of chip/array to meet the experimental requirement.
8. The system must also be provided with a Hybridization oven along with computer work station.
9. A 5 KVA online UPS with 2 hours battery backup should be provided along with the system.
10. The company would provide consumables/chip/array to run 96 (or ~100) samples along with required consumables for installation purpose.
11. The Manufacture must have proven track record to supply microarray system in India. The vendor should enclose minimum 5 performance certificate for verification of the quoted model.
12. Dedicated operator support for two complete years from the date of installation.
13. Paid software for data interpretation/ analysis with 5 years of license. (Freely downloadable software from Internet may kindly not be quoted).
14. A touchscreen PC with latest configuration, wireless keyboard and mouse along with a computer table should be provided.
15. A vibration free table of optimized size to keep instrument is to be quoted.
16. Each of the subunit (instrument) required in the workflow must be covered under warranty/CMC as per institutional norms and performance must be demonstrated during installation. The detailed specification sheet of each subunit must be annexed in the bid.
17. All the agreement regarding applications/service and warranty of are to be done with principle company/ primary distributor.
18. The vendor must be ready to do rate contract with the institute at the time of finalization of the bid.

**(4) Technical Specifications of Liquid Chromatography Tandem - Mass Spectrometry (LCMS/MS)**

<p>A highly Sensitive LC-MS/MS (Triple Quadrupole System), compact equipment for qualitative and quantitative estimation for wide range of research necessities which may be required for collaborative studies among various departments of the institute.</p> <p>It must be capable of IEM evaluation, steroid hormone pathway studies, highly sensitive biomarker assays, metabolomics, proteomics, TDM, immunosuppressant assays, forensic and pharmacological applications.</p>		
<b>1.</b>	<b>Mass Stability</b>	0.1 Da over 24 hours
<b>2.</b>	<b>Dynamic range</b>	Should be 6 orders of magnitude or better
<b>3.</b>	<b>Mass analyzer</b>	<p><b>Quadrupole Analyzer:</b></p> <ul style="list-style-type: none"> <li>The instrument should be configured with a quadrupole mass filter for the efficient transmission of ions in MS mode and selection of precursor ions for MS-MS analysis (Tandem/Triple Quadrupole system)</li> <li>The Quadrupole mass range 20–2000 m/z or better</li> </ul>
<b>4.</b>	<b>Sensitivity</b>	<p>Low level concentration detection and highest sensitivity</p> <ul style="list-style-type: none"> <li>ESI positive/negative Ion Sensitivity: The signal/noise ratio for 1pg of reserpine should be 5,00,000:1 or better, in MRM mode. (All the specifications should be mentioned in company's brochure).</li> <li>The sensitivity must be verified on company's brochure and demonstrated during installation. Lab data would not be acceptable</li> </ul>
<b>5.</b>	<b>Scan speed</b>	Should have the scan speed of 15000 amu per sec or better
<b>6.</b>	<b>Ionization</b>	System should have orthogonal, multimodal (preferred)/interchangeable ionization source or probe (ESI & APCI) to cater broader range of applications. The instrument ionization source housing will have a fully ventilated, fully interlocked and hosting interchangeable APCI (Atmospheric Pressure Chemical Ionization) probe and ESI probes.
<b>7.</b>	<b>Multiple Reaction Monitoring (MRM)</b>	Minimum MRM dwell time 1ms or better
<b>8.</b>	<b>Desolvation Temperature</b>	Should be 500 °C or better
<b>9.</b>	<b>Vacuum System</b>	<p>Robust high efficiency multi stage vacuum system with minimum maintenance and utility with low noise level.</p> <ul style="list-style-type: none"> <li>Vacuum read backs must be digitally monitored and controlled through software to ensure fail-safe operation in the event of power failure.</li> <li>All accessories required for the proper functioning of the vacuum system should be supplied.</li> </ul>
<b>10</b>	<b>Gas Control</b>	All gases must be controlled by the software.



