



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

VIBHUTI KHAND , GOMTI NAGAR, LUCKNOW- 226 010

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

Ref. No. RMLIMS/MM(eq)/2019-20/5143

Date:- 10.01.2020

**RE-TENDER/E-TENDER NOTICE**

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/Re-Tendered advertisement no. RMLIMS/MM(eq)/2019-20/1706/1898/2369/2676/2845/4572/4172/4233/4248/4648 dated 30.07.2019/08.08.2019/12.09.2019/ 03.10.2019/11.10.2019/05.12.2019/08.11.2019/ 27.11.2019/14.11.2019/10.12.2019 etc. till 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.drmlims.ac.in](http://www.drmlims.ac.in) for reference only.

**Director**

Re-Tender Advertisement no. RMLIMS/MM(eq)/2019-20/5143 dated 10.01.2020

- Start date of Submitting of e-Tender is:- 11.01.2020
- Last date of Submission of e-Tender is:- 25.01.2020 upto 4:00 P.M.
- Date of opening of Technical bid is :- 27.01.2020 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	Pathology	Centrifuge (30-40 tubes/15ml tubes) (2 <sup>nd</sup> time offer)	1	2360	5500	5,00,000.00
2	Biochemistry	Nano-Spectrophotometer (3 <sup>rd</sup> time offer)	01	2360	7500	7,00,000.00
3	Biochemistry (Central Research Lab)	Deep Fridge -40 <sup>0</sup> C (3 <sup>rd</sup> time offer)	1	2360	5500	5,00,000.00
4		Deep Fridge -80 <sup>0</sup> C (2 <sup>nd</sup> time offer)	1	2360	7500	7,00,000.00
5		Mini Centrifuge (3 <sup>rd</sup> time offer)	2	2360	4500	4,00,000.00
6		Laboratory Refrigerator (3 <sup>rd</sup> time offer)	2	2360	5500	5,00,000.00
7 (a)		Research Centrifuge 1 <sup>st</sup> (3 <sup>rd</sup> time offer)	1	2360	3500	2,50,000.00
7 (b)		Research Centrifuge 2 <sup>nd</sup> (3 <sup>rd</sup> time offer)	1	2360	3500	2,50,000.00
8		General Surgery	LACERATION SET (2 <sup>nd</sup> time offer)	4	2360	6500
9	UPPER GI & LOWER GI ENDOSCOPY SET (4 <sup>th</sup> time offer)		1	2360	70500	70,00,000.00
10	Radiodiagnosis	High End Doppler Ultrasound with Shear wave Elastography (2 <sup>nd</sup> time offer)	2	2360	200500	2,00,00,000.00
11	Radiation Oncology	MRI compatible gynecological Brachytherapy Applicator (4 <sup>th</sup> time offer)	1 set	2360	23500	23,00,000.00
12		Gynaecological transfer tube for source transfer for brachyterhapy (4 <sup>th</sup> time offer)	1 set	2360	3500	3,00,000.00
13	Community Medicine	Ice Lined Refrigerator (ILR) (4 <sup>th</sup> time offer)	1	2360	1500	80,000.00
14	ENT	Rigid Esophagoscope Set (4 <sup>th</sup> time offer)	1	2360	20500	20,00,000.00
15	Anatomy	Cytogenetic Imaging System (2 <sup>nd</sup> time offer)	1	2360	45500	45,00,000.00
16	ENT	Micromotor drill system (2 <sup>nd</sup> time offer)	1	2360	15500	15,00,000.00
17	Community Medicine	Audiometry set (5 <sup>th</sup> time offer)	1	2360	1500	50,000.00
18	General Surgery	ASSORTED OPEN & LAPAROSCOPIC STAPLING DEVICES (3 <sup>rd</sup> time offer)	1 SET	2360	15500	15,00,000.00
19	Urology	Flexible URS (3 <sup>rd</sup> time offer)	1	2360	15500	15,00,000.00
20		Minor OT Set including UPS (3 <sup>rd</sup> time offer)	1	2360	75500	75,00,000.00

## TENDER DOCUMENT 2019-20

### GENERAL TERMS & CONDITIONS FOR INVITING E-TENDER NOTICE NO. RMLIMS/MM(EQ)/2019-20/5143 DATED 10.01.2020

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- 17730108888888
- (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/orThe 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.)**

**Check list**

**e-Bid reference no:** /RMLIMS/MM(eq)/2019-20/5143 dated 10.01.2020

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

**(01) Technical Specifications of Centrifuge (30-40 tubes/15ml tubes)**

1. Table top model
2. Swing out type heads
3. Timer of 1 minute to atleast 60 minute with continuous run function , short spin
4. Speed up to 200-14,000 rpm and max g force of 20,000xg
5. Ability to spin 30 or more tubes of 15ml
6. Microprocessor controlled with digital display of speed and time
7. Brushless induction motor with frequency drive
8. Noise level less than 65 db.
9. Program memory 20 or more programs
10. Imbalance detection & centrifugation stop with display of error
11. Acceleration / deacceleration time : 25 sec.
12. Safety lid interlock to prevent opening of lid during centrifugation
13. Operating voltage 220V, 50HZ.
14. ISO and European CE Certification
15. Complete assembly with rotor and all necessary accessories.
16. IQ/OQ/PQ should be performed and certificates provided as per part of installation.

**(Sr. no.02) Technical Specifications of Nano-Spectrophotometer**

1. The system should be UV/VIS polychromatic system and with a reference channel.
2. The System should be able to do nucleic acid quantification of up to 10 samples in a minute.
3. The system should have ability to discriminate between molecules of interest using unique spectral protocols.
4. The system should provide the specific quantification of all samples including ssDNA, dsDNA, RNA, protein, kinetic cell counting..
5. The system should use  $\mu$ -fluidics based technology and require minimal sample input of 2  $\mu$ l with LOD 1.5ng/ $\mu$ l.
6. The system should use ultrasensitive photodiode array for detection and Xenon flash lamp as a light source.
7. The system should cover the wavelength range from 230-750nm with the resolution of < 3nm and accuracy 0.5 nm.
8. The system should cover the Photometric range: 0.0005–2.0 OD and should provide the absorbance precision: 0.003 OD.
9. The system should have intuitive operation via the full-color integrated touchscreen.
10. The system should provide comprehensive reports that can be viewed on any computer.
11. The system should provide the facility of data analysis and sharing and the data should be exportable to USB stick, networking device or a small device via a QR code.
12. PC/Laptop touch screen (i3processor ) with software, along with external laser printer should be provided.
13. It should be CE/UL-CSA compliant.

**(03) Technical Specifications of Deep Fridge -40°C**

1. Vertical, deep freezer with >450 liter capacity, a double outer door and inner doors dividing the freezer into at least 4 separate areas, with ergonomic handle.
  2. Interior walls made up of stainless steel.
  3. Temperature: -40°C microprocessor controlled temperature with  $\pm 3^{\circ}\text{C}$  uniformity range.
  4. Environment friendly: HFC refrigerant (non-CFC, non-HCFC refrigerant).
  5. Cascade type cooling system and quiet compressors, noise level:  $60 < \text{dBa}$ .
  6. CPU and touch pad computer control system.
  7. LED display linked to computer controlled system.
  8. Front access calibration for 7-day temperature recorder.
  9. The control panel, alarm system and non-volatile memory.
  10. The chamber temperature display during power failure alarm, open door alarm, high/low temperature & clogged condenser filter should be present.
  11. Rechargeable battery built in as a backup for alarm systems.
  12. After a power outage, operation should resume at pre-outage settings (non-volatile memory for temperature and alarm temperature settings).
  13. Intelligent automatic defrost system.
  14. Door lock: Key lock.
  15. Washable air filter
  16. Casters: standard casters.
  17. With storage boxes/racks of cryo vials/ ependorf tubes.
  18. Internal voltage and power management systems assure component protection and best operation efficiencies.
  19. Suitable voltage stabilizer to be provided with the equipment.
  20. ISO and CE Certification
- None of the point in above specifications is company specific.

**(04) Technical Specifications of Deep Fridge -80°C**

1. Vertical, >800 liter capacity with a double outer door and inner doors dividing the freezer into 4 separate areas.
2. -80°C microprocessor controlled temperature.
3. Environmental friendly: HFC refrigerant (non-CFC, non-HCFC refrigerant).
4. Cascade type cooling system and quiet compressors.
5. CPU and touch pad computer control system.
6. LED display linked to computer controlled system.
7. Front access calibration for 7-day temperature recorder.
8. The control panel, alarm system and non-volatile memory.
9. The chamber temperature display during power failure alarm, door alarm, remote alarm.
10. Rechargeable battery built in as a backup for alarm systems.
11. After a power outage, operation should resume at pre-outage settings (non-volatile memory for temperature and alarm temperature settings).
12. Washable air filters for protection from dust on the condenser and increasing refrigeration
13. Casters with storage boxes/racks of Cryo vials/ eppendorf tubes etc.
14. Internal voltage and power management systems assure component protection and best operation efficiencies.
15. Suitable voltage stabilizer to be supplied to support the instrument.
16. Online UPS with at least one hour backup.
17. ISO and CE Certification

None of the point in above specifications is company specific.

