

Tender

D.No.2596/Mch dated: 24.03.17

For

Open Heart Surgery Equipments

At

Jawaharlal Nehru Medical College Hospital
AMU, Aligarh.

NIT Issue Date : 24th March, 2017
NIT No. : JNMC Cath lab.(P)/Tender/04/2017-18
Pre-Bid Meeting : 3rd April, 2017 at 03:00 PM
Last Date of Submission : 1st May, 2017 at 03:00 PM
Bid opening : 2nd May, 2017 at 03:15 P.M

Tender documents may be downloaded from university web site www.amu.ac.in



Medical Superintendent
J.N. Medical College Hospital
A.M.U., Aligarh
[Signature]
SDM

Aligarh Muslim University Aligarh

Office of the Medical Superintendent

JN Medical College Hospital

AMU Aligarh 202002

email: jnmedicalpurchase@gmail.com

Jawaharlal Nehru Medical College AMU Aligarh invites **bids in two bid system** for tenders for supply & installation of the **Open Heart surgery equipments** at the institute. You are requested to quote your best offer along with the complete details specifications, terms & conditions.

Chapter-I

S.No	Item Description	Items	EMD (Rs.)
1	Open Heart surgery equipments	21	2% of the cost of Equipment

Instructions:

1. Tender Cost:

Applicant contractor must submit the demand draft for Rs 1,000/- (Rupees One thousand only) in favour of Finance Officer AMU Aligarh obtained from any Nationalized/ scheduled Bank as a tender fees. All applicable bank charges shall be borne by the applicant and he shall not have any claim what so ever on this account on Government. The Demand Draft submitted for tender fee shall be non- refundable. **The demand drafts for tender fees must be delivered to JN Medical College Aligarh along with tender quotation on or before last date/time of Bid Submission.**

2. EMD Payment:

The bidder shall be required to submit the Earnest Money Deposit (EMD) for an amount of **(2% of The Cost of Equipment)** by way of demand drafts or Bank Guarantee only. The demand drafts or Bank Guarantee shall be drawn in favour of "**Finance Officer AMU Aligarh**". The EMD of the successful bidder shall be returned after the successful submission of Bank Guarantee/ Security Deposit and for unsuccessful bidder(s) it would be returned after award of the contract. **The demand drafts or Bank Guarantee for EMD must deliver to JN Medical College Aligarh on or before last date/time of Bid Submission.**

- a) Tenderer 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 stipulation made herein or backs out after quoting the rates, the aforesaid amount of earnest money will be forfeited.
- b) The firm who are registered with National Small Industries Corporation (NSIC) / OR Small Scale Industries (SSI) are exempted to submit the EMD (Copy of registration must be provided along with technical bid)
- c) The EMD, in case of unsuccessful bidders shall be retained by JN Medical College Aligarh, till the finalization of the tender. No interest will be payable by JN Medical College Aligarh, on the EMD.

3. The Hard Copy of original instruments in respect of cost of tender document, earnest money deposit etc. must be delivered to the JN Medical College Aligarh on or before last date/time of Bid Submission as mentioned above. The bid without tender fee and EMD will be summarily rejected.

4. Submission of Tender:

The tender shall be submitted in two part, viz., technical bid and financial bid. All the pages of bid being submitted must be signed and sequentially numbered by the bidder irrespective of nature of content of the documents before uploading.

The offers submitted by Telegram/Fax/email shall not be considered. No correspondence will be entertained in this matter.

i) Technical Bid

The following documents are to be furnished by the Contractor along with **Technical Bid** as per the tender document:

- i) Signed and scanned copy of appropriate value of valid registration certificate (if any), experience certificate as per the tender notice, PAN, VAT registration certificate and Tender Acceptance Letter.
- ii) Signed and Scanned copy of documents like Tender Cost (Tender Fees/ Earnest Money Deposit)
- iii) Signed and Scanned Copy of Make and model of all systems, sub systems and additional items should be mentioned in the technical bid and complete technical details should be provided in the form of Brochures and write-ups.

Terms & Conditions:

1. Validity: The quoted rates must be valid for a period for 180 days from the date of closing of the tender. The overall offer for the assignment and bidder(s) quoted price shall remain unchanged during the period of validity. If the bidder quoted the validity shorter than the required period, the same will be treated as unresponsive and it may be rejected.

2. "PRE –BID Meeting" with the intending bidders shall be held on 3rd April, 2017 from 03:00 P.M. onwards at JN Medical College Aligarh. All the prospective bidders are requested to send comments/representations on or before pre-bid meeting. Intending bidder will be allowed to seek clarification on specification, Conditions of Contract, etc. in writing to JN Medical College Aligarh, within 48 hours after the pre- bid meeting.

3. In case the tenderer withdraws, modifies or change his offer during the validity period, bid is liable to be rejected and the earnest money deposit shall be forfeited without assigning any reason thereof. The tenderer should also be ready to extend the validity, if required, without changing any terms, conditions etc. of their original tender.

4. Delivery and Installation:

I. For goods supplied from India:

All the goods ordered shall be delivered and Installed at JN Medical College Aligarh, within **30 days** from the date of issue of supply order.

II. For goods imported directly from abroad:

All the goods ordered shall be delivered and Installed at JN Medical College Aligarh, within **60 days** from the date of opening of letter of credit for shipment.

All the aspects of safe delivery, installation and commissioning shall be the exclusive responsibility of the supplier. If the supplier fails to deliver, install and commission the goods on or before the stipulated date, then a penalty at the rate of 0.5% per week of the total order value shall be levied subject to maximum of 10% of the total order value. The successful tenderer will also provide required training for supplied items at JN Medical College Aligarh. The goods should be manufactured after adoption of latest technology.

If at any time during the currency of the contract, the supplier encounters conditions hindering timely of the goods and performance of services, the supplier shall promptly inform the JN Medical College Aligarh, for extension of the delivery schedule accordingly. On receiving the supplier's communication, the JN Medical College Aligarh, shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

In the case of package supply where the delayed portion of supply materially hampers installation and commissioning of the systems, liquidated damages charges shall be levied as above on the total value of the concerned package of the purchase order. Quantum of liquidated damages assessed and levied by the purchaser shall be final and not challengeable by the supplier.

- 8. Signing the Contract:** - The successful bidder shall be required to execute the Contract Agreement accepting all terms and conditions stipulated herein on a non-judicial stamp paper of Rs. 500/- (Rs. Five Hundred only) along with performance security within fifteen days of the issue of the Letter of notification of award. In the event of failure on the part of the successful bidder to sign the Contract within the period stipulated above, the EMD shall be forfeited and the acceptance of BID shall be considered as cancelled.
- 9. Performance Security:** As a guarantee towards due performance and compliance of the contract work, the successful bidder (contractor) will deposit an amount equal to 10% of order value and should be kept valid for a period of 60 day beyond completion of all the contractual obligation, including CMC period towards security deposit by way of demand draft/ bank Guarantee in favour of "Finance officer AMU Aligarh" drawn on any Nationalized Bank/Scheduled Bank and payable at Aligarh within fifteen days of the issue of the Letter of notification of award along with non-judicial stamp paper of Rs. 500/- (Contract agreement).
- 10. Incidental Services:** The supplier shall be required to perform the following services:-
 - a. Installation & Commissioning, Supervision and Demonstration of the goods.
 - b. Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
 - c. On Site Training to Doctors/ Technicians/ Staff is to be provided by Supplier for operation and maintenance of the equipment for a period of 30 working days after successful installation of the machine, as per direction of user department.
 - d. Supplying required number of operation & maintenance manual for the goods.
 - e. To provide non-locked open software and standard interface inter-operability conditions for networked equipment's in hospital management information system, wherever applicable.
- 11. Accessories & Consumables:** The separate price list of all accessories and consumables, if any, must be attached/ enclosed along with the Financial Bid.
- 12. After Sales Service:** After sales service centre should be available on 24 (hrs.) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 24 hrs to ensure an uptime of minimum 95%, wherever applicable, failing which the necessary penalty measures shall be enforced.
- 13. Inspection:**
 - a. JN Medical College Aligarh 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 Purchaser.
 - b. JN Medical College Aligarh has the 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 JN Medical College Aligarh, prior to the goods shipment.
 - c. Medical superintendent, JN Medical College Aligarh, 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 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.

14. 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 purchaser 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 purchaser 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.

15. Manufacturer Authorisation: The bidder (if not original equipment manufacturer must submit Original Equipment Manufacturer authorization certificate that the tenderer is authorized for selling and maintain the equipment quoted for. Performa attached at **Annexure- III**.

16. The bidders are required to submit user certificate for the relevant equipment on the letter head of the institution (Government/ Private).

17. The successful bidder will be required to submit order copies of the supply of the equipment in Government institutions in last 12 month for rate reasonability purpose.

18. Insurance: - The supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. If the equipment's is not commissioned and handed over to JN Medical College Aligarh, within specified period, the insurance will have to be extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the JN Medical College Aligarh.

19. Tender Currencies:

- a. The bidder supplying indigenous goods or already imported goods shall quote only in Indian Rupees. Further, imported goods to be imported and supplied by the bidder are also required to be quoted in Indian Rupees.
- b. For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Yen. As regards price(s) for allied services, if any, required with the goods, the same shall be quoted in Indian Rupees only, if such services are to be performed /undertaken in India.
- c. Tenders, where prices are quoted in any other way shall be treated as non -responsive and rejected.