11	<b>Operating modes</b>	Mass spectrometer should have the following scan options: <ul style="list-style-type: none"> <li>• Full scan</li> <li>• Selected Ion monitoring/ recording (SIM/SIR)</li> <li>• Product ion scan</li> <li>• Precursor ion scan</li> <li>• Neutral loss scan</li> <li>• Multiple Reaction Monitoring (MRM/SRM)</li> <li>• Enhance/advance product ion scan</li> <li>• Simultaneous full scan and MRM</li> </ul>
12	<b>Detector</b>	Photomultiplier or Channel Electron multiplier or DDD. A high sensitivity, high throughput detector.
13	<b>Infusion device</b>	<ul style="list-style-type: none"> <li>• An slow infusion device must be integral to the instrument and should be controlled by software</li> <li>• All accessories required for the proper functioning of the vacuum system should be supplied.</li> <li>• System should have built in switching valve.</li> </ul>
14	<b>Gas Generator (s)</b>	Should be supplied with the system along with the trouble free inbuilt compressor and appropriate capacity reservoir which should be sufficient enough to deliver the gases (purity > 99.999%) required to run the system. No external gas cylinder should be required for LCMS operation. If any gas extra gas cylinder is required then its installation and piping work should be done by vendor. Gas cylinder should be supplied in duplicate to provide standby during refilling.
15	The mass spectrometer must be compatible with nano LC and nano source devices and their price may be quoted as optional item with rates locked for warranty period for present/future upgradation subject to availability of the funds.	
16	The system must be capable of trapping ions with axial ejection.	
17	<b>Applications:</b> - <b>Steroid hormones-</b> with LLOQ as following A). DHEA, 17-OH-pregnenolone, pregnenolone $\leq$ 100 pg/ml B). DHEA sulfate $\leq$ 50pg/ml C). Aldosterone, 18-OH-corticosterone, 21-deoxycortisol, corticosterone, cortisol, androstendione, testosterone, DHT, progesterone, 17-OH-progesterone, pregnenolone $\leq$ 10pg/ml - <b>New born screening-</b> to cover aminoaciduria (phenylketonuria, homocysteinuria, MSUD, tyrosinemia etc) and various FA disorders. - <b>Water soluble vitamins</b> like vitamin B12, MMA, Homocystine - <b>Neurotransmitters:</b> Catecholamines, biogenic amines etc	
18	One set of internal standard for all the above along with one kit for new born screening are to be quoted.	
19	The bidder shall be ready to provide application aid for development of home brew methods for all above tests in future as per feasibility.	
20	Two years (complete) operator support must be provided.	

21 .	On site demonstration before installation would be mandatory before installation and must be taken as criteria for acceptance/rejection.	
22 .	<b>High Performance Liquid Chromatography System:</b>	<p>The complete system and the MS should be controlled by the single software</p> <ul style="list-style-type: none"> <li>• <b>Pump:</b> High pressure UPLC with pressure range of 18000 psi or more; binary with degasser. Operating flow range should be 0.05- 1.0 ml/min</li> <li>• <b>Autosampler:</b> With temperature control 4 °C to 40 °C or better. Sample capacity: 96 (1.5/ 2 ml vial) or better.</li> <li>• <b>Column Oven:</b> 20°C to 90°C or better.</li> <li>• <b>Detector:</b> UV-VIS</li> </ul>
23 .	<b>System Controller and Operating system</b>	<p>Software must be Multitasking type. It must acquire and process the data simultaneously</p> <ul style="list-style-type: none"> <li>• Application manager must be compatible with data of full scan, SIM/SIR or MRM</li> <li>• Data Acquisition, Peak Integration, Calibration, Quantification and QC calculations must be fully automated</li> <li>• The Quantification method editor must be viewable in page view or spreadsheet.</li> <li>• Application manager must allow to monitor the molecular ion and up to 04 (four)</li> <li>• Confirmatory ions or better.</li> <li>• Must be capable of performing the following functions and should be upgradable:</li> <li>• Workstation must be able to control the MS, acquire, store, process and reproduce the data by the same computer.</li> <li>• Workstation must be able to control LC, Detector and auto sampler.</li> <li>• It must be able to regulate the gas pressure and flow during the data acquisition and append to the relevant data file.</li> <li>• Software must have automated calibration and Quantitative optimization.</li> <li>• Automated MS to MS/MS switching during a single run with user selectable criteria</li> <li>• Data may be processed as it is being acquired</li> </ul>
24 .	<b>PC, Printer &amp; UPS</b>	<ul style="list-style-type: none"> <li>• PC with suitable latest configuration and 64bit licensed latest operating system With following specification: Intel Core i7 generation Processor</li> <li>• 12 Gb DDR4</li> <li>• 1 Tb SSD (for windows installation) with 3Tb HDD with RAID 1 Configuration</li> </ul>

