Rate Contract for consumables

for

Cardio Thoracic and Vascular Surgery

at

All India Institute of Medical Sciences (AIIMS), Jodhpur

NIT No.	:	**Admin/RC/07/2016-AIIMS.JDH**
NIT Issue Date	:	**23rd September, 2016**
Last Date of Submission	:	**25th October, 2016 at 03:00 PM**
Pre-Bid Meeting	:	**05th October, 2016 at 04:00 PM**

All India Institute of Medical Sciences, Jodhpur
Basni Phase – II, Jodhpur – 342 005, Rajasthan
Phone: 0291-2740741, Email: aoadmin@aiimsjodhpur.edu.in
Website: http://www.aiimsjodhpur.edu.in

Chapter I- Instruction to bidders

Notice Inviting Bids

Subject: - **Procurement of consumables for Cardio Thoracic and Vascular Surgery for a period of one year.**

All India Institute of Medical Sciences (AIIMS), Jodhpur, Rajasthan, an apex healthcare Institute being established by Parliament of India under aegis of Ministry of Health & Family Welfare, Government of India, invites sealed bids for purchase of Consumables for Cardio Thoracic and Vascular Surgery on Rate Contract Basis as per the list enclosed at "**Chapter V**" for a period of one year. The estimated yearly consumption of the Consumables for Cardio Thoracic and Vascular Surgery is expected around **Rs. 1.5 Crore**. Interested parties may send their tender in sealed cover addressed to the Administrative Officer, **All India Institute of Medical Sciences, Basni Phase - II, Jodhpur** superscripted with the words "**Rate Contract for supply of Consumables for Cardio Thoracic and Vascular Surgery**" and complete in all respects should be dropped in the tender box up to **03:00 pm on 25th October, 2016**. The Quotations will be opened on the same day at 04:00 PM at Conference Hall, Medical College, All India Institute of Medical Sciences, Jodhpur. The tenders received after the scheduled date and time will be rejected out-rightly.

2. The tender is in two - bid system i.e. Technical & Financial contains specification and allied Technical details and the Price Schedule of the various items detailed in "**Chapter VI**". The technical bid will be opened on the designated date by the Purchase Committee. The financial bid containing the rate of various items will be opened on a suitable date, to be intimate later by the Purchase Committee in respect of those who qualify the terms and conditions of the technical bid.

3. The technical bid and the financial bid should be sealed by the bidder in separate covers super-scribed **"Technical bid for supply of Consumables for Cardio Thoracic and Vascular Surgery" and "Financial Bid for supply of Consumables for Cardio Thoracic and Vascular Surgery"**. Both Sealed Envelopes should be kept in a main/ bigger envelope super-scribed as "**Rate Contract for Supply of Consumables for Cardio Thoracic and Vascular Surgery**". The 'Technical Bid" will be analyzed and 'Financial Bid' of only those firms who are found eligible in 'Technical Bid' will be opened in due course and the eligible firms would be intimated there of accordingly.

4. Tenders submitted without following Two-Bid system procedure as mentioned above would be summarily rejected.

Schedule of Tender

1 **Last date and time of receipt of tender** : 25th October, 2016 at 03:00 PM

2 **Amount of Earnest Money Deposit** :

No. of quoted items	Amount (INR)
1-30	50,000/-
31-70	1,00,000/-
71-130	1,50,000/-
131-200	2,00,000/-
More than 200	2,50,000/-

3. **Date & time of opening of Tender Venue** : 25th October, 2016 at 04:00 PM at Conference Hall, Medical College, AIIMS, Basni Phase-II, Jodhpur - 342005.
4. **Pre Bid Meeting** : 05th October, 2016 at 04:00 PM at Conference Hall, Medical College, AIIMS, Basni, Phase – II, Jodhur – 342005

4. Tender document may be downloaded from this Institute's official website **"http://www.aiimsjodhpur.edu.in".**
5. The Parties interested for any clarification, kindly visit AIIMS Jodhpur in person by **05th October, 2016 at 04:00 PM** in **Pre Bid Meeting**.

Administrative Officer

Chapter-II- Conditions of Contract

General Terms and Conditions

Subject: - **Notice Inviting Bids for Consumables for Cardio Thoracic and Vascular Surgery for All India Institute of Medical Sciences, Jodhpur**

1. **Parties :**
   The parties to the contract are the contractor (the tenderer to whom the work have been awarded) and the AIIMS through Administrative Officer, All India Institute of Medical Sciences, Jodhpur for and on behalf of the Director, AIIMS, Jodhpur.

2. **Earnest Money:**
   Earnest money by means of a Bank Demand Draft may be enclosed with the quotation (Technical Bid). It is also clarified that the quotations received without earnest money will be summarily rejected. The DD may be prepared in the name of "**All India Institute of Medical Sciences, Jodhpur**". Details of EMD is as under:

No. of quoted items	Amount (INR)
1-30	50,000/-
31-70	1,00,000/-
71-130	1,50,000/-
131-200	2,00,000/-
More than 200	2,50,000/-

a) No request for transfer of any pervious deposit of earnest money or security deposit or payment of any pending bill held by the institute in respect of any previous work will be entertained.
b) Tender shall not be permitted to withdraw his offer or modify the terms and conditions thereof. In case the tenderer fail to observe and comply with stipulations made herein or backs out after quoting the rates, the aforesaid amount of earnest money will be forfeited to the AIIMS.
c) The Tenders without Earnest Money will be summarily rejected.
d) The firms who are registered with National Small Industries Corporation (NSIC) / OR Small Scale Industrial (SSI) are exempted to submit the EMD (copy of registration must be provide along with)
e) No Claim shall lie against the AIIMS in respect of erosion in the value or interest on the amount of EMD.
f) The EMD, in case of successful bidders shall be refunded on submission of performance security. In case of non-submission of the same, EMD will be forfeited.
g) The EMD, in case of unsuccessful Bidders shall be retained by the Purchaser, upto a maximum period of 6 months from the date of opening of the Bids or till the finalization of the tender, whichever is later. The bid security shall be refunded to the unsuccessful tenderers on written request. No interest will be payable by the AIIMS authorities on the EMD.

3. **Tender Fee:**
   Tender fee will be Non-refundable amount of Rupees One thousand (Rs. 1000/-) only and the tenderer shall deposit a separate Bank Draft in favor of **"All India Institute of Medical Sciences, Jodhpur"** along-with tender Document (Technical Bid). **The tenders submitted without tender cost shall liable to be rejected summarily**.

4. **The bidder should have their registered office / branch or distributer in Jodhpur (Rajasthan). In case of outside firm, they will require to open their registered office / branch or distributer in Jodhpur within 30 days of award of contract for smooth functioning. (Documentary Proof required).**

5. Bidders are requested to quote their prices on a firm & fixed basis for the entire period of the Contract. Bids of the firms received with prices quoted on variable basis shall be rejected without assigning any reasons and no communication in this regard shall be made.

6. Quotations qualified by such vague and indefinite expression such as "Subject to prior confirmation", "Subject to immediate acceptance" etc. will be treated as vague offers and rejected accordingly. Any conditional tender shall be rejected summarily.

7. At any time prior to date of submission of tender, Tender Inviting Authority may, for any reason or decision, modify the terms & conditions of the tender document by a corrigendum displayed on the website of AIIMS Jodhpur (http://www.aiimsjodhpur.edu.in). In order to provide reasonable time to take the amendment into account in preparing their bid, Tender Inviting Authority may or may not, at his discretion, extend the date and time for submission of tenders.

8. **DOCUMENTS COMPRISING THE BID:**
   The bids prepared by the bidder shall comprise of (1) Technical Bid and (2) Financial Bid:

   Technical Bid: - To qualify in the Technical Bid the firm should have the minimum eligibility criteria as under and the firm in this regard must submit the following documents in support of their eligibility criteria: -

   (a) Duly filled format of Technical Bid as per Chapter – IV.
   (b) Copy of constitution or legal status of the bidder manufacturer / Sole proprietorship / firm / agency etc.
   (c) Manufacturer Authorization Certificate must be attached by Bidder.
   (d) **Financial Status**: - The average annual turnover from similar jobs, of the firm should not be less than **1 crore** in the last three consecutive years. Copies of profit & loss account and balance sheets duly authenticate by a Chartered Accountant for the last three years should be enclosed.
   (e) The technical bid should be accompanied by Demand draft of **Rs. 1000/- (non-refundable) against tender fee** and Demand Draft of **EMD** as mentioned above.
   (f) Copy of Income Tax Return Acknowledgement for last Three years.
   (g) Copy of PAN Card / Service Tax Registration.
   (h) Copy of Sales tax / VAT registration certificate.

(i) Registration with Excise Department, Govt. of India. The industries situated in excise free zones will be exempted from registration provided they produce the copy of appropriate notification.
(j) Details of clients where similar services are presently provided by the tenderer separately for govt. and private clients.
(k) The bidder must have adequate experience of execution of similar work in Govt. offices / PSUs / Autonomous Bodies and other similar organizations. Necessary supporting documents like work orders, work completion certificate, payment certificate etc. for last three years to this effect must be submitted along with the offer.
(l) The concerned firm/company whose product has been declared as of spurious or adulterated quality and any criminal cases is filled and is pending in any court shall not be eligible to participate in the bidding process. Convicted firms/company shall also not be eligible to participate in the bid. Similarly, blacklisted / banned / debarred firms / company by any central / state govt. or its organization or autonomous bodies or central drug procurement agency is not eligible to participate in the bid.
(m) Brochure, original technical catalogue with detailed specification and picture of the product offered, if relevant.

Financial Bid: The financial bid shall contain:
(a) Price Bid Form [As per Chapter - VI] – Price must be quoted as per format specified, failing which tender shall be summarily rejected.

9. Signing of Tender :
Individual signing the tender or other documents connected with contract must specify whether he sign as:
(a) A sole proprietor of the concern or constituted attorney of such sole proprietor;
(b) A partner of the firm, if it is a partnership firm in which case he must have authority to execute the contracts on behalf of the firm and to refer to arbitration disputes concerning the business of the partnership either by virtue of the partnership agreement or by a power of attorney duly executed by the partners of the firm.
(c) Director or a principal officer duly authorized by the Board of Directors of the Company, if it is a company.

10. A person signing the tender form or any document forming part of the tender on behalf of another person should have an authority to bind such other person and if, on enquiry it appears that the person so signing had no authority to do so, AIIMS, Jodhpur may without prejudice, cancel the contract and hold the signatory liable for all costs, consequences and damages under the civil and criminal remedies available.

11. The tenderer should sign and affix his firm's stamp at each page of the tender and all its annexure as the acceptance of the offer made by tenderer will be deemed as a contract and no separate formal contract will be drawn. **NO PAGE SHOULD BE REMOVED/ DETACHED FROM THIS NOTICE INVITING TENDER**.

12. BID PRICES:

(a) It should be submitted in form given in **Chapter VI**. The price quoted will be exclusive of taxes and inclusive of all applicable charges (i.e. packing, forwarding, postage and transportation) at F.O.R. AIIMS, Jodhpur and shall be fixed and final. Taxes, as applicable will be extra, which will separately quoted in the bid, At the time of payment Income Tax or any other Tax payable shall be deducted at source.

(b) The offer shall be firm and in Indian Rupees only. No foreign exchange will be made available by the Institute.

(c) The rate quoted by the bidder shall remain fixed during the entire period of contract and shall not be subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.

13. TECHNICAL EVALUATION:

(a) Detailed technical evaluation shall be carried out by Purchase Committee pursuant to conditions in the tender document to determine the substantial responsiveness of each tender. For this clause, the substantially responsive bid is one that conforms to all the eligibility and terms and condition of the tender without any material deviation. The Institute's determination of bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence. The Institute shall evaluate the technical bids also to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed and whether the bids are in order.

(b) The technical evaluation committee may call the responsive bidders for discussion or presentation to facilitate and assess their understanding of the scope of work and its execution. However, the committee shall have sole discretion to call for discussion / presentation.

(c) Financial bids of only those bidders who quality the technical criteria will be opened provided all other requirements are fulfilled.

(d) AIIMS Jodhpur shall have right to accept or reject any or all tenders without assigning any reasons thereof.

14. FINANCIAL EVALUATION:

(a) The financial bid shall be opened of only those bidders who have been found to be technically eligible. The financial bids shall be opened in presence of representatives of technically eligible bidders, who may like to be present. The institute shall inform the date, place and time for opening of financial bid.

(b) Arithmetical errors shall be rectified on the following basis. If there is a discrepancy between the unit price and total price that is, the unit price shall prevail and the total price shall be corrected by the Institute. If there is a discrepancy between words and figures, the lesser amount shall be considered as valid. If the Supplier does not accept the correction of the errors, his bid shall be rejected.

(c) The AIIMS Jodhpur does not bind himself to accept the lowest bid or any bid and reserves the right of accepting the whole or any part of the bid or portion of the job offered; and the bidder shall provide the same at the rates quoted. The AIIMS Jodhpur reserves the right to reject any or all offers received in response to tender or cancel or withdraw the tender notice without assigning any reason, whatsoever.

15. AWARD OF CONTRACT: PLACE MENT OF ORDER

(a) The Institute shall consider placement of orders for jobs on those bidders whose offers have been found technical, commercially and financially acceptable. The Institute reserves the right to counter offer price(s) against price(s) quoted by any bidder.

16. Opening of Tender:

The tenderer is at liberty either himself or authorize not more than one representative to be present at the opening of the tender. The representative attending the opening of the tender on behalf of the tender should bring with him a letter of authority from the tenderer and proof of identification.

17. Validity of the bids:

The bids shall be valid for a period of 180 days from the date of opening of the tender. This has to be so specified by the tenderer in the commercial bid.

18. Right of acceptance:

The AIIMS, Jodhpur reserve the right to accepting the whole or any part or portion of the bid; and the bidder shall provide the same at the rates quoted. The AIIMS Jodhpur reserve the right to reject any or all tenders / quotations or all offers received in response to the tender or cancel or withdraw the tender notice without assigning any reason thereof and also does not bind itself to accept the lowest quotation or any tender and no claim in this regard shall be entertained.

19. Delivery:

Delivery of goods shall be made by the supplier within 30 days of placing of purchase order, however, in case of emergent requirement he has to supply the required quantity of goods within 1 weeks of placing of order also. In few cases the items are to be delivered at a very short notice i.e. within 24 hours.

20. Liquidated Damages

Supply of material will have to be completed within 30 days or period mentioned in the purchased order. The liquidated damages charges @ 0.5% per week shall be imposed if supply made after expiry of delivery period subject to maximum 10% of the total value of relevant goods. Quantum of liquidated damages assessed and levied by the purchaser shall be final and not challengeable by the supplier.

21. Risk Purchase

If successful tenderer fails to supply material within the stipulated delivery date or material supplied other than specification specified in our NIT, AIIMS Jodhpur reserves the right to terminate contract for that item(s), forfeiture of security deposit and to procure same or equivalent material from alternative sources at the vendor's risk, responsibility and cost. Any extra cost incurred in the procurement of the material from alternative source will be recovered from the Security Deposit / Bank Guarantee and Pending Bills of the existing firm and if the value of the materials under risk purchase exceeds, the amount of Security Deposit and / or Bank Guarantee and Pending Bills, then same may be recovered if necessary by due legal process.

