

BIDDING DOCUMENT

TENDER NOTICE No.: 05 / 2017 - 2018 / Biomedical Equipment/ IGIMS / Store



Supply, Installation & Commissioning of Bio-Medical Equipments / Instruments.

05/ 2017 - 2018 / Biomedical Equipment / IGIMS / Store

Issued to:

Cost of Document: Rs. 2000 /- (Rs. Two Thousand Only)

Paid By: Cash: Receipt No.:

Demand Draft: No.:

Issuing Bank:

**(Authorized
Signatory)**

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,

SHEIKHPURA, PATNA - 800014.

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IMPORTANT DATES

Last date for Purchase of Bidding Document	Can be downloaded from Institute website
Last date for submission of bidding document.	28 /6/2017 up to 5.00 P.M. by registered/speed post/ Courier only
Date of opening of technical bid	29 /6/2017 at 3:30 P.M. in conference hall IGIMS, Patna.
Date of demonstration of equipment	To be informed to the qualified bidders qualifying after opening of technical bids.

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,
SHEIKHPURA, PATNA -800014 (Bihar, India)

Sl. No. OF TENDER: _____

FILE NO. : Tender No.: _____

Tender form issued in favour of:

Dear Sir,

1. I/We hereby submit our tender for the

2. I/WE are enclosing herewith the Demand Draft No..... dated..... for
Rs. /- drawn in favour of **Director I.G.I.M.S. - Patna (payable at Patna)** towards **EMD / Bid Security.**

(EMD AND COST OF BIDDING DOCUMENTS MUST BE SUBMITTED IN SEPRATE ENVELOP.TENDERS NOT ACCOMPANIED WITH EMD / BIDSECURITY ALONGWITH THE TECHNO-COMMERCIAL BID SHALL BE SUMMARILY REJECTED).

3. I/We have gone through all terms and conditions of the tender documents before submitting the same.
4. I/We hereby agree to all the terms and conditions, stipulated by the I.G.I.M.S. - Patna including delivery, warranty, penalty etc. Quotations for each group are being submitted under separate covers, and sheets and shall be considered on their face value.
5. I/We have noted that overwritten entries shall be deleted unless duly cut & rewritten and Initialled.
6. Tenders are duly signed and stamped.(No thumb impression should be affixed)
7. I/We undertake to sign the contract/agreement, if required, within 15 (Fifteen days) from the date of issue of the letter of acceptance, failing which our/my EMD/Bid deposited may be forfeited and our/my name may be removed from the list of suppliers

Yours faithfully,

(Signature of Bidder with full name and address)

CHECK LIST FOR TERMS AND CONDITIONS

A.: **To be filled by the bidder and submitted along with the Technical Bid.**

Sl. No.	Terms & Conditions as per Bidding Document	Page No.	Remarks
1.	Status of Bidder: <ul style="list-style-type: none"> • Manufacturer or Authorized Agent of the Manufacturer • Whether Public Undertaking, Public Ltd., Private Ltd. Company or Proprietary Firm/partnership firm • (Please attach Notary certified MANUFACTURER'S AUTHORISATION FORM as per FORMAT placed at Annexure – III) 		
2.	Power of Attorney as per Annexure - V in favour of person to sign, submit and negotiate the bid.		
3.	Certificate towards market standing of minimum 05 years in the area of supply and or maintenance of bio-medical equipments.		
4.	Certificate for sole ownership / partnership		
5.	Statement of financial standing from bankers		
6.	Statements of turnover per year for last three successive years duly certified by the Chartered Accountants.		
7.	Notary certified User List (List of Govt. /Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.		
8.	Notary certified Supply order copy (Minimum 3nos. or more) issued by Govt./Semi Govt./Reputed Pvt. Institutions/organization for the quoted items. (same model)		
9.	Notary certified Performance certificate of the same supplied machine (of quoted make and Model) issued by Head of the deptt. or Institution after a minimum period of six months of installation		
10.	Prerequisite (if any) for installation of the Machine, if any, to be provided by the Institute.		
11.	Whether rates quoted are inclusive of all taxes or not.		
12.	Whether rates are quoted as per format mentioned in the Bidding Document or not.		
13.	Affidavit to the effect that the bidder is not blacklisted by any Govt. agency or have no pending case either Civil or Criminal against		

	them.		
14.	Affidavit, to the effect that the bidder is not supplying the quoted item(s) to any other Govt. / Pvt. Organizations / Institutions / Hospitals at the rate lower than the rate quoted against this tender.		
15.	Insurance Certificate like ISI, ISO-9002, IP/BP, CE, FDA (US) or any other (please specify)		
16.	Bid Security amount deposited is enclosed or not. If yes, please mention the details.		
17.	Original Technical Catalogue of the quoted model		
18.	<p>Certificate, to the effect that bidder will maintain the quoted item(s) during Warranty period of three years including all spares, accessories, consumables etc.,</p> <p>(Please mention the name of the item / items with price, which are not supplied by the bidder free of cost with frequency of replacement)</p>		
19.	<p>Certificate, to the effect that bidder has quoted its rate for Comprehensive Annual Maintenance Contract inclusive of labour, spares, consumables, accessories etc. on per year basis for a further period of seven years after expiry of warranty period of three years in the price bid.</p> <p>(Please mention the name of the item / items with price, which are not supplied by the bidder free of cost with frequency of replacement during Comprehensive Annual Maintenance Contract period in the price bid)</p>		
20.	Acceptance of all terms / conditions towards after sales / services as mentioned in the bidding document.(Clause No- 13 of “ Instruction to Bidder “ & clause no- 3, 4 and 5 of Condition of contract.)		
21.	Compliance Statement with relation to the technical specification as mentioned in the bidding document duly supported by the original catalogue. The bidder must quote specification in the compliance column Mere writing” Complied shall not be accepted.		
22.	Compliance Statement with relation to the terms & conditions as mentioned in the document.		

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23. **PAN and copies of Income Tax Returns** for the last three years.

24. Duly attested copy of sales tax/Vat registration certificate.

B: To be filled by the Bidder and submitted along with Price Bid

Sl. No.	Terms & Conditions as per Bidding Document	Page No.	Remarks
1.	Item wise price for the item(s) as mentioned in the Bidding Document and as per format attached as Annexure – I(a) or I (b)		
2.	Rate for Comprehensive Annual Maintenance		

Contract as per terms & conditions mentioned in the Bidding Document and as per format attached as **Annexure - II**

Note: If the above-tender details are not mentioned and required documents are not attached at appropriate places, the offer of the bidder(s) shall be summarily rejected. Hence, bidder(s) are advised to go through the bidding document carefully and tender be prepared with all the required documents to avoid rejection of offer.

(Name of the Bidder with signature & seal)

ELIGIBILITY CRITERIA

01	Manufacturers or their authorized dealers/Indian subsidiaries/direct importers having a place of business in any of the States of India are eligible to participate in this tender.	Mentioned Page no.
2	The bidder and manufacturer of the equipment offered should be in the business of the supply and installation of same / similar equipment for the last five calendar years.	
03	<p>(a) The manufacturer should have completed at least 05(Five) nos. installations of the quoted items in Govt. /Pvt. Institutions /Hospitals in India. The installations mentioned by the manufacturer in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.</p> <p>(b) The bids quoted as the authorized representative of the manufacturer meeting the above criteria 02 (a) should have also supplied and installed at least 03(Three) nos. installations of the quoted items in Govt. /Pvt. Institutions/ Hospitals in India in last five years from the last date of submission of tender. The installations mentioned by the authorized representative in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.</p>	
4	The Bidder should be public undertaking /Autonomous Body /Public Ltd./Pvt. Ltd. Company or proprietary firm /Partnership Firm and should be in medical equipment business since last five years in India. The Bidders having manufacturing facility in their name in India for the majority of the items offered by them shall be given preference.	
5	The Bidder (manufacturer or their authorized agent) should have had average annual financial turnover of Rs. 50 Lakh during the last three years ending s 31 st March 2015.	
6	Bidders who have the capability to attend repairs of these equipment within the time mentioned in this bidding document and who are willing to provide stand by equipment or replace the faulty equipment if the repair/down time extends beyond 72 hours from the time of reporting of the fault within the next 48 hours (total down time should not exceed 5 days in one instance). The bidders who have the capability to ensure the uptime mentioned in this document (Documentary proof shall be submitted on the after sales facilities and expertise of the bidder.)	
07	Bidders are not offering the equipment of a firm /company that has been blacklisted by Indira Gandhi Institute of Medical Sciences – Patna or blacklisted/debarred by any other State / Central Government's organization.	

Note:

- Notwithstanding anything stated above, the Institute reserves the right to assess the Bidder's capability and capacity to perform the contract satisfactorily before deciding on award of contract, should circumstances warrant such an assessment in the overall interest of the purchaser.
- The Institute reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser of technical acceptability as per the tender specification, before the opening of the price tender.