		<ul style="list-style-type: none"> <li>• DVD RW (CD RW capable), 3 Ethernet ports, 2 single port Broadcom cards. Built in DisplayPort Video capable of a minimum digital resolution of 1920x1200.</li> <li>• Laser 6-button mouse and keyboard.</li> <li>• Suitable coloured laser Printer: Compact and user friendly</li> <li>• 10KVA UPS with 60 Mins back up</li> <li>• Suitable processing PC should be quoted along with system</li> <li>• Vendor should provide 2 nos of 2 ton split ac for lab</li> <li>• Tables for LCMS , UPLC and PC should be provided by vendor</li> <li>• An additional PC with i7 processor or equivalent, 1TB RAM, latest configuration, wall mount touchscreen, wireless mouse and keyboard to be provided for offline work.</li> </ul>
25	<b>Warranty</b>	5 years comprehensive warranty on total instrument including gas generators/cylinders and UPS
26	<b>Application training &amp; support in Institutional training programs</b>	10-12 such sessions are to be provided in first three years to support training programs at institution in addition to initial application training as a part of installation process.
27	<b>Columns</b>	C18, 2.5 $\mu$ , 100 x 2.1 -01 nos C18, 2.5 $\mu$ , 50 x 2.1 mm -01 nos C8, 2.5 $\mu$ m ,50 x 2.1 mm -01 nos C8, 2.5 $\mu$ m , 100 x 2.1 mm -01 nos Phenyl-Hexyl , 2.5 $\mu$ 50 x 2.1 mm -01 nos HILIC, 2.5 $\mu$ , 100 x 2.10 -01 nos
28	The institute shall provide partitioned cabin for instrument; other specifications for site preparation are to be fulfilled by the vendor only for successful installation. The vendors may visit the site for tentative expenditure.	
29	<b>Important note:</b> <b>Offer should indicate all parts with details specification and Brand clearly as required in our specifications</b> The supplier should enclose the technical compliance statements against our technical specifications clearly mentioning for each point. The statement should be supported by relevant literature/data.	
30	Two 1.5 ton split AC must be provided for maintaining the temperature of the cabin.	
31	One vibration free (preferably granite top/as per company specifications) optimized for the instrument along with a computer table	
32	There must be at least one local (within Lucknow) installation along with recommendation from user.	

**(5) Technical Specifications of Complete Audiometry Setup**

**A. Brainstem Evoked Response Audiometer (BERA)& Auditory Steady-State Response (ASSR)**

**A.1. BERA**

- A1.1. 2 channels.
- A1.2. Windows based.
- A1.3. Bone Conduction.
- A1.4. Integrated database.
- A1.5. Pre-programmed auto tests or protocols.
- A1.6. Waveform reproducibility indication.
- A1.7. Split left/right recordings.
- A1.8. Simultaneous recording of condensation rarefaction stimuli.
- A1.9. Normative data indication.
- A1.10. Wave editing during testing
- A1.11. Digital filter application (during and after test).
- A1.12. Add, subtract curves
- A1.13. Low noise amplifier
- A1.14. EcochG recordings with markers
- A1.15. Middle Latency, Late Latency (P300, MMN etc.)
- A1.16. Preamplifier –
  - A1.16.1. Frequency: 0.5 – 5000Hz
  - A1.16.2. Noise:  $4nV/\sqrt{Hz}$
  - A1.16.3. CMR Ratio: not less than 100dB.
- A1.17. Accessories to include- suitable table and patient chair, cup EP electrodes (40 Nos.), Button electrodes (40 Nos.), Insert earphone (2 Nos.), Conductive Paste (20 Nos.) and Abrasive Paste (40 Nos.).
- A1.18. Equipment should conform to US FDA standards as Certified by any of the notified bodies.

**A.2. ASSR**

- A2.1. Stimulus Rate : 40 or 90 Hz
- A2.2. Masking: White Noise 0-100 dB SPL
- A2.3. Display: Stimuli Level and Frequency
- A2.4. ASSR and Audiogram
- A2.5. Customer selectable correction factor available
- A2.6. Impedance Check
- A2.7. All accessories should be from the same vendor.
- A2.8. Should have adjustable latency – intensity norms
- A2.9. Should have feature of simultaneous stimulation of both ears from 500 to 4000 Hz.
- A2.10. Since the equipment is to be used in Institutional setting for next 10 years, it should be supplied with branded PC with minimum Intel i9 processor, 8GB RAM (upgradable), 2TB HDD, 22” HD display with compatible coloured laserjet printer with Duplex printing, USB, LAN and WiFi connectivity, with compatible WiFi/LAN router, online UPS and computer table of adequate size and design.