**(05) Technical Specifications of Mini Centrifuge**

1. Bench top, compact, Refrigerated mini centrifuge.
2. Temperature setting: 0 to 40<sup>0</sup>C.
3. Fast Pre cooling and should maintain +4<sup>0</sup>C at maximum speed.
4. Up to 10 programs or more.
5. Digital display showing rpm, RCF and time.
6. Speed Up to 15000 rpm.
7. Rotor for 24X1.5 to 2 ml tubes.
8. Adaptors for 0.5 ml and 0.2 ml tubes.
9. Auto balancing in situation of minor imbalance.
10. Electrical Requirements: 120V/60Hz and 230V/50 Hz or Suitable electrical supply.
11. CE certified or equivalent.

None of the point in above specifications is company specific.



**(06) Technical Specifications of Laboratory Refrigerator**

1. Capacity 1000 litres
2. Temperature 2-8<sup>0</sup>C. CFC free refrigerator.
3. Microprocessor controlled panel with temperature alarm, on/off switch and digital thermometer.
4. Durable rust free exterior and interior.
5. Double door with anti-condensation heating on the glass door.
6. Door with lock, door hinges and latches should be rust free.
7. Six shelves, adjustable.
8. Interior lighting, drip tray and defrosting arrangement.
9. Adequate circulation of air to ensure even cooling.
10. Operable at 220V, 50 Hz.
11. Compressor unit to be hermetically sealed.
12. Preferably roller mounted.
13. CE quality certification.
14. Suitable voltage stabilizer to be provided with the equipment.

None of the point in above specifications is company specific.

**(07 (a)) Technical Specifications of Research Centrifuge 1<sup>st</sup>**

1. Bench top high speed refrigerated micro centrifuge.
2. Speed setting in both RPM - 15,000 rpm or above and RCF-21,000 x g or above.
3. Type of Motor: Brushless induction drive.
4. Acceleration/ Braking time to max. Speed 15 s /16s.
5. The instrument should have state of art cooling technology to ensure energy efficiency & temperature accuracy that cools down to 4°C in eight minutes with temperature range from -10°C to +40 °C with patented compressor technology with Fast Temp for rapid pre-cooling of the centrifuge, continuous cooling which maintains temperature when centrifugation process is not active
6. Built in Condensation drain to eliminate water accumulation inside rotor chamber.
7. The aerosol tight fully autoclavable metallic lid rotor with 24x 1.5/2.0mL & speed not less than 21000xg (15000 rpm) should be quoted along with the main unit.
8. Emergency lid lock release facility should be available.
9. Temperature Range: -10° to 40°C with temperature protection control should be able to maintain 4°C Temp at max speed.
10. CFC Free cooling with stand by cooling facility, fast pre-cooling of instrument should be possible.
11. Centrifuge chamber should be metallic for easy cleaning, aerosol –tight lid.
12. LCD digital display for time, speed and temperature display.
13. Timer should display from 60secs to 99hrs 59mins.
14. Control System should be microprocessor controlled.
15. Low noise levels.
16. Ability to store pre-set programs: Up to 10 programs.
17. Power supply 230V/50Hz.
18. The model should be CE Certified.
19. A suitable online UPS should be provided.
20. **Rotor Options:** Fixed Angle Rotor, Microtitre Plate and PCR plate Rotors with Adaptersto be able to centrifuge (PCR strips/ PCR tubes/round bottom/ conical tubes)1.5/2ml and 5-15ml tubes.  
None of the point in above specifications is company specific.

**(7 (b)) Technical Specifications of Research Centrifuge 2<sup>nd</sup>**

1. Table top model.
2. Swing out type heads.
3. Speed up to 4000 to 5000 RPM.
4. Ability to spin 7-10 ml vacutainers and 15-50 ml falcon tubes.
5. Adaptors for vacutainers (2.6 to 15 ml) and falcon tubes (15-50 ml)
6. Capacity of at least 36 tubes.
7. Microprocessor controlled with digital display of speed and time
8. Brushless induction motor with frequency drive.
9. Imbalance detection & centrifugation stop with display of error.
10. Safety lid interlock to prevent opening of lid during centrifugation.
11. Operating voltage 220V, 50HZ.
12. ISO and CE Certification.
13. Complete assembly with rotor and all necessary accessories.
14. IQ/OQ/PQ should be performed and certificates provided as per part of installation is mandatory.  
None of the point in above specifications is company specific.

**(08) Technical Specifications of LACERATION SET  
 BIDDER CRITERIA FOR LACERATION SET - SURGERY**

1	All Surgical Instruments should be European CE certified.
2	All Surgical Instruments should meet criteria – ISO 9001 : 2008, ISO 13485 : 2003, ISO 7153-1 : 2016, ISO 14001 : 2004 & ISO 18001 : 2007 certified company
3	Company should have WHO GMP certificate must be enclosed with the tender.
4	All Surgical instruments should be made of 4 series AISI 420 and AISI 410 steel and certified copy must have to submit at the time of tender submission.
5	All Surgical instruments/Micro Surgical Instruments must have stoneware coating, high surface hardness and anti-glaring surface for better vision.
6	In case of Indian Manufacturer must have to submit their manufacturing & NSIC certificate
7	The surgical instrument's Manufacturer should provide demonstration as and when required.
8	Bidder should submitted original literature/Brochure of quoted model of Surgical Instruments
9	The surgical instrument's Manufacturer should clearly mentioned: (A) warranty period (B) shelf life of Instruments © IFU (Instructions for users) of surgical instruments regarding recommended method of cleaning and sterilization of the instruments.
10	The surgical instrument's Manufacturer should provide the details of service centre in state of U.P.
11	All SS hollowware instruments should be of same parent company or same manufacturer and must be clearly mentioned in Original catalogue.
12	All Instruments should have engraved logo of Govt. Supply at the time of supplies.
13	The surgical instrument's Manufacturer should provide the offer as per required surgical instrument list.
14	List Enclosed

**LIST OF LACERATION SET**

S. No	LACERATION SET - SURGERY
1	MAYO DISSECTING SCISSOR STR 14.5CM
2	DRESSING FORCEPS STANDARD STR 15CM
3	TISSUE FORCEPS 1X2T STR 15CM
4	HALSTEAD-MOSQUITO HEMOST FCPS STR 12.5CM
5	HALSTEAD-MOSQUITO HEMOST FCPS CVD 12.5CM
6	BACKHAUS TOWEL FORCEPS 10CM
7	FOERSTER SPONGE HOLD FCPS SERR STR 18CM
8	TC GOLD-GRIP CRILE-WOOD NDHL P04 15CM
9	MAYO DISSECTING SCISSOR STR 14.5CM
10	MAYO DISSECTING SCISSOR CVD 14.5CM
11	DRESSING FORCEPS STANDARD STR 15CM
12	TISSUE FORCEPS 1X2T STR 15CM
13	HALSTEAD-MOSQUITO HEMOST FCPS CVD 12.5"

14	KOCHER HEMOSTATIC FORCEPS 1X2T STR 16CM
15	BACKHAUS TOWEL FORCEPS 13CM
16	FOERSTER SPONGE HOLD FCPS SERR STR 25CM
17	TC GOLD-GRIP MAYO-HEGAR NEEDLE HOLDER 16CM
18	SCALPEL HANDLE NO 3 STANDARD
19	STANDARD HOOK 3 PRONGS SHARP 16CM
20	ALLIS INTESTINAL FORCEPS 5X6T 15CM
21	FRAZIER DURA HOOK SHARP 13CM
22	Drum Sterilizer
	240MM X 165MM
	240MM X 240MM
	279MM X 127MM
	290MM X 290MM
	355MM X 127MM
	340MM X 240MM
	381MM X 305MM
23	STAINLESS STEEL CONTAINER SHOULD BE SIDE FILETER WITH HINGES
	SIZE ; 600X300X260MM
	600X300X210MM
	600X300X160MM
	460X300X260MM
	460X300X210MM
	460X300X160MM
	300X300X260MM
	300X300X210MM
	300X300X160MM

**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. **Instruments should have brand name/ model number embossed/ etched on the equipment.**
5. 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.
6. 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			

## **(09) Technical Specifications of UPPER GI & LOWER GI ENDOSCOPY SET**

### **SPECIFICATION FOR LOWER GI ENDOSCOPE**

#### **VIDEO PROCESSOR:**

1. Should be compatible with Analog, HD-SDI and DVI output & 16:9 & 16:10 output for a HDTV monitor should be available.
2. Should contain the long-life LED light source.
3. Equipped with high resolution HDTV Imaging capacity.
4. Compact, lightweight (10-11 kg) and ergonomically designed Narrow Band Imaging capacity for compatibility with NBI Video scopes.
5. Equipped with one touch connection of scopes.
6. Portable Memory & USB Slot for image recording.
7. Automatic IRIS control & automatic white balance.
8. Equipped with memory back up for settings & Lithium battery.
9. Should have pre freeze function for image stabilization

#### **VIDEO COLONOSCOPE:**

Should have following specifications:

1. Lighter and possess HD resolution image quality.
2. Fully immersible in disinfectant solution.
3. Three or more no. of remote control switches on control body.
4. Compatible with leakage testing device with its airflow and pressure regulation through light source's air pump.
5. Should have capability of Band Imaging (NBI)

Field of view	:	140 degree or more
Direction of view	:	0 degree, forward viewing
Depth of field	:	2 to 100 mm or better
Distal end outer diameter	:	12.8 mm or less
Insertion tube outer diameter	:	12.8 mm or less
Tip bending range	:	Up 180deg, Down 180deg, Right 160 deg, Left 160 deg
Working length	:	1680 mm or more
Channel inner diameter	:	3.7 mm or more
Minimum Visible distance of Instrument used thru channel	:	5 mm or closer from distal end.