INSTRUCTION TO BIDDER

GENERAL INSTRUCTIONS TO BIDDERS

1. Tendering System

The tenders/Bids are to be submitted in two Parts i.e. **Part - I & Part II.**

PART - I titled as TECHNICAL BID shall contain the complete technical specifications and details on the competency of the bidder and also the commercial bid package with terms and conditions of supply, warranty, after sales service etc. (Except Price Bid Form). Apart from the documents and signed copy of the purchased tender document, the necessary enclosures should be submitted in this technical bid. In short, the technical bid should contain all the necessary documents to prove the technical competency and capability of the bidders for supplying and installing a trouble free equipment meeting the quality standards and technical specification and the ability of the bidders for providing efficient after sales service to the satisfaction of the Tender Inviting Authority and the user institution.

PART - II titled as PRICE BID shall contain only the 'Price Bid Form' duly filled in the prescribed Performa (Annexure - I) and Comprehensive Annual Maintenance Contract offer in prescribed format (Annexure - II). Price Bid not submitted in the prescribed performa will not be considered for evaluation and summarily rejected.

2. The tender offers, duly filled, shall be submitted in two separate sealed covers separately for **technical and price bids** respectively. Such covers shall be super scribed as **"Tender No..... (here mention the tender no as specified) TECHNICAL BID for supply of (here mention the name of the equipment)"** or **"Tender No..... (here mention the tender no as specified) PRICE BID for supply of (here mention the name of the equipment)"** as the case may be. Both the sealed covers shall be enclosed in another sealed (third) bigger cover which should also be super scribed as **"Tender No..... (here mention the tender no as specified) TENDER for supply of (here mention the name of the equipment)""**
3. Quantity of items may increase or decrease. Director, I.G.I.M.S. - Patna reserves the rights to purchase different sub items/ components of items from different bidders.

This rate Contract will be valid for one FY and repeat Supply Order will be placed as per requirement of the deptt. of all the quoted and approved items.
4. The "Bidding Document" along with terms and conditions, technical specification can be obtained from the office of the Store Officer, IGIMS, Patna on payment of Rs. 2000/- (Rs. Two thousand only) Non –refundable for each Group either by cash or demand draft favouring Director , IGIMS, Patna payable at Patna.
5. The " Bidding Document" can also be downloaded from institute website www.igims. Org.. In case, downloaded bidding document is used ,Bidder(s) have to submit the cost of the Tender Document i.e Rs. 2000/-along with the completed documents in the form of demand draft in favour of Director , IGIMS, Patna, payable at patna towards cost of the " Tender documents" Bidder is required to attach seprate D D for the same in a seprate envelop super scribed with " cost of bidding document" if the cost of tender document is not submitted by the bidder, his offer shall be outright rejected .
6. Last date for purchase/uploading of bidding document is

7. Last date for submission of bidding document is 28/ 06 /2015 up to 5.00 P.M. by registered post / speed post/ Courier only. Bidder(s) are requested to send the bid well in advance so as to ensure that bid reaches in time. Institute will not be responsible for any postal delay. Bids received after due date and time shall be summarily rejected.

8. **Earnest Money Deposit (EMD):**

- a. **Earnest Money @ 2%** of the cost of equipment is required to be submitted along with tender by Demand Draft from any scheduled Indian Bank (valid up to one year from the date of technical bid opening.) only along with the tender favoring Director, I.G.I.M.S. – Patna (payable at Patna). No interest is payable on EMD/ Bid security.
- b. Bidder may quote more than one/several models. In such a situation EMD will be payable on the basis of highest priced model.
- c. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of final bid validity and latest on or before the 30th day after the award of the contract without any interest.
- d. EMD must be submitted in separate sealed envelope and endorsement of the same with DD number & date Bank Guarantee No. and its validity period be made with technical bids without amount stating that the same has been complied with price bid. If same is later found not enclosed tender will be cancelled for the party.
- e. Non- submission of sufficient EMD along with the Technical Bid shall be one of the primary reasons for rejection of the offer in the first round.
- f. Cheque, Cash payment, Money Order, Fixed deposit etc will not be accepted as EMD.
- g. Public Sector Units within the State or State micro, small and medium enterprises registered with Govt. are exempted from remittance of EMD subject to submission of valid documents.
- h. The EMD shall be in one of the following forms:
 - i. A demand draft in favour of Director, I.G.I.M.S. – Patna (payable at Patna);

OR
 - ii A Bank Guarantee issued by a nationalized/ scheduled bank located in India, in the form prescribed in the tender document as Annexure- IV (valid up to one year from the date of technical bids opening) Bank Guarantee in any other format will not be acceptable and render the bid non-responsive.
 - iii. The successful Bidder's EMD will be discharged upon the Bidders signing the contract and furnishing the performance security. The EMD deposited in the form of DD of the successful Bidder can be adjusted towards the security deposit payable.

9. Bidder(s) should mention the DGS & D registration, if registered, and attach photocopy of DGS & D registration certificate Photocopy of Income tax & sales tax clearance certificate should be enclosed.

10. For Imported Goods, Indian Agency Commission must be declared in financial bid.

11. The Bidder's shall have to submit the following documents (Certified by Notary) in

technical bid: -

- a. User List (List of Govt. / Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.
- b. Supply order Minimumm 03 nos. or more issued by Govt./Semi Govt./Reputed Pvt. Institutions/organization for the quoted items.(same model)
- c. Performance certificate of the same supplied machine (of quoted make and Model) issued by **Head of the deptt. or Institution** after a minimum period of six months of installation.
- d. Prerequisite (if any) for installation of the Machine if any to be provided by the Institute.
- e. If the manufacturing company and/or its Indian agent (for Foreign manufactured) have authorized some agency for participation in this tender for a limited period than in that case they (Manufacturer / Indian agent) shall have to submit an undertaking duly notarized by Public notary that if their tender is selected they shall be solely responsible for compliance of all the terms and conditions mentioned in the bilateral agreement for purchase and subsequent supply order even if their authorized agent is changed. Any tender offer without such certificate duly certified by public notary shall be rejected in technical scrutiny itself.
- f. Bidder must submit a compliance checklist along with the technical bid itself.
- g. (Any tender offer without submission of above mentioned document (i.e. a to e) shall be rejected during technical scrutiny.)
- h. If any new System/ Latest model machine is a launched in the market and seller has not installed such quoted models they should submit an undertaking that he has not installed such models previously (Notarized by Public Notary). . They may submit supply order / performance certificate of previous model, which was recently installed by them.

12. Installation & site plan:-

Requirement regarding site/location etc for installation of equipment, if any, should be mentioned in the tender. Time required for installation of system after delivery must be mentioned. In case of delay in installation institute will have right to charge liquidated damage. Specify the following points for installation of the System: -

- a. Total power consumption along with break up of main System and Accessories.
- b. Whether the System needs uninterrupted power supply where ever applicable.
- c. Maximum tolerated transfer time in case of interruption of power supply.
- d. Whether the System needs any humidity control device.
- e. Whether the System needs any separate power line/isolation Transformer.
- f. Does the System need the electrical shielding?
- g. Does it require special civil works for installation?
- h. Whether Air conditioner is an essential requirement for the system.
- i. Does it require any special civil works for Installation?

13. After Sales Service Conditions:

- a. The Institute is in the pursuit of ensuring excellent after sales service for every user in respect of the equipments supplied under this contract. The after sales services terms and conditions will be strictly enforced and those Bidders who are willing to support the Institute

in its endeavor to provide trouble free operation/performance of the equipments for the prescribed period need only participate in the tender.

- b. The after sales service shall be performed during the warranty period and also during the Comprehensive Maintenance Period (CMC)/ Annual Maintenance Contract, if awarded. The detailed terms and conditions for after sales service are mentioned hereunder.

c. Guarantee/Warranty Terms:

- i. The successful Bidder has to warrant that the Goods supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.
- ii. The successful Bidder further have to warrant that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Tender Inviting Authority's specifications) or from any act or omission of the successful Bidder, that may develop under normal use of the supplied goods.

All the equipments including the accessories supplied as per the technical specification as mentioned in the bidding document should carry comprehensive warranty (including all spares, accessories and consumables) for a period mentioned in this document in the first instance. During this period, the successful Bidder shall replace all defective parts / accessories / consumables and attend to all repairs/break downs and undertake stipulated number of preventive maintenance visits to every user installation site. The cost of spare parts for all replacements has to be borne by the successful Bidder during the period of comprehensive warranty. The items which are not covered under warranty should be clearly mentioned along with rate of the items . If any spares / accessories / consumables etc. are not replaced by the bidder during warranty period, bidder should mention it clearly with name of the items with frequency of replacement and its rate .