**B. Oto Acoustic Emissions (OAE)**

**B.1. Distortion Product Otoacoustic Emissions (DPOAE)**

- B1.1. Frequency: 0.5 to 12 kHz

- B1.2. 4 Frequencies tested (3 for pass)
- B1.3. Average test time should be less than 10 sec.
- B1.4. SNR 6dB
- B1.5. DPOAE Stimulus Intensity Range: 40 to 70 dB SPL
- B1.6. Display: DP gram, Probe fit (Frequency & time), Spectrum, protocols.

## **B.2. Transient Evoked Otoacoustic Emissions (TEOAE)**

- B2.1. Frequency: 1 to 5 kHz
- B2.2. 6 Frequencies tested (3 for pass)
- B2.3. Average test time 64 sec.
- B2.4. SNR: 4dB
- B2.5. Stimulus Intensity Range: 83 dB SPL ( $\pm 3$  dB)
- B2.6. Maximum Output (protection): 90 dB SPL
- B2.7. Display: TEOAE Frequency response, probe fit (Frequency and time, including signal correlation)
- B2.8. Microphone System Noise: -20 dB SPL @ 2 kHz (1 Hz bandwidth) / -13 dB SPL @ 1 kHz (1 Hz bandwidth)
- B2.9. Stimulus Sampling Rate: 31,250 Hz
- B2.10. Scope of supply- OAE device, OAE probe, Probe holder kit, test cavity, Cleaning kit, starter kit, USB cable, Software, Manual/User guide, UPS
- B2.11. The equipment memory should have capacity to hold at least 3000 Patient Data and should be transferable to the PC/Laptop system.
- B2.12. Should be supplied with branded Laptop i9 processor, 8GB RAM (upgradable), 2TB HDD, 15" HD LED display, connectable to printer through LAN and WiFi required under item A2.9. above.

## **C. Impedance audiometer with contra ear testing facilities**

- C1.1. Compliance 0.1 to 6.0 ml
- C1.2. Probe tone level and accuracy: 226Hz  $\pm 2\%$ ; 85dB SPL  $\pm 2$ dB 1000Hz  $\pm 2\%$ ; 79dB SPL  $\pm 2$ dB over ear canal volume range
- C1.3. Pressure range and accuracy: +200daPa to -400daPa  $\pm 10$ daPa or  $\pm 10\%$  (whichever is larger) over range 0.1ml to 5ml. Direction of sweep: Positive to negative pressure
- C1.4. Volumetric range and accuracy: 226Hz: 0.2ml to 5ml; 1000Hz: 0.1ml to 5ml  $\pm 0.1$ ml or  $\pm 5\%$  (whichever is larger)
- C1.5. Analysis performed: Admittance peak level in ml (226Hz) or  $m\Omega$  (1000Hz) & pressure at peak; Gradient in daPa (for 226Hz); Ear Canal Volume (ECV), Measurement sweep speeds: Selectable: 100, 200 or 300 daPa/sec.
- C1.6. Test Time- < 3 Seconds
- C1.7. Reflex Mode
- C1.8. Test Frequencies- 500, 1000, 2000, 4000 Hz  $\pm 2\%$
- C1.9. Test Method- Ipsilateral, Contralateral
- C1.10. Reflex levels: Ipsilateral: 70dBHL to 100dBHL ( $\pm 3$ dB)
- C1.11. Reflex levels: Contralateral: 70dBHL to 110dBHL ( $\pm 3$ dB)
- C1.12. Reflex detection threshold: 0.01ml to 0.5ml  $\pm 0.01$ ml (configurable in 0.01ml steps)
- C1.13. Analysis performed: Reflex maximum amplitude and pass/fail at each test level
- C1.14. Series of fixed intensities
- C1.15. Test - Ipsilateral Reflex Test with AGC
- C1.16. Test Programme- Reflex Test selectable
- C1.17. Probe - Light weight, adjustable, Hand Held , With Built in control light & switch
- C1.18. Printer- Silent Thermal Printer , (with paper printer facility)
- C1.19. Display-Graphic LCD with adjustable contrast
- C1.20. Power Supply- Mains 100-240 Volts, 50/60 Hz 25 VA

- C1.21. PC Interface- USB Cable
- C1.22. Automatic self-calibration
- C1.23. Regular calibration of equipment.