#### **STANDARD ACCESSORIES**

White cap holder	-	1
Foot Holder	-	1
Scope cable holder	-	1
Keyboard	-	1
Portable memory (2GB)	-	1
Keyboard cover	-	1
Water Container	-	1
Operation Manual	-	1
White balance cap	-	1

**NOTE:**

- **Manufacturer Trolley of same make.**
- **Monitor- HD Medical Grade 21 inch of same make.**
- **Compatible Biopsy forceps of same make.**

**SPECIFICATION OF UPPER GI ENOSCOPE**

**VIDEO PROCESSOR:**

1. Should be compatible with Analog, HD-SDI and DVI output & 16:9 & 16:10 output for a HDTV monitor should be available.
2. Should contain the long-life LED light source.
3. Equipped with high resolution HDTV Imaging capacity.
4. Compact, lightweight (10-11 kg) and ergonomically designed.
5. Narrow Band Imaging capacity for compatibility with NBI Video scopes equipped with one touch connection of scopes.
6. Portable Memory & USB Slot for image recording.
7. Automatic IRIS control & automatic white balance equipped with memory back up for settings & Lithium battery.
8. Should have pre freeze function for image stabilization

**VIDEO GASTRO SCOPE:**

Should have following specifications:

1. Lighter and possess HD resolution image quality.
2. Fully immersible in disinfectant solution.
3. Four or more no. of remote control switches on control body.
4. Compatible with leakage testing device with its airflow and pressure regulation through light source's air pump.
5. Should have capability of Band Imaging (NBI)

Field of view	:	140 degree or more
Direction of view	:	0 degree, forward viewing
Depth of field	:	2 to 100 mm or better
Distal end outer diameter	:	9.2 mm or less
Insertion tube outer diameter	:	9.2 mm or less
Tip bending rage	:	Up 210deg, Down 90deg, Right 100 deg, Left 100 deg
Working length	:	1030 mm or more
Channel inner diameter	:	2.8 mm or more
Minimum Visible distance of :		3 mm or closer from distal end.

Instrument used thru channel

**STANDARD ACCESSORIES**

White cap holder	-	1
Foot Holder	-	1
Scope cable holder	-	1
Keyboard	-	1
Portable memory (2GB)	-	1
Keyboard cover	-	1
Water Container	-	1
Operation Manual	-	1
White balance cap	-	1

**NOTE:**

1. Manufacturer Trolley of same make
2. Monitor- HD Medical Grade 21 inch of same make.
3. Compatible Biopsy forceps.

**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			



**(10) Technical Specifications of High End Doppler Ultrasound with Shear wave Elastography**

1. It should be robust state of a fully digital high end latest color doppler ultrasound system capable of performing whole body imaging applications including abdominal Obs/Gynae, musculoskeletal, cardiovascular, urology, cardiology, small parts such as breast, thyroid, testis, 3D/ 4D Intracavitary applications like Transvaginal & Transrectal, & Intraoperative applications, Tissue elastography, contrast etc.
2. The broadband beam former should be capable of simultaneously processing ultrasound signals from 1MHz to 18MHz or more.
3. The system should incorporate facility for High – resolution 2D, M Mode, PW, CW, Color Flow Imaging, Power Doppler Angio, Duplex, Triplex, Imaging modes, should be capable of Dual Live Display of gray scale reference image and color doppler image.
4. The system should have minimum 50000 or more digitally processing channels and should be upgradable on the site to higher number of channels. Higher number of channels is preferred. Original manufacturing letter to be attached for confirming above channel numbers and number of channels which can be added/upgraded.
5. The system should employ the state of the art Transmit Real Time Compound Imaging technology with multiple Transmitted lines of sight of at least 9 lines. Wherein multiple coplanar images from different viewing angles are obtained and combined into a single compound imaging should be available on all the probes. Compound imaging should be possible in color and doppler modes.
6. System should have advanced image processing algorithms to analyze between targets and artifacts so as to sharpen target anatomy and reduce the speckle and artifacts for improved image quality.
7. The system should have frame rate of 1000 frames / second or more.
8. The system should have 256 gray scales or more.
9. The system should high dynamic range of 200db or more. Higher dynamic range will be preferred. The range should be specified in technical bid.
10. The minimum imaging depth should be 30 cm or more and should be selectable by user and specified in technical bid
11. The system shall have at least four universal transducer ports with electronic switching capability allowing any transducer to be connected to any port.
12. The system should support convex, linear, sector, volume imaging, for both adult and pediatric imaging.
13. The system should support multiple fully sampled live volume imaging, for both adult and pediatric imaging.
14. All transducers should have broad bandwidth technology for extreme high resolution 2D imaging. The system should be able to capture all frequencies in a single probe, without the need for user selection.
15. The system should have facility for zoom (real time and frozen image) and manipulation of image through preprocessing and post processing with cine loop viewing of images of all modes.
16. System should have Cine-loop review facility in individual and mixed modes with memory up to minimum of 2000 images and 30 seconds of M Mode data.
17. The system should offer a very high frame rate up to 500 frames per second. The system shall be able to perform mechanical 4D acquisitions at 30 volumes per second. Please specify.
18. There should not be any reduction or change in pulsed doppler PRF / scale when moving between duplex pulsed wave doppler and simultaneous / triple modes. Also, system should offer automatic single button optimization of doppler baseline and scale.
19. The system should have quick view mode for 2D & CDI preset selection during exam and minimum 8 sub presets for 2D & CDI modes.

20. The system should have region specific presets like adult abdomen, pediatrics abdomen, TV/TR, obstetrics, gynecological, small parts, musculoskeletal and vascular presets. All presets should be customizable according to the user.
21. The system should support a utility for the creation of user defined general imaging protocols and the editing of default general imaging protocols:
  - a) Preset controls shall include abdominal, carotid, lower extremity venous and gynecological exam guides that following and accreditation guidelines.
  - b) The system should have automatic real time quantification of Doppler parameters like velocity, frequency, time, heart, slope, flow, volume, plurality index, resistivity index, peak velocity, average value, point value, area and diameter flow volume etc.
22. The system should have user configurable protocol for applications such as OBGYN/ vascular etc. For system operation the following automation should be provided:
  - a) Automatic set up of imaging controls & modes.
  - b) Manual. Automatic steering in B mode/CDI/PW doppler.
  - c) Initiating and auto completion of required measurements etc.
23. The system should have power doppler imaging mode with directions. The system should have PW doppler & HPRF mode for all transducers.
24. PW sample gate selection should be 1mm to 20 mm or more.
25. The system should have 2D and spectral doppler image optimization with a push of a button and auto-refresh function. Should be compatible with other advanced imaging options.
26. The system should have harmonic imaging for tissues for hard to image patients. The system shall support tissue harmonic imaging capability on phased linear, 3D and curved array transducers. Tissue harmonic imaging should be viable in color flow imaging, M-mode and 3D rendering modes.
27. System should be able to work in combined mode of harmonic imaging and real time compound imaging to get excellent image quality. The system shall offer tissue harmonic imaging in power. Doppler imaging mode for improved sensitivity and specialty in differentiating blood. Agent from tissue.
28. The system should have contrast harmonic imaging and should have optimization setting to detect the contrast agents. Please specify other advanced technologies in perform better contrast harmonic imaging.
29. The system should have latest generation pulse subtractions / pulse intervention tissue harmonic imaging for better contrast and reduced side lobe artifact.
30. System should offer real time extended field of view Imaging (Panoramic Imaging) up to 60cm with linear transducers. All grayscale imaging must be capable of real time spatial Compounding during the panoramic imaging allowing the user to perform area, circumference, distance and curved- linear distance measurements.
31. The system shall quantitatively calibrate panoramic images, allowing the user to perform area, circumference, distance and curved- linear distance measurements.
32. The system shall support simultaneous display of volume and multiplanar constructed (MPR) views.
33. The system should have the in-built software tool for imaging MPR. Thick, slice and slice plane views.
34. The system shall support full screen display of all 3D views including individual X, Y, Z MPR vies and simultaneous display of thumbnail vies on the same system display monitor.
35. Full trim capability must be support oblique and linear trimming in the MPRs: freehand trimming of the volume.
36. Multiparametric image optimization: the system should automatically and intelligently optimize key imaging parameters in real time, maintaining image uniformity across tissue types with minimal adjustments as soon as the transducer is placed on the patient.
37. Up to 10X digital zoom should be available, on live, frozen, cine, dual screen images with full images resolution within the zoom ROI, HD zoom should be available.