20. Tender Prices: While filling up the columns of the Financial Bid, the following aspects should be noted for compliance:

For domestic goods or goods of foreign origin located within India, the prices in the corresponding Financial Bid shall be entered separately in the following manner:

- a. The price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, CST/ VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc.;
- b. Any sales tax or other taxes and any duties including excise duty, which will be payable on the goods in India if the contract is awarded;

- c. Charges towards Packing & Forwarding, Inland Transportation, Insurance, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Financial Bid;
- d. The price of Incidental Services, as mentioned in List of Requirements and Financial Bid;
- e. The prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Financial Bid; and
- f. The price of annual CMC, as mentioned in List of Requirements, Technical Specification and Financial Bid.

For goods offered from abroad, the prices in the corresponding Financial Bid shall be entered separately in the following manner:

- a. The price of goods quoted FOB port of shipment, as indicated in the List of Requirements and Financial Bid;
- b. The price of goods quoted CIF port of entry in India as indicated in the list of Requirements and Financial Bid;
- c. The price of goods quoted for delivery at JN Medical College Aligarh, as indicated in the list of Requirements Financial Bid and Consignee List;
- d. Wherever applicable, the amount of custom duty with CDEC applicable on CIF value on the goods to be imported;
- e. The charges for Loading/Unloading, Inland transportation, Insurance and other local costs, Incidental cost to delivery of the goods from the port of entry in India to JN Medical College Aligarh, as specified in the List of Requirement and Financial Bid;
- f. The charges for Incidental Services, as in the List of Requirement and Financial Bid;
- g. The prices of Turkey (if any), as mentioned in List of Requirements, Technical Specification and Financial Bid; and
- h. The price of annual CMC, as mentioned in List of Requirements, Technical Specification and Financial Bid.

Additional information and instruction on Duties and Taxes: If the Bidder desires to ask for excise duty, sales tax/CST / VAT/ CENVAT, Custom Duty, Service Tax, Works Contract Tax etc. to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

Excise Duty:

- a. If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of excise duty will be entertained after the opening of tenders.
- b. If a Bidder chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the Bidder must clearly mention the same and also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.
- c. Subject to sub clauses (i) & (ii) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract terms shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the purchaser by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

Sales Tax: - If a bidder asks for sales tax/CST / VAT/CENVAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The CST / VAT/CENVAT, Service Tax and Works Contract Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax/ CST / VAT/CENVAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract.

Octroi Duty and Local Duties & Taxes:- Normally, goods to be supplied to Government departments against Government contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, on some occasions, the local bodies (like town body, municipal body etc.) as per their regulations allow such exemptions only on production of certificate to this effect from the concerned Government department. Keeping this in view, the supplier shall ensure that the goods to be supplied by the supplier against the contract placed by the JN Medical College Aligarh, are exempted from levy of any such duty or tax and, wherever necessary, obtain the exemption certificate from the JN Medical College Aligarh. However, if a local body still insists upon payment of such local duties and taxes, the same should be paid by the supplier to the local body to avoid delay in supplies and possible demurrage charges and obtain a receipt for the same. The supplier should forward the receipt obtained for such payment to the JN Medical College Aligarh, to enable the JN Medical College Aligarh, reimburse the supplier and take other necessary action in the matter.

Customs Duty: In respect of imported goods offered from abroad, the bidder shall specify the rate as well as the total amount of customs duty payable with Custom Duty Exemption Certificate, if applicable, on the quoted goods in the Financial Bid. The bidder shall also indicate the corresponding Indian Customs Tariff Number applicable for the goods.

- a. For transportation of imported goods offered from abroad, relevant instructions as incorporated shall be followed.
- b. For insurance of goods to be supplied, relevant instructions as provided shall be followed.
- c. Unless otherwise specifically indicated in this NIT document, the terms FCA, FOB, FAS, CIF, CIP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris.
- d. The need for indication of all such price components by the bidders, as required in this clause is for the purpose of comparison of the tenders by the purchaser and will no way restrict the JN Medical College Aligarh, right to award the contract on the selected bidder on any of the terms offered.

21. Indian Agent:- If a foreign bidder has engaged an agent in India in connection with its bid, the foreign bidder, in addition to indicating Indian agent's commission, if any, shall also furnish the following information:

- a. The complete name and address of the Indian Agent and its Permanent Account Number as allotted by the Indian Income Tax authority.
- b. The details of the services to be rendered by the agent for the subject requirement.
- c. Details of Service outlets in India, nearest to the JN Medical College Aligarh, to render services during Warranty and CMC Period.

22. Firm Price

- a. Unless otherwise specified in the NIT, prices quoted by the bidder shall remain firm and fixed during the currency of the contract and not subject to variation on any account.
- b. However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated will apply.

23. Conversion of tender currencies to Indian Rupees: - In case the bid document permits the bidders to quote their prices in different currencies, all such quoted prices of the responsive bidders will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the closing exchange rates established by the Reserve Bank of India for similar transactions, as on the date of '**Last Date of Submission of Tender**'.

24. Payment Terms:

i) **Payment for goods supplied from India:**

100% payment of the total order value shall be released after the successful installation/commissioning of the ordered goods against the submission of the inspection report.

ii) Payment for Imported goods:

For imported goods payment shall be made in the following manner:

- a. On shipment:** 75% payment of the contract price shall be paid 60 days after presentation of shipping documents {goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country} and upon the submission of the following documents:
- i. Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
 - ii. Original and four copies of the clean, on-board Bill of Lading/ Airway bill, marked freight prepaid and four copies of non-negotiable Bill of Lading/Airway bill.
 - iii. Insurance Certificate;
 - iv. Certificate of origin by the chamber of commerce of the concerned country;
 - v. Certificate of country of origin;
 - vi. Manufacture's / Supplier's warranty certificate;
 - vii. Manufacturer's own factory inspection report.
- b) On Acceptance:** 25 % payment would be made after satisfactory installation & commissioning on issuance of Inspection certificate by the JN Medical College Aligarh.

Note:-The supplier shall not claim any interest or any other payment under the contract.

25. Custom Clearance: For the Goods to be imported and supplied, the Institute will provide Custom Duty Exemption Certificate (CDEC) to successful bidder for availing concessional rate of duty as per prevailing Custom Tariff. In case, the bidder requires CDEC certificate, then the same should be specifically mentioned in the bid. The supplier is solely responsible for getting the material clearance from customs. Institute will provide all custom documents for custom clearance on the demand of supplier. Transportation of goods up to JN Medical College Aligarh, and its successful installation and commissioning is also the responsibility of the supplier. All charges/ expenses incurred in this process will be borne by the supplier. **NO DEMURRAGE / WHARFAGE CHARGES WILL BE PAYABLE BY THE INSTITUTE UNDER ANY CIRCUMSTANCES. NO ADVANCE PAYMENT WILL BE PAYABLE FOR CUSTOM CLEARANCE/ FREIGHT/INSURANCE ETC.**

26. Guarantee / Warrantee Period: The Tenderers must quote for **05 years** comprehensive warranty (Including all Spares, Accessories and Labour) from the date of completion of the satisfactory installation. The warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected. Also the bidders are requested to submit their quote (Rates) for subsequent **05 years** Comprehensive Maintenance Contract (CMC) (Including All Spares, Accessories and Labour). Failure to comply this condition will entail the rejection of the bids. The price comparison shall be taking into account on basic price and post warranty CMC.

27. Uptime guarantee: The firm should provide uptime guarantee of 95%

28. Downtime penalty Clause

- a. During the comprehensive warranty period, the guarantee uptime of 95% of 365 days will be ensured. In case the down time exceeds the 5% limit penalty of extension of guaranty period by two days for each additional day of down time will be enforced. The vendor must undertake to supply all spares for optimal upkeep of the equipment for at least FIVE YEARS after handling over the unit to the Institute. If accessories / other attachment of the system are procured from the third party, then the vendor must produce cost of accessory / other attachment and the CMC from the third party separately along with the main offer and the third party will have to sign the CMC with the Institute if required.
- b. The principals or their authorized service providers are required to submit a certificate that they have satisfactory service arrangements and fully trained staff available to support the uptime guarantee.

29. Arbitration: If any 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 to the sole arbitrator i.e. Vice-Chancellor


AMU Aligarh, or his nominee. The decision of the sole arbitrator shall be binding on parties. The venue of arbitrator will be at Aligarh.

- 30. 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 JN Medical College Aligarh, which will be at liberty to refuse if it thinks fit. The tender is not transferable. Only one tender shall be submitted by one tenderer.
- 31. 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 JN Medical College Aligarh, in that event the security deposit shall also stand forfeited.
- 32. 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 JN Medical College Aligarh, shall have the power to terminate the contract without any prior notice.
- 33. 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 shall 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.
- 34.** Bidder shall submit a copy of the tender document and addenda thereto, if any, with each page of this document should be signed and stamped to confirm the acceptance of the entire terms & conditions as mentioned in the tender enquiry document.
- 35.** The quantity of item given in the tender is tentative, which may be increased or decreased as per the institute's requirement.
- 36.** Signed & stamped compliance sheet of the technical specification of the goods with technical printed literature must be enclosed with the bid.
- 37.** After due evaluation of the bid(s) Institute will award the contract to the lowest evaluated responsive tenderer
- 38.** Conditional bid will be treated as unresponsive and it may be rejected.
- 39. Demonstration:** - JN Medical College Aligarh, reserves the right to ask the tenderers for arranging demonstration of their equipment for which rates have been quoted, to the concerned committee, if required.
- 40.** The Institute reserves the right to accept in part or in full or reject any or more tender(s) without assigning any reasons or cancel the tendering process and reject all tender(s) at any time prior to award of contract, without incurring any liability, whatsoever to the affected bidder or bidders.