22. The Payment clause:

The bill in triplicate may be sent to this office for settlement after satisfactorily delivery of the material. The bill should have full particulars of the items(s).

No payment shall be made in advance nor shall the loan from any bank or financial institutions be recommended on the basis of the order of award of work.

The contractor shall submit the bill only after supply of the material to the satisfaction of the AIIMS Jodhpur, on receipt of a pre-receipted bill invoice from the Contractor the case of issuing sanction and passing of bill for payment will be initiated. No payment will be made for goods rejected.

23. Performance Security:

The bidder shall require to submit the performance security after receipt of award of notification, in the form of irrevocable Bank Guarantee (BG) / or Fixed Deposit Receipt (FDR) issued by any Scheduled Bank. Details of performance security is as mentioned below:

S. No.	No. of Awarded Items	Amount of Performance Security (INR)
1	1-30	50,000/-
2	31-60	1,50,000/-
3	61-120	4,00,000/-
4	121-180	8,00,000/-
5	More than 180	12,00,000/-

The security deposit of successful bidders will be kept for the period of one and half year from the date of award of the contract and shall be refunded without any interest on it within 15 to 90 days after completion of the contract as per order, or after the expiry of contract on satisfactory completion of the same whichever is later.

The security deposit can be forfeited by the Institute in the event of any breach or negligence or non–observance of any condition of contract or for unsatisfactory performance or non–observance of any condition of the contract.

24. FORCE MAJEURE:

If, at any time during the subsistence of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, act of public enemy, civil commotion, sabotage, fire, floods, explosion, epidemics, quarantine restriction, strikers lockout or act of God (hereinafter referred to as events) provided notice of happening of any such eventuality is given by party to other within 21 days from the date of occurrence thereof, neither party hall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries have been so resumed or not shall be final and conclusive.

Further, that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, either party may, at least option to terminate the contract.

25. Insolvency etc:

In the event of the firm being adjudged insolvent or having a receiver appointed for it by a court or any other order under the Insolvency Act made against them or in the case of a company the passing any resolution or making of any order for winding up, whether voluntary or otherwise, or in the event of the firm failing to comply with any of the conditions herein specified AIIMS, Jodhpur shall have the power to terminate the contract without any prior notice.

26. Breach of Terms and Conditions:

In case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to cancel the work order/ job without assigning any reason thereof and nothing will be payable by AIIMS, Jodhpur in that event the security deposit shall also stands forfeited.

27. Subletting of Work:

The firm shall not assign or sublet the work/job or any part of it to any other person or party without having first obtained permission in writing of AIIMS, Jodhpur, which will be at liberty to refuse if thinks fit. The tender is not transferable. Only one tender shall be submitted by one tenderer.

28. Right to call upon information regarding status of work:

The AIIMS, Jodhpur will have the right to call upon information regarding status of work / job at any point of time.

To assist in the analysis, evaluation and computation of the bids, the Purchase Committee of AIIMS, Jodhpur, may ask bidders individually for clarification of their bids. The request for clarification and the response shall be in writing but no change in the price or substance of the bid offered shall be permitted.

29. Fall Clause:

If at any time during the period of contract, the price of tendered items is reduced or brought down by any law or act of the Central or State Govt. or by the tenderer himself, the tenderer shall be morally and statutorily bound to inform AIIMS, Jodhpur immediately about such reduction in the contracted prices. The AIIMS, Jodhpur is empowered to unilaterally effect such reduction as is necessary in rates in case the tenderer fails to notify or fails to agree for such reduction of rates. In case of any enhancement in Excise Duty/Custom Duty due to statutory Act of the Govt. after the date of submission of the tenders and during the tender period, the additional excise duty/custom duty so levied will be allowed to be charged extra as separate item without any change in price structure of the drugs approved under the tender. For claiming the additional cost on account of the increase in excise duty/custom duty, the tenderer should produce letter from the concerned excise authorities indicating his commitment for the supply made to the AIIMS, Jodhpur on account of the increase in excise duty/custom duty.

30. Arbitration:

If any conflict or difference arises concerning this agreement, its interpretation on payment to the made there-under, the same shall be settled out by mutual consultation and negotiation. If attempts for conciliation do not yield any result within a period of 30 days, either of the parties may make a request to the other party for submission of the dispute for decision by an Arbitral Tribunal containing Sole Arbitrator to be appointed by the Director, AIIMS Jodhpur. Such requests shall be

accompanied with a panel of names of three persons to act as the sole arbitrator. In case of such arbitrator refusing, unwilling or becoming incapable to act or his mandate having been terminated under law, another arbitrator shall be appointed in the same manner from among the panel of three persons to be submitted by the claimant. The provision of Arbitration and Conciliation Act, 1990 and the rule framed there under and in force shall be applicable to such proceedings.

31. Legal Jurisdiction:

The agreement shall be deemed to have been concluded in Jodhpur, Rajasthan and all obligations hereunder shall be deemed to be located at Jodhpur, Rajasthan and Court within Jodhpur, Rajasthan will have Jurisdiction to the exclusion of other courts.

32. Periodicity / Duration of Tender:

The rate contract is initially for a period of one (01) year and may be extended till new rate contract gets final. AIIMS Jodhpur shall, however, reserve the right to terminate the contract at any time without assigning any reason.

33. Other Conditions:

The successful firm will be required to do the work / job for a period of one year from the date of award the contract. AIIMS, Jodhpur shall, however, reserve the right to terminate the contract at any time without assigning any reason.

The job will be entrusted on the basis of all-inclusive rate contract on as is where is and competitive rates basis.

34. The items will have to be supplied at AIIMS, Jodhpur. No transportation/ cartage charges will be provided for the same.

35. All India Institute of Medical Sciences (AIIMS), Jodhpur shall be the sole authority to cancel or amend the order, as per requirement, and also to place order for supply of item beyond office hours/holidays/place of supply for which, no additional payment shall be made.

36. The tendering Firm/Agency/Company shall be bound by the details furnished by him/her to the All India Institute of Medical Sciences (AIIMS), Jodhpur while submitting the tender or at subsequent stage. Upon selection of the tendering Firm/Agency/Company, if at any stage, the documents furnished by him/her is found to be false or the quality of the articles or rates are found of poor quality/different specifications, it would be deemed to be a breach of terms of contract, the contract shall be cancelled at the discretion of competent authority and performance security shall be stand forfeited.

37. The firm should have availability of a responsible person on call on all working days between 09:00 Hrs to 18.00 Hrs.

38. Consumables for Cardio Thoracic and Vascular Surgery shall be supplied from manufacturers holding up to date Good Manufacturing Practices (GMP) Certificate issued by the appropriate licensing authority. A copy of the certificate shall be produced by supplier with technical bid.

39. The Consumables for Cardio Thoracic and Vascular Surgery shall be delivered at the AIIMS, Jodhpur with remaining shelf-life of at least 75% of the stipulated total shelf-life from the date of manufacturing of that product.

40. If the Local Authorized Dealer of any Manufacturing Company is participating in this Tender, he will allowed to be submit the Manufacturer's Authorization Certificate, Manufacturer's Companies duly certified Audited Accounts, Copy of Income Tax Return for Last Three Financial Years. Rest document like Affidavit, EMD, TIN No., VAT No., Registration Certificate and Average annual turnover of Rs. 1 Crore for last three consecutive year, shall be submitted by Local Authorized Dealer / Firm of his own.

41. Order shall be issued for tentative annual requirement on actual need basis. Bills in triplicate for the items supplied by the selected firm(s), should be raised for payment. Payment shall be released after it is ensured that the items/quantity and quality of items supplied are to the entire satisfaction of this office and accepted. If any item is found to be defective, or not of the desired quality, the same shall be replaced immediately, for which no extra payment shall be made by AIIMS, Jodhpur.

42. The selected tendering Firm/Agency/Company shall also provide the name and mobile number of a key person, who can be contacted at any time, even beyond the office hours on holidays. The person should be capable of taking orders and making arrangement for supply of the desired items even on short notice to AIIMS, Jodhpur.

43. In case the quality of goods supplied are not in conformity with the standard given in tender and as per the samples supplied or the supplies are found defective at any stage these goods shall immediately will be taken back by the supplier and will be replaced with the tender quality goods, without any delay. The Purchase Committee reserves all right to reject the goods if the same are not found in accordance with the required description / specifications and liquidates damages shall be charged.

44. The Specification of the item needed is mentioned in Technical Bid (Chapter - V). The payment would be made for actual supply taken and no claim in this regard should be entertained.

45. If a tendering Firm/Agency/Company decides to withdraw from the bidding before the financial bids are opened, the AIIMS, Jodhpur shall forfeit the EMD deposited with the technical bid.

46. Full description & specifications, make/brand and name of the manufacturing firm must be clearly mentioned in the tender failing which the tender will not be considered. The tendered must also mention whether the goods are imported / indigenous. Descriptive literature / catalogues must be attached with the tender in original failing which tender may be ignored.

47. The rate quoted by firm should be final and written in ink or typed against each item and should not be overwritten.

48. Each page of the Tender Notice to be signed and stamped by the bidder in token of having accepted the same.

49. The AIIMS, Jodhpur reserves the right to place an order for supply of any items mentioned in the Financial Bid or otherwise, to any other firm(s) in emergency/unavoidable situation.

50. Disclaimer:

The near relatives of employees of AIIMS, Jodhpur are prohibited from participation in this tender. The near relative for this purpose are defined as:

(a) Members of a Hindu undivided Family.

(b) Their spouses

(c) The one related to the other in the manner as father, son(s), Son's wife (daughter-in-law), daughter(s) and daughter's husband (sons-in-law) brother (s) and brother's wife, sister(s) and sister's husband, brother(s)-in-law.

51. The Purchase Committee of AIIMS, Jodhpur shall go into all aspects including cost factors of Consumables for Cardio Thoracic and Vascular Surgery and then decide for awarding of the tender, by quoting lower rates in respect of items, a firm does not become entitled to awarding the contract in its favor of those item(s). In order to get selection / consideration in the panel of two or three vendors for awarding of contract (in case the contract is to be awarded to more than one vendor), the criteria of selection for awarding contract will be calculating / comparing the rate of items consumed by the AIIMS, Jodhpur throughout the year and as per the requirement in view of quality, as deemed fit by the Purchase Committee. The firm has to provide samples for the items for evaluation of Purchase Committee when required. The committee will reject the quotations of the bidders whose quotation will not found of quality required by AIIMS, Jodhpur. AIIMS, Jodhpur reserves the right to accept/ reject any quotation either in part or full without assigning any reason thereof, or award the contract to different supplier(s), for different item(s), if feasible after considering the credentials, manufacturing, capability, quality and distribution rights of the item(s). The firm are, therefore, requested to attach their credentials in regard to supply of items and experience in the field, distribution rights and their annual turnover.

Special Conditions:

(a) Freight, insurance charges, if any will be borne by the supplier, Similarly shortage, pilferage in transit will be sole responsibility of the supplier and the same will be intimated to the supplier on receipt of goods by the purchaser for resupply. The defective supply will have to be replaced by the supplier within 10 days without additional freight / transport charge.

(b) VAT and other Govt. levies will be paid extra as applicable by the supplier.

(c) Delivery of goods will be taken at the risk and cost of the supplier and on F.O.R. basis to the Institute from railway / road transport.

(d) Payment of the bill will be made after receipt of the goods in satisfactory condition and inspection by the concern Committee.

(e) No revision in rate (on higher side) will be accepted during contract period.

(f) Order will be placed as per requirement, irrespective of value of the order.

(g) Supply should be made in full against the order and shortage will be procured from other supplier on the risk and cost of the original supplier.

(h) Supply should be made from the latest batch of production with maximum life period & original packing.

(i) While submitting the tender document, the tenderer should sign on each page of the tender document.

(j) The tenderer should enclose a signed copy of the terms & conditions stipulated for award of the contract, conveying his acceptance of the same.

(k) AIIMS Jodhpur reserves the right to conclude more than one rate contract for the same item.

(l) AIIMS Jodhpur has the option to renegotiate the price with the rate contract holder.

(m) AIIMS Jodhpur reserves the right to cancel rate contract for any or all items without assigning any reason thereof.

Inspection:

(a) AIIMS, Jodhpur shall have the right to inspect and/or to test the goods to confirm their conformity to the NIT Specifications at no extra cost to the AIIMS, Jodhpur.

(b) AIIMS, Jodhpur right to inspect, test and, where necessary, reject the Goods after the goods arrival at the final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by AIIMS, Jodhpur prior to the goods shipment.

(c) The Director, AIIMS Jodhpur shall be the final authority to reject full or any part of the supply which is not confirming to the specification and other terms and conditions.

(d) No payment shall be made for rejected Stores. Rejected items must be removed by the Bidders within two (02) weeks of the date of rejection at their own cost and replaced immediately. In case these are not removed, these will be auctioned at the risk and responsibility of the suppliers without any further notice.

Sample/Demonstration:

The tenderers may be required to place samples of the Consumables for Cardio Thoracic and Vascular Surgery (without indicating price, clear marking of firm / agency name in each of item and item reference number) when required by the Purchase Committee and Concerned Department of All India Institute of Medical Sciences (AIIMS), Jodhpur for quality evaluation and in case all the expenses will be borne by the tenderer. Purchase will be done only after the approval of the quality of the product by the Competent Authority. If required failing which their bids/offer shall be rejected.

The firms are intimated that they should get ready for demonstration and only one-week time will be provided for arrangement of demonstration and no request for extending time for demonstration will be entertained. Failure to demonstrate, their offer will be summarily rejected.

Documents:

(a) All pages of the Tender should be numbered and indexed.

(b) The bidder shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully confirm to the goods and services specified by the AIIMS, Jodhpur in the tender documents. For this purpose the bidder shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the AIIMS, Jodhpur in the tender documents to establish

technical responsiveness of the goods and services offered in its tender duly indicating relevant page numbers in the product literature.

(c) The bidder shall provide a list of major Government and Private Institutions where its relevant bid item has been supplied during last one year.

Administrative Officer

Chapter - IV Contract Form

TENDER FORM - 1 - TECHNICAL INFORMATION AND UNDERTAKING.