- iii. On expiration of the comprehensive warranty period, the successful Bidder shall be willing to provide after sales support for an additional period prescribed in this document.
- iv. The prospective Bidder, who are not manufacturers, shall submit an undertaking from the Original Equipment Manufacturers (OEM) that they are willing to provide spare parts for the period of warranty as mentioned and also during the additional CMC/AMC period, if awarded. The OEM shall also assure continuity of service to their product, in the event of change in dealership or the Bidders – their existing dealers - couldn't provide service during the warranty / CAMC period. The undertaking from OEM is an essential document forming part of the Technical Bid, without which the tenders will be rejected summarily in the first round itself.
- v. After sales service centre in Patna (Bihar) preferably or at least in East India should be available as part of the pre-qualification and the Bidder shall provide proof of their capability to undertake such maintenance/repair within the stipulated time.
- vi. The successful Bidder shall provide preventive maintenance as per the frequency mentioned in this document during the warranty period. The Bidder shall attend any number of break down/repair calls as and when informed by the institute authority.
- vii. Upon receipt of such notice for repair/breakdown from the institute, the successful Bidder shall, within the period as specified in this document, and with all reasonable speed, repair or replace the defective goods or parts thereof, without cost to the Tender Inviting Authority.
- viii. If the successful Bidder, having been notified, fails to rectify the defect(s) within the period specified mentioned in this document, the Tender Inviting Authority may proceed to take such remedial action as may be deemed necessary, at the successful Bidder's risk and cost and

without prejudice to any other rights which the Tender Inviting Authority may have against the successful Bidder under the contract.

- ix. Failure to attend the repairs in time or failure to attend the stipulated preventive maintenance visit or failure to replace the defective equipments or to provide stand by equipment if the fault/down time exceeds the stipulated period or to ensure the stipulated up-time in an year shall lead to forfeiture of the performance security and/or may lead to blacklisting/debarring of the defaulting Bidder.
 - x. The equipment which requires quality assurance test shall be done at free of cost immediately after installation, during the comprehensive warranty period, during the CMC/AMC period, by the demand of User and also when major spares are replaced.
 - xi. Any mandatory approval required for installation shall be obtained by the successful Bidder in liaison with the respective authorities.
 - xii. The Bidder shall submit the parameters which require calibration and the frequency of calibration required.
 - xiii. The Bidder shall undertake on-site calibration of the equipment every year as part of the after sales service during the period of comprehensive warranty, CMC/AMC or on demand from the user.
 - xv. The Bidders shall also have to submit whether periodic replacements of consumable items are required for proper functioning of their quoted machine/Equipment? If yes they should submit the list of such consumables along with price list and frequency of replacement per year, if the same is not replaced free of cost during warranty / guarantee period.
 - xvi. An undertaking of the principal regarding continuity of after sales and services (CAMC) the agreement rate even in case of changes of Indian agent during the life span of the equipment, must be enclosed in the technical bid. Further, it will be the responsibility of the manufacturer Indian agent to get counter signature on the agreement to be executed with them by the principal.
- Xvii;- The offered warranty includes:
- Visits to the user institutions at frequencies prescribed as part of preventive maintenance.
 - Testing & calibration as per technical/service/operation manual of the manufacturer or as per the period specified or as per the demand of the user.
 - Quality Assurance tests (if applicable).
 - The cost of labour for all repairs/ and all spares required for replacement during repairs all kinds of accessories, spares etc wherever applicable and also the accessories and other devices supplied along with the equipments , which forms part of the equipment system, without which it cannot perform satisfactorily.
 - The exclusion of warranty of any vital equipment parts will be compared with offers of other Bidders during evaluation of the bids and this may be taken into consideration in deciding the successful Bidder on the basis of expert advice.
 - The Bidder shall provide up-time warranty of complete equipment as mentioned in this document, the uptime being calculated on 24 (hrs) X 7 (days) basis failing Warranty period will be extended for every additional day of down time equal to one week.
 - All software updates, if any required, should be provided free of cost during Warranty period.

d. Comprehensive Annual Maintenance Contract:

- The decision to enter into CMC or AMC will be determined on the basis of cost and complexity of the equipment by the Tender Inviting Authority, at its discretion, prior to the expiration of warranty period.
- The Comprehensive Maintenance Contract (CMC) is otherwise an extended warranty. All the terms and conditions agreed by the successful Bidder for executing the comprehensive warranty of the equipment shall be extended during the period of CMC, only difference being the payment of CMC charges is absent during the period of comprehensive warranty.
- The cost of CMC, accessories and spares, reagents and consumables as in case may be quoted along with taxes applicable, if any. The taxes to be paid extra, to be specifically indicated. 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.
- Failure/refusal on the part of the successful tender supplying/installing the equipments to enter into CMC with the Tender Inviting Authority, at the end of the Comprehensive Warranty Period, if the Institute, as the case may be, desires so, shall lead to forfeiture of performance security and may also result in the blacklisting/debarring of the Bidder.
- The successful Bidder shall also indicate the rates for the CMC in price bid form and such rates are binding on the successful tenders after the expiration of the warranty period. The yearly rates for CMC shall remain the one and the same as quoted in the price bid form for the extended years.
- Cost of CMC (excluding taxes, if any) will be considered for Ranking/Evaluation purpose.
- The payment of the agreed CMC charges will be made as per frequency for payment after satisfactory completion of said period, on receipt of service report/ break down report from the user.
- The Bidder shall also have to submit whether periodic replacement of consumable items are required for proper functioning of their quoted machine/Equipment? If yes they should submit the list of such consumables along with price list and frequency of replacement per year if the same is not included in quoted Comprehensive Annual Maintenance Contract charges per year.

14. Time Limits prescribed

Sl. No	Activity	Time Limit
a.	Installation & Delivery period	12 weeks from date of issuance of Supply Order
b.	Comprehensive warranty period	3 years from the date of successful installation.
c.	CMC period	7 years
d.	Frequency of visits to all User Institution concerned during Warranty/CMC	One visit every three months (4 visits in a year) for periodic/preventive maintenance and any time for attending repairs/break down calls.
e.	Frequency of payment of CMC	Every six months after completion of the Period.

	charges	
f.	Submission of Security and entering into contract	Performance 10 days from the date of issuance of Letter of Intent
g.	Maximum time to attend any Repair call	Within 24 hours.
h.	Uptime in a year during warranty as well as during CAMC period.	95% of 365 days.

15. Firm have to provide a minimum **UPTIME GUARANTEE** of 95% (95% of 365 Days) per year during the warranty period as well as during the Comprehensive Annual Maintenance Contract.
16. While calculating the total unit price of the item / system to be procured, expenditure to be incurred in maintenance of the quoted item / system including all spare parts for a total period of seven years after expiry of the warranty period of three years shall also be taken into consideration. Accordingly, it is mandatory for the bidders to submit the rate for Comprehensive Annual Maintenance Contract (with spares) for a minimum period of seven years after the expiry of warranty period of three years.
17. Supplier will submit undertaking for ensuring uninterrupted supply of spares during the total life span of the equipments.
18. Supplier must be submitted the price list of consumables which will be used in the machine and also mentioned the validity period.
19. Indian agency commission and Installation charge if any will be paid in Indian rupees after successful installation and demonstration of the equipments.
20. Principal's Invoice of the quoted items must be submitted with the quotations.
21. Proof of the official Indian agent certificate of the firm must be attached. (Notary Certified Photocopy)
22. In order to fully and optimally utilize the equipment, training to Para Medical Staffs and Doctors should be provided. In continuation to this training, separate maintenance training for the machine and the sub systems should also be given to the "Equipment Maintenance Engineer" and "Equipment Maintenance Technicians". All the financial commitments in this regard shall be met by the bidder(s).
23. Bidder(s) have to submit an affidavit to the effect that they have not supplied the offered item(s) to any Govt., semi Govt. / Pvt. Organization, Institution, Nursing Home etc. at the price lower than the price offered to I.G.I.M.S. – Patna.
23. All the claims regarding meeting the specifications shall be duly supported by appropriate, latest technical catalogues/brochures from the manufacturer. Simply stating that the equipment(s) meets the specifications is not sufficient and any such quotations will be summarily rejected. Computer printed documents or Photostat copy or laser printouts will not be accepted as technical catalogues / brochures.
24. Bidder might be required to demonstrate the system at the discretion of the institute.
25. **Notification of Award/Letter of Intent (LOI)**
 - a. Before expiry of the tender validity period, the Institute will notify the successful Bidder(s) in writing, by registered / speed post or by fax or by email (to be confirmed by registered / speed post immediately afterwards) that its tender for equipment(s), which have been selected by the Institute, has been accepted, also briefly indicating there in the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. This notification is undertaken by issuing a Letter of Intent (LOI) by the Institute.
 - b. The successful bidder, upon receipt of the LOI, shall furnish the required performance security