41. Applicable Law:

- The contract shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such Commercial dealings / processing.
- Any disputes are subject to exclusive jurisdiction of Competent Court and Forum in Aligarh Uttar Pradesh, India only.
- The Arbitration shall be held in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and the venue of arbitration shall be at Aligarh. The decision of the Arbitrator shall be final and binding on both the parties.
- Force Majeure: Any delay due to Force Majeure will not be attributable to the supplier.



**Medical superintendent
JN Medical College Hospital
A.M.U. Aligarh**

Annexure 1

S.No.	Name	Specifications
1.	Heart lung machine with Heater Cooler Unit/Temperature control Module(TCM) (1)	<p>Heart lung machine</p> <ul style="list-style-type: none"> • 4 pumps which can run individually • Each individual roller pump should be capable of running on 24volts supply with a transformer in the console. • Twin pump module should have selectable ratio of Blood & Cardioplegia from 1:1 to 1:20. • Console should be compatible to integrate a centrifugal pump module. • Air- Oxygen Blender with hoses and Flow meter should be provided. • The unit should be supplied with a Battery backup for all the pumps, all safety systems and accessories for a minimum of 90 minutes. • Standard safety features as Bubble sensor, level sensor and pressure sensors should be present .Level and bubble detector should be supplied with the unit. • Internal Pulsatile should be integrated with the system as a safety feature and it must have optional facility for External Pulsatile. • The unit should have following monitors: Pressure Monitor (for 04 pressure displays), Time Monitor (03 resettable timers with 01 real time display), Temperature monitor (04 temperature displays), Cardioplegia Delivery (total volume, actual volume, time and pressure display), Temperature controller for Heater cooler unit. • Air- Oxygen Blender with hoses and Flow meter should be provided. • To work with power supply of 220-240V / 50-60Hz. • In case of any error, error message should be displayed by name along with audible alarm. • Should have flexible LED Lamp. • Interchangeable functions in at least 2 pumps • A flat screen display provides graphical and functional status information at a glance; all supervisory and warning functions are on one panel. • Built-in remote control for the Heater-Cooler Unit • Self-test at power-up

		<p>Heater Cooler unit (HCU) /Temperature control module(TCM)</p> <ul style="list-style-type: none"> • should have two main patient circuits (for blood heat exchanger and/or blankets) with the same temperature & one independent cardioplegia circuit. • Should have built in ice Maker to provide 15 kg of ice in about 4 hours from 20° C water. • To work with power supply of 220-240V / 50-60Hz. • Should have temperature display range of 1- 40.5*Celsius; remote accuracy of ± 0.3 *Celsius. • Water outlet temperature of heat exchanger and blanket range 3-40.5 *C • One adult and one paediatric reusable blankets should be provided. • Microprocessor based unit to control, cool, re warm and maintain temperature. • Should have split tank and automatically controlled mixing valve for fast and accurate temperature adjustment • Flexible, removable Control Unit (CU) with colour touch LCD with LED backlight for excellent visibility • Effective water decontamination by an integrated UV lamp • Hansen-quick couplings coded with pictographs for fast and clear connection of oxygenator and cardioplegia heat exchangers
2.	9 Parameter monitor with 2 slave monitors (2)	<p>The monitor should be modular in nature with possibility of future upgradation through plug & play modules which can be used in Operation Theatres, Emergency Departments, ICU's and wards</p> <ul style="list-style-type: none"> ➤ At least 26 inch Color TFT LCD/LED display ➤ High Screen resolution ➤ Modular slots available with measurement of up to 9 parameters : 12 lead ECG with arrhythmia analysis, SpO2, Respiratory rate, EtCO2, three invasive pressure monitoring, BIS, NIBP, two temperature probes ➤ Device should be light-weight and portable ➤ Touch screen facility ➤ Short-cut keys should be provided for ease of operation

		<ul style="list-style-type: none"> ➤ Suitable for adult, paediatric and neonatal applications ➤ Audio and Visual Alarms ➤ Alarm settings can be changed for different parameters ➤ Three different levels of alarms: High, Medium and Low Priority. Should have user selectable values for each level of alarm ➤ Lithium Ion Battery with battery status indicators and 4 hours continuous monitoring back up ➤ Extensive data storage capabilities: <ul style="list-style-type: none"> ○ >100 Hours of trend data storage capabilities ➤ Monitor can detect arrhythmias, with storing and reviewing facility ➤ 5 lead ECG cable provided with different modes of monitoring for ECG: Surgery, Monitor and Diagnostic modes of operation ➤ Multi-channel ST segment analysis ➤ Advanced Masimo Technology available which monitors SpO2 values during motion as well with different levels of sensitivities depending on the type of patient monitored ➤ NiBP cuffs available for adult, paediatric and neonate patients, and wide measuring range and mode of measuring: Oscillometric ➤ Pulse rate measurement with accuracy of +/- 3 bpm ➤ Touch screen ➤ At least 45 minutes battery back up ➤ Two slave TFT monitors of 26 inch size ➤ WAN communication compatible
3.	Operation theatre table (1)	<ul style="list-style-type: none"> • Functions of the table through electro-hydraulic adjustable via wire controller: height adjustment, Lateral tilts, Trendelenburg , Back Plate adjusting ,“0” position one-button activated • Base cover made of rugged glass fibre reinforced laminate, resistant to impact, breakage and disinfectants, with additional scratch-proof finish • The table top should be fully free without transverse shadows on the X-ray images. • Guide rails for X-Ray cassette should be provided under the table top. • Operating elements: should be with backlit cable-connected hand control on head end of table with override panel on Column. • Override panel should have a safety feature with dual touch operations.

		<ul style="list-style-type: none"> • Locking via foot pedal. • Battery back up of at least 3 hours • Technical specifications should be: <ul style="list-style-type: none"> a) Total length min: 2140 mm +/-10% b) Total width min: 540 mm +/-10% c) Table-top height adjustment in range min: 600 - 950 mm d) Motorized Back rest adjustment min: + 70°/-40° e) Head rest adjustment min: + 47°/ - 61° f) Both sides lateral tilt adjustment min: +/- 15° g) Trendelenburg/Rev- Trendelenburg position adjustment, +/- 25° h) Manual Leg rest adjustment min: 0 /- 95° i) Leg rests with possibility of abduction by min 180° - to be locked using clamps j) Maximum patient weight: 360 Kgs • Six section Table-top consists of following sections: <ul style="list-style-type: none"> • head rest • back rest divided, into lower back plate and seat plate Extension Plate • Head rest and leg rest should be interchangeable (Normal and Reverse patient positioning). • Preferably Should be ISO, CE and UL certified. • Standard accessories should be: <ul style="list-style-type: none"> i) Head Rest, with at least 80 mm SFC padding: 1 No ii) Leg Plates, pair and abductable, 80 mm SFC padding: 1 No iii) Arm board (pair)incl. fastening clamp, adjustable via ball-and-socket joint: 2 Nos. iv) Anesthesia Screen with Clamp: 1 No v) Backlighted hand control 1 No vi) Abdominal strap: 1 No vii) Adaptors for headrest: 2 Nos. • Accessories for Cardiac and general surgeries should be: <ul style="list-style-type: none"> i) Lateral arm support with clamp: 1 No ii) Leg Support with clamp: 1 No iii) Clamp for attaching side supports 2 Nos. iv) Lateral support 1 No v) Back support 1 No • 45 minutes battery back up
4.	Suction machine (1)	<ul style="list-style-type: none"> • Vacuum adjustment with loss of additional air • Operation of pump should be electronic and microprocessor based

		<ul style="list-style-type: none"> • The signal from suction should be acoustic and optic • It should have automatic standby (sleep after 20 seconds of non use) and awake after detection of vacuum • Air flow of 36litre/minute • Vacuum of -90Kpa • Should have digital numerical display • Should have 2 jars of at least 2 litre • Preferably controllable through foot switch • Voiceless • High pressure
5.	Electro cautery unit (1)	<ul style="list-style-type: none"> • Integrated touch screen • Two users can use it simultaneously • Should provide monopolar output for cut, coagulation (fulguration & spray) & blend • Should have bipolar cut and coagulation in multiple levels with automatic bipolar coagulation. • Activation by foot switch and hand switch for all the modes • Auto diagnosis on switching on and during working to continuously monitor all parameters • Should be usable with laparoscopic monopolar and bipolar instruments, for which programmes and accessories must be available. • System for neutral plate safety by continuous monitoring of contact quality and connection • System for monitoring and control of leakage current • Frequency Leakage on the patient should be less than 10 micro Amp. • tip cleaner, minimum 50 nos • Suitable UPS with 30 min backup
6.	Defibrillator (1)	<ul style="list-style-type: none"> • Digital display • Internal and external paddles • Discharge switch over hand paddles • Internal and external paddles should be Compatible with paediatric and adult use • Should use Bi Phasic waveform for shock delivery to ensure that the current is optimal and damage to heart tissues is minimal • Preferably Should have LCD display • Should have a facility for charging via paddles • Should have energy selection from 2 – 300Joule