(Tenderer may use separate sheet wherever required)

S.No.	Details of the Firm / Bidder	Page No.	Remarks
1.	Name & Address of the Tenderer/ Concern		
2.	Whether the Firm is located in Jodhpur (Rajasthan). (Yes/No)		
3.	State clearly whether it is Sole proprietor or Partnership firm or a company or a Government Department or a Public Sector Organization		
4.	Details of the Earnest Money Deposit (EMD) (Yes/No) DD No.: Dated: Drawn on Bank: Amount: (Rupees…….)		
5.	Details of the cost of the Tender documents (Yes/No) DD No.: Dated: Drawn on Bank: Amount: (Rupees…….)		
6.	Whether each page of NIT and its annexure have been signed and stamped		
7.	Whether Bidders have quoted for each and every item mentioned in Chapter V (Yes/No) (**If NO, then please attach a list of quoted items with make and complete specification along with the Technical Bid without indicating price**)		
8.	List of Major Customer may be given on a separate sheet and proof of satisfactory supply, if any		
9.	Manufacturer Authorization Certificate		
10.	Non Blacklisting Certificate		
11.	Certificate for No Deviation		
12.	Certificate for Price Justification		
13.	Last Income Tax Certificate		
14.	Copy of VAT/CST/ST Registration		
15.	Drug License (If applicable on any item given in technical bid)		
16.	Quality Assurance Certificate (Please specify, USFDA / European CE / ISO etc.)		
17.	Have you previously supplied these items to any government / private organization? If yes, attach the relevant proof. (Also provide an affidavit that you have not quoted the price higher than previously supplied		

	any government institute)		
18.	Proof of average annual turnover of the firm, which should not be less than Rs. One (01) Crore only for the preceding last three years.		
19.	Permanent Account Number		
20.	Sale Tax Registration No.		
21.	TIN No. with Proof		
22.	Whether copies of authenticated balance sheet for the past three years enclosed		
23.	Name and Mobile Number of a Key person, who can be contacted at any time. The person should be capable of taking orders and making arrangement for supply of the desired items.		
24.	Any other information important in the opinion of the tenderer		

- **Page number/serial number may be given to each and every page of Tender Documents and photocopies of the documents attached. Mention Page number, wherever the copy(ies) of the document(s) are kept.**
- **In case of non-fulfilment of any of the above information/ document(s), the Tender will be summarily rejected without giving any notice.**

(Dated Signature of the Tenderer with stamp of firm)

Dated:
Place:

Undertaking

1. That I/we have carefully studied all the terms & conditions of NIT and shall abide by it.
2. That I/We shall supply the items of requisite quality.
3. That I/We undertake that the information given in this tender are true and correct in all respect and I/We hold the responsibility for the same.
4. That I/We undertake that sample of items will be kept ready for inspections by the AIIMS, Jodhpur. I/We shall be responsible for the cancellation of tender if samples are not up to mark.

(Dated Signature of the Tenderer with stamp of firm)

Date:
Place:

FORMAT FOR MANUFACTURER'S AUTHORISATION

To,
The Director,
All India Institute of Medical Sciences (AIIMS) Jodhpur
Industrial Area, Basni, Phase - IInd, Jodhpur (Raj.)

Reference: **NIT No. Admn/RC/07/2016-AIIMS.JDH, Dated: 23/09/2016 for Rate Contract for Supply of consumables for Cardio Thoracic Vascular Surgery.**
Subject: **Manufacturer Authorization Certificate**

Dear Sir,

Ref. Your NIT No _____, dated _____
We, _____ who are proven and reputable manufacturers of _____ (name and description of the Items offered in the Quotation) having factories at _____, hereby authorize Messrs._____(name and address of the agent) to submit a Quotation, process the same further and enter into a Rate Contract with you against your requirement as contained in the above referred Quotation Form for the above items manufactured by us.

We further confirm that no supplier or firm or individual other than Messrs. _____ (name and address of the above agent) is authorized to submit a tender, process the same further and enter into a Rate Contract with you against your requirement as contained in the above referred Quotation Form for the above items manufactured by us.

We also hereby confirm that we would be responsible for the satisfactory execution of supply contract placed on the authorized agent.

We also confirm that the price quoted by our agent shall not exceed than that which we would have quoted directly.

Yours faithfully,

[*Signature with date, name and designation*]

For and on behalf of Messrs._____

[Name & address of the manufacturers]

Note:-

1. This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.
2. Original letter may be enclosed with Quotation Form during submission in the sealed cover.

NON BLACKLISTING CERTIFICATE

[To be submitted on letterhead]

I/We hereby certify that the [Name of the company / firm] has not been ever blacklisted/debarred by any Central / State Government / Public Undertaking / Institute on any account.

I/We also certify that firm will be supplied the item as per the specification given by AIIMS Jodhpur and also abide all the terms and conditions stipulated in Rate Contract.

I/We also certify that the information given in bid is true and correct in all aspects and in any case at a later date it is found that any details provided are false and incorrect, contract given to the concern firm or participation may be summarily terminated at any stage, the firm will be blacklisted and AIIMS Jodhpur may imposed any action as per NIT rules.

Date	:	Name	:
Place	:	Business Address	:
		Signature of Bidder	:
		Seal of the Bidder	:

CERTIFICATE OF NO DEVIATION

[*To be given on letter head*]

NIT No.:

I/We, M/s_____ hereby certify that notwithstanding any contrary indication / conditions elsewhere in our offer documents, I/We have neither set any terms and conditions nor there is any deviation taken from the conditions of AIIMS Jodhpur's tender specification, either technical or commercial, and I/We agree to all the terms and conditions mentioned in AIIMS Jodhpur's tender specification with associated amendments & clarification

[*Signatures of the Bidder with Name, Designation & Company's Seal*]

CERTIFICATE OF PRICE JUSTIFICATION

[*To be given on letter head*]

NIT No.:

I/We, M/s. _____ certify that the rates provided are our best rates and we have not given these materials to any Government Department/PSU/Institution for lesser than these rates in last one year.

SIGNATURE AND STAMP OF THE BIDDER

Chapter – V

Technical Bid

List of Consumables for Cardio Thoracic and Vascular Surgery

Sr. No.	Name of Items	Specification
1.	CORRUGATED TUBE CONNECTOR	Should allow connection between all breathing circuits and the ET tube connector. The corrugated tube should be expandable. Should Allow movement of breathing circuit at patient end. Should be made of medical grade PVC. Should be compatible with ETT and tracheostomy tube.
2.	CUFF INFLATOR AND PRESSURE GAUGE	•It is used to inflate & precisely monitor the cuff pressure of ET tube, Trachestomy Tube & LMA Cuff. •Reduce the risk of pressure necrosis and mucosal ischemia •The risk of aspiration can be avoided • Eliminates the use of syringes to inflate & deflate the cuffs b. Should have release valve to adjust the pressure. •Gauge calibrated in cm H2 O with the detachable long connecting tube. •Should have inflation bulb for the inflation of the cuff • Should have the hook at the back of fits into standard rail. • Should have widely spaced scale markings with colour coded pressure ranges. • Ergonomic one had operation
3.	INTUBATION PILLOW	•Reusable Intubation pillow for Head elevated laryngoscopy position (HELP) for airway management of Obese & large framed patients. •Should be made up of Dense Foam. •Should be supplied with Head Cradle •Should be Vinyl Covered •Should be CE marked
4.	NEGATIVE INSIPRATORY FORCE METER	•Should be disposable, compact, Light Weight & single patient use Negative Inspiratory Force Meter to check the Negative Inspiratory Force of the Ventilated patients with the facility of memory indicator pointer to record &rset highest force achieved by the patient individually packed ready for use. •Should be CE marked.
5.	CAPNOGRAPHY CO2 SAMPLING MASK	•Should have the provision for breath to breath monitoring for both nose & •Should have the facility to deliver oxygen & allow sampling of exhaled carbondioxide from mouth & nose at the same time. •Should have attached micro filter at the CO2 sampling port end to protect the CO2 monitor •Should be able to connect the Luer lock connector to any side stream CO2 monitor. •Made up of clear medical grade soft PVC.

Sr. No.	Name of Items	Specification
6.	COLORIMETRIC DISPOSABLE CO2 DETECTOR	• For patients from 250gm to 15+kg. Body weight. • Should have the facility of activation by pull tab Technique. • Should be able to work for 24 hours once activated by pulling tab. • Should be able to indicate- Blue green & yellow colour. •Should have larger CO2 viewing window. •Should have 15mm I.D. Standard Taper at Patient End & 15mm O.D. Standard Taper at Circuit End. • Should be CE marked •Sizes Infant, Paediatric & Adult
7.	SINGLE LUMEN CATHETER (SELDINGER TECHNIQUE)	• Should be polyurethane Single Lumen catheter with J Guide-wire non kinking kit should be radio opaque with fixation wing & integral extension tube with flexible & transparent extension tube (PUR) • Size – Catheter 12-22G, • Lengths- 10cm-20cm
8.	LA LINE CENTRAL CATHETER(ALL SIZES)	• Should be long I.V Catheter with external needle and fixed proximal hub catheter in fully radiopaque polyurethane protected by a non touch-handling sleeve marking every cm 10 to 20cm. • Should be made available in assorted sizes.
9.	14. SWAN GANZ PA CATHETER INTRODUCER KIT SET:	• Percutaneous Sheath introducer set should have bonded hemostasis valve & side port along with .035 x 45 cm straight & “J” tip guide wire for introducing 7.5 Fr& 8.0 Fr PA Catheter. • It should have sheath diameter of 8.5 F & sheath length of ≈11 cm. It should be made of radiopaque polyurethane & should have a coating of Heparin as well as antimicrobial material (Benzalkonium Chloride) on entire sheath surface. • It should come with 1 catheter contamination shield, ≈80 cm in length. • It should have one 4-waystopcock, one vessel dilator & four 4x 4gauze pads.0ne disposable scalpel, # 11 blade & one 18 ga x 2 ½ thin wall needle.
10.	SWAN GANZ THERMODILUTION VIP CATHETER	• Flow directed 5-lumen balloon tipped pulmonary artery catheter. 7.5 Fr in diameter &≈ 110 cm in length • It should have a coating of Heparin as well as antimicrobial material (Benzalkonium Chloride) on entire catheter surface. • Should be able to give Cardiac output using Thermo dilution method • Should be able to give PA pressure, PAWP & RA Pressure when connected to trasducer. • Should have proximal infusion & proximal injectateports at ≈31 cm &≈30 cm respectively. • It should come with one volume-limiting syringe of 1.5cc for balloon inflation

Sr. No.	Name of Items	Specification
11.	SWAN GANZ PA CATHETER	• Flow directed 3 lumen balloon tipped pulmonary artery catheter, 7 Fr in diameter & ≈110 cm in length • Should be able to give PA pressure, PAWP & RA Pressure when connected to transducer. Should have proximal infusion port at 30 cm. Recommended guide wire size 0.89 mm. • It should come with one volume-limiting syringe of 1.5cc for balloon inflation.
12.	PRESSURE INFUSION BAG	.Should be made up of durable plastic to prevent the rip & tear of bag Should have clear sleeve around the bag to see the contents of the fluid bag. Should have convenient IV pole loop hanger Should have I.V Bag holder to hang the fluid bag inside. Should have double sealing to prevent the rip or tear of pressure bag Should have stopcock valve. Should have efficient palm fitted bulb for the inflation of bag. Pressure gauge should have 360-degree window to see pressure from all sides. Should have built in bleed valve to check the over inflation of the bag. Sizes- 3000ml. Each bag should have aneroid pressure gauge with inflation capacity of 400 to 700 mmHg.
13.	CLOSED CIRCUIT (PEDIATRIC):	a. ISO marked. b. Length-1.75mtr. double tubing with a Y connector with least dead space. c. Y connector adopter 15mm to 20 mm connector. d. Latex free medical plastic material, disposable, non-irritant to tissue, and should not react to anesthetic gases and volatile agents. e. Outer diameter (OD) 10-12mm. f. Bag-1L. capacity, natural latex medical grade rubber, antistatic, soft and should not react with anesthetic gases and agents. g. Expandable type, corrugated, non-kinkable tube.
14.	T PIECE WITH APL VALVE	• Should be good quality, light weight, non conductive disposable T piece with corrugate tubing 1.8m circuit length, low resistance, 500 ml bag with APL valve with 15F/22F connector, safety cap.
15.	ANESTHETIC CIRCUIT HOLDER OF ADULT, PEDIATRIC AND NEONATAL CIRCUITS	•ANESTHETIC CIRCUIT HOLDER OF ADULT, PEDIATRIC AND NEONATAL CIRCUITS

Sr. No.	Name of Items	Specification
16.	ENDOTRACHEAL TUBES WITH CUFF (DISPOSABLE):	• Pre-sterilized, single use • Siliconized PVC non-toxic to tissues. • Implantation tested marking on the tube. • Thermo-sensitive to adapt to tracheal anatomy. • Non-kinkable. • Bevel with Murphy eye. • Radio-opaque line all along the length of the tube to detect the correct position on X-ray. • Should adopt universal connector of 15mm and should be compatible with all circuits. • Cuff should be bonded, non-herniating. • Size range- 2.5 to 8.0 mm in 0.5mm increments. • Inflation of the cuff balloon via a one-way valve with a pilot balloon and should be on the concave aspect of the tube. • Depth marker at the proximal cuff end, 3 cm from the cuff. • Cuff should be smooth, non-traumatic, low-pressure high volume. • ETT opening should be beveled type, rounded edge, facing to the left end of the tube with an angle of 38 +/- 10 0 • Markings on the tube to know the depth of insertion and fixation at mouth. • Specified mention on the tube- o Nasal/oral o Outside diameter OD in mm. o Inside diameter ID in mm.
17.	DOUBLE LUMEN ENDOTRACHEAL TUBE:	a. Made of medical grade PVC b. Left and right sided. c. All sizes. d. Bronchial cuff should be of blue color and its pilot balloon should be also of blue color for the ease of differentiating between tracheal & bronchial cuffs. e. Pre-sterilized, ready for use. f. Should have pre-inserted stellate to help maintain the shape and curve of the tube.
18.	THERMOPLASTIC SUPRA-GLOTTIC AIRWAY DEVICE	• Should have soft non inflatable anatomical seal, epiglottis blocker; buccal cavity stabilizer, integrated bite block; integrated gastric channel for passage of nasogastric tube • Size: 1, 1.5,2,3,4,5
19.	Percutaneous tracheostomy set with tracheostomy tube:	• Should be with tracheostomy tube. • Should have multiple dilators of different sizes- 14Fr., 21Fr., 24Fr., 27Fr. • Guiding catheter over which the dilator is introduced. • The guide wire should have position markings. • Should have introducer needle with sheath. • Should be supplied with essential accessories.
20.	CORRUGATED TUBE CONNECTOR	• Should allow movement of breathing circuit at patient end. • Should allow connection between all breathing circuits and the ET tube connector. • The corrugated tube should be expandable. • Should be made of medical grade PVC. • Should be compatible with ETT and tracheostomy tube.