#### **D. Pure Tone Audiometer**

- D.1. **Channel:** Two separate with independent attenuators.
- D.2. **Stimulus type:** Tone, warble, pulsed tone, pulsed warble, (Frequency specific Hearing assessment noise)
- D.3. **Special tests:** SISI, ABLB, DLI, MLB, Stenger, Tone Decay, Free field (Complete setup, including speakers), Speech test, Word Recognition, UCL, Tinnitus Matching, High frequency.
- D.4. **Frequency range:**
  - D4.1. TDH 39 earphone- 250 to 8000 Hz or more
  - D4.2. Insert ear phones- 250 to 8000 Hz or more
  - D4.3. Bone conduction (BC)- 250 to 4000Hz
- D.5. **Level Range:**
  - D5.1. Air conduction (AC): -10dBHL to 120dBHL
  - D5.2. Bone Conduction: -10dBHL to +80 dBHL
  - D5.3. Speech: -10dBHL to 100dBHL
  - D5.4. Masking: -10dBHL to 100dBHL
- D.6. **Masking types:** Narrow band noise, Speech Noise, White noise.
- D.7. **Stimulus modulation:**
  - D7.1. Warble Tone: 1 to 10Hz + 5% Modulation
  - D7.2. SISI: 5, 2, 1 dB decrements.
- D.8. Should have full speed USB port connector (3.0 or more).
- D.9. Should be supplied with required software with updates in CD.
- D.10. Data storage facilities unlimited with computer software
- D.11. **External Input:** CD player, Tap recorder or Microphone
- D.12. Equipment should be provided with required electricity safety equipment (ups) and compatible with 220 V-50 Hz. AC Supply.
- D.13. The setup should have two-way talk-back facility.

#### **E. Video Nystagmography (VNG)**

- E.1. Fast eye-tracking (100Hz binocular)
- E.2. Real time analysis
- E.3. Automated 10 second calibration
- E.4. Automated or manual analysis
- E.5. **Goggle:**
  - E5.1. Light weight and comfortable
  - E5.2. Direct FireWire connection
  - E5.3. Replaceable foam cushions
  - E5.4. Adjustable mirrors and controls
- E.6. **Additional features:**
  - E6.1. Cutting edge eye trackers adjust for make-up and dilated pupils
  - E6.2. Reader station enables shared access to patient reports from multiple work stations
  - E6.3. MWST (Monothermal Warm Caloric screening test after two warm irrigations)

- E6.4. Torsional eye movement observation with full screen eye images
- E6.5. Multi-language interface
- E6.6. Nystagmus edit function
- E6.7. Compact & convenient hardware
- E6.8. Integration with Air or Aqua caloric irrigators (Specify AIR or AQUA)
- E6.9. Tester comments recorded with results
- E6.10. Short automated calibration
- E6.11. User-defined tests
- E6.12. Diagrams and statistics calculated automatically in real time
- E6.13. High quality printouts of all analyses and selected raw data
- E6.14. Full colour printed reports for each test.

**E.7. Physical Specifications:**

- E7.1. Goggle Weight with one camera
- E7.2. 240g (non-occluded view)
- E7.3. 320g (occluded view)
- E7.4. with two cameras
- E7.5. 305g (non-occluded view)
- E7.6. 385g (occluded view)
- E7.7. Dispensing box with 24 pcs. of disposable goggle foam pads
- E7.8. 302 x 216 x 131mm (L x W x H)

**E.8. Tests:**

- E8.1. Bithermal Caloric Test
- E8.2. Spontaneous Nystagmus Test
- E8.3. Positional Test
- E8.4. Dix-Hallpike Test

**E.9. Optional Tests:**

- E9.1. Sinusoidal Pendular Test (only with rotary Chair)
- E9.2. Step Rotation test (only with rotary Chair)

E.10. The equipment should be supplied with suitable table and patient chair.

E.11. Should be supplied with branded Laptop i9 processor, 8GB RAM (upgradable), 2TB HDD, 15" HD LED display, connectable to printer through LAN and WiFi required under item A2.9. Above.

**General**

1. PC/Laptops systems, wherever mentioned should include genuine/licensed operating system, licensed MS Office Home & Business (Latest Version), licensed Adobe Acrobat Full Version, licensed standard anti-virus software with all backup (DVD etc.) media of all the software and all the accessories to run the required software seamlessly.
2. All Equipment, including accessories, should be supplied by the same vendor.
3. All Equipment listed at B, C, D & E should conform to European CE/US FDA Standards as Certified by any of the notified bodies.
4. 5 years Warranty + 5 Years CMC, including all software upgrades and as per DrRMLIMS Terms and Conditions.
5. Undertaking to honour Warranty/CMC to be given by *both*, the Principal/Manufacturer and the Indian Vendor.