		<ul style="list-style-type: none"> • Should Have inbuilt Battery capable to delivered 100 charges/Discharges of 300 J with full charged condition • Should have sealed lead acid battery • Charging time to 300 Joule should be as low as 10 second or better • Should be able to synchronize to R wave • Should have at least 24 event recording • Should have both Audio Visual alarm • Should have a facility to monitor ECG via both Paddle and ECG cable • Should have Marker indication on ECG wave • Should be supplied with Adult and swipe to expose Pediatric paddles • Should have inbuilt thermal printer • Should have input protection against High voltage • Should have Electro Surgical unit filter • Standard Accessories: 3 Lead Patient Cable – 1 no Power Cable – 1 no ECG Gel – 10 no Disposable ECG electrode – 20 Packet User Manual – 1no
7.	OT Light with recording system (1)	<ul style="list-style-type: none"> • Ceiling Mounting 3 dome LED light • 2 dome with 1.6 lakh lux and one dome with .4- 1.2 lakh lux • Shadowless light • Sterilizable Handle • Light Source : >40,000 Hrs • Controls : Control Panel (wall and on dome) • There should be a provision to mount the camera in one dome. • Battery back up of at least 45 minutes • Integrated In-Light Camera System at one of the domes. Latest Wi- Fi HD Camera, which should be mounted on one of the Light dome Camera should have autofocus , Optical Zoom : 10X. Digital Zoom : 12-15. Video Output : HD, S-Video & Composite Video. White Balance & Gain : Automatic/Manual. (DVI/HDTV), RGBHV (High Resolution), SVHS (S-Video), Composite video signals to travel from the various sources of video like endoscopic camera, room camera, in light camera, high definition flat panel monitors, while assuring native resolution / signal. Dome. • Sensor- 1/4" Cmos • Signal System- 702p • Picture Element- 14,30,000 • Aspect

		<p>ratio: 16:9 • S/N ratio- > 50dB • Lens (zoom)- 12x • Focal length- 1.6 to 2.5 • Aperture- F1.8 to F2.1 • Ant flicker- Yes • Sensitivity(lx)- 1,2 (F1.6, 50IRE)</p> <ul style="list-style-type: none"> • White Balance- Auto/manual • Sterilizable handle on all domes • Preferably Should be compliant with relevant European CE /US FDA standards
8.	Anaesthesia work station with inbuilt ventilator (1)	<p><u>General</u></p> <ul style="list-style-type: none"> • Should have provision for delivery of Oxygen, Nitrous oxide and medical Air with pressure gauges. • The machine should be capable of delivering Low flow and Minimal flow anesthesia. • The anesthesia machine with circle absorber, Ventilator and Vaporiser should be CE and US FDA approved. • Manufacturer should have authorised local service availability in Aligarh. The details of the same has to be provided separately. • Should have independent attachments for connecting central gas supply and pin indexed cylinders. • Anesthesia machine frame shall be manufactured in strong but lightweight material. Aluminium or composite material is preferential over steel frame construction. • The machine shall have a maximum of four castors/wheels for manoeuvrability. These must be of a sturdy/robust design. • The ability to individually lock the brake mechanisms of the front two castors is mandatory. • The machine shall have a traditional layout with obvious major components eg. Anesthesia Delivery, Circle absorber, Vaporiser and Ventilator. • The frame shall have GCX compatible channels incorporated within the design of the machine. • The option for an integrated independent Oxygen flow meter for Oxygen delivery is mandatory. • Pipeline, cylinder and Airway pressures should all be displayed on analogue gauges and be visible at all times during operation. • Frame shall accommodate up to two backup cylinders one each for Oxygen and Nitrous Oxide • On activation of the system on/off switch gas flow and vaporization shall

immediately be available

- In the event of complete power loss and battery failure it shall still be possible to manually ventilate and deliver anaesthetic agent.
- The common gas outlet shall be easily accessible in the event of an emergency and for use of alternate breathing circuits
- The option for illumination of the writing table/work surface is mandatory
- The frame should have integrated power outlets to supply a minimum of Four external devices
- Should have Top shelf ,Manoeuvring handle and foot rest
- Machine should have sufficient table top work space.
- The unit should have a battery back-up facility for the ventilator in the event of power loss. Minimum 60 minutes battery backup required.
- Input Power : 200 – 240 VAC

Gas Flow

- Antistatic and Cascaded dual flow tubes should be available for all gases to allow suitable resolution and accurate control at low total fresh gas flows.
- The flow range shall be 50ml-10 lpm
- Should have N2O cut off facility if O2 supply fails.
- Should have Oxygen failure alarm both Visual and Audible.
- Should have Oxygen Flush facility bypassing Vaporiser. O2 flush switch should be conveniently placed for easy accessibility. O2 flush switch should non lockable.
- The unit shall have a mechanical anti-hypoxic device system to control the ratio of Oxygen and Nitrous oxide. A completely mechanical system that requires no electricity is mandatory
- The mechanical anti-hypoxic system must limit minimum Oxygen levels to approximately 30%
- Should have minimum mandatory Oxygen flow of 50 ml when switched on
- It shall be possible to deliver Air with only basal flow oxygen independent of the abovementioned hypoxic control.
- Gas flow shall be controlled mechanically only
- Visual display of individual gas flows is mandatory, this shall be by physical

means such as glass flowmeters independent of electrical power

- The option for electronic flow displays for all gases in addition to individual physical flow display is desirable (optional); price should be quoted separately
- Flow meters should have the option of backlight illumination

Vaporizers

- The unit should accommodate at least two vaporizers for Anesthetic agent delivery.
- The manifold should only accept Vaporizers with approved Back bar connections and prevent usage of more than one vaporizer simultaneously. Preferably selectatec compatible back bar.
- Vaporizers supplied with the unit shall be routine maintenance free for the life of the product
- Vaporizers supplied with the unit shall be manufactured from lightweight materials to aid in fitting & removal

Ventilator

- Ventilator shall cater for a diverse range of patient groups from neonates to patients with restrictive airways
- Ventilator should be Pneumatically driven and controlled electronically
- Ventilator shall have a large colour TFT touch screen display, for exclusive use of ventilator control and monitoring.
- Ventilator display shall be mounted on adjustable side arm making it possible to view from various angle
- Control of the ventilator user interface shall be by touch screen and rotary dial
- Ventilator shall have the following ventilation abilities, volume control (VCV), Pressure ventilation with decelerating flow pressure control(PCV), SIMV &PSV
- Assisted modes of breathing shall be flow triggered.
- On power up, in the case of an emergency mechanical ventilation shall be available without the need to carry out user or machine self-checks
- Ventilator should have a leak and compliance test that can be done independently of a full system check and should complete in less than 1 minute.

- Ventilator shall compensate for fresh gas flow and compliance of the entire circuit. There should be provision to disable Fresh Gas Compensation.
- Ventilator shall compensate automatically for changes in ambient pressure in the atmosphere
- The ventilator shall have the option to improve delivered output accuracy by compensating for fresh gas mix (O₂ & AIR / O₂ & N₂O) and Oxygen concentration in fresh gas
- Ventilator should have the ability to set and store a hospital default as well as preferences for Adult & Paediatric settings
- Should have user adjustable alarms for major parameters
- Apnea alarms must be user adjustable to allow for all operating conditions and phases during Anesthesia
- Ventilator should have the ability to display Patient Spirometry loops. These include Flow-Volume and Pressure Volume curves.
- Ventilator should also display waveforms for flow and airway pressure with freezing facility
- The user should be able to select & display 2 waveforms on screen
- Ventilator shall display a dynamic compliance measurement
- Volume measurement shall be by separate flow sensors for inspiratory & expiratory breathing paths
- The volume measurement flow sensors/transducers shall be housed completely within the breathing system absorber & not remoted via tubes or channels

Ventilator Parameters

Tidal Volume	-	20ml-1600 ml
Frequency	-	4-100 bpm
I:E Ratio	-	1:0.2 to 1:8
Inspiratory Pause	-	0-60% of Ti
PEEP	-	OFF, 4-20
cmH ₂ O		
Pressure Limit	-	5-70
cmH ₂ O		
Minute Volume	-	0.5 to 50 l pm
Inspiratory Flow	-	2-70 l pm

Breathing System

- The breathing system designed so that it can be removed & replaced as a

		<p>complete unit without the use of tools preferably with front facing inspiratory and Expiratory gas outlets</p> <ul style="list-style-type: none"> • All parts of the breathing system that are in contact with patient gas shall be latex free and Autoclavable except for non autoclavable removable part like O2 sensor and Pressure manometer. • Bag/Vent switch shall be integrated on the absorber and should activate ventilator in vent mode and vice versa (One step operation). • Breathing system should have heater system to avoid water condensation. • Should have quick release canister for sodalime , capacity minimum 1 litre • The breathing system absorber canisters shall have a bypass system to allow for canister change mid-case without loss of ventilation pressure. The requirement for an automatic bypass without extra input from the user is mandatory • The ventilator bellows shall be clearly visible and be of upright design. The bellows should ascend on expiration to provide a quick visual indicator for system leaks. • The fresh gas hose shall have a method of locking/securing its connection system to the CGO • Should have provision for FiO2 monitoring cell and FiO2 value should be monitored on the main screen. • A bag arm with height and positional adjustment shall be available as standard <p>Machine should be supplied with following accessories</p> <ul style="list-style-type: none"> • High pressure hoses for O2,N2O and AIR • Reusable Adult& paediatric patient circuit – 1 each • Disposable adult circuit – 10 No • 2 Litre Breathing bags – 2 nos • Power cord • User manual • Galvanic Type FiO2 Cell • Vaporisers (Sevoflurane& Isoflurane)
9.	ACT (activated clotting time) machine (1)	<ul style="list-style-type: none"> • Simultaneous two samples can be tested • kaolin activator for uniform mixing with blood sample • 2 point accurate clot detection facility • Easy to use with one button operation