- and submit an agreement in the prescribed format within ten days, failing which the EMD will forfeited and the award will be cancelled.
- c. The Notification of Award shall constitute the conclusion of the Contract.
26. **Signing of Contract**
The successful bidder shall execute an agreement for ensuring satisfactory supply, installation, commissioning and the after sales service/support during the warranty period and during the Comprehensive Annual Maintenance Contract.
27. The Director reserves the right to accept or reject any or all tenders without assigning reasons.
28. The Director reserves the right to modify, add or delete any terms & conditions of the contract as and when required.
29. **Amendment of tender documents:**
- a. At any time prior to the dead line for submission of Tender, the Institute may, for any reason, modify the tender document by amendment.
- b. The amendment shall be notified and uploaded on the institute website www.igims.org only and such amendments shall be binding on them thereafter.
- c. The Institute shall not be responsible for failure to inform the prospective bidders. Purchasers of tender documents are requested to browse the website of the Institute for information/general notices/amendments to tender document etc on a day to day basis till the tender is concluded.
30. The Dispute, if any, will be subject to Jurisdiction at Patna (Bihar).

sd/-
Director,
I.G.I.M.S. - Patna

CONDITIONS OF THE CONTRACT

CONDITIONS OF THE CONTRACT

1. Duty Free Clearance, Transportation, Forwarding & Handling Charges:

Clearance charges at point of Entry / Air Port and on ward transportation charges with Insurance upto I.G.I.M.S. - Patna will be borne by supplier's Indian Agent. The firm has to submit the Price bid on FOB and CIF /CIP IGIMS Patna basis.

Demurrage. Taxes & Octroi:

No demurrage charges will be paid by the Institute in case of delay on the part of supplier. However, this Institute will provide all necessary documents required for clearance / transportation of the goods and for exemption of the taxes/octroi for which supplier/Indian agent will have to intimate/furnish his requisition of document required, if any, well in advance. Octroi will be payable by supplier / Indian agent, if required.

3. Warranty Period:

- a. The "**Complete System**" shall remain under warranty period of **three years** from the date of satisfactory installation. The Complete System should include the basic unit and all allied supporting components to be supplied by the bidder along with basic unit.
- b. During warranty period of three years, bidder shall provide at least **four maintenance visits per year** at regular interval for usual maintenance and supervision. If bidder fails to provide these maintenance visits at regular interval, a proportionate deduction in the form of penalty on pro-rata basis will be recovered from the bidder from the Bank Guarantee amount. In case the Bank Guarantee is not adequate, Institute shall have right to recover the losses / penalty from other sources as well.
- c. Bidder shall also attend all breakdown calls within 48 hours of the receipt of the information from institute through fax/e-mail/mobile/sms etc.
- d. During warranty period, **bidder** shall maintain and keep **95% uptime** per year of the "**Complete System**" as per calculation given below:-

$$1 \text{ Year} = 365 \text{ days}$$
$$95\% \text{ of } 365 \text{ days} = 347 \text{ Days per annum}$$
- e. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.
- f. During warranty period, **bidder** will make the "**Complete System**" in satisfactory working condition. In case, any spare parts, accessories, etc. needs replacement due to normal wear and tear, **bidder** will supply and install the same for which no additional payment is to be made with a validity to cover warranty period.
- g. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the warranty period will be extended by the period for which the item / accessories could not be operated because of supplier not been able to provide services.
- h. During warranty period, in case of any alleged damage due to accident / human error, a committee under the Chairmanship of Director, I.G.I.M.S. – Patna with one member from the bidder and one member from the Institute will decide the authenticity of the claim. The decision of the committee shall be final and binding on both the parties.

4. After Sales Services: -

- a. After expiry of the warrantee/Guarantee period of the equipment, the Indian agent will have to undertake the Comprehensive Annual Maintenance contract (with spare parts, accessories, consumables etc.) of the Complete System for the further life span of equipment. The life span of the equipment shall not be less than ten years. In

special circumstances the total life span of the Equipment/ items may be reduced by the Institute.

- b. The Complete System should include the basic unit and allied supporting components to be supplied by the bidder along with basic unit.
- c. During Comprehensive Annual Maintenance Contract, bidder shall provide at least **four maintenance visits per year** at regular interval for usual maintenance and supervision. If bidder fails to provide these maintenance visits at regular interval per year, a proportionate deduction in the form of penalty at the rate of 25% of contract amount per year will be deducted.
- d. Bidder shall also attend all breakdown calls within 48 hours of the receipt of the information from institute through fax/e-mail/mobile/sms etc.
- e. During Comprehensive Annual Maintenance Contract, **bidder** shall maintain and keep **95% uptime** per year of the “**Complete System**” as per calculation given below:-
1 Year = 365 days
95% of 365 days = 347 Days per annum
- f. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.
- g. During Comprehensive Annual Maintenance Contract, **bidder** will keep the “**Complete System**” in satisfactory working condition. In case, any spare parts, accessories, consumables etc. needs replacement due to normal wear and tear, **bidder** will supply and install the same for which no additional payment is to be made.
.If any spares / consumables / accessories etc. are not covered under Comprehensive Annual Maintenance Contract charges, it should be clearly mentioned with frequency of replacement and with rate. The validity of rate of such items should also be mentioned clearly. What will be the rate of escalation on the quoted rate after expiry of the validity of rate of such item must be mentioned.
- h. The payment of Comprehensive Annual Maintenance Contract will be made on half yearly basis after submission of satisfactory functioning report of the Complete System by the officials authorized by the Institute.
- i. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the Comprehensive Annual Maintenance Contract will be extended by the period for which the item / accessories could not be operated because of supplier not being able to provide services.
- j. During Comprehensive Annual Maintenance Contract, in case of any alleged damage due to accident / human error, a committee under the Chairmanship of Director, I.G.I.M.S. – Patna with one member from the bidder and one member from the Institute will decide the authenticity of the claim. The decision of the committee shall be final and binding on both the parties.

5. Performance Security /BG

- a. There will be a performance security deposit amounting to 10 % of the total value of the equipment excluding taxes, which shall be submitted by the successful bidder within 10 days from the date of issuance of “Letter of Intent”.
- b. The contract duly signed and returned to the Institute shall be accompanied by a demand Draft or Bank Guarantee in the prescribed format.
- c. Upon receipt of such contract and the performance security, the Institute shall issue the Supply Orders containing the terms and conditions for the execution of the order.
- d. Failure of the successful bidder in providing performance security as mentioned above and / or in returning contract copy duly signed in time shall make the bidder liable for forfeiture of its EMD.

- e. The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:
 - i. It shall be in any one of the forms namely Account Payee Demand Draft or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in this document endorsed in favour of the Institute.
 - ii. Institute will release the Performance Security without any interest to the successful bidder on completion of the successful bidder's all contractual obligations including the warranty obligations & after receipt of certificates confirming that all the contractual obligations have been successfully complied with.

06. Delivery period/Liquidated Damage: -

Three two months after receipt of irrevocable and confirmed Letter of Credit. If the delivery is not affected by due date, the Director, I.G.I.M.S. - Patna shall have the right to charge liquidated damage on supplier/his Indian agent as under: -

- i. 1st extension for a month or a part thereof @ 2% per month of C.I.F. value.
- ii. 2nd extension for an additional month or a part thereof @ 3% per month of C.I.F. value subject to maximum Limit of 20% of the order items. All expenses incurred for extension of L.C. will be borne by supplier/his Indian agent.
- iii. Cancellation.- If delivery is not done even after 2nd extension Institute shall have the right of cancellation of Supply order at its discretion..

7. Payment: -

100% payment through International Irrevocable Letter of Credit in favour of principal abroad, but 80% will be released on shipment of goods & balance 20% after satisfactory installation of equipment on submission of Bank Guarantee of value not less than 20% of the cost of the quoted equipment (with a minimum validity to cover up the warranty / guarantee period) will be submitted by supplier. This Bank Guarantee will be released after expiry of guarantee period.

- a. In case, the equipment is purchased in Indian Currency then the payment will be made as per following scheduled.
- b. 90% payment will be released against delivery and successful installation of the equipment & balance 10% will be released on submission of 10 % Bank Guarantee of the total cost of ordered value. This Bank Guarantee will be released after expiry of guarantee period.
- c. L. C. will be opened only after receipt of the 20% bank Guarantee of the total cost of equipment (with a minimum validity to cover up the warranty / guarantee period), confirmation letter of all our terms and condition, submission of agency certificate in favour of Indian agent who have submitted and quoted the price, name of the Bankers abroad; intimation about country of origin and 10 copies of Performa invoice of the ordered item. Indian Agency commission will be paid in Indian currency only to Indian agent, if any. No extra charges will be paid for installation/demonstration and training to personnel.

8. Validity of Price:-

Minimum up to one year from date of tender submission and it should be extendable.