**(6) Technical Specifications of Ventilator**

1. Advanced technology time-cycled, volume-constant, pressure-controlled ventilator for use in intensive care suitable for ventilating all categories of patients from pediatric to adults.
2. Ventilator should be supplied with inbuilt air source or external medical grade compressor based. If external compressor based, compressor should be US FDA approved and of the same make as that of ventilator manufacturer.
3. The Ventilator should be US FDA and European CE approved. The bidder should be ISO 9001 certified.
4. Should be suitable for use during transportation within the hospital on imported trolley of same make as that of the ventilator.
5. Inbuilt Screen size should be minimum 12” color touch screen with possibility of screen configuration as per user preference.
6. Should have the following modes of ventilation:
  - a. Volume control – VC CMV
  - b. Assist control – VC AC
  - c. Pressure control PCV + or PC SIMV+
  - d. CPAP with Pressure Support
  - e. SIMV (Volume Control) with Pressure support
  - f. BIPAP having mandatory facility of setting ventilation rate
  - g. Dual control modes such as PRVC /Auto Flow / PAV for automatic adjustment of pressure and flow within a set PIP with unrestricted spontaneous breathing capability.
  - h. Apnea backup ventilation mode with adjustable settings for Volume & Frequency.
  - i. NIV Mode in all volume, pressure controlled, and spontaneous modes.
  - j. Ventilator should have quick start setup depending on patient body weight or height
  - k. Ventilator should be Upgradable to O2 Therapy.
- l. Essential automatic weaning mode - MMV / Auto Mode / Intelli ASV single mode for automatic weaning of patient from intubation to extubation combined with or without Pressure Support.
7. Should have following settings & features:-

A. Tidal Volume in Volume mode	: 20 to 2000 ml
B. Inspiratory Pressure	: 1 – 99 cmH2O
C. CPAP/PEEP /Intermittent PEEP	: 0 – 50 cmH2O
D. Inspiratory Rate	: 2 – 80 bpm
E. Inspiratory Time	: 0.2 – 10 sec
F. Pressure support	: 0 – 50 cmH2O above PEEP
G. FiO2	: 21 - 100%
H. I : E Ratio	: 1:10 to 10:1
I. Inspiration termination Criteria	: 5 – 75% of Peak Inspiratory Flow
J. Flow triggering up to 15 LPM or Pressure Triggering facility	
K. Maximum Continuous Flow for press assist/spontaneous breath more than 220 LPM	
L. Inbuilt or approved external compressed air source with a guaranteed life of minimum six Years, bidder to certify in the bid or brochure should mention it.	
M. Valve response time less than 5msec to ensure faster response to patient’s effort.	
N. Should have facility for Manual Breath, Inspiratory Hold, and Expiratory Hold.	
O. Should be able to measure Intrinsic PEEP with display of volume trapped.	
P. Should have display of weaning parameter like RSBI etc.	
Q. Pressure Sigh or Intermittent PEEP with duration of 2 cycles every 3 minutes	
8. It should display breath-to-breath measured values for Tidal Volume, Minute Volume, Spontaneous Frequency, FiO2, Peak/Mean Pressures, PEEP, T plateau, Resistance, Compliance etc.