Sr. No.	Name of Items	Specification
21.	CATHETER MOUNTS WITH BRONCHOSCOPY PORT:	• Should be flexible & Extendable • Should be having bronchoscopy port. • Should be 360 degree rotating head.
22.	SUCTION TUBE 30M COIL, 7MM ID WITH BUBBLE NON CONDUCTIVE	
23.	SUCTION TUBE 30M COIL 5MM ID WITH BUBBLE NON CONDUCTIVE	
24.	HME filters for neonatal:	Low dead space, hydrophobic filtration incorporated with heat and moisture exchange filter and with retainable gas sampling port, disposable good quality.
25.	ANTI MICROBIAL BREATHING SYSTEM HEATED WIRE	• Should be light weight and flexibleto minimize drag on circuits, • 1.5m heated inspiratory tubing, • Silver impregnated 0.5m humidifier connection tube, • Auto float humidification chamber with dual float • Sizes: Adult, pediatric, Neonatal.
26.	SUCTION CATHETER THUMB CONTROLLED	• Working length should be at least 50cms (working length without Connector) for 10 Fr.& above; should be at least 40 cm. in length below 10 Fr. • Should be color-coded and should have open end with lateral eye with length marked in centimeters with male connector with vacuum control device as ISO specifications. • Should be in straight soft blister packing. • Should have markings on the full length of the tube • Should have markings on the catheter. • Sizes 6,8,10,12,14,16, and 18 Fr.
27.	LEUCOCYTE REDUCING BLOOD TRANSFUSION SET:	Blood set should have drip chamber and filter with proven leucocyte reduction properties for leucocyte free blood transfusion for organ transplant use. It should have filter size 40 microns and 180 sq. cm of filter area and should have attached IV set with a luer lock tip.
28.	MEASURED VOLUME SET (ISO/CE)	• Should be made up of PVC material • Should have soft cylindrical type measure volume chamber with float valve to prevent air embolism • The set should have transparent tubing and chamber. • Should have capacity of 100ml and 150 ml. • Should have drip nozzle with reduced size of drop that has to be uniform at 60 drops/ml. • Should have molded bubble latex bulb for extra medication or Y port for injection. • Should be sterile ready for use. • Should be double packed. • Should have short bevel 23 G Vein needle. • Should have built in airway for bottle perforating spike (air vent).
29.	SURGIAL TAPE NON WOVEN, VISCOSE RAYON POROUS BACKING (MICRO PORE TYPE PAPER TAPE) WITHOUT DISPENSER.	Sizes : • 3 X 9.10 mtrs.

Sr. No.	Name of Items	Specification
30.	SPIRAL (POLYETHYLENE) TUBING	• Should be spirally coiled tubing (polyethylene) for drug infusion (Drug compatible). • Size – 100,150,200,300 & 400cm. • Should be US FDA APPROVED
31.	POLYETHYLENE PRESSURE EXTENSION TUBE	• Should be polyethylene high pressure extension tube (drug compatible) • Size – 11, 30,50,100,150& 200cm. • Sh0uld be US FDA APPROVED.
32.	EXTENSION LINE FOR LIGHT SENSITIVE DRUGS	• Extension line for light Sensitive drugs (anti UV). • Size – 100,150,200cm. • Should be US FDA APPROVED. • It should have 200 cm long multichannel tubing to ensure continuous supply.
33.	BASIC PARALLEL VENTILATOR CIRCUIT:	FDA & CE marked should incorporate with in-line nebulization T Valve with Automatic closer preventing pressure drop. Must be clear construction.
34.	FLEXIBLE TUBING – SILICONE:	• Highly flexible medical grade silicone tubing, autoclavable, can be sterilized by EO. • Sizes : 6mm & 8mm; • Length of tube roll should be 60.0mtr.
35.	DISPOSABLE SHOE COVER:	• Should be of good quality (thick) • Made from non-toxic non-woven, thick fabric. • Well stitched in universal regular size. • Skid resistant & dust proof. • Hard elasticated for better grip and easy to wear. • Should cover the ankles. • Size: Assorted- (Std. size of shoe from 7 to 12) & blue color.
36.	DISPOSABLE FOLEY'S CATHETER (2 WAY) – ADULT &PAED	• Disposable 2 way latex Foley catheter • Should bemanufactured from natural rubber latex coated with silicone so as to eliminatethe risk of encrustation. • Should have symmetrical large capacity balloon to ensure a straight tip andproper flow for good sphincter action to preventbladder leakage. • Should have coned distal end with burr free eyes for a-traumaticinsertion. • Should have hard valve to ensure easy inflation and deflation of balloon. • Balloon capacity- 3-5 ml for pediatric and 30 to 50 ml for adult catheter. • Length- 20-30 cm. • Should have colour coded for instant size identification. • Should be sterile and should be individually packed in peel-able pack. • Sizes-22 only • ISO 9002 CE marking, should confirm to ASTM- F623-99 Guideline specification for Foley's catheter.
37.	50ml SYRINGE(with luer lock)	a) Should be made of clear PVC. b) Should have rubber seal in the piston c) Should have a luer lock
38.	ABSORBABLE DISPOSABLE PILLOW COVER FOR STANDARD SIZE 75X55CM	
39.	DISPOSABLE CHAMBER FOR BAL COLLECTION WITH ADAPTER	Disposable sterile container for Bronchoscopy application.

Sr. No.	Name of Items	Specification
40.	Bite block size 4:	Bite block size 4 for oral fixation of ETT size 6.5-8.0mm, Laryngeal Tube size 2 & 2.5 tube should clip into the bite block for protection against occlusion.
41.	Bite block size 5	Bite block size 5 for oral fixation of ETT size > 8.5mm, Laryngeal tube Size 2 & 2.5 LMA 2 & 2.5 tube should clip into the bite block for protection against occlusion.
42.	Bite block Size 6	Bite block size 6 for oral fixation of laryngeal Tube size 3,4,&5 and LMAs, Tube should clip into the bite block for protection against occlusion.
43.	MEDICAL GRADE SODA LIME CO2 ABSORBENT GRANULES	Medical grade best quality soda lime granules. Hardness, moisture and absorption should be international agency certified. Should be good quality for closed circuit. There should be high contrast pink to white color change after absorbent capacity is exhausted. Pack size should be 5 liter/container.
44.	Disposable DVT Sleeve (Calf & Thigh)	
45.	Disposable DVT Sleeve (calf)	
46.	SPECIFICATION FOR BIS SENSORS	• It should have four sensors element to capture, recognize and discard artifact. • Connector should provide secure click-in connection with push button release • It should include an additional above eye element, which captures critical eye motion data, along with other important physiological signals. • It should have flexible design adjusts to different head sizes • It should have FDA approval • Should be supplied by authorized channel partner from principal company/ manufacture. Electrode Gel: Potassium Chloride (KCl) , latex free. Sizes ADULT and PEDIATRIC
47.	NIRS SENSORS.	ADULT AND PEDIATRIC
48.	DISPOSABLE PULSE OXIMETER SENSORS (SP02)	• Should be compliant with the equipment intended to continuously estimate and display non-invasively a patient's arterial blood oxygen saturation and pulse rate • Proposed sensors must comply with NellcorTechnology. • Digit sensors should be available in Adult, Pediatric, Neonatal and Infant sizes to accommodate diverse patient sizes, weights and needs. • Seller must have all types of sensors available (e.g., finger, forehead, and ear). Sensor must be available in Adult, Pediatric, Infant and Neonatal Sizes. • Sensor extension cables must be available in 4' and 9' lengths. • The sensors must be compatible with all generations of NellcorOximetry Technology in NellcorOximeters and OEM/Licensee Multi-para meter systems with all generation of Nellcor technology. • The sensor shall resist inadvertent displacement. • The sensor shall resist interference from ambient light. • The sensors shall not be adversely affected by fluid spills or common disinfectantsolutions.

Sr. No.	Name of Items	Specification
49.	INFANT FEEDING TUBE:	• Size: 3,4,10 Fr., color-coded. • Silken smooth tube, medical grade siliconized PVC. • X-ray opaque line. • Fitted with female luer mount with built-in stopper/ lid. • Packed in peel-off pouch, not coiled packing. • Sterilized ready to use. • Length of tube minimum- 50 +/- 5 cm. • Smooth rounded tapered distal end with two lateral eyes.
50.	URINE COLLECTION BAG WITH TRANSPARENT VOLUME CHAMBER:	• Sterile ready for use. • Bag should be manufactured from clinical grade transparent PVC. • Capacity- 2000ml.marked in increments of 50 ml. • Fitted with non-return valve to avoid spillage. • One-meter long super smooth, highly flexible non-kinkable tube which should provide approx. 6.5 mm diameter with universal male connector. • Leak proof, single piece/ wielded manufacture. • Provided with hanging device to be fitted on to the bed. • Stopper drain should be attached with the bag.
51.	Clinical thermometer:	• Good quality. • Digital • For oral temperature measurement.
52.	Surgical Adhesive GLUE	• BSA (Bovine Serum Albumin) & glutaraldehyde in the ratio of 4:1 surgical glue • Thrombin Free • Biodegradable and Biocompatible1 • Simple, ergonomic design allows for unmatched preparation and ease of use. • No reconstitution or manual mixing • NO NEED OF Room temperature storage - No warming/thawing • Open and use - Ready in just seconds • SHOULD BE Sets up in 20-30 seconds and reaches full strength in just two minutes • SHOULD BE Seals anastomoses, reinforces friable tissue, and adheres dissected tissues together used for sealing, adhering and reinforcing tissue
53.	AORTIC PUNCH	Should have Sharp, dual cutting edge for clean, precise removal of aortic tissue • should have a conical tip for easy insertion by straight or button-hole technique • Punch should be available with tapered cutting blade to increase visibility. • Should be available in all functional sizes • Should have long and short handle configuration
54.	Coronary artery retraction clips Sizes 3mm and 5mm	• Should be designed to improve exposure to a coronary anastomosis site. Should be able to small prongs and gently hold tissues away from the vessel to improve vision.
55.	Temporary pigtail pacing wire	• Should include unipolar atrial and ventricular pacing, pediatric unipolar pacing, and the bipolar pacing lead.
56.	Tissue Stabilizer for beating heart	• Should be a low profile tissue stabilizer with auto spread feature of pods.

Sr. No.	Name of Items	Specification
57.	Heart positioner for beating heart	• Should be a low profile positioner for apex and off apex position use/ to lift the heart.
58.	Tissue Stabilizer for Minimally invasive beating heart surgery.	• Should be stabilizer to be used via thoracotomy with detachable shaft and should have fully rotating pods.
59.	Heart positioner for Minimally invasive beating heart surgery	Should be a positioner with detachable shaft for MICS via thoracotomy.
60.	Mist Blower	• Should have specialized nozzle utilizing a micro orifice for fluid delivery and a separate orifice for gas delivery. Should have the malleable shaft and on/off control on the hand piece.
61.	Arteriotomyshunts(Intra Coronary Shunts)	• Sizes 1.0,1.25,1.5,1.75,2.0,2,5,2.5, 2.75 & 3.0mm. • Should be beveled tip. • Should have fully transparent body.
62.	ACT Cartridges	a. Should have double cell measurement to increase accuracy of results, b. Should use liqiuid kaolin activator for real time efficient clot detection, c. Should allow room temperature storage
63.	SPECIFICATION FOR INTRA AORTIC BALLOON CATHETER	• IAB Catheter should be of 7.5 Fr with displacement volume of 24cc, 34cc & 40 cc. and 8Fr with volume displacement 50cc. • It should be more abrasion resistant and have good fatigue resistance • Should immediate inflate at start up without manual filling of the catheter. • It should be compatible with Data scope /Arrow pumps • It should have exact 7.5Fr size sheath and dilator set. • It should have 0.025 3mm J PTFE stainless steel guide wire. • It should be approved by US FDA.
64.	EMERGENCY CRICOTHYROIDOTOMY SET :	• Should have a conical introducer, • Dilators should be made of stainless steel, • Cricothyroidotomy tubes should be of medical grade plastic. • With 15 mm connector,flexible tube extension made of silicone, scalpel,one way syringe,comfort neck band • Sizes 2mm, 4mm.
65.	MICRO AGGREGATE BLOOD FILTER FOR RED CELL TRANSFUSION	• Filter media should be 40 micron rated polyester screen media with uniform pore size • Should have total filter surface area of > 170 Sq.cm • Should have average capacity of filtering 10 units of blood.
66.	PACKED RED CELL & WHOLE BLOOD LEUCOCYTE REDUCTION FILTERS.	a. Bedside filtration of one & two unit of packed red blood cells or whole blood b. Should have universal spike with microbiological recovery vent c. Should be with attached straight administration set/automatic self leveling drip chamber d. Performance should consistently average less than 2x105 residual leukocytes per unit e. Red cell recovery should average greater than 90%. f. Filter housing hold up volume should be <25ml for one unit filter and <35ml for two unit filter g. It should be single use

Sr. No.	Name of Items	Specification
		h. Should be latex free
67.	SPECIFICATION FOR FORCED WARMING BLANKET	• Should be disposable and two layered; • Should consist of non woven propylene fabric for body warming. • Should be usable with forced air warming units. • Material should be latex free and should meet flammability standard 16 CPR 1610 for safety. • The manufacturer must have all the below listed types of blankets and should quote the prices separately for separate blankets • Full Body Adult • Underbody Adult with Arm and Head Openings • Pediatric Full body • Pediatric underbody Blanket. • Should be compatible with common machines. • Should be CE certified
68.	LV Vent:	• Left ventricular vent should consist of round tipped dual lumen tube with lateral eyes, suture collars & proximal funnel connectors used for emptying the Left Ventricle for clearer view during surgery. All sizes.
69.	AntegradeOstialCardioplegia Cannula - All Size:	• Antegrade-cardioplegia cannula should be made of soft 100% silicone conduit with distal bulbous end & should have luer lock connector at the proximal end for administration of cardioplegia solution into the coronary ostia. Sizes: 3.5, 4, 4.5, 5, 5.5, 6 mm.
70.	Cardioplegia Cannula Size Infant:	• Cardioplegia cannula should be made of soft 100% silicone & should be tapered conduit with distal open tip having adjacent lateral eyes, followed by a flange for secure positioning. It should have proximal luer lock & a SS needle with hub. Size: Infant.
71.	Arterial cannula for arch cannulation Sizes 20FR -24 Fr.	• Should have elongated one piece wire wound body with radiopaque suture ring and dilator with depth markings.
72.	Axillary artery one piece cannula with central arterial pressure measurement	Sizes 18 Fr.-24Fr.Should have elongated one piece wire wound body with radiopaque suture ring and dilator with depth markings. Should have integrated pressure monitoring port at tip
73.	One piece Pediatric Aortic cannula Size 6FR-16 Fr Vented	Should be beveled with thin wall tips and should be elongated one piece.
74.	Straight Tip Arch cannula Sizes 8Fr-24 Fr vented and Non vented; Pediatric and Adult	• Should be beveled thin wall tips attached to tapered cannula bodies. Should be available in pediatric and adult sizes.