38. The system should have four active transducer ports or more.
39. The system should display thumbnails on a clipboard while scanning to facilitate exams. The user can select either bigger screen only ultrasound image or with thumbnail with live ultrasound images.
40. Measurements and calculations:
  - a) Auto measurement should be possible on frozen images and images recalled from the image archive.
  - b) The system should have comprehensive set of measurements in OB / Gyn/ Carotid / Lower Limb / Upper Limb / Thyroid / Testis / Abdominal / Applications
  - c) Template customization should be possible.
  - d) On board report for all packages – report transfer to print page along with selected images should be possible using normal PC printer.
41. The system should have US FDA approved real Time Shear Wave Elastography. It should be possible to do elastography for liver, prostatic applications, small parts also the following features to be available in the elastography:
  - a) Convex probe, linear probe support shear wave elastography for all applications. Necessary software should be built in. Endocavitary probe should support shear/ strain elastography.
  - b) One touch entry into elastography mode. Elastogram applied as a region of interest box with user control of size and location through the entire field of view, real time indicator for elastogram quality, single screen 2D with elastogram and side by side display of 2 D image and 2 D with elastogram.
  - c) Elastography should be velocity based, the system should be able to measure stiffness (if possible real time) of tissue and compare with normal tissue, and ratio should be calculated between reference tissue vs target tissue.
  - d) System should be able to generate a color coded elastogram with a reference adjustable elasticity scale for each application.
  - e) System should be able to display simultaneously both color elastogram and corresponding B-Mode image in real time for performing elastography guided biopsies/FNAC.
  - f) There should be user adjustable elasticity box size with a display depth of 8 cm or more.
  - g) Elastography quantification tool should be able to provide mean, max, median & min elasticity values of the tissue on both m/s and kPA with pixel accurate values on all transducers.
  - h) System should have an integrated report worksheet for liver elasticity assessment.
  - i) The system shall provide color coded stiffness map with 4 color display modes color, size, strain ratio, shear velocity.
  - j) Maximum shear wave velocity 10m/s – to be deleted.
  - k) Minimum depth shear – wave imaging should be greater than or equal to 8cm; Minimum depth shear-wave quantification should be 8 cm.
42. The system should support advanced contrast package available
  - a) During contrast examination the system should be able to display wash in, retention and wash out information in the lesion with time intensity curve.
  - b) The system should offer user selectable tint maps to allow enhanced visual conspicuity of contrast agent.
  - c) The system should have contrast quantification package so that it is able to measure the arrival time of contrast agent at any point of time. Should offer low MI contrast agent imaging techniques and provides highly sensitive agent detection with outstanding enhancement information.

- d) At least 20 contrast vials must be supplied free of cost for demonstration of this tool.
43. The system should be capable of real time fusion imaging i.e. fusion for ultrasound image with CT, MRI with features of needle tracking system, /navigation guidance, automatic and multimodality co-registration, motion artifact eliminator with high resolution images of all fusion modalities etc. Onsite demonstration of cases that is Real time image fusion (CT and MRI images) (data acquired through hospital PACS/ imaging scanners/ DICOM images from USB/CD/ DVD media) and interventional navigation procedure should be done on at least 20 patients. All hardware and software for these procedures should be standard part of this quote. For consumables please quote the price of consumables if it is proprietary item. However, for 20 cases company must provide all the necessary consumables free of charge.
44. Should offer low MI contrast agent imaging techniques and provides highly sensitive agent detection with outstanding enhancement information.
45. The system should have 3D and 4D and live 3 and 4D acquisition possible with volume convex probe.
46. Sophisticated ergonomics:
- A flexible multi joint arm supporting the LCD monitor, allowing appropriate positioning for operations in the standing or sitting postures should be available.
  - The system panel height should be adjustable according to the user comfort.
  - The panel should have swivel and in-out control for maximum user/comfort.
47. Monitor:
- Monitor should be high resolution, 21" (inch) or more full HD back Lit LED/LCD IPS monitor.
48. Console. Panel:
- The freely programmable, mode – sensitive 10" or more color touch command screen which enables direct access to all basic and advancement system controls.
  - Convenient transducer trays on both sides should put up to six transducers within easy reach in any scanning position.
  - Basic and advanced quantification functions should be activated directly on the programmable console.
  - All mode keys concisely arranged with multi-grain controller should enable direct access to all imaging consoles.
  - A retractable full alphanumeric keyboard with illuminated keys and status display should be available to manually enter comments or patient data.
  - Control panel should be able to move horizontally and vertically according to user comfort.
  - Integrated gel warmer.
49. Data management:
- A large- capacity minimum 1 TB built in HDD should be provided in the standard configuration, facilitation efficient management of acquired images, images can be viewed in images review mode. Also, cine memory of more than 2000 frames should be available.
  - Retrieval of B/w & color image data on built in as well as removal bemedical, system must be able to export JPG and AVI file formats.
  - Filled images can have output via the USB port or stored on CD/DVD by image management.
  - Should be DICOM 3.0 ready and able to integrate with the existing PACS and RIS in the institute with no extra cost.

50. Following probes should be supplied along with system:
- a) Convex Probe (single crystal technology) with Band width of 1MHz to 6MHz or better for Abdominal/ Obstetrics/ gynecological/ pediatric applications with Biopsy Guide. It should be capable of Shear wave Elastography Application and measurements.
  - b) High Frequency linear Probe with Band width of 3MHz to 10MHz or better with Biopsy Guide for vascular application. It should be capable of Shear wave elastography application.
  - c) Linear Probe with Bandwidth of 5MHz to 14MHz or better for Small Parts & Support for Shear wave Elastography Application with Biopsy Guide. It should be capable of Shear wave elastography application.
  - d) Endocavity Probe with Band Width of 3-9 MHz or better for TR Applications with Biopsy Guide, should support shear/ strain elastography
  - e) Small foot print 2.5 cm or less linear probe of frequency up to 17 MHz or better for superficial musculoskeletal application.
  - f) Convex array volume 2-6 MHz or better probe for 3D and 4D application for obstetric/ gynecological/ abdominal application. Should preferably support 36 or more volume per sec in 4d scan. And able to single sweep 3D volume acquisition with post processing/ data analysis MPR, Multi View with variable slice thickness in Axial / Sagittal / Coronal planes, MIP, and Volume Measurements.
51. The system should have the following documentation devices:
- a) Black & white thermal printer with 50 printer rolls of HDD variety.
  - b) Online suitable UPS with back up for at least 30 minutes for entire system should be provided with necessary consumables (consumables likely battery should be supplied and maintained during the warranty period)
  - c) One color laser printer with 500 photograph paper for print out of images
  - d) One black and white laser printer for printing reports. Cartridges to be provided on as and when required basis in a cumulative manner not exceeding one per quarter.
  - e) 2 x latest computer systems with each having at least 1 TB hard disc and at least 4 GB Ram for image storage/ transfer and reporting 1000 DVDs data storage. The latest version of windows and processor should be provided for reporting and printing of ultrasound reports.
  - f) GPS Facility with active tracker as per PNDT Norms, if applicable
  - g) Please attach the Original Manufacturer's Product Catalog and Data sheet. All software/ hardware / application should be mentioned in the company's data sheet as standard feature and have USFDA certification.
  - h) Training of two radiologist at any international centre of repute with good work load of ultrasound contrast and real time fusion imaging and navigation for ultrasound guided biopsy for at least 7 working days.
  - i) Data archival should be possible to export data on DVD/CD, USB, DICOM and Networking. Should be compatible to available institutional hardware and software. Any additional interface/ hardware/ software required has to be supplied by the vendor.
  - j) Free mandatory software upgrade of the equipment (launched by company) to be provided during the warranty and AMC period.
  - k) Demonstration of the quoted unit in working condition in any installed site may have to be done at the request of the technical committee

52. Warranty:

As per institutes norms for ,machine, probes, and all accessories including computer system to be under warranty for 5 years..

Maintenance and replacement of the batteries of the UPS as and when necessary.

a) To provide/ refill/ replace cartridge used for the printer supplied.

b) Up-gradation of software of main equipment, workstation, servers and supplied computers.

53. The system with quoted applications should be US-FDA and CE approved, and or ISO certified. Also, mention year of launch.

**(11) Technical Specifications of MRI compatible Gynecological Brachytherapy Applicator**

- It should be seamlessly compatible with existing HDR brachytherapy unit installed in the department
- It should be designed exclusively from non-ferrous material and should be safe for use in 3.0 Tesla MR unit as well as all commercial CT units
- The applicator should not produce image artefacts when used in CT/MR imaging
- It should have flexible geometry of the Fletcher style applicator and ensures a perfect fit with patient anatomy
- It should be exclusively compatible with existing Transfer tube specifically designed for such applicators
- It should offer desired adjustable flexibility for smooth assembly of vaginal ovoids of various sizes, and should have intrauterine tandems of various angles and sizes
- It should meet all the regulatory requirements of radiation safety as promulgated by AERB/ IAEA from time to time and material used should have all national and international regulatory approvals.

**(12) Technical Specifications of Gynaecological transfer tube for source transfer for brachytherapy**

- It should be seamlessly compatible with existing HDR brachytherapy unit installed in the department
- Standard microSelectron HDR Gynecological transfer tubes for all type of gynaecological applications viz Fletcher suit applicator, Vaginal Sorbo applicators should be supplied
- The transfer tubes should be self-locking and clearly identifying channel 1, 2 and 3 and under no condition should be interchangeable with each other
- The transfer tubes should be rugged and flexible for safe movement of source without any resistance
- The transfer tubes should not modify the source transit time and in event of presence of any foreign body should not allow motion of source guide
- It should meet all the regulatory requirements of radiation safety as promulgated by AERB/ IAEA from time to time and material used should have all national and international regulatory approvals
- It should maintain its physical strength and lumen shape for temperature ranging from 5 to 45 degree Celsius.