9. It should have three level (Advice/Caution/Warning) ISO alarm management with different audiovisual color-coded alarms, including corrective help messages on the screen.
10. Ventilator should have two stage filtering process for delivering medical grade air. First stage dust filters, second stage microscopic bacteria / virus filter.
11. Should have built-in battery backup for at least 45 minutes for full unit including compressor and ventilator in the event of power failure.
12. It should have facility of Oxygen enrichment for endotracheal suction with automatic detection of reconnection and post oxygenation.
13. Additional Day/Night screen switchover and Key lock facility to enhance user preference.
14. It should be possible to display at least three types of filled waveforms & loops for each breath. Simultaneous display of minimum 2 waveform along with 2 loops should be possible.
15. It should be possible to check readiness for operation of ventilator by a device check comprising of checking the breathing circuit for leakages, for correct functioning of LEDs and alarm tone, power failure, ventilation function etc. Ventilator should be able to ventilate the patient in case of failure of flow & Oxygen sensor.
16. In case of emergency, the machine should have facility of Low Pressure Oxygen, so that ventilation can be provided by low-pressure devices such as O2 Concentrator or flow meters in the event of non-availability of high-pressure gas line.
17. It should have at least 24 hours of graphical and numerical trend display of measured parameters along with Logbook facility to record minimum of 500 records for changed settings, events and alarms in chronological order.
18. Ventilator should be upgradable to Mainstream EtCO2 monitoring.
19. Screen should display following waveforms:
  - ✓ Flow – time,
  - ✓ Pressure – time,
  - ✓ Volume – time
20. Capnograph and following loops:
  - ✓ Pressure – volume,
  - ✓ Flow – volume,
  - ✓ Flow – pressure
  - ✓ Volume – CO2
21. It should have Scroll/Zoom functions with facility to freeze waveforms & loops and find UIP & LIP and compare at least two loops simultaneously.
22. Ventilator should have preferable electronic oxygen sensor only for lifetime use/or if chemical should provide 15 Oxygen sensor as a standard scope of supply to last its lifetime.
23. The flow sensor should be of hot wire technology and usable for entire range of patients from Adult to Pediatric for accuracy and reliability.
24. Should have two nos. auto cleavable & Reusable Expiration Cassette /valves for complete disinfection capability. For Highly infectious patient, vendor should supply at least 10 disposable expiratory valves/ cassettes. (10 reusable expiration valves in case no disposable valves are possible). In addition, a minimum of 20 nos. reusable heated flow sensors should be supplied.
25. It should be supplied with high quality reusable Face Masks with gel cushion for face, adjustable cushion pad for nasal bridge and magnetic connectors for quick fastening for non-invasive ventilation of same make.
26. A reusable and auto cleavable inspiration synchronized nebulizer should be provided with each ventilator as a standard feature, the particle size of medicament should be less than 5 Microns. Please provide the proof.
27. Should have facility for ventilation data transfer & network connection via RS232 port.
28. Scope of supply should include :-
29. Basic Unit (220 - 240 V) with modular corrosion free imported trolley of same make.

30. Flow sensor - 20 Nos. of same Make as of Ventilator
31. Breathing Circuit Disposable of same Make as of ventilator- 25 nos
32. Reusable auto cleavable expiratory valve- 4 Nos. (10 Nos. disposable valves-preferable.) Of same make.
33. Oxygen connecting Hose and Air connecting Hose – 1pc each
34. US FDA Approved Compressor or inbuilt compressed air source of same make
35. Nebulizer of same make
36. Hinged arm for rail (Support for patient circuit) – should be imported of same Make
37. Test Lung and Instruction Manual

**Essential Criteria:**

1. Demonstration mandatory at hospital premises at OEM cost.
2. CMC offered for the quoted equipment should not be more than 5% of the quoted model with not more than 5% escalation per year after completion of CMC period.
3. CMC offered for the quoted equipment must be on OEM letterhead for further years. (CMC offered on distributors/ Vendor letterhead will not be considered).
4. Installation process should be performed by OEM trained service engineer/ service representative on OEM's letter head/ service report, with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative quarterly per year till completion of warranty period (i.e. 20 visits for first five years) and further quarterly visit (04 visits/ year) till the completion of CMC period.
5. The installation process must be completed by the OEM/ Service provider within 30 days of supply.
6. The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
7. The equipment complies with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided.
8. **Equipment should have brand name / model number embossed/ etched on the equipment.**
9. In case of technical snag/ failure/ breakdown, the response time for Inspection should be within 24 Hour and repair within 5 days, otherwise provide a service machine until the period of recovery of breakdown of the unit. Failing which will attract penal action as per the decision of the University (Uptime guarantee of 95%).
10. The page of technical bid should be numbered and checklist should be duly filled as per the annexures and all annexures should be in accordance with the format, otherwise it may be the reason for disqualification.
11. All the technical specifications accepted in the compliance statement must be supported by **Original Literature from the firm/ O.E.M with Highlighting, Numbering & flagging as per below mentioned format for the compliance statement.**

S. No.	Technical Specification	Compliance Yes / No	Page No. in the proposal submitted where documentary evidence is enclosed as per tender Specs with highlighting, Numbering & flagging
1			
2			