Sr. No.	Name of Items	Specification
75.	Angled tip Arterial cannula Sized 8 Fr - 24 Fr	• Should be beveled thin wall tips attached to tapered cannula bodies. Should have kink resistant wire wound bodies.
76.	Arterial cannula angled with diffused flow tip Sizes 18 Fr-24Fr	• Should be one piece wire wound body with integrated flutes for diffused flow.
77.	Femoral one piece Arterial and venous cannula kit	• Sizes 8-21 Fr. arterial and 8-29 Fr. Venous cannula • Should be one piece wire wound body.
78.	Femoral Multistage venous cannula	• Sizes: 29/29/29 Fr and 29/46/37 Fr • Should be one piece wire wound multiple side holes body with percutaneous kit.
79.	Standard insertion kit for femoral cannulation	a. Kit for femoral cannulation should contain 12-14 Fr, Scalpel # 11 blade, Introduce needle 18 ga, vessel dilator 8-10 Fr, vessel dilator Guidewire .038 in X 180 cm, catheter tip , Syringe
80.	Carpentier Bi-caval femoral venous cannula	• Sizes : 24/29 Fr, 30/33Fr • Should have wire wound kink resistant two stage design.
81.	Single stage venous cannula with Metal tip Sizes 12-31 Fr	• Should have kink resistant wire wound taper body with beveled metal tip.
82.	Single stage Venous cannula with right angle Sizes 12-40 Fr	• Should have kink resistant wire wound taper body with tapered multiport tips. be right angled with plastic tip.
83.	Single stage straight venous cannula malleable Sizes 12-40 Fr	Should have kink resistant malleable wire wound taper body with tapered multiport tips.
84.	Double-stage venous cannula round and oval shape Sizes 28/36,36/46,32/46, 36/51, 32/40, 36/46 Fr.	• Should be two-stage cannula with oval body in various sizes. Should be two-stage cannula with round body in various sizes. Should have cannula body with thin walled with depth markings.
85.	Three stage venous cannula Sizes 29/29/29 Fr 29/46/37 Fr	Should be three stage venous cannula for VacuumAssisted Venous Drainage(VAVD)/Kinetic Assisted Venous Drainage(KAVD)
86.	Multiple Stage Venous cannula Sizes 23 Fr and 29 Fr	Should have polyurethane wire wound body with radiopaque markers and multiple holes at distal end.
87.	Aortic root cannula Sizes 4 Fr-11 Fr	• Should have radiopaque tips attached to clear PVC bodies. Additional features: aortic root pressure monitoring and left heart venting. Can be used to aspirate air emboli as well administer cardioplegia.
88.	Aortic root cannula with Vent line Sizes 5 Fr-11 Fr	• Should have radiopaque tips attached to clear bodies with separate vent line.
89.	Aortic root cannula pediatric Neonatal Sizes 4 Fr	• Should be able to aspirate air from Aorta, Should have radiopaque tip and standard 50.5 in length or a shortened 2.5 in.
90.	Cardiopleiga needles: Neonatal, Pediatric and Adult Sizes. 5Fr and 8 Fr	• Should have stainless steel tip with plastic depth stop, Needle should be attached to Flexible PVC tubing which should include a drape clamp and female luer.
91.	Silicon Ostial cannula for continuous perfusion Sizes 15 Fr,17Fr and 20 Fr	• Should have a silicon body with soft bulb shaped tips, should have a female luer connection site.
92.	Ostial perfusion cannula with basket tip and soft convex tip Sizes 10 Fr, 12 Fr and 14 Fr.	• Should have flanged, radiopaque basket tips/soft tips attached to malleable stainless steel shafts.

Sr. No.	Name of Items	Specification
93.	Minimally invasive Aortic root cannula with length more than 30 cm	• Should have more than 30 cm long body to allow insertion during MICS
94.	Minimally invasive retrograde cardioplegia cannula with deflecting tip Sizes 13 and 15 Fr	• Should have tip deflecting models for sinus placement through thoracotomy should be able to allow minimum 10mm sweep. Should be auto/ manual inflatable.
95.	Retrograde cardioplegia cannula with Auto inflate Sizes 13 Fr and 15 Fr	• Should have silicon/ PVC bodies with auto inflatable cuff and pressure monitoring lines; should have multiport tip/ integral stopcock.
96.	Multiple perfusion set	• Should have silicon/ PVC bodies with auto inflatable cuff and pressure monitoring lines; should have multiport tip/ integral stopcock.
97.	Distal perfusion kit	Should be able to perform simultaneous perfusion of Aortic root and upto 3 or more vein grafts.
98.	Left Heart Vent Catheters Sizes 10 Fr,13Fr,15Fr,16Fr,18Fr,20Fr,24Fr	Should be of PVC or silicon, could be used for direct and indirect venting, should have perforated tip, malleable bodies with depth mark. Should have a choice of either PVC or Silicone along with straight body with depth marking. All ventsshould terminate with a vented or non vented ¼ in connector.
99.	Pericardial Sumps Sizes 20 Fr	Should feature a fluted tip, should be encased in a stainless steel spring and should have weight at the end.
100.	Intra-cardiac sump Size 20 Fr	• Should feature a perforated pool tip to maximize suction and minimize tissue trauma. The tip design should be ideal for atraumatic suction within the heart chambers.
101.	Suction Tube Sizes 6 Fr,10Fr and 20 Fr	Should have variety of cardiac suction tubes, intracardiac suction tubes & rigid suction tubes.
102.	Micro Suction tubes Sizes 9 Fr	• Should have a vacuum control port, malleable shaft, should equipped with a length of tubing and clamp terminating with a ¼ in (0.64cm) connector.
103.	Macro Rigid suction tubes Sizes 20 Fr	• Should have tip made up of stainless steel, should have fluted pool tip to maximize suction and minimize tissue trauma, should offer gentle suction.
104.	PA vent cannula	Should have a soft, pliable tip with female luer end; should have movable depth marker and an introducer needle should be included.
105.	Tourniquet Sets Sizes 12 Fr, 16 Fr and 19 Fr.	Should have color coded tubes with varying lengths for adults and pediatric, should have wire snares included with the tube set.
106.	Vessel cannula with and without valve sizes 2mm,3mm, 4mm	Should have clear and radiopaque bodies. These should terminate with a female luer. Should have tips in various sizes and shapes.
107.	ArteriotomyCannula Sizes 2mm,3mm,4mm,5mm,6mm	• Should have polyurethane tube with a bulb shaped tip connected to winged female luer.
108.	Rapid priming set Length 35cm and 40cm	These should facilitate the transfer of fluid during the priming of the circuit. Should have large bore spikes attached to flexible tubing with a clamp. Should terminate with either an open end tube or a male luer.

Sr. No.	Name of Items	Specification
109.	Rapid Priming"Y" Set Length around 1 m	These should facilitate the transfer of fluid during the priming of the circuit. Should have large bore spikes attached to flexible tubing with a clamp. Should attach to a " Y" adapter with a length of tubing and another clamp.
110.	SPECIFICATION FOR ADULT OXYGENATOR	• Priming volume should be less than 300 ml. • Blood flow range should be 0-7lts/min. • Oxygen transfer should be atleast 400ml/min. • Heat exchange efficiency should not be less than 0.50. • Housing material should be of polycarbonate. • Surface area of the fibers should be from 1.8m 2 to 2.4m 2 • Heat exchanger should be made of stainless steel and surface area should be approx. 20cm 2 Blood inlet port (from pump) 3/8 Blood outlet port 3/8 Cardioplegia port 1/4 GasInlet port 1/4 Gas Outlet port 1/4 Water Ports ½ Maximum Pressure Blood inlet 1000 mmHg water Inlet 42 PSI • Blood storage capacity of hard shell reservoir should be approx. 4000ml • Minimum operating volume of reservoir should be 200ml. • Hard shell reservoir should have cardiotomy filter and de-foaming part • Hard-shell reservoir should have venous filter with pore size 452mm • The hard-shell reservoir should have Venous blood inlet port ½ Blood outlet port (to pump) ⅜ Suction ports (six) ¼ Water Inlet 42 PSI Vertical port to CR Filter ¼ Quick Prime port ¼ Auxiliary port ¼-⅜ • Sustainable negative pressure should be 15010mmHg

Sr. No.	Name of Items	Specification
111.	SPEICIFICATION FOR PEDIATRIC OXYGENATOR	· Priming volume should beless than 150ml. • Blood flow range should be 0.40.01ltrs/min. • Oxygen transfer should not be less than 250ml/min. • Pressure drop should be least-up to 100mmHg or less. • Heat exchange efficiency should not be less than 0.65. • Housing material should be of polycarbonate. • Surface area of the fibers should be approx 1.0m 2 . • Heat exchanger should be made of stainless steel and surface area should be approx 1300cm 2 . Blood inlet port 3/8 Blood outlet Port 3/8 Cardioplegia port 1/4 Gas Inlet Port 1/4 Gas Outlet port 1/4 Water Port 1/2 Maximum Pressure Blood inlet 1000mmHg, Water Inlet 42 PSI • Blood Storage capacity of hard shell reservoir should be max 3000ml. • Minimum operative volume of hard shell reservoir should be 100ml. • Hard-shell reservoir should have cardiotomy filter and defoaming part. • Hard-shell reservoir should have venous filter with pore size should be 20mm • The hard-shell reservoir should have • Venous blood inlet port 3/8 rotatable • Blood outlet port (to pump) 3/8 • Suction port(six) ¼ • Vertical port to CR filter 3/8 • Quick prime port ¼ • Auxiliary port 3/8 Water Inlet 42 PSI

Sr. No.	Name of Items	Specification
112.	SPECIFICATION FOR NEONATAL OXYGENATOR	• Blood flow range should be 0.1 – 2 liters/min. • Priming Volumes should be around 40 ml. • Oxygen transfer should be minimum 100 ml/min. • Pressure drop should be least up to 100mmHg or less. • Heat exchange efficiency should not be less than 0.65. • Housing material should be of polycarbonate. • Surface area of the fibers should be ≈0.5m 2 and material should be micro porous polypropylene. • Heat exchanger should be made of stainless steel and surface area should be approx 0.035m 2 . • Blood inlet port (from pump) ¼ Blood outlet port ¼ Luer port (for recirculation or blood cardioplegia) one luer lock on blood outlet Gas inlet port ¼ Gas outlet port 5/16 Water ports ½ Maximum pressure Blood inlet 1000mmHg • Blood storage capacity of hard shell reservoir should be 1000ml • Minimum operating volume of hard-shell reservoir should be 15ml • Hard-shell reservoir should have cardiotomy filter and defoamer • The hard-shell should have • Venous blood inlet port ¼ • Blood output port (to pump) ¼ • Suction port (five) 3/16 • Quick prime port ¼ • Vent port ¼ • Auxiliary port ¼-3/8 Maximum sustainable negative pressure in reservoir -150mmHg Water inlet 2Kgf/cm 2
113.	SPECIFICATIONS FOR PEDIATRIC ARTERIAL FILTER WITH BYPASS LOOP	The Arterial Filter should be for pediatric use. Priming volume should not be more than 90ml Filter pore size should be 30- 40 micron. The outlet and inlet blood posts should be 3/8 or ¼". The filter should allow maximum blood flow rate of 5.0L/min. The filter should be provided with a bypass loop at the inlet and outlet port.

Sr. No.	Name of Items	Specification
114.	SPECIFICATIONS FOR CARDIOPLEGIA HEAT EXCHANGER(BCD)	It should have priming volume less than 50 ml. Blood flow rate should be between 0-600 ml/min Filter screen should be around 100 um. Inlet connection should be ¼and outlet connection should be 3/16. Heat exchange surface area should be ≈.20m 2 . Heat exchange should be of stainless steel corrugated/ convoluted pipes. Bubble trap should be integrated for highly efficient de-bubbling Integrated by pass manifold for easy de-bubbling Exchangeable water in /water out Blood flow path bottom up It should have a Stopcock Prime/ Perfusion for easy priming. It should have tip in the surgeon pack so that it can be connected to cardioplegia cannula. It should be available both in 4:1 and 1:4 configurations.
115.	SPECIFICATION FOR PEDAITRIC HEMOCONCENTRATOR	It should have priming volume approx 35ml. • Effective surface area of the Fibers should be approx 0.5m 2 . • Blood port should be ¼with Luer locks. • Filtrate port should be ½. • Maximum Trans-membrane Pressure should be 500mm Hg. • It should have tubing lines along with reservoir Bag.
116.	SPECIFICATION FOR ADULT HEMOCONCENTRATOR	The priming volume should be 70 ml • Effective surface area of the fibers should be ≈1m 2 . • Blood port should be ¼ With Luer locks • Filtrate port should be ½ (1/4adapter). • Blood flow range should be 100-500ml. • Maximum Trans-membrane pressure should not be more than 500mm Hg. • It should have tubing with reservoir bag.
117.	SPECIFICATION FOR NEONATAL HEMOCONCENTRATOR	It should have priming volume less than 20 ml. • Membrane surface area should be ≈0.2m 2 . • Max Membrane pressure should not be more than 600mm Hg. • Capillary wall thickness should be ≈50um. • It should have inlet/outlet lines, male luer lock connections, filter safety cap, filtrate line and additional filtrate bag (200ml).
118.	SPECIFICATION FOR CUSTOM TUBING PACK	• Custom Tubing Pack Adult. Custom Tubing Pack with arterial filter with PVC tubing medical grade -6 as per AIIMS C.N.Centre design. Filter/Tubing should be CE/USFDA Approved. • Custom Tubing Pack pediatric with PVC tubing medical grade – 6Filter/Tubing should be CE/US FDA Approved • Custom Tubing Pack with neonatal arterial filter with PVC tubing medical grade- 6Filter/Tubing should be CE/USFDA Approved • Custom tubing packs with 3/16arterial and ¼ venous lines for small neonates. Made from medical grade-6 PVC. Filter/Tubing should be CE/USFDA approved

Sr. No.	Name of Items	Specification
119.	EXTRA CORPOREAL MEMBRANE OXYGENATOR (NEONATAL)	• ECMO should have a validation for 14 days and should be phthalate free (NO DOP). • Membrane used should be of polymethylpentene fibers. • Priming volume should be 100 ml. • Should have contact surface area ≈0.70 square meters. • Should cater for blood flow from 0.2 to 1.5 L/min. • Heat exchanger surface area should be ≈0.4 square meter. • Heat Exchanger performance factor should be of 0.77 (1.5 liter /min). • Oxygenator and tubing should have coating of Phosphorylcholine. • Inlet and outlet connector preferred is 1/4 (6.35 mm).
120.	EXTRA CORPOREAL MEMBRANE OXYGENATOR (PAEDIATRIC)	ECMO should have a validation for 14 days and should be phthalate free (NO DOP). • Membrane used should be of polymethylpentene fibers. • Should have priming volume 200 ml. • Should have contact surface area of around1.4 square meters. • Should cater for blood flow from 0.3 to 4 liter /min. • Heat exchanger should have surface area of ≈0.8 square meter. • Heat exchanger performance factor should be of ≈0.6 (@ 4 liter /min). • Oxygenator and tubing should have coating of Phosphorylcholine(PC). • Inlet and outlet connections preferred is 3/8(9.53 mm)
121.	EXTRA CORPOREAL MEMBRANE OXYGENATOR (ADULT)	ECMO should have a validation for 14 days and should be phthalate free (NO DOP). • Membrane used should be of polymethylpentene fibers. • Should have priming volume of≈250ml. • Should have contact surface area of 1.7-1.9 square meters. • Should cater for blood flow from 0.4 to 7 liters/ min. • Heat exchanger should have surface area of ≈0.8square meter. • Heat exchanger performance factor should be ≈0.6 (@ 4 liters /min). • Oxygenator and tubing should have coating of Phosphorylcholine.(PC) • Inlet and outlet connections preferred is 3/8 (9.53 mm)
122.	SPECIFICATION FOR ADULT OXYGENATOR (Integrated with arterial filter & heat exchanger)	Oxygenator should have integrated arterial filter with cardiotomy/ venous reservoir. • Should have integrated arterial filter with self venting technology. • Heat exchanger surface area should be no more than 0.2m 2 . • Venous filter should be 50micro meter. • Priming volume should not be more than 300ml. • Blood flow range should be 0.5 to 7 LPM. • Heat exchange efficiency should not be less than 0.50 at max flow. • pressure drop should be minimum, up to 110 mmHg or less. • Arterial filter should be 35micron meter. • Membrane surface area should be 2-2.5 m 2 .
123.	SPECIFIAITON FOR SMALL ADULT OXYGENATOR (Integrated Filter and Heat Exchanger)	Oxygenator should have integrated arterial filter with cardiotomy/venous reservoir. • Should have integrated arterial filter with self venting technology. • Heat exchanger surface area should be no more than 0.14m 2 . • Venous filter should be 50micro meter. • Priming volume should not be more than 150ml • Blood flow range should be 0.5 to 5 LPM. • Heat exchange efficiency should not be less than 0.5 max flow @ 5 LPM • Pressure drop should be minimum up to 110 mmHg or less. • Arterial filter should be35micro meter.