9. **Part Supply:** No part supply/ wrong supply or short supply will be accepted by the Institute. The Director IGIMS, Patna will be the final authority and will have the right to reject full or any part of supply, which is contradictory to the terms and conditions agreed at the time of placement of order. In case of rejection of any supplied items due to nonconformity in quantity and/or quality, Institute will have right to charge liquidated damages, as it deems fit

10. **Packing & Marking:-**

Goods must be securely and adequately packed and protected in order to prevent damage, otherwise all losses and /or damage resulting from inadequate packing and/or inadequate protection or inadequate marking shall be borne by seller/seller's Principal abroad.

11. Supplier may have to provide required manpower for running the equipments at mutually agreed remuneration (Which shall not be more than remuneration payable for the particular category of staff at IGIMS) at the sole discretion of the Institute, till institute is able to arrange its own staff for the purpose.

12. **Insurance: -**

Insurance up to Patna will be borne/arranged by principal supplier/his Indian Agent.

13. **Installation & site plan:**

Requirement regarding site/location for installation of equipment, if any, should be mentioned in the tender. Time required for installation of system after delivery must be mentioned. In case of delay in installation institute will have right to charge liquidated damage.

Specify the following points for installation of the System: -

- a. Total power consumption along with break up of main System and Accessories.
- b. Whether the System needs uninterrupted power supply.
- c. Maximum tolerated transfer time in case of interruption of power supply.
- d. Whether the System needs any humidity control device.
- e. Whether the System needs any separate power line/isolation Transformer.
- f. Does the System need the electrical shielding?
- g. Whether Air Conditioner is required for the System.
- h. Does it require special civil works for installation?

14. The bidder should also quote for supply of "Un-Interrupted Power Supply" (UPS) with a battery back up of at least 30 minutes, "Constant Voltage Transformer (CVT)" of reputed manufacturer of required capacity along with Spike Suppressor or "Servo Voltage Stabilizer" as per requirement of the System. Bidder may quote the prices for all the above items separately (UPS/CVT/SERVO VOLTAGE STABILIZER) and the decision will be taken during technical evaluation of the item whether UPS is suitable or CVT / Servo Voltage Stabilizer will serve the purpose.

15. **Responsibility:-**

The principal as well as its agent will be severally and jointly responsible for ensuring the minimum life span of 10 years for the equipment. Both the said principal abroad and his Indian agent will have the full responsibility for the proper functioning of the equipment/instruments within the warrantee period and thereafter during the life span of

the equipment

16. The bidder is required to provide list of persons (along with their permanent and correspondence address) owing more than 1% share ownership in the company/firm (both principle and Indian Agent).
17. The bidder is required to submit compliance sheet, which should reflect details of clause-by-clause compliance of technical specifications as well as general terms & conditions failing which their offer shall be rejected.
18. In order to fully and optimally utilize the equipment, training to paramedical staff and Doctors should be provided. In continuation to this training a separate maintenance training for the machine and the sub system should also be given to the Equipment Maintenance Engineer and Maintenance Technicians of the Institute. All the financial commitment in this regard shall be met by the firm/Principal.
- 19. Penalties for non-performance**
The penalties to be imposed, at any stage ,under this tender are;
 - a. imposition of liquidated damages,
 - b. forfeiture of EMD/performance security,
 - c. termination of the contract,
 - d. Blacklisting/debarring of the bidder.

20. Termination of Contract

- a. Termination for default:- The Institute, without prejudice to any other contractual rights and remedies available to it (the Institute), may, by written notice of default sent to the successful bidder, terminate the contract in whole or in part, if the successful Bidder fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Institute.
- b. In the event of the Institute terminates the contract in whole or in part, the Institute may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the successful bidder shall be liable to the Institute for the extra expenditure, if any, incurred by the Institute for arranging such procurement.
- c. Unless otherwise instructed by the Institute, the successful bidder shall continue to perform the contract to the extent not terminated.
- d. Termination for insolvency: If the successful bidder becomes bankrupt or otherwise insolvent, the Institute reserves the right to terminate the contract at any time, by serving written notice to the successful bidder without any compensation, whatsoever, to the successful Bidder, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Institute.
- e. Termination for convenience: - The Institute reserves the right to terminate the contract, in whole or in part for its (Institute) convenience, by Page **21** of **81**

serving written notice on the successful bidder at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Institute. The notice shall also indicate interalia, the extent to which the successful bidder's performance under the contract is terminated, and the date with effect from which such termination will become effective.

21. **Fall Clause:**

The prices charged for the equipment supplies under the contract by successful bidder shall in no event exceed the lowest price at which the successful bidder sells the equipments of identical description to any other persons during the period of contract. If any time, during the contract, the bidder reduces the sales price chargeable under the contract, he shall forth with notify such reduction to the Institute and the price payable under the contract of the equipments supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

22. **Applicable Law & Jurisdiction of Courts**

- a. The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.
- b. All disputes arising out of this tender will be subject to the jurisdiction of courts of law in Patna (Bihar, India).

Sd/-
Director,
IGIMS - Patna
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CHAPTER:

SCHEDULE OF THE REQUIREMENT

SI No	Name of the Department	Name of the equipment			
Group	Name of Department	Name of Machine Equipments	Group	Name of Department	Name of Machine Equipments

FORMAT OF ATTACHMENTS

Annexure - I(a)

PRICE SCHEDULED FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA.

1	2	3	4	5							6
scheduled	Brief description of goods Make : Model:	Country of origin	Qty. nos.	Ex-factory/ ex-warehouse /ex-showroom /off -the shelf	Excise duty(if any) % and value.	Sales tax/ vat(if any) % and value.	Packin g and forwarding charge	Inland transportation , insurance for a period including 3 months delivery, loading/ unloading	Incidental services (including installation and commissioning, supervision, demonstra	Unit price (at consignee site basis(g)	Total unit price (At Consignee Site) Basis Rs. 4x5(g)

Total quoted price in Rs. 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 warrantee shall be quoted separately as per price scheduled

Place:

Date:

Name:

Business Address:-

Signature of Bidder;-

Seal of the Bidder;-

Annexure: I (b)

PRICE SCHEDULED FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5					6
				Price per unit (CURRENCY)					
scheduled	Brief description of goods Make: Model: :	Country of origin	Qty. nos.	FOB price at port/ Airport of lading	Carriage & Insurance (port of loading to port of entry) and other incidental cost .	Incidental Services (Including Installation & Commissioning, supervision, Demonstration And Training) at the consignee's site.(C)	Extended Insurance (Local transportation and storage) from port of entry to the consignee site for a period including 3 month beyond date of delivery.	Unit Price on CIP Named port of Destination + Extended Insurance (Local Transportati on and storage) (e)	Total Price on CIP Named Port of Destination + Insurance (Local Transportati on and storage) 4x5(e)
				(a)	(b)	(C)	(d)	(e)	

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 warrantee shall be quoted separately as per price scheduled.
3. The Bidder will be fully responsible for the safe arrival of the goods at the named port of entry in goods condition as per terms of CIP as per INCOTERMS, if applicable

Indian Agent;-

Indian agency commission: % of FOB

Name:

Signature of bidder;-

Business address

Signature of Bidder

Seal of the Bidder;-

Place &
Date:

Annexure - II

COMPREHINSIVE ANNUAL MAINTENANCE CONTRACT PRICES SCHEDULE

S. No.	Item	1st	2nd	3rd	4th	5th	6th	7th	Total Comprehensive Annual Maintenance Contract over a period of seven years after expiry of warranty period of three years from the date of successful installation.
a	B	c	d	e	f	g	h	i	j
1	Name of the Equipment: Make:								
2.	Name of the Equipment: Make:								

Scope of Contract :

- a) The rate of Comprehensive Annual Maintenance Contract as mentioned above should cover the Complete System. Complete System should include the basic unit and allied supporting components like UPS, Stabilizer, Computer System, Printer, De- ionizer, Dehumidifier etc to be supplied by the bidder along with basic unit.
- b) **Preventive maintenance visit:** Four Maintenance visits at regular interval for usual maintenance & supervision failing which 25% of the contract amount per visit would be deducted as penalty. c)
Break down maintenance visit: As & when required
- d) **Response Time:** within 48 Hours.
- e) **Uptime Guarantee: 95% of 365 days**
- f) **The above-mentioned charges should includes labour charges for maintenance and breakdown visits per year, spares, accessories and all type of consumables required for the maintenance of the supplied items. If any spares / consumables / accessories etc. are not covered under above-mentioned charges; it should be clearly mentioned with frequency of replacement and with rate. The validity of rate of such items should also be mentioned clearly. What will be the rate of escalation on the quoted rate after expiry of the validity of rate of such item must be mentioned.**
- g) Payment of Comprehensive Annual Maintenance Contract would be made on half yearly basis after completion of work and satisfactory working report. In no case, advance payment is to be considered.

Seal and Signature of the bidder

ANNEXURE – III

MANUFACTURER'S AUTHORISATION FORM

(To be submitted by authorized dealers/representatives/importers)

No.