		<p>system</p> <ul style="list-style-type: none"> • Data transfer and print option • Room temperature storage • voltage: 220-240 V, 50 Hz Single ~ Phase • Must be compact, small & portable • Preferably with clot analyser facility
10.	Modular Operation theatre with on site modification (1)	<p>Approximately 44.96 sq metre area of main OR</p> <p>1. Stainless steel prefabricated walls and ceiling</p> <p>(a) SS 304 sheet(1.6mm thick) wall sloping and ceiling panels backed by 12mm thick gypsum board to provide seamless operating room.</p> <p>2. Antibacterial/Anti fungal paint for filling of all joints and cavity with metallic epoxy filler and sanded to provide a jointless finish and then sprayed with water based liquid plastic aseptic and self sterilizing wall coating system</p> <p>3. Hermetically sealed sliding OT door 2100mm x 1500mm size with automization with vision panel 300mm x 300mm size.</p> <p>4. Conductive tile flooring</p> <p>(a) Seamless flooring with curved flash coving, having ESD/EMI(conductive) protection characteristics, 2mm thick, washable.</p> <p>(b) Conductive flooring with carbon backing with total thickness 2mm, total 3400g/sqm. polyurethane reinforced, scratch resistant, fire resistant, chemical resistant, slip resistant, antifungal and bacterial growth. dimensional stability.</p> <p>{c) Flooring should be installed on a smooth, clean sub floor free from any undulation.</p> <p>{d) A copper strip/ mesh should be layered under the tiles, with one earthing point for every 150 sq ft</p> <p>5. Pressure relief dampers</p> <p>(a) OR should be supplied with multi bladed damper designed to control room air pressures and protection doors should be provided</p>

within the modular panel.

(b) Each stabilizer should have a matching slip over rear flange coated in white color and exterior grill.

(c) Pressure dampers should contain three grade 304 SS blades which pivot upon "sealed for life" bearing assemblies.

6. Electrical Distribution board outside OR

(a) Should be installed in a separate enclosure

(b) Remote cabinet should house the operating lamp transformers, mains failure relays, electrical distribution equipment and circuit protection equipment for all circuits within the operating room.

(c) All internal wiring should terminate in connectors with screw and clamp spring connections of clip-on type mounted on a DIN rail.

(d) individual fuses or miniature circuit breakers should protect all internal circuits.

7. Anaesthesia Pendant

(a) Pneumatic break should be used to secure system and prevent accidental movements

(b) Variable placement of shelves to ensure adaptability of various requirements

(c) Load capacity 125 kg

(d) At least 3 equipment loading shelves with 2 shelves of variable height flexibility

(e) Single arm pivot range of minimum 900mmx900mm or above.

(f) Pre piped with hose assembly 12-16 gas outlet point should be fixed in the pendant

(g) Pre wired 10-12 multipin Indian origin electrical switch socket. 2 RJ 45 data socket should be fixed in the pendant

(h) Should have integral check valve to allow removal of housing and socket assemblies for maintenance without closing down the entire pipeline

(i) Should be full metal to metal seal on maintenance check valve

(j) Each gas specific components must have the gas service engraved on it

(k) The box should be supplied with a flush mounting bezel as bolster finish with safety features like positive action of rolling pin latch mechanism which will hold the probe securely, anti rotational locking bar and gas indexing pin should be cast into the socket assembly so that it does not become loose or be removed and should be gas indexed to prevent connecting a socket assembly of one gas to the terminal block of another

8. Unidirectional Low Turbulence Laminar Air Flow Plenum Ceiling

(a) Plenum unit should have factory prepared fine sealing system with seamless integration of ceiling-mounted equipment and OR ceiling

(b) Should be made of high quality and durable materials, filter housings and pressure chamber should be made of aluminum

(c) Should have a low pressure drop allowing for long term usage of HEPA miniplete H13/H14 filters

(d) Should have reliable filter efficiency (retaining 99.99% of particles and germs)

(e) Air and light diffuser should be made out of 2 layers of mono filament precision woven polyester for the air ceding to give a laminar flow of filtered air and provide a diffused shadow less lighting system with a control on intensity of luminance by using high frequency electronic fluorescent tubes and ballasts

9. Clean Room Luminaries with frame - 4 Nos.

10. SS Scrub Sink Two Bay outside OR

(a) Should be fabricated from heavy gauge, type 304, stainless steel, with seamless welded construction polished to a satin finish

(b) Should have hands free operation including infrared sensor with a built in range

11. Surgeon control panel(6 tile) in OR

(a) Should have all controls within the theatre and should be on a membrane type control panel mounted in the theatre wall

(b) Panel should incorporate all necessary controls for the correct operation and monitoring of the equipment and services within the OR

(c) Medical gas alarm should indicate high and low gas pressures for each gas service, should have an audible buzzer with mute facility, should be connected to local pressure switches located downstream of the last isolation valves.

(d) Each control panel will be of 6 tile and should have display for time elapsed clock, standard clock, temperature, humidity, clean room luminaries, telephone, medical gas alarms.

12. Medical Grade Copper Tube/Pipes

The piped distribution system shall use copper pipes manufactured from phosphorous de-oxidised non arsenical copper to BS EN 1412:1996 grade CW024A (Cu-DHP), manufactured to metric outside diameters and having mechanical properties in accordance with BS EN 13348:2008 in either R250 (half hard) or R290 (hard). Degreasing of pipe shall be such that there is less than 20mg/m² (0.002mg/cm²) of hydrocarbons on the degreased surface when tested by the method specified BS EN 13348:2008. As per NHS C11 section 05 all copper tube suppliers and OEM suppliers are to have BSI kite mark and certificate number.

13_. Imported Area Valve Service Unit(Single Service Unit separate for each services} 4 nos. outside OR

(a)Single Service 22mm Area Valve Unit separate for O₂, N₂O, MA4, SA7, vacuum : The Area Valve Service Unit {AVSU} should incorporate a ball valve with NIST connectors either side. mounted in a lockable box with emergency access.

(b)The valve should be complete with copper stub pipes that extend to the outside of the box to enable easy connections to the Medical Gas Pipeline System (MGPS).

(c)The valve should operate from fully closed to fully open with a quarter turn of the handle.

(d)The spades should be injection molded and color coded to show through or blank identification. (e)Should be full bore valves for minimum pressure loss and should have lockable in open or closed position. The Lockable Line Values shall comprise full-bore ball valve complete with copper stub pipes for ease of installation.

(f)the valves shall be connected to the copper stub pipes by means of flat faced unions fitted with nitrite O-ring seals. allowing removal of the valve without the need to distort the pipe work.

(g)Stub pipes for valves up to 54 mm should be connected to the valve body using screwed connectors. whilst valve above this size will use flanged connectors. The valve will have a brass body. end cap and stem, with 'a full -bore chrome plated brass ball.

(h} All line valves will be supplied with a mechanism to enable the unit to be locked in the fully closed or fully open position.

(i) The stub pipes should have the appropriate coded NIST connectors fitted each side of the valve.
The NIST check valves should have a metal seal.

(j)The valve box should have a universal back plate for first fix mounting and an injection molded cover which fits over the installed valve.

(k)A color coded service identity label will be fitted behind the valve handle.

(l)The door should also be injection molded and will be common for all services. The door should incorporate a 'Break Glass' window or an optional quick release mechanism for emergency access to the valve.

(m)Should be reliable and easy to operate and must have NIST connectors facilitate easy purge, sample and pressure testing and emergency supply system. Should have easy site installation with prefitted stub pipes. It should have break glass emergency access fitted as standard

14. Imported 5 Service Medical Gas Area Line Pressure Alarm (Oxygen, N2O, MA4 Air. and Vacuum) should comply with NHS C 1.1 model engineering specification, CE marked and medical gas area alarm should comply with requirements of HTM2022, HTM 02-01, CII, BS EN 60601-1

(a) It should be capable of monitoring up to 6 gas services by means of pressure sensors that detect deviations from the normal operating limits.

(b) The cover, back box and bezel (if required) shall be polyester powder with anti microbial coating.

A single tamper proof fastener shall be used to gain access to the hinged door.

(c)The hinge shall operate through a minimum of 120° to provide adequate access.

{d) It should have each gas service shall be displayed by colored LED's to show 'Normal' (green), 'Low' and 'High' pressure (red) conditions.

(e)Medical vacuum systems shall be displayed in the 'Normal' {green) and 'Low' vacuum (red) conditions. Failure indicators shall be displayed by flashing lights and normal indications shall be steady

(f) Each LED block indicator should be a plug-in component with individual long life LED's connected in parallel two banks to provide duplex circuits . An audible warning shall sound simultaneously with any failure indication and a mute facility shall be provided.

(g)Following a mute selection the audible alarm will resound after approximately 15 minutes, or shall operate simultaneously should a further alarm condition occur. A "Mute" switch should be provided inside the panel for use during any maintenance resulting in prolonged pipeline or plant shutdown

(h) The alarm panel shall have a 'Test' facility to prove the integrity of the internal circuits, LED's and audible warning.