Sr. No.	Name of Items	Specification
124.	SPECIFICATION FOR PAEDIATRIC INFANT OXYGENATOR(Integrated Filter and Heat Exchanger)	• Oxygenator should have integrated arterial filter with cardiotomy/ venous reservoir. • Should have integrated arterial filter with self venting technology. • Heat exchanger surface area should be no more than 0.035m 2 . • Venous filter should be50micro meter. • Priming volume should not be more than 45ml. • Blood flow range should be 0-1.5Ltrs/min. Heat exchange efficiency should not be less than 0.6 at max flow. Pressure drop should be minimum up to 100mmHg or less @ 1.5 LPM Arterial filter should be35micro meter.
125.	Arterial Perfusion CannulaeAdult.	Non-wire reinforced beveled tip Size 18Fr, 20Fr, 22Fr and 24 Fr. Overall lengthshould be approx.15cm with suture bump.
126.	Arterial Perfusion Cannulae Pediatric	Sizes: 8Fr, 10Fr, 12Fr,14Fr and 16Fr. Non wire reinforced bevel tip. Overall length 18cm with suture bump.
127.	Venous Cannulae Single Stage. (neonate)	Thin Flexible wire reinforced straight open light house tip. Overall length approx.28cm with ¼ acceptance size 12Fr, 14Fr and 16Fr
128.	Venous Cannulae Single Stage(pediatric)	Thin Flexible wire reinforced straight open light house tip. Overall length approx. 35cm with ¼and 3/8 acceptance Size 18Fr, 20Fr, 22Fr and 24Fr.
129.	Venous Cannulae Single Stage(small adult)	Thin flexible wire reinforced straight open lighthouse tip. Overall length 35cm with 3/8 acceptance Size 26Fr and 28Fr.
130.	Venous Cannulae Single Stage(adult)	Thin Flexible wire reinforced straight open lighthouse tip. Overall length should be approx.40cm with 3/8 acceptance Size 30Fr, 32Fr, 34Fr, 36Fr, 38Fr and 40Fr.
131.	Venous Cannulae Right Angled	Wire reinforced 90 0 angled plastic tip 10Fr, overalllength approx.28cm and ¼ acceptance.
132.	Venous Cannulae Right Angled	Wire reinforced 90 0 angled plastic tip 12Fr, 14Fr and 16Fr. Overall length should be approx. 33cm with ¼& 3/8 acceptance
133.	Venous Cannulae Right Angled	Wire reinforced 90 0 angled plastic tip 18Fr and 20Fr. Overall length should be approx. 35cm with 3/8 acceptance
134.	Venous CannulaeRight Angled	Wire reinforced 90 0 angled plastic tip 22Fr, 24Fr and 28Fr. Overall length should be approx.38cm with 3/8 acceptance.
135.	Retrograde Cannula catheter	Self-inflating smooth balloon with preshapedstylet and handle 14Fr. Overall lengt should be approx. 27cm & should have 18-20 mm sized smooth balloon.
136.	Aortic Perfusion Cannulae;	Wire reinforced dispersion tip Sizes: 21Fr and 24Fr overall length approx.35cm and vent.
137.	Dual Stage Venous Cannulae;	Wire reinforced 32/40Fr and 36/51Fr. Overall length should be approx. 40cm and ½acceptance.

Sr. No.	Name of Items	Specification
138.	Femoral Arterial Cannulae;	Wire reinforced overall length should be 19.5.2 cm with ¼ vented connector sizes: 8Fr, 10Fr, 12Fr and 14Fr.
139.	Femoral Arterial Cannulae;	Wire reinforced overall length should be approx. 24cm with 3/8 vented connector sizes: 16Fr, 18Fr and 20Fr.
140.	Femoral Venous Cannulae;	Wire reinforced overall length should be approx. 24cm with ¼ non vented connector.Sizes 8Fr, 10Fr, 12Fr and 14Fr.
141.	Venous Femoral Cannulae;	Wire reinforced overall lengthshould be 752 cm with 3/8 non vented connector sizes 18Fr, 20Fr, 22Fr,24Fr and 28Fr.
142.	Antegrade CardioplegiaCannulae	12/14/16 Fr. with vent and without vent.
143.	Cardiotomy Venous Reservoir Adult, Paediatric, Neonatal	
144.	Disposable connector all sizes; Y, Straight with and without leur lock	
145.	Disposable Single Tubing all sizes (½,⅜,¼,3/16)	
146.	Wire enforced Arterial Cannula (6 Fr to 20 Fr)	
147.	Pruitt(Distal Limb arterial perfusion cannula)	
148.	Long, Flexible, wire-enforced cannula for ascending aortic & arch cannulation with obturator.	
149.	Long Flexible, wire-enforced cannula for ascending aorta & arch cannulation with guide wire.	
150.	Long Flexible wire enforced cannula for ascending aorta and arch cannula angled With side holes.	
151.	Balloon tip antegrade cerebral perfusion cannula.	
152.	Complete Bovine Aortic Pericardial Valve	Should be bio engineered, computer optimized to ensure uniform thickness of leaflets and have tissue deflection test to ensure uniform flexibility in all three leaflets. . Long term clinical data should be available, establishing more than atleast 15 years expected durability in clinical study, long term follow up data on hemodynamic performance establishing consistency in low gradients. Should have standard low-pressure fixation &adequate treatment of tissues to preserve natural leaflet dimensionality & flexibility, while extracting phospholipids. Should have more than 20 yrs. Experience globally. Scalloped sewing ring for Aortic annulus conformity is preferable. • Aortic Sizes 19/21/23/25/27 • Should be FDA APPROVED

Sr. No.	Name of Items	Specification
153.	COMPLETE BOVINE MITRAL PERICARDIAL VALVE	• Bio- engineered: Computer optimized to ensure uniform thickness, with Tissue deflection tests to ensure uniform flexibility in all three leaflets, unique design mounting feature such as flexible stent& optimal tissue stent compatibility for greater reliability. Long term clinical data available, establishing more than & consistency in hemodynamic performance. Low-pressure fixation & chemical treatment of tissue to preserve natural leaflet dimensionality & flexibility, while extracting maximum phospholipids. Should have more than 20 yrs experience globally. Should have convenient deployment and LVOT markers for ease of Implantation at Mitral position. • MITRAL SIZE 25/27/29/31/33 • Should be FDA APPROVED
154.	COMPLETE BOVINE MITRAL SUPRA ANNULAR PERICARDIAL TISSUE VALVE.	• Bio mechanically engineered tissue valve with three leaflets of identical thickness, and identical Flexibility. Should be a True supra annular valvewith a saddle shaped sewing ring with posterior flexibility & anterior rigidity for optimal conformity at Mitral position, Should have LVOTO markers for correct orientation, preventing any LVOT obstruction, with convenient deployment system to prevent suture looping and ease of deployment. • Low profile tissue valve with asymmetrical sewing ring should preserve sub valvularapparatus and prevent LV impingement. Should have Tissue treatment to irreversibly extract both calcium binding sites Phospholipids, residual glutraldehyde, should have a flexible stent & optimal tissue stent compatibility for greater reliability. Clinical data to be available establishing long term durability and consistency in hemodynamic performance. • Sizes: 25 to 33mm • Should be FDA APPROVED
155.	COMPLETE BOVINE AORTIC SUPRA ANNULAR PERICARDIAL TISSUE VALVE	• Bio-mechanically engineered tissue valve with three Leaflets of identical thickness and identical flexibility. Should be a true supra annular valve. Scallop shaped sewing ring for aortic position.Should be Low profile tissue valve. Should have Tissue treatment to irreversibly extract both calcium binding sites phospholipid, and residual glutraldehyde, should have Flexible and Durable Stent. Short term and long term clinical data should be available, establishing Durability & consistency in hemodynamic performance. Should have a sizer (barrel and replica end) for optimum sizing and placement. • Size 19 to 29mm • Should be FDA approved

Sr. No.	Name of Items	Specification
156.	COMPLETE BOVINE PERICARDIAL LOW PROFILE AORTIC TISSUE Valve.	• Bio-Mechanically engineered tissue valve with three leaflets of identical thickness, and Identical Flexibility. • Should be a true supra annular valve. • Should have a Scallop shaped sewing ring consistent with Aortic annulus. • Should have tissue treatment to Irreversibly extract both calcium binding sites phospholipid residual glutraldehyde, • Should have a flexible stent & optimal tissue stent compatibility for greater reliability. • Short and long term clinical data should be available, establishing Durability & consistency in hemodynamic performance. • Should have Low profile height for optimizing Coronary Ostial&sino-tubular junction clearance. Should have Three Mid commissure markers for correct orientation of the valve. • Should have a slick stent post & stent base allowing ease of implantation in small aortic root. • SIZES: 19/29mm • Should be FDA APPROVED
157.	Tricuspid Repair Ring	• Sterile double packed tricuspid rigid ring with an anterior gap with polyester of PTFE cloth with marking for commissures. • Should have an oval shape and opening for AV node. • Sizes 26mm 28mm 30mm 32mm.
158.	Mitral Repair Ring	• Sterile double packed rigid ring complete or with anterior gap with polyester or PTFE cloth with marking for commissures. • Kidney shaped for mitral position. • Cover sizes 26mm, 28mm, 30mm, 32mm, and 34mm
159.	IMR annuloplasty ring:	• Should have a complete rigid ring. • To be constructed of a strong, durable alloy. • Should have a increased sewing margin in the P2-P3 region, • Should be marked with suture and designed to accommodate a double suture row. • Should have a Dipped P3 region to accommodate higher stresses from downward LV displacement. • Should have a convenient holder/handle to increase ease of use & operative efficiency • Sizes 24,26,38,30,32mm • Should be FDA APPROVED
160.	3-D Tricuspid Annuloplasty Ring:	• Should be a rigid annuloplasty ring with three-dimensional shape and with an incomplete ring shape to avoid the sensitive conduction system. • Should have a downward angle in septal region to help reduce the stress on sutures and the risk of ring dehiscence. • Sizes 26, 28, 30,32,34mm. • Should be FDA approved.

Sr. No.	Name of Items	Specification
161.	ARTIFICIAL MECHANICAL HEART VALVE BILEAFLET MITRAL	• Rotatable design, leaflets made up of pyrolytic carbon / standard durable alloy and polyester sewing cuff. • Should have low profile height. • Should have minimum vertical leaflet exposure to result in NO LVOT obstruction • Should have greater posterior wall clearance • Wide range of sizes from 23/24mm – 34/37mm • Should have both CE and FDA approval
162.	ARTIFICIAL MECHANICAL HEART VALVE BILEAFLET MITRAL (for supra- annular implant)	• Rotatable design, leaflets made up of pyrolytic carbon / standard durable alloy and polyester sewing cuff. • Should have low profile height. • Should have minimum vertical leaflet exposure to result in NO LVOT obstruction • Should have greater posterior wall clearance • Wide range of sizes from 24 mm – 34 mm • Should have both CE and FDA approval
163.	ARTIFICAL HEART VALVE BILEAFLET AORTIC	• Rotatable design, leaflet made up of pyrolytic carbon and polyester sewing cuff, with pivot guard design. • Should have low profile height. • Should have minimum vertical leaflet exposure. • Wide range of sizes from 19mm-31mm. • Should have both CE and FDA approval
164.	BI LEAFLET MECHANICAL HEART VALVE	• Aortic Sizes 16mm,18mm,20mm,22mm,24mm,26mm • Mitral sizes 19mm, 21mm,22mm,23mm,24mm, 25mm, 26mm, 27mm,28mm,29mm,31mm,33mm •Should have Open Pivot Bi leaflet mechanical Heart valve with 75- 90 degrees opening angle, should be in single place, solid carbon orifice design with strengthening band. Should have no recess or cavities in the hinge area. Valves should be available in all the sizes as mentioned above. Should be rotatable and should be FDA approved
165.	ARTIFICAL HEART VALVE BILEAFLET AORTIC for Supra-annular implant	Rotatable design, leaflet made up of pyrolytic carbon and polyester sewing cuff, with pivot guard design. Should have low profile height. Should have minimum vertical leaflet exposure. Wide range of sizes from 16 mm- 28mm Should have both CE and FDA approval
166.	ARTIFICAL HEART VALVE BILEAFLET AORTIC (for Supra-annular –intra-annular implant)	Rotatable design, leaflet made up of pyrolytic carbon and polyester sewing cuff, with pivot guard design. Should have low profile height. Should have minimum vertical leaflet exposure. Wide range of sizes from 17mm- 25mm. Should have both CE and FDA approval

Sr. No.	Name of Items	Specification
167.	BILEAFLET AORTIC VALVE WITH CONDUIT	• Should have double velour woven graft. • Should be collagen impregnated to control hemostasis and reduce the hemorrhagic complications. • Should have mechanical heart valve with low-pressure gradients. With pivot guard design and leaflet opening and >75 degrees. • Cuff design should enhance implantability. • Should have minimum taper conduit to facilitate strong coronary anastomosis. • Should not have any pleats to allow easier positioning and attachment of the coronary arteries. • Wide range of sizes from 19mm- 33mm. • Should have both CE and FDA approval.
168.	PORCINE TISSUE HEART VALVE MITRAL / AORTIC	• Should have stented, triple composite design with separate porcine leaflets to optimize leaflets cooptation and reduce stress. • Should have anti-calcification treatment to reduce calcification. • Low profile height. • In aortic position should be available in sizes 19mm-31mm. • In mitral position should be available in sizes 25mm to 33mm. • Should have both CE and FDA approval.
169.	PERICARDIAL EXTERNALLY MOUNTED TISSUE HEART VALVE(AORTIC)	• Should have stented, pericardial single layered leaflet externally mounted to optimize hemodynamics. Should have tissue to tissue interface adding to durability. • Should have anti calcification treatment to reduce calcification. • Supra annular design. • In aortic position should be available in sizes 19mm-29mm. • Should have both CE and FDA approval.
170.	ANNULOPLASTY RINGS MITRAL	• Titanium alloy core with polyester woven cloth. • 3 D motion. • Should have both CE and FDA approval. • Wide range of sizes 24mm- 34mm
171.	ANNULOPLASTY RING FLEXIBLE	• Fully flexible ring/band. • Should have X-ray visibility. • Should have both CE and FDA approval. • Wide range of sizes - 25mm-35mm
172.	Rigid remodeling ring for mitral valve repair	• Size 24mm,26mm,28mm,30mm,32mm,34mm,38mm,40mm • Should be fully rigid remodeling ring. • Should have physiologic mitral valve shape. • 25% annular height to commissural width ratio anterior, 15% annular height to commissural width ratio posterior. • Should have saddle shape and polyester knit covering with Titanium/silicone core