**(13) Technical Specifications of Ice Lined Refrigerator (ILR)**

**1. Description of Function:**

- 1.1 Ice-lined refrigerators maintain temperatures of +2°C to +8°C. Not more than 8 hours continuous or intermittent power should be sufficient per 24 hrs. to maintain vaccine temperature below 8 deg.C.
- 1.2 Ice-lined refrigerators are required at district and regional levels, since electricity supplies are rarely perfect and standby electricity supplies may not be available.

**2 Operational Requirements:**

- 2.1 Vaccine storage is required for RI, Campaign and new vaccine introduction.
- 2.2 Designed for tropical climates.
- 2.3 Target holdover time should be 20 hours or more in a continuous external temperature of 43 degC.
- 2.4 Hot and cold compressor starting at 172 volts (22% below rated voltage).
- 2.5 Manufacturing process of the product should not use or produce hazardous chemicals/gases.
- 2.6 Provision for drainage for the wastewater.
- 2.7 Should have legs in the base with rotating screw type height adjustments to balance the weight on uneven floor.
- 2.8 The unit should have ground clearance of minimum 100mm.

**3 Technical Specifications:**

- 3.1 Construction: 3.2.1 Internal: Stainless 304 grade steel and 20 gauge. 3.2.2 An additional special ice lining consisting of ice packs covered by strong plastic shell.
- 3.2 External: Corrosion Resistance (CR at least 1 mm thickness)
- 3.3 Chest type with CFC – free insulation
- 3.4 Should have horizontal water cool pack covering the top of the basket.
- 3.5 Solid door with lock and handle
- 3.6 Type: Compression Cycled, CFC-Free (both for refrigeration and insulation) All system tubing (suction tube, freezer tube and condensing tube) should be of minimum 99.97% of pure copper coil.
- 3.7 Temperature of a full vaccine to remain +2 deg C to +8 deg C during continuous availability of energy at ambient temperature +5 to +45 deg. C with intermittent/ continuous electricity supply 8 hours in a 24 hours cycle. The temperature difference between any two points in the cabinet should not be more than +2 deg. C once stabilized. 3.9 Inlet of Capillary should be outside the PU body.
- 3.10 ON/OFF Switch and power indicator should be available
- 3.11 Net Vaccine Storage Capacity: Minimum 300 liters within basket in place.
- 3.12 A Micro processor-based control unit should be provided for setting of temperature and display following features:
  - 3.12.1 3-digit digital display (to one decimal point) of cabinet temperature. The sensor should be placed 25 to 50 mm above base of storage chamber.

- 3.12.2 Power on LED/LCD indicator
  - 3.12.3 Audio (minimum 65 dBA) and visual alarm against the violation of temperaturerange(less than +2 and more than +8 degree C)
  - 3.12.4 Min. & Max. cabinet temperature digital display of last 24 hrs. and breaches during last 24hrs.
  - 3.12.5 The unit should be sealed/protected from dust, moisture or condensed water falling overit.
  - 3.12.6 3.12 Accuracy for digital controller +/- 0.5 degree centigrade.
- 4 SystemConfiguration**
- 4.1 Programmable Micro-processor control unit with child lockfacility.
  - 4.2 Should have provision to set minimum and maximum temperature at 0.1 degree Centigrade to programme the unit for continuousoperation.
  - 4.3 Should have provision for defrostingprogram.
- 5 Accessories& spares:**
- 5.1 Vaccine Storage Basket allowing free circulation of air, having the size tobe able to accommodate 4 to 6 of them in the unit and suitable to match the net volume requirement. It should be minimum 5 wirebasket.
  - 5.2 Stem Alcohol thermometer (specifications and standard as per MOHFW / WHO approved Annexure-1) - one piece per unit range of -30 to +50 degree centigrade.
- 6 Environmentalfactors:**
- 6.1 The unit shall be capable of being stored continuously in ambient temperatureof 0 to 50deg C and relative humidity of 95%
  - 6.2 The unit shall be capable of operating continuously in ambient temperature of 5 to 45 deg C and relative humidity of90%
  - 6.3 The plug should be flexible and unbreakable sealed rubbertype.
- 7 PowerSupply:**
- 7.1 Power input to be 220-240VAC, 50Hz as appropriate fitted with Indianplug
  - 7.2 Voltage stabilizer as per the MOHFW approved specifications andstandard
- 8 Standards andSafety**
- 8.1 Product should be CE approved as per EC council directive 2004/108/EC for electromagnetic compatibility and 2006/42/EC by European Union (EU) approved agency
  - 8.2 Should meet WHO/UNICEF Standard WHO/PQS/E03/RF03.1.for IceLined Refrigerators
  - 8.3 Test and inspection before dispatch as per WHO procedure reference WHO/PQS/E03/RF03-VP.1 Testing should be carried out from WHO certified lab/NABL/STQC Labs. Certificate of testing should be currently valid till the supply and same must be verified by inspecting authority. Testing reports shall be submitted along with unit at the time ofsupply.
  - 8.4 Colourcode :WHITE

**9 Documentation:**

- 9.1 A paper copy of user/operator manuals to be supplied in English.
- 9.2 A paper copy of technical/wiring diagram/maintenance manuals to be supplied in English.
- 9.3 Certificate of inspection for technical compliance from an independent laboratory approved /recognized by WHO certified /National Accreditation Board for laboratories/STQC Labs is essential.
- 9.4 List of important spare parts and accessories with their part number and costing.

**10 Packing of the equipment during shipment:**

- 10.1 The suppliers should provide strong and sufficient packing to ensure safe arrival of goods at the destination free from loss or damage.
- 10.2 A vertical arrow should be marked at the all sides of packages to ensure transportation of equipment in vertical position. TOP and BOTTOM should also be written.
- 10.3 Top at label and sign age's for HANDLE WITH CARE ON ALL SIDES OF THE CRATES as per packing & shipment norms.

**(14) Technical Specifications of Rigid Esophagoscope Set**

<b>S. no</b>	<b>Instrument description</b>	<b>Qty.</b>
<b>Esophagoscopes</b>		
1.	Rigid Esophagoscope, distal illumination, oval, length 50 cm, O.D. 12 mm x 16 mm	1
2.	Rigid Esophagoscope, distal illumination, oval, length 50 cm, O.D. 10 mm x 14 mm	1
3.	Rigid Esophagoscope, distal illumination, oval, length 50 cm, O.D. 8 mm x 12 mm	1
4.	Rigid Esophagoscope, distal illumination, oval, length 40 cm, O.D. 12 mm x 16 mm	1
5.	Rigid Esophagoscope, distal illumination, oval, length 40 cm, O.D. 10 mm x 14 mm	1
6.	Rigid Esophagoscope, distal illumination, oval, length 40 cm, O.D. 8 mm x 12 mm	1
7.	Rigid Esophagoscope, distal illumination, oval, length 30 cm, O.D. 12 mm x 16 mm	1
8.	Rigid Esophagoscope, distal illumination, oval, length 30 cm, O.D. 10 mm x 14 mm	1
9.	Rigid Esophagoscope, distal illumination, oval, length 30 cm, O.D. 8 mm x 12 mm	1
10.	Rigid Esophagoscope, distal illumination, oval, length 30 cm, O.D. 7 mm x 10 mm	1
11.	Rigid Esophagoscope, distal illumination, oval, length 20 cm, O.D. 12 mm x 16 mm	1
12.	Rigid Esophagoscope, distal illumination, oval, length 20 cm, O.D. 10 mm x 14 mm	1
13.	Rigid Esophagoscope, distal illumination, oval, length 20 cm, O.D. 8 mm x 12 mm	1
<b>Rigid esophagoscope forceps</b>		
14.	Forceps, pointed, serrated, for coins and flat foreign bodies, double-action jaws, sheath diameter 2.5 mm working length 55 cm	1
15.	Forceps, with round cupped jaws, for biopsy and foreign bodies, double-action jaws, cupped diameter 5 mm sheath diameter 2.5 mm working length 55 cm	1
16.	Forceps, alligator, for hard foreign bodies, double-action jaws, sheath diameter 2.5 mm working length 55 cm	1
17.	Forceps, universal, for biopsy and foreign bodies, double-action jaws, width 3 mm, sheath diameter 2.5 mm, working length 45 cm	2
18.	Forceps, with round cupped jaws, for biopsy, double-action jaws, cupped diameter 4 mm, sheath diameter 2 mm, working length 45 cm	1
19.	Forceps, alligator grasping, for hard foreign bodies, double-action jaws, sheath diameter 2 mm, working length 45 cm	2
20.	Forceps, pointed, serrated, for coins and flat foreign bodies, double-action jaws, sheath diameter 2 mm, working length 35 cm	2
21.	Forceps, with round cupped jaws, for biopsy, double-action jaws, cupped diameter 4 mm, sheath diameter 2 mm, working length 35 cm	1
22.	Forceps, alligator grasping, for hard foreign bodies, double-action jaws, sheath diameter 2 mm, working length 35 cm	1
23.	Denture cutting scissors, working length 45-47 cm	1
<b>Light cable, light source and accessories</b>		
24.	Fiber optic light cable with straight connector, heat resistant, with safety lock, diameter approx. 3.5 mm, length 230- 250 cms	1
25.	High performance LED light source, power supply 100 – 240 VAC	1
26.	Fiber Optic Light Carrier for use with rigid esophagoscopes of length 50 cm	1
27.	Fiber Optic Light Carrier for use with rigid esophagoscopes of length 40 cm	1
28.	Fiber Optic Light Carrier for use with rigid esophagoscopes of length 30 cm	1