**BOQ for Items/Equipments in Indian Currency**

Sr. no.	Description
1	e-bid Notice No. RMLIMS/MM(eq)/2019-20/4759 dated 17.12.2019
2	<b>Name of the equipment/item:-</b>
3	<b>OEM Name/Make</b>
4	<b>Model no.</b>
5	<b>Equipment/Items HSN code no.</b>
6	<b>Quoted unit PRICE IN INR</b> (exclusive of all taxes) (with 05 years unconditional warranty)
7	GST value or % as applicable (on sr. no. 06)
8	<b>Standard Accessories if required as per tender specification in INR with HSN code</b> (exclusive of all taxes) (with 05 years unconditional warranty)
9	GST value or % as applicable
10	<b>Total Equipment Price + Standard Accessories Amount (inclusive GST)</b> <b>(Sr. no. 6+7+8+9)</b>
11	<b>CMC (From 6th to 10th Year)</b>
12	6 <sup>th</sup>
13	7 <sup>th</sup>
14	8 <sup>th</sup>
15	9 <sup>th</sup>
16	10 <sup>th</sup>
17	<b>Total CMC Cost</b>
18	GST value or % on CMC ( as applicable)
19	<b>Total CMC Price + GST</b>
20	<b>Total Cost of equipment</b> <b>[Total Amount + CMC with GST (6<sup>th</sup> to 10<sup>th</sup> yrs) in INR]</b> <b>(Sr. no 10+19)</b>
<b>Note:- All fields and columns of price bid must compulsorily be filled.</b>	

**BOQ for Items/Equipments in Foreign Currency**

<b>Sr. no.</b>	<b>Description</b>
1	E-bid notice no. RMLIMS/MM(eq)/2019-20/4759 dated 17.12.2019
2	<b>Name of the equipment/item:-</b>
3	<b>OEM Name/Make</b>
4	<b>Model no.</b>
5	<b>Equipment/Items HSN code</b>
6	<b>Quoted unit FOB PRICE: SGD/JPY/Euro/USD etc.</b> (exclusive of all taxes) (with 05 years unconditional warranty)
7	<b>Standard Accessories unit FOB price if required as per tender specification in Foreign currency with HSN code</b> (exclusive of all taxes) (with 05 years unconditional warranty)
8	<b>Equipment FOB Price + Standard Accessories price in foreign currency</b> (Sr. no. 6+7)
9	(-) Less Indian Agency Commission (if any)
10	<b>Net Equipment FOB Value</b>
11	Add Freight & Insurance charges
12	<b>Total Equipment CIP / CIF Value</b> (Sr. no. 10 + 11)
13	* Cost of Custom Duty
14	IGST+ other taxes
15	* Cost of Clearance Charges
16	* Add Indian Agency Commission in INR
17	<b>Cost of Equipment (CIP/CIF Value) + Custom Duty+ Custom Clearance +IGST+ Indian Agency Commission in INR</b>
18	<b>* Standard Accessories if required as per tender specification in INR</b> (exclusive of all taxes) (with 05 years unconditional warranty)
19	GST value or % (as applicable) (on sr. no 18)
20	Total Standard Accessories Price (INR) + GST (Sr. no. 18+19)
21	Cost of turnkey work (if required)
22	GST value or % on cost of turnkey work (if required)
23	Total cost of Turnkey work inclusive GST (Sr. no. 21+22)
24	<b>Total cost of Equipment</b> (Sr. no. 17+18+19+20+23)
25	CMC on net FOB value (From 6th to 10th Year)
26	6 <sup>th</sup>
27	7 <sup>th</sup>
28	8 <sup>th</sup>
29	9 <sup>th</sup>
30	10 <sup>th</sup>
31	<b>Total CMC Value</b>
32	GST value or % on CMC value ( as applicable)
33	<b>Total CMC Price (6<sup>th</sup> to 10<sup>th</sup> yrs) including GST</b>
34	<b>Grand total amount of equipment (Sr. no. 24+33)</b>

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**NOTE:- (\*) Conditions applied.**

- \* **Clearance Charges** will be paid on actual or maximum @ 1%(Inclusive all taxes) of FOB/CIF/CIP price whichever is less.
  - \* **Indian Agency Commission** will be paid on the conversion rate of comparative chart on which basis the P.O. has been awarded or conversion rate at the time of payment whichever is less.
  - \* **Detail List of standard accessories (as mentioned in sr. no. 07 or 18) with price must be annexed with price bid.**
- All fields and columns of price bid must compulsorily be filled.**