Sr. No.	Name of Items	Specification
173.	Annuloplasty ring for tricuspid valve repair	• Low profile Ring, • Sizes 26mm,28mm,32mm,34mm,36mm • Should be incomplete ring to avoid interference in conduction system, height should be less than 3.5mm. • Should have titanium core encapsulated with silicone and covered with polyesterfabric. • Septal lateral compression.
174.	Composite Annuloplasty ring for Mitral repair	• Sizes 24mm,26mm,28mm,30mm,32mm,34mm,36mm,38mm • Should have semi rigid posterior remodeling with anterior flexibility, • should have polyester knit covering with MP-35N/ silicone core
175.	Full Aortic Root Bioprosthetic Stentless Valve	Sizes: 19 mm, 21mm, 23 mm, 25 mm, 27 mm • Should be third generation stentless Native asymmetrical Porcine aortic root, • Should have more than 12 years durability and hemodynamic clinical data, • Should have AOA tissue treatment to mitigate calcification & Physiological fixation to preserve leaflet function which facilitates open leaflet in systolic position
176.	Bio prosthesis Stented Porcine Aortic with thin sewing ring	Aortic Sizes:19mm,21mm,23mm,25mm,27mm,29mm • Should be third generation Native asymmetrical Porcine tissue valve, • Should have thin sewing ring • Should have more than fifteen years durability clinical data, • Should have AOA tissue treatment to mitigate calcification & Physiological fixation to preserve leaflet function which facilitates open leaflet in systolic position, • Should have Flexible acetyl homopolymer stent, • should have unique implant facilitating system for conduction of minimally invasive surgeries with automated deflection of stent posts
177.	Composite Annuloplasty Band for Mitral repair	Sizes:24mm,26mm,28mm, 30mm,32mm, 34mm,36mm,38mm • Should have Semi-rigid posterior remodeling, • Should not have any anterior part • Should cover trigones • Should have Polyester knit covering with MP-35N/silicone core, • should have trigone islets for anchoring at Trigones
178.	Flexible Annuloplasty ring for Mitral and Tricuspid repair	Sizes:23mm,25mm,27mm, 29mm,31mm, 33 mm,35mm • Should have Low profile system, • Should have Chordal guide feature to facilitate chordal repair • Should have flexible shape to freely allow mitral and tricuspid annular motion
179.	Flexible Annuloplasty band for Mitral and Tricuspid repair	Sizes:23mm,25mm,27mm, 29mm,31mm, 33 mm,35mm • Should have Low profile system, • Should have Chordal guide feature to facilitate chordal repair, • Should have flexible shape to freely allow mitral and tricuspid annular motion, • Band length should extend beyond Trigone

Sr. No.	Name of Items	Specification
180.	OPEN PIVOT BI LEAFLET MECHANICAL HEART VALVE WITH FLEXI CUFF	• Aortic Sizes 16mm,18mm,20mm,22mm,24mm,26mm • Mitral sizes Should have wide range of sizes •Should have Open Pivot Bi leaflet mechanical Heart valve with >80degrees opening angle, Should be in single place, solid carbon orifice design with strengthening band. Should have no recess or cavities in the hinge area. Should have flexible cuff to fit easily in asymmetric annulus. Should be supra annular design for both aortic and mitral positions. Should be rotatable and should be FDA approved
181.	COMPOSITE BILEAFLET AORTIC VALVE WITH DACRON GRAFT CONDUIT	Should have rotatable, bileaflet, Should have no recess or cavities in the hinge area Should have woven, double velour graft. Graft should be collagen impregnated. Should have expanded cuff for easy suturing. Should be available in wide range of sizes.
182.	MONOLEAFLET MECHANICAL HEART VALVE	Mitral sizes 21-33 mm, Aortic 17-31 mm Should have smooth movement monoleaflet configuration with minimum 70 degrees opening angle. Should be easily implantable and rotatable.Should preferably be premounted on a handle. Sewing ring should be low profile; leaflet and housing should be made of strong , durable alloy.
183.	Dacron straight woven Grafts 6mm to 16 mm, 30-35 cm long, Collagen coated.	
184.	Dacron straight woven Grafts 18mm to 28 mm, 30-35 cm long,Collagen coated.	
185.	Dacron straight woven Grafts 30mm to 38 mm, 30-35 cm long,Collagen coated.	
186.	Dacron straight woven Grafts 6mm to 16 mm, 60-70 cm long,Collagen coated.	
187.	Dacron straight woven Grafts 18mm to 28 mm, 60-70 cm long,Collagen coated.	
188.	Dacron straight woven Grafts 30mm to 38 mm, 60 cm-70 long,Collagen coated.	
189.	Dacron bifurcated woven grafts 12mmX6 mm, 14mmX7mm, 16mmX8mm,. 18mm X9mm with 40-50 cmslength,Collagen coated.	
190.	Knitted Dacron straight graft 6mm to 16 mm with 30-35 cm length,Collagen coated.	
191.	Knitted Dacron straight graft 18mm to 24 mm with 30-35 cm length,Collagen coated.	
192.	Knitted Dacron straight graft 6mm to 16 mm with 60-70 cm length,Collagen coated.	
193.	Knitted Dacron straight graft 18mm to 24 mm with 60-70 cm length,Collagen coated.	

Sr. No.	Name of Items	Specification
194.	Dacron bifurcated knitted grafts 12mmX6 mm, 14mmX7mm, 16mmX 8mm,. 18mm X 9mm with 40-50 cms length	
195.	Dacron Woven 3 branch arch grafts 20mm to 34 mm,Collagen coated.	
196.	Dacron Woven 4 branch arch grafts 20mm to 34 mm,Collagen coated.	
197.	Dacron Woven Thoraco-abdominal grafts 20mm to 30mm, Collagen coated.	
198.	Dacron Woven graft 20 to 34mm with 8mm and 10 mm perfusion side branch, 40-50 cm length, Collagen coated.	
199.	Dacron Woven extra length graft with offset branch graft 22 to 32 mm with 8mm perfusion side branch, Collagen coated.	
200.	Dacron Woven pre-curved graft 22 mm to 32 mm with 8mm perfusion side branch, Collagen coated.	
201.	Woven Trifurcate 12mm X 6mm X 7mm, 14 mm X7mm X 7mm, 16mm X 8mm X 7mm, 40-50 cm in length,Collagen coated	
202.	Dacron Knitted axillo-bifemoral bifurcated graft with extended support,Collagen coated.	
203.	Dacron Knitted Axillo-bifemoral graft 90 degrees angle with 60 cm side branch 8mm and 10 mm,Collagen coated.	
204.	Dacron Knitted Femoral-Femoral grafts 6mm and 8 mm 30cm and 40 cm long,Collagen coated	
205.	Dacron Knitted straight Peel able support 6mm, 8mm and 10 mm, Collagen coated.	
206.	Dacron straight woven Grafts 6mm to 16 mm, 30-35 cm long , Gelatin coated.	
207.	Dacron straight woven Grafts 18mm to 28 mm, 30-35 cm long, Gelatin coated.	
208.	Dacron straight woven Grafts 30mm to 38 mm, 30-35 cm long, Gelatin coated.	
209.	Dacron straight woven Grafts 6mm to 16 mm, 60-70 cm long, Gelatin coated.	
210.	Dacron straight woven Grafts 18mm to 28 mm, 60-70 cm long, Gelatin coated.	
211.	Dacron straight woven Grafts 30mm to 38 mm, 60 cm-70 long, Gelatin coated.	
212.	Knitted Dacron straight graft 6mm to 16 mm with 30-35 cm length, Gelatin coated.	

Sr. No.	Name of Items	Specification
213.	Knitted Dacron straight graft 18mm to 24 mm with 30-35 cm length, Gelatin coated.	
214.	Knitted Dacron straight graft 6mm to 16 mm with 60-70 cm length, Gelatin coated.	
215.	Knitted Dacron straight graft 18mm to 24 mm with 60-70 cm length, Gelatin coated.	
216.	Dacron bifurcated knitted grafts 12mmX6 mm, 14mm X 7mm, 16mmX 8mm,.18mm X 9mm with 40-50 cms length, Gelatin coated.	
217.	Dacron Woven 3 branch arch grafts 20mm to 34 mm, Gelatin coated.	
218.	Dacron Woven 4 branch arch grafts 20mm to 34 mm, Gelatin coated.	
219.	Dacron Woven Thoracoabdominal grafts 20mm to 30mm, Gelatin coated.	
220.	Dacron Woven graft 20 to 34mm with 8mm and 10 mm perfusion side branch, 40-50 cm length, Gelatin coated.	
221.	Dacron Woven extra length graft with offset branch graft 22 to 32 mm with 8mm perfusion side branch, Gelatin coated.	
222.	Dacron Woven pre-curved graft 22 mm to 32 mm with 8mm perfusion side branch, Gelatin coated.	
223.	Woven Trifurcate 12mm X 6mm X 7mm, 14 mm X7mm X 7mm, 16mm X 8mm X 7mm, 40-50 cm in length, Gelatin coated.	
224.	Dacron Knitted axillo-bifemoral bifurcated graft with extended support, Gelatin coated.	
225.	Dacron Knitted Axillo-bifemoral graft 90 degrees angle with 60 cm side branch 8mm and 10 mm, Gelatin coated	
226.	DACRON MARKING PATCH (Filamentous Fabric)	• Should be Nominal Thickness; around 0.6 mm • Water permeability; approximately 1800ml • Popularly known as ”MARKING PATCH” • Markings arrow should indicate, in which direction the patch is to be stitched. • Sizes 2” x 2”, 4 x4” and 6x6 ‘ inches
227.	Double Velour Fabric	• Should have Nominal Thickness; 1.4-1.6mm. • With Water permeability of approximately 3800 ml. • Should have No Reference markings. • Used for Repair of Intracardiac defects and for VSD repair in Adults. • SIZES: - 4”X4” & 6”X6”

Sr. No.	Name of Items	Specification
228.	Outflow Tract Fabric	• PTFE. • Should have Nominal Thickness: around 0.9mm. with Water Permeability: 250ml. • Used for Aortic repair, Pulmonary Outflow tracks patching & other Intracardiac Defects. • SIZES: - 4X4 & 6”X6”
229.	Thin Wall Patch of PTFE	• Should have multidirectional node fiber structure, to accommodate cellular in growth & give uniform strength throughout the patch Surface. • Should be soft & pliable for easy surgical positioning. • No Pre clotting should be required. • Should have excellent biocompatibility for cardiac& vascular repairs and peripheral vascular reconstruction. • Should have Thicknessaround 0.4mm suitable for Aortic & Vascular repair • SIZES:- 1CMX9CM,2X9CM & 3CMX6CM (OVAL SHAPED)
230.	Regular Wall Patch of PTFE	• Should have multidirectional node fiber structure to accommodate cellular in-growth. • Should be soft & pliable for easy surgical positioning. • No Pre clotting should be required. • Should have excellent biocompatibility for cardiac& vascular repairs and peripheral vascular reconstruction. • Thickness – 0.6mm • SIZES:- 3CM X 3CM,5CMX7.5CM,2.5CMX15CM & 10CMX15CM (RECTANGULAR)
231.	Low Porosity FELTS of PTFE	• Should have Thickness 1.5 to 1.8mm. • Should have Low Porosity to control bleeding and for buttress for sutures. • SIZES:-2' X 2", 4”X4’ & 6”X6’
232.	PTFE Normal felt;	• Should have Thickness 1.5 to 1.8mm. • To be used as a buttress for sutures and Friable tissue • SIZES:- 2”x2 ,4”x4 & 6”x6
233.	PTFE Hard (Thick) FELTS	• Should have Thickness around 3 mm to provide added support to tissue. • SIZES:- 4”X4” & 6”X6”
234.	PTFE FELTS PLEDGETS	• Shape:-Rectangle, Square Oval &Round. Should have Thickness around 1.6mm • Sizes:- 4.8mm x 6.0mm (Rectangle), 9.5mmx4.8mm (Rectangle), 6.0x6.0mm (Square) & 4.8mm x 6.0mm (Oval)
235.	Regular & Thin wall e-PTFE graft all sizes and length	
236.	Regular & Small Beadings (Rings) PTFE graft all sizes and length.	
237.	BT Shunt PTFEgrafts all sizes and length	
238.	Large Diameters e PTFE Grafts all sizes and length	
239.	e-PTFE Stretch Large Diameter Reinforced Aortic Vascular Graft of all diameters and length	
240.	e-PTFE Cardiovascular Patch	• Sizes:- 5cm x 15cm x 0.6mm x10cm x 15cm x 0.6mm, 3cmx 6cm x 0.4mm
241.	e-PTFE Pericardial Membrane 0.1mm thick	• Sizes:- 5cm x 15cm x 0.6mm x10cm x 15cm x 0.6mm, 3cmx 6cm x 0.4mm
242.	e-PTFE Pericardial Membrane 0.1mm	• Size 6cm x 12cm/12cmx12cm/15cm x 20cm

Sr. No.	Name of Items	Specification
	thick	
243.	e-PTFE Stretch Reinforced Thin Wall Heparin Bonded Vascular Graft	10cms length Size: 3mm/3.5mm/4mm/5mm/6mm diameter
244.	e PTFE Stretch Reinforced Thin wall Non Ringed Heparin Bonded Vascular Graft	40/80cms length Size: 6/7/8/mm diameter
245.	e- PTFE Stretch Reinforced Removable Ringed Thin Wall Heparin Bonded Vascular Graft	50/70/80cm length size: 6/7/8mm diameter
246.	e-PTFE Stretch Reinforced Thin Wall limbed Bifurcated Vascular Graft Size : 12/6x50cm	14/7x40cm/50cm; 16/8x50cm; 18/9x50cm; 20/10x50cm; 22/12 x40cm; 24/12x40cm
247.	e PTFE Suture	Size CVO/CV2/CV3/CV4/CV5/CV6/CV7/CV8
248.	e-PTFE Stretch re-in forced removable ringed thin wall pre configured axillo bi femoral vascular graft.	Size: i) 8mm diameter x 70cm/40cm length ii) 8mm diameter x 90cm/40cm length
249.	e PTFE stretch re- in forced low profile integrated radially supported thin wall vascular graft	Size 6mm/7mm/8mm diameter 40cm/60cm/80cm length
250.	e PTFE stretch re-in forced removable ringed thin wall vascular graft	Size: 6mm/8mm diameter x 50cm/70cm/80cm length
251.	Ascending aortic reconstruction graft	• One piece design collagen coated VALSALVA graft for repair or reconstruction of the ascending aorta. • Should mimic the anatomy and blood flow dynamics of the natural sinuses of Valsalva • Unique un-crimped section that does not stretch should allow easy sewing of valve remnants or prosthetic valve • Should facilitate estimation of the length required for optimal placement of valve remnants or prosthetic valve to ensure optimal clinical outcomes. • Should have the ability to be precisely trimmed and shaped in case of remodeling technique procedures. • At least 3 References line should act as a guide for prosthetic valve. • Coated polyester fabric Cross linked Type I bovine collagen • Water permeability < 5m * cm -2 min-1 @ 120mmHg
252.	I.V. Set with flow controller (DEHP Free)	• Specially designed I.V. set for controlling the flow rate of fluid made of medical grade DEHP free polymer nonreactive to water-soluble materials. • Gravity drive infusion set with wide dial, which operates as thumb wheel like roller clamp. • Security door to prevent the accidental change of flow rate. • Low cost disposable set. • Sterile, individually packed in blister pack
253.	Snugger Set	All sizes: Three pairs of smooth snuggers with Yellow, Blue & Pink colors for vessel identification.Each snare set consists of thumb holder handle for easy maneuverability. Specially designed for putting purse string sutures, made of medical grade PVC. Sizes Adult &Pediatric.