29.	Fiber Optic Light Carrier for use with rigid esophagoscopes of length 20 cm	1
30.	Autoclavable prismatic light deflector with connection to fiber optic light cable	2
31.	Handle, universal for all esophagoscopes	2
32.	Set of bougies for cricopharyngeal dilatation of different sizes	1 set
33.	Metallic Suction cannula, with grip and suction control for use with esophagoscope of length 50 cms, size 1 and 2	<b>1 each</b>
34.	Metallic Suction cannula, with grip and suction control for use with esophagoscope of length 40 cms, size 1 and 2	<b>1 each</b>
35.	Metallic Suction cannula, with grip and suction control for use with esophagoscope of length 30 cms, size 1 and 2	<b>1 each</b>
36.	Metallic Suction cannula, with grip and suction control for use with esophagoscope of length 20 cms, size 1 and 2	<b>1 each</b>

1.  $\pm$  10% variation in size range is acceptable
2. TC inlay should be welded and not pasted.
3. Instruments should be made from high quality surgical grade steel.
4. Instruments should have Laser surface or ebonized or equivalent finish to provide appropriate reflection lowering property.
5. The instruments should be light weight, strong, with high precision and durable.
6. The instruments should be non-magnetic.
7. Catalogue number and article number should be mentioned on each instrument.
8. There should be country of origin/ manufacturing engraved on each instrument.
9. The instruments should be autoclavable.
10. The instruments should be of the same make, European CE/ USFDA approved.

**(15) Technical Specifications of Cytogenetic Imaging System**

**1. CAMERA: DIGITAL MONOCHROME**

- Chip Size - 2/3", CCD Camera, Progressive scan, Interline Transfer, RS644 12 bits digital output.
- Spatial Resolution: Minimum 5 pixels. With binning (switchable to) 640 x 512 pixels and S/N ratio improve by 4 with interface board and software.
- Sensitivity: Approx 0.04 lux (for 25msec exposure time) Exposure time range from 2 - 10,000 msec.
- C Mount Adapter: 0.63x - 0.7x Magnification

**2. DATABASE SOFTWARE**

- Advanced Single Window Database with Tree View for Case details, Sample/Cell Details, Search Filters, Report Generation, Report Preview, Graphical Slide Co-ordinates complete with respective Icons.
- Thumbnail Images display: Thumbnail image display of Raw & Processed Metaphase including completed karyotype table in single window.
- Co-ordinates: Storage of XY Coordinates.
- Dual Mode operation for acquisition and analysis.
- Statistical report to generate bar graphs statistical information for case distribution of specimen type, various abnormal cases, various referral reasons results, sample type etc.
- Multiple automatic backups/Data security.
- Built-in or customizable report format using Microsoft word.
- Ability to import tiff images of metaphase spread and analyze.
- Multi Application Imaging Database for all sample types G-banded, Interphase and Metaphase FISH, CGH etc.

**3. KARYOTYPING SOFTWARE**

- Interactive and automated karyotyping and Interphase FISH analysis.
- Multiple UNDO and log operations to overcome human errors.
- Karyotyping Software for G-, Q-, R- Banding Techniques.
- Automatic exposure and contrast controls for image capturing.
- User definable ROI for enhanced sizing of chromosome spreads.
- Multi color display to validate correct segmentation and tool for cutting adjunct or overlap chromosomes.
- Fully dynamic karyotype table with no limit to the number of chromosomes and markers.
- ISCN: Updated ISCN to 2005 for 300,400, 550, 700 & 850 Band Resolutions
- Ability to automatically generate Band-Per-Haploid-Set resolution.
- User definable karyotype table capability to change the distance and height between homologous chromosomes.
- Fast Semi-Automatic Counting of Chromosomes.
- Multiple Undo for any operation.

- Zoom 1000% in Metaphase as well as Karyotype table.
- Compare same case or multiple case chromosomes (All 22 pairs + X / Y metaphases and/or karyotype).
- Single window with Multiple Image Gallery for up to 24 Images (combined Karyotype & Metaphase image including report generation).
- Single window Icon for Karyotyping & FISH analysis.
- Fully upgradeable for Multi-Species (Mouse, Rat, Hamster etc)
- Network: Full network connectivity.

#### **4. FISH SOFTWARE**

Automated FISH Capture and Analysis software with z-stacking and 3D data export with integrated karyotyping module and Manual counting utility for scoring of cells, integrated karyotyping module with FISH software. Full dynamic karyotyping support with unique band enhancement for fluorescent signals. Chromosome compare across all sample types, combining banding, FISH, CGH.

- Flexible, user-friendly, quantitative FISH imaging software.
- Z-stacking and 3D data export on a manual microscope.
- Automatic exposure controls and image enhancement for image capturing.
- User-defined image capture region.
- Integrated karyotyping module with FISH Software.
- Band enhancement for fluorescent signals.
- Support for inverted counterstains with probe signals.

#### **5. COMPUTER, MONITOR & PRINTER**

- State of the art Branded Computer with Core 2Duo or latest 2.7Ghz or better processor, 2TB SATA 7200 RPM Hard Drive with Data Burst Cache, minimum 16 GB RAM, Network Card, DVD/CD Writer Drive, Infrared Mouse and Keyboard-USB. 4 USB port rear/2 Front.
- Monitor: 24" TFT/LCD Monitor or better to support 1280 x 1024.
- Printer : 600dpi laser colour printer

#### **6. MICROSCOPE**

Fully Motorized Upright Research Microscope for Cytogenetics Workstation: Fully motorized upright research microscope for bright field, fluorescent image analysis system should be latest and available on microscope companies' website for reference.

- Microscope frame should have built in fully automated motorized focus along with fibres coupled fluorescence beam-path.
- Should be equipped with 12V 100W Halogen or LED light illumination with external power supply for stability.
- Microscope should have motorized X,Y scanning stage and motorized Z focus with step size of 10-15 nm or better. The microscope should have nosepiece focusing or stage focusing for better stability.
- Aperture, Field Diaphragm should be motorized with memory function for individual objectives and should have motorized shutters.

- Trinocular tube with 3 way beam path splitter (100:0/0:100/80:20/70:30 or 50:50)
- 10X Eyepiece with minimum 22/23 mm Field of View or better for wider viewing area.
- Motorized 6 or better position revolving nosepiece.
- Manual stage: X-Y stage with adapter for slide feeder stage (at least 2 slides or better at a time).
- At least 6 position motorized fluorescence filter turret for FISH filters.
- Plan semi Apochromatic/ Plan Apochromat or similar Objectives: 4x/5x NA 0.13, 10x NA 0.30, 20x NA 0.50 or better, 40x/0.75, 60x/63x Oil NA 1.35, 100x/1.4oil should be quoted as standard part of configuration.
- Manual oil dispenser with complete control for various sample types like peripheral Blood, Amniotic Fluid, CVS, Bone Marrow aspirates, Solid Tissues and Cytospins.



**(16) Technical Specifications of Micromotor drill system**

1.	High speed drill not less than 8000rpm.	01
A	Dual speed control from control box as well as foot pedal	01
B	Both modes forward and reverse cutting	01
C	Inbuilt pump for irrigation	01
2.	<b><u>Micro Motor Hand Pieces</u></b>	
A	Rated for minimum 8000rpm	01
B	Ball bearing type as to generate minimum heat & vibration	01
C	With attached irrigation pipes.	01
D	Standard coupling for micromotor	01
E	Straight hand pieces	03
F	Contra angled hand piece	02
G	Should be able to accommodate burrs of all makes.	
3.	<b><u>Burrs</u></b>	
A	Tungsten carbide burrs cutting set of 12 varying from 0.6mm to 7mm standard length of 70mm-round, conical and cylindrical type.	03 Sets
B	Diamond burrs complete set of six varying from 0.6mm to 7mm length 70mm-round, conical and cylindrical type.	02 sets
C	Oil spray for hand pieces with Nozzle	
D	Warranty: Five Years	
E	Should be CE/FDA approved	
F	Years comprehensive warranty + 5 Years AMC/CMC	

**(17) Technical Specifications of Audiometry set**

**Specifications-Impedance Audiometer**

Impedance audiometer with contra ear testing facilities.