(i)The alarm panel shall incorporate a volt

free normally closed relay to allow for interconnection to either a medical gas central alarm system or an event recording circuit of a building management system

(j)Each alarm shall provide a green LED to indicate that electrical power is available at the panel and a red LED to indicate 'System Alarm'. In the event of an electrical power supply failure the 'System Alarm' LED shall illuminate (flashing) and the audible warning shall be delayed for 30 seconds to enable standby generator tests.

(k)Line continuity monitoring circuits shall be provided to constantly monitor the integrity of the input sensors and interconnecting wiring. In the event of any fault the line continuity monitoring circuits shall initiate the specific gas service failure indication, a 'System Alarm' indication and an audible warning.

(l)Aids to fault diagnosis shall be provided by means of varying flashing rates whilst operating the 'Test' switch.

(m)A simple data connection shall be provided to allow connection of up to 5 repeater panels, enabling the visual and audible alarm signals to be repeated at other locations within a department.

(n)It should be connected through Pressure and Vacuum Switches: Pressure and vacuum switches shall be manufactured with brass wetted parts and house a PCBA with line continuity monitoring resistors.

(o)Pressure switches shall include both high and low pressure settings in the same switch, using only a single 1/4 BSPP threaded pipeline connection to minimize the number of sealed Joints.

(p) Body and housing of pressure switch should be manufactured from impact resistance, rigid and corrosion proof materials [coating or plating of mild steel not acceptable]

(q) Pressure switches should connect directly to the area alarm panel (not acceptable to fit a separate connection box to convert switch signals to a data signal)

15. Medical Gas Terminal Units{Gas Outlet Points}: Oxygen, N2O, MA4 Air, CO2, AGSS and Vacuum)

(a)Should be compliant with NHS C11 model engineering specification

(b) Should be CE marked and manufactured under an ISO 13485:2003 quality management system

(c) Terminal units should have gas indexing geometry to BS 5682:1998

(d) Terminal unit front fascia should be 100% metal

(e) Gas specific components comprising the terminal unit second fix should be made of die-cast zinc alloy or similar hard wearing metal and its socket should incorporate a sheer plane to safeguard the fast fix and the pipe line in the event of accidental damage or bed jacking

(f) Terminal units socket castings should be permanently coated with a low friction fluoropolymer for reliability and service life.

(g) Terminal unit socket die-casting should incorporate a gas indexing pin to overcome risk of loosening due to rough handling

(h) The first fix should be all metal with brass base block and copper stub pipe and should have an integral check valve to enable servicing of the second fix and valve seals without isolation of gas supply

(i)Probe roller pins should be of stainless steel

(j) Wall mounted terminal units shall be provided with white ABS mounting box with matching fascia

16. Imported Medical Gas Hose Assemblies

(a) Hoses shall be color coded throughout their length as specified in BS EN 5359 as follows:

Medical oxygen - white

Nitrous oxide - blue

Medical and surgical air - black & white

Vacuum - yellow

		<p>(b) All hoses should incorporate an anti-static inner core. Hose shall be permanently secured to all fittings with stainless steel crimped ferrules, and should incorporate a window to enable verification that the hose is fully secured onto the hose barb, at the end of the course (impossible blocking)</p> <p>(c) Medical gas hose assemblies should comply with BS EN ISO 5359</p> <p>17. Writing cum list board -comprising of flush mounted white laminate board, opened to create a wall mounted writing surface within the operating room</p> <p>18. X Ray viewing screen - Twin plate, with electrical safety codes for high and low voltage system, designed to provide flicker free luminance and installed flush with the theatre wall.</p>
11.	Integrated Single hand piece Sternal saw with oscillating saw (1)	<p>Hand piece</p> <ul style="list-style-type: none"> • Hand held Battery operated • 2 speed control modes(standard and fast) with Safe mode option on hand piece • Light weight pistol grip • Straight and oscillating saw should be mountable on same hand piece • Autoclavable • Microprocessor controlled hand piece, can be calibrated for consistent performance • Can be fitted with aseptic battery kit • Tool less mounting of accessories <p>Battery charger</p> <ul style="list-style-type: none"> • 220-240V charger and should have the feature to count the charging cycles for a particular battery • Should have capability to identify worn out battery • Should have capability to charge 4 batteries at a time with no module requirement • Should have an indicator to provide battery status for charging <p>Battery</p> <ul style="list-style-type: none"> • Ni-Mh and Ni-Cd with low internal impedance to deliver higher current than other battery types • Ni-Mh and Ni-Cd cells with capacity to produce more torque and non autoclavable and autoclavable options

		<p>with average life of approximately 200 charging cycles</p> <ul style="list-style-type: none"> • Should have a minimum run time of 15 minutes • Should be autoclavable <p>Accessories and sterilization case</p> <ul style="list-style-type: none"> • Sternal blade guard • Should accommodate all hand piece attachments and accessories for autoclave
12.	Body warmer (1)	<ol style="list-style-type: none"> 1. Should have 4 set temperatures 2. Should have boost temperature setting at 47°C for rapid warming 3. Should have hose end nozzle clip & Sheet Clip for easy use of blankets and reduce drag of hose pipe. 4. Should have low maintenance requirements. 5. Should have short warm up time of less than 40 seconds. 6. Should have accuracy of +/- 1°C, supported by authenticated paper. 7. Can be mounted to the infusion pole or bed rails or placed on the floor or Cart Mount facility. 8. Should display temperature in LCD display. 9. Should have automatic step-down facility from high setting to medium setting after 45mins. 10. Should have filter expiry display for easy maintenance of machine and self-life of filter should be at least 2000 hrs. 11. Should have corrugated hose pipe to increase & decrease the length of hose pipe according to requirement 12. Must meet all convective warming standards. 13. Should be easy to operate in two steps. 14. Should have safety alarms like over temperature, power disconnection. 15. Airflow of approx. 25L / sec for better and faster warming. 16. Should be light weight less than 6 kg. 17. Should deliver warm air uniformly to the patient through disposable blankets 18. Should have disposable blanket options like Full body, Upper and Lower body, Pediatric & sterile blanket for Surgical access 19. Blankets must have strong 2plylayers to resist tear, puncture and fluid with

		comfortable draping on patient
13.	Infusion pump (20)	<ul style="list-style-type: none"> • Should be small, compact and light-weight device • Weight of the device should not exceed 2 Kgs • Should work on mains cum batteries • Should have double CPU functioning to ensure reliability and safety • Should have anti-reverse function which prevents the upstream flow • Should work on Ni-Mh Battery with a battery life of 4 Hours at 5 ml/hr • Should have micro and continuous mode of injection • Should work on syringe sizes: 10 ml, 20 ml, 30 ml, 50/60 ml • Should have a flow rate of 0-1200 ml/hr • Should have the following flow rate ranges for different syringe sizes: <ul style="list-style-type: none"> ○ 10 ml: 0-200 ml/hr ○ 20 ml: 0-400 ml/hr ○ 30 ml:0-600 ml/hr ○ 50 ml:0-1200 ml/hr • Should have an infusion volume range of 0.1-9999.9 ml • Should have adjustable bolus rate • Should have 8 different pressure sensing ranges, ranging from 20-140 Kpa • Should have a KVO Rate of 1 ml/hr • Should be compatible with all types of syringes • Should have audio and visual alarms • Manufacturer should have authorised local service availability in Aligarh. The details of the same has to be provided separately. • Should be provided with the following standard accessories: <ul style="list-style-type: none"> ○ User Manual-1 No ○ Power Cord- 1 No
14.	Headlight (2)	<ul style="list-style-type: none"> • More than 2.5 lakh lux (preferably) • LED/Xenon light • Homogenous illumination across a broad range • Bulb warranty of more than 1000 hrs (atleast) • Buttons for adjusting brightness should be available • Should have light weight head band with optical basket time • Simple 2-point adjustment for comfortable fit for all heads sizes • Atleast 30' power cord to increase

		<p>freedom from clutter of floor stands and fiber optic cables</p> <ul style="list-style-type: none"> • Battery backup of atleast 30 mins without interference in light intensity. • FDA approved
15.	Dual chamber External pacemaker (1)	<ul style="list-style-type: none"> • Should be capable of pacing in demand or asynchronous mode. • Should be capable of pacing at rates of 30-180 ppm that is user selectable. • Should also have the capability of performing high rate pacing up to 450ppm. • Should have the capability to deliver 0.120ma output which should be user selectable with 1.5/2 ms pulse width. • The pacemaker sensitivity should be user selectable from 0.5- 20 mv. • Should use easily available standard 9-volt alkaline battery. • Should indicate pacing, sensing and battery status. • Should be protected against defibrillator shocks. • Should continue to function for at least 15 seconds during battery change. • Lightweight and small. • Controls with easily visible transparent protection cover. • Patient extension cable with 3 patient bipolar endocardial leads.
16.	IABP (intra aortic balloon pump) (1)	<ul style="list-style-type: none"> ➤ Transportable, Compact IABP system with minimum 3 Hours of Battery Backup. ➤ Fast Pneumatics to provide accurate & reliable ventricular support enhancing augmentation & improved after-load reduction. Preferably a compressor based system for better drive-gas shuttle speed. ➤ System should automatically re-calibrate fiber optic sensor in vivo every two hours. ➤ Fiber optic pressure signal out-put should be available for external monitor to eliminate need for additional pressure monitoring site & transducer. ➤ Should have 3 modes of Operation, 1) Automatic 2) Semi Automatic 3) Manual. ➤ System should be capable of automatically selecting appropriate Trigger ie. ECG or Pressure and also accurately select the Inflation and Deflation points, in Automatic mode. ➤ In Automatic mode of Operation, user should be in control of the deflation point.