Dated:

To

The Director
Indira Gandhi Institute of Medical Sciences,
Sheikhpura,
Patna – 800 014 (Bihar, India)

Dear Sir,

Tender No :

Equipment Name :

1. We (name of the OEM) are the original manufacturers of the above equipment having registered office at (full address with telephone number/fax number & email ID and website), having factories at _____ and _____, do hereby authorize M/s. _____ (Name and address of bidder) to submit tenders, and subsequently negotiate and sign the contract with you against the above tender no..

2. No company or firm or individual other than M/s. _____ are authorized to bid, negotiate and conclude the contract in regard to this business against this specific tender.

3. We also hereby undertake to provide full guarantee/warranty /Comprehensive Annual Maintenance Contract as agreed by the bidder in the event the bidder is changed as the dealers or the bidder fails to provide satisfactory after sales and service during such period of Comprehensive Warranty / Comprehensive Annual Maintenance Contract and to supply all the spares/ accessories / consumables etc. during the said period.

4. We also hereby declare that we have the capacity to manufacture and supply, install and commission the quantity of the equipments tendered within the stipulated time.

(Name)

for and on behalf of M/s. _____

Date:

(Name of manufacturers)

Place:

Note: This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

ANNEXURE – IV
BANK GUARANTEE FORM

To The Director
Indira Gandhi Institute of Medical Sciences,
Sheikhpura,
Patna – 800 014 (Bihar, India)

WHEREAS _____ (Name and address of the supplier) (Hereinafter called “the supplier”) has undertaken, in pursuance of tender no _____ dated _____ (herein after called “the contract”) to supply The Director, Indira Gandhi Institute of Medical Sciences, (address) with _____ (description of goods and supplies).

AND WHEREAS it has been stipulated by you in the said tender/bid that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the bid scopet;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total amount of _____ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We undertake to pay you any money so demanded notwithstanding any dispute or disputes raised by the supplier(s) in any suit or proceeding pending before any Court or tribunal relating thereto our liability under these presents being absolute and unequivocal.

We agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition no modification.

No action, event, or condition that by any applicable law should operate to discharge us from liability, hereunder shall have any effect and we hereby waive any right we may have to apply such law, so that in all respects our liability hereunder shall be irrevocable and except as stated herein, unconditional in all respects.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Supplier(s).

We, _____ (indicate the name of bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent, in writing, of The Director, Indira Gandhi Institute of Medical Sciences, Patna (Bihar). This Guarantee will remain in force up to (Date). Unless a claim or a demand in writing is made against the bank in terms of this guarantee on or before the expiry of (Date) all your rights in the said guarantee shall be forfeited and we shall be relieved and discharged from all the liability there under irrespective of whether the original guarantee is received by us or not.

(Signature with date of the authorized officer of the Bank)

Name and designation of the officer

.....

.....

Seal, name & address of the Bank and address of the Branch

EXURE - V

POWER OF ATTORNEY

(On a Stamp Paper of relevant value)

I/ We.....(name and address of the registered office) do hereby constitute, appoint and authorise Sri/Smt(name and address) who is presently employed with us and holding the position of as our attorney, to act and sign on my/our behalf to participate in the tender no..... for (Equipment name).

I/ We hereby also undertake that I/we will be responsible for all action of Sri/Smt..... undertaken by him/her during the tender process and thereafter on award of the contract. His / her signature is attested below

Dated this the ___day of 201_ For_____

(Name, Designation and Address)

Accepted

(Signature) (Name, Title and Address of the Attorney)

Date : _____

Group-A: Paediatric Medicine

a: Paediatric Neonatal Ventilator

Specification of Neonatal Ventilator

- The ventilator should be microprocessor controlled designed for neonatal use. With possibility to upgrade with additional features.
Continues flow, pressure limited, time cycled ventilator design.
Ventilator modes: should have following modes available in the unit.
 - o IMV/IPPU
CPAP including non- invasive ventilation.
 - o SIMV, SIPPV/Assist- control.
 - o High frequency oscillatory ventilation: oscillating diaphragm based system, with active expiration.
 - (b) Volume targeted/guarantee mode of ventilation with ability to deliver and monitor tidal volume as low as 1-2ml (Range 2 ml to 50ml)
 - a Pressure support mode of ventilation
Apnea back- up ventilation.
- Should have integrated high resolution LCD screen for real-time display of Scalar (pressure, flow and Volume against time) and loop (pressure-volume, volume flow and pressure -flow) pulmonary graphics.
 - o Digital display of FiO₂, peak pressure, mean airways pressure, CPAP/PEEP, Expiratory tidal volume, expiratory minute volume, total frequency, spontaneous frequency, lung function monitoring including compliance, resistance, lung distention coefficient, (c_{2o}/C), lung time constant, Rate volume ratio etc, Should have built-in logbook for recording events like various alarms.
- Integrated monitoring: Integrated volume and pressure monitoring i.e. monitoring of PEEP P(Max) P (mean) and VT, VT (spont) MV and MV (leak). The volume monitoring should have NTPD to BTPS correction. Monitoring of I : E, frequency and spont. Frequency.
- Settings range:

Trigger	Flow/volume, leak adapted
PIP	8 to 80 cm H ₂ O
PEEP/CPAP	0 to 25 mbar
I;E ratio	1:0 to 1:10
Insp. Time	0.1 to 2 sec
Exp. Time	0.2 to 30 sec
Frequency	Up to 200 BPM
Base Flow (VIVE)	1 to 30 LPM
Synchronization	Patient synchronization with adjustable flow trigger
High Frequency amplitude	1-100%
Integrated blender for oxygen	21% to 100%
- Integrated screen for display of Pressure- Time, Flow-time and Volume- time curves
- Integrated monitoring of Fio₂
- Monitoring of flow: At the Y piece with facility to activate of deactivate it.

- Audiovisual alarms with advisory on – screen message: MV high/low, Apnea, tube obstruction, FiO2 high / low high PIP, Low PEEP/ CPAP, fail to cycle, gas supply low, power failure, ventilator inoperative, alarm log book.
- The ventilator should have automatic compensation for leakage and should monitor and display leakages.
- The ventilator should show trends of important parameters viz, C.R, FiO2, MAP etc for evaluation of patient improvement.
- Ventilator should be supplied with Good quality medical air compressor (CE market) and a heated limb humidified with servo regulation of humidity.
- Scope of supply.
 - o Ventilator on trolley with wheels and brake facility o
 - Integral medical air compressor
 - o Humidifier: Autoclavable humidifier chamber and complete patient circuit (set of 2 patient circuit with each ventilator)
 - o Circuit support arm
 - o 2 hose set for conventional neonatal ventilation o 1
 - hose set for HF Ventilation
 - o Bacterial filters
 - o Flow Sensor (5 set) o
 - Oxygen Cell
 - o Oxygen connecting hose o
 - Air Connection hose
 - o Battery back- up (at least 30 minutes) o
 - Instruction manual
 - o Training CD/DVD
- The ventilator should have following options for upgrade (please give prices for each option)
 - communication interface with laptop
 - PC software for archiving and analysis
- The firm must sign a tripartite agreement with the principal and the MCD
- Rates of consumables and spares should be submitted separately.

- The firm must certify the availability of spares and consumables for next 10 years.
- System to be quoted must be US FDA certified

b: Neonatal 5 para Monitor

1. It should have Compact design, TFT screen more than 12” configurable with at least 4 wave form in single screen
2. It should have Neonatal and pediatric, adult mode (optional)
3. It should have Inbuilt printer.
4. It should have size of numeric and wave form should be adjustable and readable from suitable distance.
5. **It should Capable to monitor**
 - Heart rate/ECG
 - Respiratory rate

- Saturation (SPO₂)
 - Blood pressure NIBP
 - Body temperature ,one for transcutaneous and one for rectal.
- 6. Heart rate/ ECG**
- 5 leads ECG (I, II, III, AVR, AVL, AVT & V)
 - Range 20- 300 bpm approx
 - Accuracy \pm 5 bpm
 - ECG amplitude user adjustable
 - Facility to detect multi lead arrhythmia and ST segment analysis.
- 7. Respiratory rate**
- It should base on transthoracic impedance mechanism.
 - Able to measure 03 to 150 breaths/min.
- 8. Saturation (SPO₂)**
- Plethysmographic waveform display.
 - Dual wavelength LED pulse oxymetry
 - Locked with ECG synchronization
 - Range 0-100%
 - Should be capable of measuring oxygen saturation even in case of motion artifact (patient motion or movement), low perfusion and intensive ambient light.
- 9. Blood pressure NIBP**
- Oscillometric non invasive mechanism.
 - Manual, auto and stat modes
 - Auto: automatically at 5, 10, 15, 30, 60 minutes.
 - SBP, DBP and MAP
 - Blood pressure range:
 - Paediatrics :-Systolic : 20-250 mm Hg
- Diastolic: 0-150 mm Hg
 - Neonates: Systolic: 20-150 mm of Hg
- Diastolic : 0-100 mm of Hg.
- 10. User selectable alarm, audio visual alarm with message display should have facility for:-**
- HR High Low
 - SPO₂ $\checkmark \checkmark$
 - BP $\checkmark \checkmark$ for SBP, DBP, MAP
 - Temp $\checkmark \checkmark$
 - RR $\checkmark \checkmark$
 - Arrhythmia and ST changes alarm
 - Probe failure
 - Poor signal
 - Power failure
 - Alarm silence switch
- 11. Trends**
- Data interval: 20 sec
 - Display range: upto 12 hours
 - Tabular format: one table for all variables
 - Should have facility of tabular trend and graphical for at least 24 hrs. it should have
 - Memory storage at least 12 hours-24 hours.