Sr. No.	Name of Items	Specification
254.	Disposable Suction Tube & Tip	Medical grade PVCmolded handles with kink resistant tube for per operative suctioning. Tip of Handle should be crown/ standard shape. Vent port to be provided in handle which should be closed with tight sleeve. Soft flexible adaptors at both end of the tube for connection with secure fitment between suction source& handle. Tube Length 2500 mm, OD: 9 mm, ID: 6 mm. Sterile packed in poly pouch pack.
255.	Thoracic catheter	All Sizes: Extra soft thoracic drainage catheter, made of DEHP free medical grade polymer, gentle to body tissues & most suitable for thoracic drainage. Catheters are marked at every 2cm from the last eye. Sterile, double (straight) packed in peel able pouch pack. Sizes required: Sizes: 16, 20, 24, 28, 32, 36, 40 FG
256.	Thoracic catheter Right Angled (90o)	All Sizes: Extra softangledthoracic drainage catheter, made of DEHP free medical grade polymer, gentle to body tissues & most suitable for thoracic drainage. Catheters are marked at every 2cm from the last eye. Sterile, double packed in peelable pouch pack. Sizes: 16, 20, 24, 28, 32, 36, 40 FG
257.	Thoracic catheter with trocar – All Sizes	Thoracic drainage catheter with trocar for thoracic drainage purpose. Catheters to be marked at every 5, 10, 15 & 20 cm from the last eye. Fitted with tapered connector. Sterile, packed in peelable pouch pack. Sizes: 12, 16, 20, 24, 28, 32, 36 FG
258.	Chest Drainage Bottle – 2000 ml	Under water seal drainage system.Double chamber compact unit with 2000 ml capacity.Easy to read graduation on bottle to determine the drainage volume precisely. Clearly marked initial level to ensure the underwater seal. Separate suction port for connection with suction unit. Should have valve to prevent excess suction. Kink resistant large bore tubing to facilitate unrestricted flow. Unit to be provided with metal hangers and floor stand. Sterile, packed in peelable pouch pack.
259.	Chest Drainage Bottle – 1200 ml:	Under water seal drainage system. Single chamber compact unit with 1200 ml capacity. Easy to read graduation on bottle to determine the drainage volume precisely.Should have valve to prevent excess suction. Clearly marked initial level to ensure the underwater seal. Specially designed positive pressure relief valve. Separate suction port for connection with suction unit. Kink resistant large bore tubing to facilitate unrestricted flow. Unit to be provided with metal hanger/ floor stand. Sterile, packed in peelable pouch pack
260.	Chest Drainage Bottle – 500 ml	Under water seal drainage system. Single chamber compact unit with 500 ml capacity. Easy to read graduation on bottle to determine the drainage volume precisely. Clearly marked initial level to ensure the underwater seal. Separate suction port for connection with suction unit. Kink resistant large bore tubing to facilitate unrestricted flow. Should have valve to prevent excess suction. Unit to be provided with metal hanger/ floor stand. Sterile, packed in peelable pouch pack
261.	FOGARTY ARTERIAL EMBLECTOMY CATHETER	• Vinyl Latex Balloon tipped catheter for Arterial Emblectomy procedure. • Usable length 60-80 cm, Size 2F to 8F. • Recessed winding technique for balloon attachment for maintaining balloon symmetry for uniform contact with vessel wall, providing consistent clot removal

Sr. No.	Name of Items	Specification
262.	THRU LUMEN FOGARTY CATHETER	• Vinyl Latex Balloon tipped catheter for Arterial Embolectomy procedure. • Usable length 80 cm. • Size 2F-8F. • Second lumen for guide wire compatibility facilitating crossing occluded, tortuous &stenotic arterial wall OR to be used for drug delivery & blood sampling. • Stainless steel bushes under proximal & distal balloon windings for visualization under fluoroscopy. • Recessed winding technique for balloon attachment for maintaining balloon symmetry for uniform contact with vessel wall, providing consistent clot removal
263.	ELECTRO CAUTERY RETURN PLATE WITH CORD	• All sizes should be available • Disposable Sticky patient return split monitoring style. • Pre attached cable (US FDA approved)
264.	ELECTRO CAUTERY RETURN PLATE WITHOUT CORD	• All sizes should be available • Disp. Sticky patient return split monitoring style. • Cord should be provided separately. • US FDA approved
265.	Disposable surgical drape	• Made up of reinforced spun-bond film composite material, blue laminate of polypropylene non-woven fibers and polyethylene film. • Highly absorbent yet impervious across entire drape. • Low-linting, non-breathable, abrasion resistant, durable, strong tear resistant, conformable, with self adhesive containing hypoallergenic acrylate type adhesive with a silicone coated paper liner. • ETO Sterilized.
266.	CABG Pack	4 Self adhesive cautery bags(30cmx35cm),3 Op tapes(10cmx55cm),4 Lint free hand towels(23.5cmx38cm),4 Self adhesive towel drapes(91.5cmx100cm),1 Self Adhesive Medium drape(183cmx183cm),1 Self Adhesive Large drape(150cmx250cm),1 Instrument table drape(150cmx200cm),1 Large Instrument table drape(183cmx240cm),1 Self Adhesive Bilateral Split drape(183cmx200cm),2 Triangular drape(91.5cmx91.5cmx129cm).
267.	CAUTREY LEAD	• Disposable. • Hand control button switch with PTFE coated blade electrode. • Should be light weight • US FDA approved • Should be compatible with all standard brands of cautery machines.
268.	TITANIUM LIGATING CLIPS “SIZE – SMALL”	• Wire of the clip should be ‘ Heart shaped for a firm grip on Vessels • Clips should be of ‘Chevron’ shape for better closure • Cartridge should have adhesive backing for better control while loading. • Clips should be easy to lad with soft loading technique. • Clip cartridges should be color coded for better identification. • Clips quoted should be registered in India for selling. • Should have all required documentations like from 10 A and Form 41 etc. • Should be US FDA approved with clinic data backing for the same

Sr. No.	Name of Items	Specification
269.	TITANIUM LIGATING CLIP " SIZE MEDIUM	• Wire of the clip should be 'Heart shaped' for a firm grip on vessels • Clips should be of 'Chevron' shape for better closure. • Cartridge should have adhesive backing for better control while loading. • Clips should be easy to load with soft loading technique. • Clip cartridges should be color coded for better identification. • Clips quoted should be registered in India for selling. Should have all required documentations like from 10A and form 41 etc. • Should be US FDA approved with clinic data backing for the same
270.	TITANIUM LIGATING CLIPS"SIZE-MEDIUM LARGE"	• Wire of the clip should be 'Heart shaped' for a firm grip on vessels. • Clips should be of "Chevron' shape for better closure. • Cartridge should have adhesive backing for better control while loading. • Clips should be easy to load with soft loading technique. • Clip cartridges should be color-coded for better identification. • Clips quoted should be registered in India for selling. Should have all required documentation like form 10A and form 41 etc. • Should be US FDA approved with clinic data backing for the same
271.	TITANIUM LIGATING CLIPS" SIZE-LARGE	• Wire of the clip should be 'Heart shaped for a firm grip on Vessels. • Clips should be of 'Chevron' Shape for better closure • Cartridge should have adhesive backing for better control while loading. • Clips should be easy to load with soft loading technique. • Clip cartridges should be color-coded for better identification. • Clip quoted should be registered in India for selling. Should have all required documentation like from 10A and form 41 etc. • Should be US FDA approved with clinic data backing for the same.
272.	APPLICATOR FOR TITANIUM CLIPS (Small, Medium, Large)	Should be available in three shapes :CURVED, ANGLED & RIGHT ANGLED • Device to be compatible for titanium clips listed in the tender
273.	Aortic punch Long handle	• Size: 2.5cm to 6cm • Should have sharp dual cutting edge for clean, precise removal of aortic tissue. • A conical tip should be there for easy insertion by straight or button hole technique. • Ten blade sizes for trimming to desired size and shape 2.5mm – 6.0mm
274.	Pediatric bronchial blocker	• Should have a catheter with a bifurcated distal end resembling the bifurcation of the trachea. During insertion through a standard endotracheal tube, both distal ends easily find their way into the two main stem bronchi. Under bronchoscopic vision the lung can be isolated by inflating the balloon. The inflated balloon will always be located at the entrance of the main bronchus. The EZ-Blocker should not dislocate after inflation of the isolated lung. If renewed isolation is required the balloon can be re-inflated without the need to reposition the balloon. Size -7mm.
275.	DISPOSABLE CAMERA SLEEVE	• Transparent, plastic disposable, sterile camera sleeves, for use during MICS, robotis, for epicardial echo. • Circular diameter-6inches . • Lengthmore than 1meter

Sr. No.	Name of Items	Specification
276.	Specifications for tyvek roll	• Tyvek sheet in rolls, backed with a strong plastic top layer suitable for both Ethylene oxide and plasma sterilization. • Should be compatible with all standard brands of plasma and steam sterilization systems • Should have STERILISATION PROCESS indicator to confirm effective sterilization • Sizes required 50cm x 70mtrs 7.5cm x 70mtrs 10cm x 70mtrs 15cm x 70 mtrs 17.5cm x 70 mtrs 20cm x 70 mtrs 25cm x 70 mtrs 30cm x 70 mtrs 35cm x 70 mtrs 40cm x 70mtrs 45cm x 70mtrs 50cm x 70mtrs 60cm x 70mtrs
277.	SURGICAL BRUSH with IODINE POVIDONE AND CHLOROHEXIDINE	• Should be sponge impregnated 12% povidone-iodine in a 15ml solution of Teepol, P.E.G and water supplied with nail cleaner. • Should be sponge impregnated 20% chlorohexidine-iodine in a 15ml solution of ISO PROPYLE Alcohol and water supplied with nail cleaner. • Should be US FDA APPROVED
278.	Vacuum Drainage Sets	• Device for close wound drainage under negative pressure post operatively with option to use one or two catheters. • Drain catheters should be provided with radio opaque line and smooth eyes. • Connecting tube should be kink resistant and should be provided with additional strength to withstand the suction. • Chamber should be easy to depress so as to activate the suction of bellow unit. • Should be available with different catheter. • Should be sterile and individually packed. • Sizes of 10, 12, 14, 16, 18 FG.
279.	DRESSING ALL SIZES	• Adhesive, surgical site dressing. • Sterile. • Individually packed. • All sizes
280.	ADHESIVE TRANSPARENT DRAPE (SURGICAL SITE FILM) ALL SIZES	• Should be equivalent to Dermincise. • Should be self-adhesive sterile drape for surgery and wound dressing incise drape. • Should be available in assorted sizes.

Sr. No.	Name of Items	Specification
281.	Bedsores prevention air mattress with pump	Air mattress for prevention and treatment of bedsores stage. • Should be low air loss and alternating pressure mattress. • Should have unique strip type design, which can change shape with the elevation of bed of the patient. • Should prevent bed sores/ accelerate healing of existing bedsores. • Should keep the interface pressure against patient's skin at a level below capillary occlusion. • The pump should operate at very low sound level. • Pump should have provision to hang to the end of the bed by means of 2 hooks. • Mattress should resist a temperature of -30 degree Celsius and should support weight of 110kg. • Dimensions should be approx.180 x 80 x 7.5 cms. • Should be individually packed. • Kit should consist of mattress, motor & spare cell.
282.	Respiratory muscle exerciser	(Inspiratory muscle trainer device) • Should incorporate a flow-independent, one-way valve to ensure consistent resistance, • Should feature an adjustable specific pressure setting to be set at a particular time. • It should work via inhalation to exercise the respiratory muscles. • It should have flow independent one-way valve, which should work at constant pressure regardless of patient's airflow. • It should be easy to set at adjustable pressure, whichcan be used/held in any position. • It should be easy to clean & should have the capacity to be used with mouthpiece. • It should be individually packed in poly bag.
283.	Reusable Gel Pack	Reusable Gel packs for pain management. • It should be able to be kept in freezer for cold therapy. • It should be able to be microwaved (for appx. 2mintues) / kept in boiling water to provide hot fomentation. • Gel packs must be of a superior quality and non-toxic filling should be safe and hold temperatures for longer duration. • Should be durable, burst & puncture resistant. • Should have been designed to ensure even spread of gel inside the pack. • Two sizes: Large: 15 x 30cm (6" x 12") & Medium: 10 X 25 cm (4" x 10").
284.	Carotid Shunts :	• Should have A Wide selection for Carotid Endartrectomy procedures. SHUNTS should be available in various sizes and lengths, including Straight, Tapered and "T" Design to add versatility in use.
285.	DISP. BULL DOG CLAMPS ALL SIZES	Disposable' bull dog' clamps for temporary occlusion of vascular structures. Atraumatic.Made with standard quality plastic. Should be ETO sterlisable for repeated use.
286.	Vessel Scraper	Should be able to scape fat away from the coronary artery. • Should be light weight. • Should be pre mounted on a disposable handle
287.	Arteriotomy Knife	Should have high quality, sharp pointed blade for precise incision. • Should be suitable to make incision in 1mm artery. • Should be pre mounted on a disposable handle.

Chapter - VI

Financial Bid

Format for Financial Bid

(To be submitted on the letterhead of the company / firm)

				A	B	A*B		
S. No.	**Item Name**	**Specification**	**Make**	**Price / Unit** (Exclusive of TAX, INR)	**Pack Size**	**Total Price** (Exclusive of TAX, INR)	**TAX %**	**MRP**

1. I/We have gone through the terms & conditions as stipulated in the tender enquiry document and confirm to accept and abide the same.
2. No other charges would be payable by the Institute.

Note: Financial Bid Format must be submitted by Bidder also in Excel (*.xls / *.xlsx) Format written on Compact Disk (CD) as a Soft Copy with Financial Bid.

Authorized signatory of the bidder with seal.