		<ul style="list-style-type: none"> ➤ In Automatic and Semiautomatic Mode, Single ECG Trigger should be able to track various Ventricular and Atrial Arrhythmia including VE's, Bigeminy, Trigeminy, Couplets etc and Atrial Fibrillation, without any user intervention, and still give optimal performance. ➤ In Automatic and Semiautomatic Mode, Advance Software should automatically adapt the timings for various rhythms and rate variations, without any user intervention ➤ In Automatic and Semiautomatic Mode, it should automatically identify Atrial Fibrillation & adopt R-Wave deflation mode for better patient support, without any user intervention ➤ Should be able to trigger on 7mmhg of Pulse Pressure when used in Pressure Trigger mode ➤ Single Key Start-up to make it fast, user friendly and easy to use ➤ Should be able to display at least 3 waveform as ECG, Invasive Pressure and Balloon Pressure waveform ➤ Large Detachable Display for brighter & very good visibility from a distance in any lighting conditions ➤ On screen indication for Helium level in the cylinder & Battery level for timely intervention and correction ➤ ECG Inflation marker to indicate inflation period on ECG which can be useful when arterial pressure waveform is not available ➤ On screen indication of standby time and should give alarm after 20 mins, to draw user's attention on the system being on standby. ➤ Optical Blood back detect for early indication of blood coming into the balloon lumen due to IABC leak ➤ Should have extensive Help Text available during startup to make the system easy to use even for new users ➤ Should give extensive Help messages to correct the alarm conditions that are specific to the alarm condition. This should help the user to overcome the alarm problems immediately and with ease. ➤ Should be capable of removing Condensation automatically without user intervention and should be maintenance free ➤ Should have Peripheral Vascular Doppler for checking Limb Ischemia,
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		<p>which is tethered to the main equipment</p> <ul style="list-style-type: none"> ➤ Should have automatic Altitude correction to make it safer for use during Air Transport ➤ PCIABP Software which allows the user to monitor the IABP from any remote location via a modem. ➤ In-built Comprehensive Service Diagnostics to help the technician to locate the fault immediately. ➤ Should have capability to connect on the hospital network ➤ System should be supplied with the following: <ul style="list-style-type: none"> • ECG Cable with Leadwires: 1set • Reusable Invasive Blood Pressure Transducer: 1 no. • IABP 40 fr :10 nos • Refillable Helium Cylinder compatible with the IABP system Qty: 3 Nos
17.	Fluid warmer (1)	<ul style="list-style-type: none"> • Deliver blood and intravenous fluids at normothermic temperature at wide range of flow rates from gravity to 50-5000ml/hr • Keeps blood and fluids warm between 37-42 C • Single step programming of warmer • Inbuilt reservoir for recirculating fluid • Easy interface • Audible and visible alarms • Built in over temperature test button and alarm test button
18.	Cardiac instruments	
	<ul style="list-style-type: none"> • Castro Viejo (4) 	<p>Titanium make with tungsten carbide coated jaws</p> <ul style="list-style-type: none"> • lock for suture material 6.0 – 10. • Straight – 8 - 8½” (2 each) • Curved - 7¼ - 8” (2 each)
	<ul style="list-style-type: none"> • Coronary forceps (4) 	<p>Titanium make</p> <ul style="list-style-type: none"> • 0.5 mm teardrop ring tip forceps for the mammary /coronary arteries 7" & 8" (one each) • Saphenous / Aorta tissue forceps 1.5 mm ring tip forceps 7" & 8 " (one each)
	<ul style="list-style-type: none"> • Jones I.M.A. Scissor Bayonet (2) 	<ul style="list-style-type: none"> • 45° length 6 – 7.0” • Stainless steel make
	<ul style="list-style-type: none"> • Coronary shunts (5 sets) 	<ul style="list-style-type: none"> • 1,1.25,1.5,1.75,2,2.25,2.5,2.75,3 mm (10 shunt of each size in each set)
	<ul style="list-style-type: none"> • Coronary probes (6) 	<ul style="list-style-type: none"> • Size 1/1.25/1.5/1.75/2/2.5 mm (one each)
	<ul style="list-style-type: none"> • Saphenous vein 	<ul style="list-style-type: none"> • Oval tip (5)

	metallic filling cannula (10)	<ul style="list-style-type: none"> Angled tip (5)
	<ul style="list-style-type: none"> Johns Hopkins Coronary Clamps (12) 	<p>Stainless steel make –</p> <ul style="list-style-type: none"> Straight, Serrated, 1 1/2" (4cm)- 2 each Straight, Serrated, 1 7/8" (5cm) - 2 each Straight, Serrated, 2 1/4" (5.5cm) - 2 each Curved Serrated, 1 1/2" (4cm) - 2 each Curved Serrated, 1 7/8" (5cm) - 2 each Angled Serrated, 1 7/8" (5cm) - 2 each
	<ul style="list-style-type: none"> Diethrich Bulldog Clamp (12) 	<ul style="list-style-type: none"> Stainless steel make - Straight, Serrated, 1/2" (12mm) tip length, 2" (5cm) - 4 each Stainless steel make -Straight, Serrated, 3/4" (20mm) tip length, 2 3/8" (6cm) - 4 each Stainless steel make - Angled, Serrated, 8mm tip length, 1 7/8" (5cm) - 4 each
	<ul style="list-style-type: none"> Spring Coronary Pott's scissor (6) 	<ul style="list-style-type: none"> Titanium make with tungsten carbide coated - 45 degree forward, 1/2 " blade, 7" & 8 " (one each) Titanium make with tungsten carbide coated - 110 - 130° angle backward. 1/2 " blade 7" & 8 " (one each) Titanium make with tungsten carbide coated - 90 degree, 1/2 " blade, 7" & 8 " (one each)
	<ul style="list-style-type: none"> Parsonnet Epicardal Retractor (2) 	<ul style="list-style-type: none"> 3 X 3-pronged, 1 7/8" (4.5cm)
	<ul style="list-style-type: none"> Cushing VSD Retractors (set of 5 with specified blade width) 	<ul style="list-style-type: none"> Stainless steel 3,6,8,10,12 mm blade width (one each) 8-8.5" length
	<ul style="list-style-type: none"> Favaloro LIMA retractor (2) 	<ul style="list-style-type: none"> one can be used as a sternal / IMA retractor. Includes four sternal blades with individual and independent dual movement. Sliding sternal blade assemblies allow movement on horizontal planes of side arms to provide proper position adjustment according to length of sternum. Both side arms can be rotated and a locked at 30° or 60° along its axis, for flexibility in positioning the retractor for IMA exposure.
	<ul style="list-style-type: none"> Favaloro-Morse Double blade sternal retractor (4) 	<ul style="list-style-type: none"> Short: Spread 8" (20cm), Side Blade 1 1/8" (2.8cm) wide x 1 1/2" (3.8cm) deep, Arm length 6" (15.2cm)- 2 each Long: Spread 8" (20cm), Side Blade 1 1/8" (2.8cm) wide x 1 1/2" (3.8cm) deep, Arm length 8 1/16" (20.5cm)- 2 each

<ul style="list-style-type: none"> • Morse Sternal Retractor, Child (2) 	<ul style="list-style-type: none"> • Spread 6" (15cm), Side Blade 3/4" (2cm) wide x 5/8" (1.6cm) deep, Arm length 4 3/4" (12cm)
<ul style="list-style-type: none"> • Finochietto single blade chest retractor, Newborn (2) 	<ul style="list-style-type: none"> • Spread 1 7/8" (4.9cm), Side Blade 5/8" (1.5cm) wide x 1/2" (1.2cm) deep, Arm length 2 1/16" (5.2cm), Straight arms
<ul style="list-style-type: none"> • Amato double blade neonatal sternal retractor, small (1) 	<ul style="list-style-type: none"> • Specially designed infant sternal retractors • reduce post-operative sternal deformity , • dispenses pressure over greater surface area. • Selection of 3 sizes available for proper fit. • 4 blade, small • Swivel blades 3/8" wide x 3/8" deep (1 x 1 cm)
<ul style="list-style-type: none"> • Finochietto Rib Spreader (6) 	<ul style="list-style-type: none"> • Paediatric: spread 5 – 7 " Blade, 1.5 – 2.0" deep, 1.5 – 2.0" wide arm length is 5 - 6 "curved arms. (2 each) • Adult size medium spread 8- 9" Blade, 1.5 – 2.0 " deep, 2.5 - 3.0 " wide arm length is 7 - 8 "curved arms. (2 each) • Adult size wide spread 10 - 12 " Blade, 2.5 – 3.0 " deep, 2.5 – 3.0 " wide arm length is 8 - 10 " curved arms. (2 each)
<ul style="list-style-type: none"> • Ross Aortic valve retractor (2) 	<ul style="list-style-type: none"> • Overall length 10in (25.4cm). • 3.5cm x 2.1cm width.
<ul style="list-style-type: none"> • Mosquito Forceps (20) 	<ul style="list-style-type: none"> • Mosquito forceps curved 4.5 -5.5 " (10 each) • Mosquito forceps straight 4.5 – 5.5" (10 each)
<ul style="list-style-type: none"> • Robert Forceps 	<ul style="list-style-type: none"> • Stainless steel make • curved 23 cm
<ul style="list-style-type: none"> • Microvascular needle holder (2) 	<ul style="list-style-type: none"> • Micro Vascular Needle Holders for 3.0, 4.0, 5.0 fine tip 6.5 & 8" (one each)
<ul style="list-style-type: none"> • Rider Needle holders (2) 	<ul style="list-style-type: none"> • Rider Needle Holders for 5.0, 6.0, 7.0 fine tip 6.5 & 8" (one each)
<ul style="list-style-type: none"> • Nelson Metzenbaum Scissors (4) 	<ul style="list-style-type: none"> • 10 - 11" with tungsten carbide (curved)-2 each • 11.5 - 12 " with tungsten carbide(curved)-2 each
<ul style="list-style-type: none"> • Mayo Scissors (2) 	<ul style="list-style-type: none"> • curved 6.5 – 7.5 " with tungsten carbide
<ul style="list-style-type: none"> • Wire Twisting Forceps 	<ul style="list-style-type: none"> • Short jaw, short handle 5" overall length
<ul style="list-style-type: none"> • Morris Cross Clamp (2) 	<ul style="list-style-type: none"> • 8 1/8"(20.6 cm) long, jaw length 2½ " from angle. (one each) • 8 7/8" (22.5 cm) long, jaws length 3 3/4" (9.5 cm) from angle (one each)
<ul style="list-style-type: none"> • Lemole Strong Partial 	<ul style="list-style-type: none"> • Straight shanks 8" length, jaw 1¾ "