12. Power

- 220/240 V AC
- 50/60 Hz
- Rechargeable internal battery with backup time more than 2 hours.

13. Reusable accessories:

- BP Cuff:
- Neonatal : 2.5cm, 3cm, 4cm, 5cm- 1each
- Child : 6-9 cm, 12 cms-1each
- SPO₂ probe with extension cable: Universal flexiprobe-2 in number, suitable for neonates, youngchildren as well as older children.
- ECG lead with suitable length cable
- Temp Probe- Rectal, Skin= 2 each
- Clamp for attachment for bed railing
- Upgradable for side stream ETCO₂
- Warranty period: 2 years
- Manuals: Operator and Service manuals
- Maintenance: AMC or CMC for 5 years.
- CE/ FDA approved

c: Transcutaneous Bilirubinometer

1. Should be a POCT (Point-of-care testing) instrument for noninvasive measurement of total serum bilirubin levels for neonates
2. Should have no pain, no trauma, no risk of infection and no hazardous waste
3. Should be able to perform during and after phototherapy
4. Should be able to perform during age (24-42 weeks) and post-natal age (0-20 days)
5. Measuring range should be between 0-30 mg/dl
6. Instrument should have rechargeable battery
7. Measurement per full charge must be not less than 100 tests
8. Should have tungsten bulb as a light source for minimum life of 30,000 measurements
9. Accurate results in standard clinical units regardless of race or gestational age
10. No need to perform separate analysis or refer to conversion tables
11. Should have option to avoid cross infection among neonates during the reading
12. Consumables of Non-Invasive Bilirubin Analyzer

d:Cranial USG and ECHO System

1. Fully digital onboard system with broadband digital beam former.
2. 12" or more high resolution non-interlaced monitor with tilt and swivel facility.
3. System should have multi channel frequency compounding facility to filter low and high frequencies returned from the transducer and then process these signals independently and in parallel to create an image.
4. System should have 2D, M-mode, color flow, PW, CW, steer able CW, and directional color power angio facility.
5. System should have minimum 512 channels.
6. System should be upgradeable to higher number of channel at site.
7. the system should support broadband phased and linear array transducer technologies. Frequency processing facility for the transducer should be 1-15 MHz. This should be available without the need for frequency switching.
8. Phased array transducers frequency range should be 1-12 MHz.
9. System should have 256 gray shades.
10. Independently selectable gain control in both Axial and Lateral Plane or equivalent.
11. Triplex imaging.
12. System should be new generation ergonomically to curve minimum injury to the sonographer / physician.
13. Keyboard platform rotate-able and move-able, height adjustable (up/down) for use in ICCU and NICU.
14. Cineloop review facility minimum 700 frames higher will b preferred.
15. Facility for independent steering of B mode and color beam on liner probe.
16. Tissue Harmonic Imaging.
17. Linear Array Imaging with expanded field of view on both side of linear image or equivalent.
18. Transcranial Doppler.
19. 3 Active Imaging Transducer Port, it should be configurable upto 4 transducer ports.
20. Apicardial, Intra-operative, Multiplane TEE Transducer capability.
21. PW/CW Doppler facility in all imaging phased array sector transducer.
22. On-board image management.
23. Storage – should have >1,00,000 image storage facility in the hard disk drive.
24. System should have inbuilt image management, with facility for direct storage of images and cineloop of 5-6 sec in the Hard Disk Drive and also thumbnail review to view, edit, measure images, loops and also reports.
25. Archive – should have facility to transfer images to CDRW and Floppy Drive.
26. Print – should have direct connectivity to Inkjet printer for printing images and report.
27. Full functional measurement facility and calculation should be possible.

System should be quoted with the following transducers :

1. 3-8 MHz Broadband Phased Array Transducer for Pediatric Cardiac imaging.
2. 5-12 MHz Broadband Phased Array Transducer for Neonatal Cardiac imaging.
3. 4-8 MHz Broadband Convex Array Transducer for Pediatric and Neonatal Abdominal Imaging.
4. The aperture of cardiac probe should be preferably less than 10 mm.
5. Online UPS with 30 min backup.
6. Color inkjet printer.

7. B/W thermal printer.

Accessories:

1. A well stable trolley to keep machine, jelly, UPS, printer, VCRs etc. DVD mounted on heavy duty castor wheel.
2. Paper roll for inkjet printer and thermal printer for at least 1000 image.
3. Demonstration of equipment is a pre-requisite before finalization of tender enquiries.

Group- B: GI Surgery & Urology Department

a: Technical Specifications for Ultrasonic Surgical Aspirator with Diathermy

Ultrasonic dissection/ Aspiration System with stand-alone HF

Electrosurgery unit in same work station with accessories for Liver surgery use.

Two components of the system (Ultrasonic dissector & Electrosurgery) should work as standalone in the absence of the other as well as simultaneously with two separate controls (foot switch) for Ultrasonic dissector as well as electrosurgery unit. Monopolar as well as bipolar facility to be provided.

1. Ultrasonic Dissection unit should have the following functions and components:	
a)	Ultrasonic generator with working frequency range from 20KHz to 80 KHz
b)	Integrated aspiration pump with vacuum aspiration range of 0-0.9 bar.
c)	Integrated irrigation pump with irrigation capacity of 0-150ml/min.
d)	Microprocessor based console
e)	Ultrasonic dissector- technology- should work with piezoelectric technology.
f)	Auto recognition of hand pieces.
g)	Software or Mechanics should not restrict reuse of consumables.
h)	Vishal and audible alarms on activation.
i)	Hanger for irrigation
j)	Power cables
k)	Footswitch
l)	Over flow protection mechanism
m)	Bacterial filters
2) different hand pieces for surgical use	
a)	The hand pieces need to be of slim, compact & light-weight design. They should be of low heat generation type so that they remain cool even after prolonged periods of continuous use. The hand pieces should require no external cooling water; additional houses, attached to a hand piece for carrying in and out cooling water, are definitely not desired, since they make the hand piece cumbersome to use.
b)	It should be possible to steam sterilize all hand pieces in fully assembled condition.
c)	The hand piece tips should not be sharp to avoid accidental cutting of nerves and vessels. I should be possible to steam sterilize the tips (The same should be

	recommended by the manufacturer). The tips must be designed for long life, in order to minimize running cost. In case Hand-Piece tips are not re-sterilisable, then 50 number of single use tips of two different sizes are to be provided.
d)	Minimum Three Handpieces should be provided, irrespective of single use or reusable tips. Preferably...
	I) 25KHz Macro Ultrasonic- HF hand piece (with Monopolar coagulation), short, angled, Tip Ø (outside/inside) 3.3mm/2.2mm, outside irrigation, central suction
	II) 25KHz Laproscopic ultrasonic dissection hand piece, Tip Ø (outside/inside) 3.6mm/2.2mm, inside irrigation, central suction
	III) 25KHz Macro ultrasonic- HF hand piece (with Monopolar coagulation), short, angled, Tip Ø (outside/inside) 2.2mm/1.4mm, outside irrigation, central suction
3) Work station frame / Trolley – Facility for the integrated ultrasonic dissector and Electrosurgery, movable	
4) Stand-alone HF electrosurgery unit should have the following components:	
a)	Integrated Monopolar function
b)	Integrated Bipolar functions
c)	Power cable
d)	Electrosurgery unit should be supplied with following items:
	I) Earthing cable
	II) Patient plate – reusable
	III) Monopolar cable
	IV) RF hand piece
	V) 5 Different monopolar electrodes – 2 each
	VI) Bipolar cable
	VII) Bipolar forceps
5. Suppliers must confirm clearly that:	
a)	All required spare parts will be available for a period of a period of at least 10years &
b)	Extensive hands-on training will be provided to the O.T staff for operation and cleaning of the system.