1. Multifrequency
2. Probe Frequency-226 Hz, 678Hz, 800Hz, 1000Hz
3. Pressure Range- +200 to - 400 daPa
4. Volume Range: 0.1 ml to 6.0 ml
5. Accuracy:  $\pm 5\%$  to  $\pm 10$  daPa
6. Test Time- < 3 Seconds
7. Reflex Mode
8. Test Frequencies: 500,1000,2000,4000 Hz  $\pm 2\%$
9. Test Method: Ipsilateral, Contralateral
- 10.Noise (Band): WN/HP/LP
- 11.Intensities IPSI Lateral- 70 to 110 dbHz
- 12.Intensities Contra Lateral: 70 to 120 dbHz
- 13.Intensity Setting: Automatic or Manual
- 14.Eustachian Tube Function: Intact and Perforated mode
- 15.ETF Pressure Range: +300 to - 400 daPa
16. Test: Ipsilateral Reflex Test with AGC, Reflex Decay
17. Test Programme- Reflex Test selectable
- 18.Probe- Light weight, adjustable, Hand Held, With Built in control light & switch
- 19.Printer: Silent Thermal Printer, (with paper printer facility)
- 20.Display; Graphic LCD with adjustable contrast
- 21.Power Supply- Mains 100-240 Volts, 50/60 Hz 25 VA
- 22.PC Interface- USB Cable
23. Automatic self calibration
- 24.Regular calibration of equipment
25. All accessories should be from the same manufacturer and approved.
26. Should attach valid USFDA & European CE certificate

**Specifications of Pure tone Audiometer:**

- Two separate & identical channels.
- Stimulus type- Tone, warble, pulsed tone, pulsed warble, FRESH noise (FREquency specific Hearing assessment noise), Pulse FRESH noise
- Special tests-TEN test, SAL test, MLD, ABLB, SISI, Weber, Rinne, Stenger, Tone Decay, Tinnitus, Bekesy, DLF, DLI, HLS, MHA, Multi frequency weber.
- Optional test- Quick SIN, LI Pread, Pediatric.
- Frequency range-
  - TDH 39 earphone-125 to 12500HZ
  - HAD 200 earphone-125 to 20000Hz
  - Insert ear phones- 125 to 8000 Hz

- BC-250 to 8000Hz
- SF-125 to 20000Hz.
- FRESH noise stimulus-125 to 20000 Hz.
- Level Range
  - Air conduction: 125 to 5000Hz  
5000Hz to 20000Hz
  - Bone Conduction: 250 Hz to 5000 Hz  
5000Hz to 8000Hz.
- Masking types:  
Narrow band Noise, Speech Weighted Noise, White band noise.
- Stimulus modulation  
FM (warble):- Adjustable modulation rate & depth: Modulation rate-1 to 20Hz, Modulation depth- 1 to 25%  
SISI: 5, 2, 1 dB decrements.
- Should have full speed USB port connector.
- Should be supplied with software
- Safety Standards:  
Audiometer-EN 60645-1, Type1, EN60645-2Tpye A-E, ANSI s3.6  
Patient safety-Complies with IEC 60601-1, Class-1, Type B; AAMI  
EMC-IEC 60601-1-2  
USFDA Certified (must attach valid certificate)

**(18) Technical Specifications of ASSORTED OPEN & LAPAROSCOPIC STAPLING DEVICES**

<b>Assorted Stapling Devices</b>			
<b>S.No</b>	<b>Category</b>	<b>Specifications</b>	<b>Quantity</b>
<b>A Linear Cutter &amp; Reloads for Open Surgery</b>			
1	Linear Cutter 55-60 mm	Linear Cutter 55/60 mm with/without integrated knife	2
2	Linear Cutter reload 55-60 mm	Cartridge for Linear cutter 55/60 mm size (blue, green)	10
3	Linear Cutter 75-80 mm	Linear Cutter 75/80 mm with/ without integrated knife	2
4	Linear Cutter reload 75-80 mm	Cartridge for Linear cutter 75/80 mm size (blue, green)	10
5	Linear Cutter 100 mm	Linear Cutter 100 mm with/without integrated knife	2
6	Linear Cutter reload 100 mm	Cartridge for Linear cutter 100 mm size (blue, green)	10
<b>B Circular Staplers</b>			
7	Circular Stapler 21 -25 mm	21-25 mm Circular Stapler with/without tilt top anvil design	5
8	Circular Stapler 28-29 mm	28-29 mm Circular Stapler with/without slim tilt top anvil design	5
9	Circular Stapler 31-33 mm	31-32 mm Circular Stapler with/without slim tilt top anvil design	5
<b>C Haemorrhoid Stapler</b>			
10	Haemorrhoid Stapler	Circular Stapler for Haemorrhoids with/without detachable anvil & transparent anoscope.	5
<b>D Linear Staplers</b>			
11	Linear stapler	60 mm linear stapler	2
12	Reloads for linear stapler	Reloads for above stapler (blue & green)	10
<b>E Laparoscopic Linear Cutter &amp; Cartridges</b>			
13	Laparoscopic Linear Cutter Long Shaft	Laparoscopic Linear Cutter with/without knife, articulating and 360° rotating long Shaft length to accommodate 45mm & 60 mm reload	2
14	Laparoscopic Linear Cutter Short Shaft	Laparoscopic Linear Cutter without knife, articulating and 360° rotating short Shaft length to accommodate 45mm & 60 mm reload	2
15	Cartridges 60 mm	Laparoscopic linear cutter reload 60 mm (Blue, Green)	5
16	Cartridges 45 mm	Laparoscopic linear cutter reload 45 mm (Blue, Green)	5
<b>F Stapler &amp; reload for Anterior Resection</b>			
17	Linear Cutter for C Shaped reload	Stapler with/without knife for C shaped reload for Anterior resection.	2
18	C-Shaped Reload	C Shaped reload for Anterior Resection with in-built knife,4/ 6 rows of different leg length & cut in between( blue and green)	10

<b>G Skin Staplers</b>			
	Skin Staplers	With minimum 35 staples	20
<b>H Barbed Sutures</b>			
19	PDO	Cutting edge, 35 - 40 MM, ½ circle, no 1/ 1-0, 36 X 36 cm/ 45 x 45 cm	10
20	PGA	Taper point, 26 MM, 1/2 circle, 2-0, 20 cm/45 cm /75 cm	10
21	PGA	Taper point, 36 MM, 1/2 circle, 2-0, 45 cm/ 75 cm	10
<b>I Trocars</b>			
22	5 mm bladeless trocar	with optical trocar tip, clear canula with sleeve of length 100 mm	10
23	11 mm bladeless trocar	with optical trocar tip, clear canula with sleeve of length 100 mm	10
24	Universal trocar sleeves	5 mm, 11 mm & 12 mm	10 each
25	12 mm bladeless trocar	with optical trocar tip, clear canula with sleeve of length 100 mm should have inbuilt reducer for accommodating 5-12 mm instruments	10

**CONDITIONS FOR TENDER:**

1. All accessories should be from same original equipment manufacturer.
2. Should be US FDA/EUROPEAN CE approved.
3. The equipment should have brand name / model number embossed / etched on the equipment.
4. All the technical specifications in the compliance statement must be supported by original literature from the firm / O.E.M with highlighting, numbering & flagging of all technical certificates.
5. Offered equipment should have very strong govt. installation base
6. Offered equipment should have regional after sales service center of the original equipment manufacturer in the north region
7. For the offered main unit, the essential, optional required consumables’/accessories’ shelf life should be declared on the original equipment manufacturer’s letterhead.
8. In case of technical snag / failure / breakdown the response time for the inspection should be within 24 hours and repair within 05 days otherwise should be provided with a service machine till the period of recovery of breakdown of the unit, failing which will attract penal action as per decision of institute / hospital.
9. For offered equipment the training of technical staff and users should be performed by original equipment manufacturer trained service engineers - service representatives.
10. Company should quote their latest model.
11. As a tendering process the **physical demonstration** of the offered equipment is **mandatory** at hospital / institute premises at bidders cost. No electronic power point or video of the offered equipment would be accepted.

**(Sr. no.19) Technical Specifications of Flexible URS**

**Flexible Videoureteroscope** : Should have following features :

- Narrow Band Image processing capability
- Insertion tube rotation function which should help in orientation of the scope tip
- Compatible with Ho:YAG laser
- Should have High resolution CCD chip integrated into the scope tip for superior image quality.
  
- Direction of view 0 degree & field of view should be around 80-90 degree
- Videoscope outer diameter should be around 8 -9Fr
- Should have Rotation Knob for easy maneuverability
- Working length of videoscope should be approx. 600 – 700 mm
- Instrument Channel should be around 3.2 – 3.6Fr
- Ergonomically positioned programmable switches for ease of use
- Angulation range : Up 275 Deg / Down 275 Deg
- Should have leakage testing port for routine maintenance
- Should be supplied with following accessories:
  - a).Access sheath 35cm & 45cm – **5each**,
  
  - b).Leakage tester -**1Nos**,
  
  - c).stone Baskets 2- 3fr – **12Nos**
  
  - d).Hydrophilic Guide wire – **6Nos**

**General Term & Conditions:**

- 1) Company should quote latest model and available in international market
- 2) 3 years warranty and 5years CMC.
- 3) All the above equipment should be US FDA/European CE approved
- 4) All the equipment must be from same principal equipment manufacturer
- 5) The system should be compatible with the existing camera systems in the Urology OT.
- 6) The company must have registered service center in North India

**(Sr. no.20) Technical Specifications of Minor OT Set including UPS****C-ARM COMPATIBLE O.T. TABLE****SPECIFICATION**

C-Arm Compatible O.T. Table with Zero Position & Electric Floor Locking System

Should have SPMS based Control Box with 120 VA capacity.

Should capable to handle voltage fluctuation.