	Side biting Clamp (2)	<p>wide 7/8" deep, 1X9 ratchets. (one each)</p> <ul style="list-style-type: none"> • Angled shanks 8" length, jaw 1¾ " wide 7/8" deep, 1X9 ratchets. (one each)
19.	Cardiac Fibrillator (1)	<ul style="list-style-type: none"> • 0 to 15 milli-amperes alternating current. • Control adjustment : By linear rotary potentiometer. Display on analog panel meter. • Electrode System: 2-Lead Isolated type suitable for open heart procedures. Can be autoclaved /sterilised.
20	Blood Gas Analyzer (1)	<ul style="list-style-type: none"> • The analyzer should be able to measure Blood gas (pH, pO₂, pCO₂) and electrolytes(Na⁺, K⁺, Ca⁺⁺, Cl⁻)and lactate. • The analyzer should be capable to perform only pH with Electrolytes, separate consumable should be available to perform without using Blood gas for using the same analyzer as backup for Electrolytes. • Sampling: By automated probe aspiration. • The instrument should be operated with multiple disposable test cartridge / cassettes. • The cartridge / cassettes should have variable pack sizes from minimum of 25tests to 300tests. Option to use up to 1200 Tests/month • Consumables should have minimum 60 days onboard life for smaller packs consumables25 tests to 300 tests. • The Cartridge / Cassette should have In-built Aspiration Probe and Peristaltic Pump • Analyzer should have minimum onboard test capacity of 25 test,50test,100test,200test,300test and to maximum600 tests • The system should be small and portable and easy to carry • Should be operational on power and on inbuilt battery • Analyzer should have automated entry and logging of consumables • Analyzer should have a start-up time should be 8~ 10minutes • Analyzer should have large touch screen facility and optional for key board operation • Analyzer should not use any Gas bottle/tanks / cylinders for calibration

		<ul style="list-style-type: none"> • Analyzer should not use Maintainable electrodes / Micro Maintenance-Free FlowthroughElectrodes /conventional individual sensors /Foil pack reagents for Calibrationand Measurement of parameters. • Analyzer should have onboard printer. • Analyzer should have data back-up facility option with USB ports • Analyzer should be able to measure all parameters with 60 ~75microL • Sample measurement time: max 60 seconds and sample to sample cycle time max120seconds • Analyzer should have integrated barcode reader and printer to support sample identification and result output. • The analyzer should perform samples like: whole blood and other fluids. • Analyzer should have on screen display of Levy-Jennings plot. • Analyzer should detect air-in sample • Analyzer should have USFDA certified • Fully automatic, upgradeable, fast electrolyte. • Built in auto Quality control facility. • Suitable UPS with 30 min backup. • Stand by blood gas cum electrolyte analyzer in case of breakdown.
21	Autoclave Rapid Sterilizer (1)	<ul style="list-style-type: none"> • Removable stainless steel cassette, when inserted into the insulated steel receptacle, forms the sterilization chamber. • Should be utilizing a pressure pulse method of dynamic air removal and also designed with a much smaller sterilization chamber that allows for a faster turnaround time for smaller loads. • Should have ultrafast 9 minute unwrapped cycle and 17.5 minute wrapped cycle. • Should be single use water, exceptional instrument turnover, aseptic transfer of instruments directly to the point of use and reduced instrument investment. • Should have 15 minute Dri-Tec drying technology.

Annexure-II

TECHNICAL BID

Name of Firm/Contractor/Supplier	
Complete Address & Telephone No.	
Name of Proprietor/Partner/Managing Director/Director.	
Phone No:- Mobile No:- Email Id:-	
Name and address of service centre nearby JN Medical College Aligarh,	
Whether the firm is a registered firm Yes/No (attached copy of certificate).	
PAN No. (enclose the attested copy of PAN Card).	
Service Tax No. (enclose the attested copy of Service Tax Certificate).	
VAT No. (enclose the attested copy of VAT Certificate).	
Whether the firm has enclosed the Bank Draft/Pay Order/Banker's cheque of Earnest Money Deposit.	
Whether the Firm/Agency has signed each and every page of Tender/NIT.	
Please provide full list of consumables.	
Any other information, if necessary.	

Authorized signatory of the bidder with seal.

Annexure-III

MANUFACTURER'S / PRINCIPAL'S AUTHORIZATION FORM

To

Medical superintendent
JN Medical College Hospital
A.M.U. Aligarh

Sir,

TENDER: _____.

we, _____, who are established and reputable manufacturers of _____, having factories at _____ and _____, hereby authorize Messrs. _____ (name and address of agents) to bid, negotiate and conclude the contract with you against Tender

No. _____ for the above goods manufactured by us. No company or firm or individual other than Messrs. _____ are authorized to bid, negotiate and conclude the contract in regard to this business against this specific tender.

We hereby extend our full guarantee and warranty as per the conditions of tender for the goods offered for supply against this tender by the above firm.

The authorization is valid up to _____

Yours faithfully,

(Name)

For and on behalf of Messrs. _____
(Name of manufacturers)/Principal.

Annexure-IV
Financial Bid

A) FINANCIAL BID FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA OR GOODS TO BE IMPORTED AND SUPPLIED AGAINST PAYMENT IN INDIAN RUPEES

1	2	3	4	5						6	
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Rs.)							Total Price (at JN Medical College Aligarh) basis (Rs.) = {4 x 5(g)}
				Ex - factory/ Ex-warehouse /Ex-showroom /Off-the shelf (a)	Excise Duty(if any) [%age & value] (b)	Sales Tax/ VAT(if any) [%age & value] (c)	Packing and Forwarding charges (d)	Inland Transportation, Insurance, loading/unloading and Incidental costs - JN Medical College Aligarh, (e)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at JN Medical College Aligarh, (f)	Unit Price (at JN Medical College Aligarh, basis (g)= (a+b+c+d+e+f)	

Total Tender price in Rupees: _____

In words: _____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted separately.
3. The Bidder must quote price for "GOODS TO BE IMPORTED AND SUPPLIED AGAINST PAYMENT IN INDIAN RUPEES" after having taken in to account, the provision of Custom Duty Exemption Certificate (CDEC) by the Purchaser, as per Customs Tariff Act.

Place:

Date:

Name:

Business Address:

Signature of Bidder:

Seal of the Bidder:

Financial Bid

B) FINANCIAL BID FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5				6
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Rs.)				Total price on Destination + Insurance (local transportation and storage) = {4X 5 (d)}
				FOB price at port/ airport of Lading (a)	Carriage & Insurance (port of loading to port of entry) and other Incidental costs** (b)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at JN Medical College Aligarh** (c)	Unit Price on DDP JN Medical College Aligarh, + Extended Insurance (local transportation and storage) (d) = a+b+c	

** To be paid in Indian Currency (Rs.)

Total Tender price in foreign currency: _____

In words: _____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted.
3. The Bidder will be fully responsible for the safe arrival of the goods JN Medical College Aligarh, in good condition as per terms of DDP as per INCOTERMS, if applicable.

Indian Agent:

Indian Agency Commission - ____% of FOB

Place:

Date:

Name:

Business Address:

Signature of Bidder:

Seal of the Bidder:

Financial Bid

C) FINANCIAL BID FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD:

1. S.No.	2. DESCRIPTION OF GOODS	3. QUANTITY. (Nos.)	4. Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.					5. Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c+4d+4e)]
			1 st	2 nd	3 rd	4 th	5 th	
			a	b	c	d	e	

* After completion of Warranty period.

Service Tax: Whether extra or inclusive, if extra, indicates the rate _____.

NOTE:-

1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.
2. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted as per NIT conditions on yearly basis for complete equipment and Turnkey (if any).
3. The cost of CMC may be quoted along with taxes applicable. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
4. Cost of CMC will be added for Ranking/Evaluation purpose.
5. All software updates should be provided free of cost during CMC period.
6. The stipulations in Technical Specification will supersede above provisions
7. The supplier shall keep sufficient stock of spares required during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

Date:

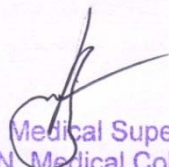
Place:

Name:

Business Address:

Signature of Bidder:

Seal of the Bidder:


 Medical Superintendent
 J.N. Medical College Hospital
 A.M.U., Aligarh