Should have zero current consumption when idle.

Should have additional control panel provided on Table Top.

Should have display of Battery Backup in Hand Set.

Should have memory function in Hand Set.

Should have Safety Key for locking complete Hand Set.

Hand Set should have LED Indicator for better visibility.

Should have stainless Fitting.

Should have detachable head, leg and pelvic section.

Should have in-built Kidney Bridge.

Should have multi-sectional Radio-Translucent Top.

Base & Cover should made of Stainless Steel and easy to clean.

Should have sophisticated mechanics to provide smooth and step less articulation of Table Top.

**TECHNICAL SPECIFICATION**

Length of Table	:	1900 mm
Width of Table Top	:	520 mm
Min. Height (Without Mattress)	:	750 mm
Max. Height (Without Mattress)	:	1000 mm
Trendelenburg	:	25 Deg.
Reverse Trendelenburg	:	25 Deg.
Lateral Tilt	:	± 20 Deg.
Back Section	:	± 60 Deg.
Head Section	:	± 60 Deg.
Leg Section	:	0 Deg. to 90 Deg.
Floor Locking System	:	By Remote

**LED SURGICAL O.T. LIGHT****SPECIFICATION**

Light should have Memory Function.

Should have high quality sterilizable handle.

Should have ventilation of heat.

Body of light should be made of high quality fire resistant material.

Should have adjustable color temperature.

Should have adjustable Focusing.

Should have Battery Back-up.

**TECHNICAL SPECIFICATION**

Intensity	:	180000 Lux ± 10%
Size of Light Field	:	12 – 30 cm.
Color Temp.	:	4000 – 5000 K
Color Reduction Index	:	93 RA
LED Life	:	> 50000 Hrs.
Number of LED	:	126
Diameter of Light	:	600 mm
Brightness Control	:	Capacitive Touch Panel
Power Supply	:	220 V/50 Hz AC

**MAYO TABLE****SPECIFICATION**

Should have adjustable height with geared crank on bearings.

Should made of stainless steel.

Should have heavy duty non-rusting swelving castors.

**TECHNICAL SPECIFICATION**

Overall length	:	24 Inch
Overall width	:	16 Inch

Minimum height : 30 Inch

Maximum height : 45 Inch

### OPERATION THEATRE TROLLEY

#### SPECIFICATION

Should made of good quality stainless steel.

Should have four side tray construction on top with three side railings and front open.

Should have one lower shelf with three side railings and front open.

Should have mounted on non-rusting castors, two with brakes.

#### TECHNICAL SPECIFICATION

Overall Size : Length 36" X Width 24" X Height 38"

Tray height with Castors : 34"

Distance between Upper & Lower Tray : 26"

Size of Castors : 5"

### DOCTOR'S EXAMINATION STOOL

#### SPECIFICATION

Should have height adjustable with gas spring.

Should have Revolving with back rest.

Should have non-rusting plastic base with castors for stability.

Should have cushioned seat and back.

#### TECHNICAL SPECIFICATION

Minimum Height : Approx. 20"

Maximum Height : Approx. 25"

Length & Width of Plastic Base with Castors: Approx. 23"

Dia of Padded Seat : Approx. 14.5"

### ELECTRO SURGICAL UNIT

#### SPECIFICATION

Unit should have made for all needs like Resection in Saline, conventional monopolar.

Should be able to connect bipolar and monopolar cutting & coagulation.

Should have TURis Plasma Vaporization.

Should have excellent cutting and coagulation modes.

Should have Foot Switch.

Should Power Cord

### FIBRE OPTIC LARYNGOSCOPE WITH 5 BLADE

#### SPECIFICATION

Should have Hook-on Handle to be used with conventional blades.

Should have no Trauma causing Hot Bulb.

Should prevent entering loose bulb in oral airway.

Should have 5 Nos. Blades.

### SILICONE RESUSCITATORS - ADULT

#### SPECIFICATION

Should have made for patients for above 30 kgs.

Should comprise 1600 ml self inflating double ended silicone bag with mounts incorporated with Reservoir Valve and Side Feed Oxygen Inlet, Type "L" non-breathing valve.

### U.P.S. – 2 KVA

#### Adult Cysto-Resectoscope with single chip camera

A). Telescope :

4 mm, 0 degree, autoclavable with detachable eye-piece & having instrument tray for sterilization purposes with fixing system of telescope – 1Nos

4 mm, 12 degree, autoclavable with detachable eye-piece & having instrument tray for sterilization purposes with fixing system of telescope – 2Nos

4 mm, 30 degree, autoclavable with detachable eye-piece & having instrument tray for sterilization purposes with fixing system of telescope – 2Nos

4 mm, 70 degree, autoclavable with detachable eye-piece & having instrument tray for sterilization purposes with fixing system of telescope – 1Nos

B). Light Guide Cable :

3.5 mm autoclavable type light guide fibreoptic cable – 2Nos

C). Sheaths, Working element and Instruments :

The System should have quick snap on mechanism. Sheath should have matt finish for staying of lubrication gel to reduce friction trauma to the patient. Maintenance free stopcocks needing no lubrication, tip design with lifelong guarantee against thermal damage, modular sheath with single and continuous flow to rotatable sheath.



Cystoscope sheath 22-22.5 fr.	- 2 no.
Cystoscope sheath 19-20fr with obturator	- 2 no.
Bridge, two way port	- 2 no.
Biopsy Forceps 7 fr.x330-360 mm	- 2 no.
Flexible Grasping Forceps 7 fr.x330-360 mm	- 2 no.
Flexible Scissor 9Fr	- 2 no.
Inner sheath with standard obturator, 24 Fr.	- 3 no.
Outer sheath, 2 stopcocks, rotatable, 26 Fr.	- 2 no.
Visual obturator compatible with above sheath	- 2 no.
Working Element, Passive type	- 3 no.
Cutting loop electrode	- 12 no.
Coagulation roller electrode	- 12 no.
Needle electrode	- 12 no.
HF-cable, Monopolar	- 3 no.
Ellick Evacuator	- 2 no.
Two way Irrigation Port for 24 Fr Intermittent Flow TUR	- 2 no.
21Fr OIU sheath with standard Obturator	- 2 no.
Working element compatible with above sheath	- 2 no.
Cold Knife compatible with OIU, straight	- 6 no.
Cold Knife compatible with OIU, semi circular	- 6 no.
Optical Stone Punch	- 2 no.
Metal dilator set, Bougie 10-30fr	- 1 no.
Metal dilator set curved, Bougie 10-30fr	- 1 no.
Heager Dilators	- 1 no.

D). Technical Specifications for single Chip Camera System:

1) Video Camera Image processor system

- The camera system must have Fiberscope, telescope, and colposcope compatibility
- Compact, lightweight and ergonomically designed system providing High-resolution and bright images.
- System must provide both analog and digital output.
- Output port must include DVI output besides Composite and Y/C output to ensure compatibility with a wide range of monitors.
- Built in moiré reduction filter on camera head
- Iris Area control switch (Full / center) will be preferable
- Brightness Level control switch between High and Low will be preferred.
- White balance adjustment is possible using the white balance button on the front panel.

2) Camera Head

- Compact & light weight design.
- Must be immersible, ETO compatible
- Must be compatible with a video adapter to connect the Telescopes and fiberscopes.

3) Full HD, LED 24" Monitor

- 24" Monitor
- Stand for Monitor

4) LED Light source

- Homogenous Light distribution
- Frequency 50/60 Hz
- Lamp Life Upto 2000 Hours

E). Technical specifications for Flexible Cysto – Nephro fiberscope

It should have following features :

- Single finger controlled suction which allows fast aspiration of fluid and smaller tissue samples.
- Distal end should be around 11 – 12 F for better insertion
- Electro-Surgical compatibility
- Instrument Channel should accommodate 2 mm endo-therapy accessories.
- Distal & Insertion tube diameter should be around 4.5 to 5.5 mm
- Working length should not be more than 40 cm.
- Angulation should be between 200 – 220 deg for Up and for Down 100 – 120 deg
- Detachable light guide connector to accommodate other make Light Guide Cable
- Leakage testing facility
- Should be supplied with following accessories :

Grasping forceps for stone fragments	- 5 no.
Biopsy forceps (fenestrated)	- 5 no.
Suction valve	- 1 no.
ETO Cap (Venting Cap)	- 1 no.
Channel Cleaning Brush	- 2 no.
Miniature Light Source for Out patient procedure	- 1 No.
Leakage Tester	- 1 No.

General Term & Conditions:

- 1) Company should quote latest model and available in international market
- 2) 3 years warranty and 5years CMC that covers all components of the equipment.
- 3) All the above equipment should be US FDA/European CE approved
- 4) The company must have registered service center in North India

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

Sr. no.	Description
1	e-bid Notice No. RMLIMS/MM(eq)/2019-20/5143 dated 10.01.2020
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>  (Sr. no. 6+7+8+9)
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>  (Sr. no 10+19)
<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)/2019-20/5143 dated 10.01.2020
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	<b>Total Standard Accessories Price (INR) + GST</b> (Sr. no. 18+19)
21	Cost of turnkey work (if required)
22	GST value or % on cost of turnkey work (if required)
23	<b>Total cost of Turnkey work inclusive GST</b> (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>

**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.**