6. Electrical Supply	
	Mains Voltage: 230VAC, +/- 10%, 50Hz +/- 5%
7. Certification and Installation	
a)	Should have minimum two installations in a Liver Transplant Centre in
b)	Should have CE/US FDA certification

b: Surgical Instruments

Vascular Set (2 sets)		
S.No	Description of Item	2 sets
1	Ulrich's vascular (liver) clamp	4
2	De bakey satinsky vascular clamp length 210-225mm	2
3	De bakey satinsky vascular clamp length 250-260mm	2
4	De bakey coarctation clamp length 160-170mm curved blade length 50mm	2
5	De bakey coarctation clamp length 235-245mm straight blade length 80mm	2
6	De bakey coarctation clamp length 160-170mm angled 15 deg. blade length 50mm	2
7	Leland Jones perioheral vascular clamp length 180-190mm	2
8	Pediatric vascular clamp straight length 120-130mm	2
9	Pediatric vascular clamp curved length 120-130mm	2
10	Pediatric vascular clamp angled length 120-130mm	2
11	Cooley multi-purpose clamp length 160-170mm angled at 30 deg. blade length 45-50mm angled portion 35mm	2
12	Cooley multi purpose clamp length 170-180mm double angled blade length 74mm span 20mm	2
13	Derra multipurpose vascular clamp length 160-171mm	2
14	Lembert kay anastomotic clamps length 210-220mm	2
15	Potts-smith vascular scissors length 175-185mm, 25 deg. angled	2
16	Deithrich vascular scissors length 180-190mm 45 deg. angled	2

17	De bakey forceps length 145-155mm, angled 40 deg. tip 2mm	2
18	De bakey forceps length 145-155mm, straight tip 2mm	4
19	De bakey forceps length 295-305mm, straight tip 3mm	2
20	De bakey bull dog clamps straight length 45-55mm jaw length 27mm	4
21	De bakey bull dog clamps curved length 45-55mm jaw length 27mm	4
22	De bakey bull dog clamps double angled curved length 65-75mm jaw length 38mm	4
23	De bakey bull dog clamps double angled curved length 95-105mm, jaw length 63mm	4
24	Glover bull dog clamp length 55-65mm jaw length 35mm	4
25	Cooley bull dog clamp ring handled length 95-105mm, blade angled at 90 deg. blade length 52mm	4
26	Castroviejo needle holder length 210-220mm with tungsten carbide inserts with smooth jaws	2
27	Ryder vascular needle holder length 170-180mm with tungsten carbide inserts	2
28	Ryder vascular needle holder length 200-210mm with tungsten carbide inserts	2
29	De bakey vascular dilator 2 -12 pieces set, 0.5-9mm with handle 190mm	2x12
30	Metal clip applicator small size	2
31	Metal clip applicator medium size	2
32	Adson self retaining retractor length 260-270mm, 3x4 teeth sharp	2
33	Tray for sterilizing instrument (with perforation) with cover: width 250-300mm, depth 75-100mm; length 500-550mm	2

Vascular Set- 2 sets

S.No.	Instruments	Qty.
1	DE BAKEY SATINSKY TANGENTIAL OCCLUSION CLAMPS 235MM, 9 ¼", 68MM, 2 ¾"	2
2	DE BAKEY SATINSKY TANGENTIAL OCCLUSION CLAMPS 245MM, 9 ¾", 84MM, 3 3/8"	2
3	DE BAKEY COARCTATION CLAMPS 165MM, 6 ½", 50MM	2
4	DE BAKEY COARCTATION CLAMPS 240MM, 9 ½", 80MM	2
5	DE BAKEY COARCTATION CLAMPS 165MM, 6 ½", 50MM, 15 DEG.	2
6	LELAND-JONES PERIPHERAL-VASCULAR CLAMPS 190MM, 7 ½", 77MM, 30DEG.	2
7	COOLEY RING HANDLE BULLDOG CLAMPS 125MM, 5", 50MM, STARIGHT	2
8	COOLEY RING HANDLE BULLDOG CLAMPS 125MM, 5", 50MM, CURVED	2
9	COOLEY RING HANDLE BULLDOG CLAMPS 125MM, 5", 50MM, 15 DEG.	2
10	COOLEY MULTI-PURPOSE CLAMPS, PEADIATRIC PATTERNS 165MM, 6 ½", 48MM, 2", 30 Deg.	2
11	COOLEY ANASTOMOSIS CLAMPS, MULTIPURPOSE CLAMPS 175MM, 7", 74MM	2
12	DERRA-COOLEY ANASTOMOSIS CLAMPS PEDIATRIC PATTERS 170MM, 6 ¾", 71MM	2
13	LAMBERT-KAY AORTA-ANASTOMOSIS CLAMPS 215MM, 8 ½", 93MM	2
14	DIETHRICH-HEGEMANN VESSEL SCISSORS 180MM, 7", 25 DEG	2
15	DIETHRICH-HEGEMANN VESSEL SCISSORS 180MM, 7", 45 DEG	2
16	DE BAKEY FORCEPS 150MM, 6", 2MM, 40 DEG	2
17	DE BAKEY FORCEPS 150MM, 6", 2MM	4
18	DE BAKEY FORCEPS 300MM, 12", 2.8MM	2
19	DE BAKEY BULLDOG CLAMPS, TOTAL LENGTH 80 MM, 3 1/8", LENGTH OF JAW: 25MM, 1"	4
20	DE BAKEY BULLDOG CLAMPS, TOTAL LENGTH 78MM, 3 1/8", LENGTH OF JAW: 25MM, 1"	4
21	DE BAKEY BULLDOG CLAMPS, TOTAL LENGTH 73MM, 2 ¾", LENGTH OF JAWS 38MM, 1 3/8"	4
22	DE BAKEY BULLDOG CLAMPS, TOTAL LENGTH 99MM, 4", LENGTH OF JAWS 63MM, 2 1/2"	4
23	GLOVER BULLDOG CLAMPS, TOTAL LENGTH 68MM, 2 ¾", LENGTH OF JAW 33MM, 1 3/8"	4
24	COOLAY RING HANDLE BULLDOG CLAMPS 100MM, 4", 52MM, 90 DEG	4
25	CASTROVIEJO DUROGRIP NEEDLE HOLDERS 215MM, 8 ½"	2
26	RYDER DUROGRIP NEEDLE HOLDERS VERY DELICATE 175MM, 7"	2
27	RYDER DUROGRIP NEEDLE HOLDERS VERY DELICATE 210MM, 8 ¼"	2

28	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:0.5MM	2
29	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:1.0MM	2
30	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:1.5MM	2
31	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:2.0MM	2
32	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:2.5MM	2
33	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:3.0MM	2
34	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:3.5MM	2
35	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:4.0MM	2
36	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:4.5MM	2
37	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:5.0MM	2
38	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:7.0MM	2
39	DE BAKEY VASCULAR DILATORS, MALLEABLE 190MM, 7½", DIA.:9.0MM	2
40	CLIP APPLIER FORC.SMALL 150MM 25	2
41	CLIP APPLIER FORC.MEDIUM 150MM 25	2
42	ADSON SELF-RETAING LAMINECTOMY RETRACTORS SHARP 265MM, 10 1/2	2
43	BASKET WITH FEET STANDARD 1/1 OUTSIDE DIM.:540X253X106, INSIDE DIM.:538X251X92	2
44	LID FOR BASKET OUTSIDE DIM.:544X257X18	2

Micro-Vascular Set- Two

S.No.	Instrument	Qty.
1	Micro Forceps,Jeweler Patterns 110 mm,4 3/8" 0.15mm	2
2	Micro suture tying forceps 120mm,4 3/4",0.3mm	2
3	Micro Forceps,Jeweler Patterns 110 mm,4 3/8" 0.3mm	2
4	Microscopic forceps 100mm,4"	2
5	Barraquer Micro Needle Holders with round handles with catch 120mm,4 3/4",Straight	2
6	Barraquer Micro Needle Holders with round handles with catch 120mm,4 3/4",curved	2
7	Castroviejo needle holders for microsurgery with catch 145mm,5 3/4"	2
8	Microscissors spring type with round handles 145mm,5 3/4" curved	2
9	Microscissors spring type with round handles 145mm,5 3/4" straight	2
10	Debaquey vessel scissors 155mm,6" ,45 deg.	2
11	Mehdorn applying forceps for mehdorn vessels clips 150mm,6"	4
12	Mehdron vessel clips mini size, mau jaws:4x 1.0 mm,closing force 10-15G(0.10-0.15N)	4
13	Mehdorn vessels clips mini size mau jaws:6x1.0mm,closing force:10-15G (0.10-0.15N)	4
14	Biemervessels clips opening 4.0mm, length of jaws 6mm closing force 30-40 G (0.29-0.39N)	4
15	Biemervessels clips opening 5.0mm, length of jaws 9mm closing force 30-40 G (0.29-0.39N)	4
16	Dental tray with two instrument racks (JF389) and one fixation rack(JN379)for JN092,274x172x30,258x170x23.	2
	Total Instrument	42

Cadaver Organ Retrieval Set per set

S.No	Description of Item	Qty
1	B. P. Knife handle No. 4 length 130-155mm	1
2	B. P. Knife handle No. 7 length 130-155mm	1
3	Round bowls with capacity of <u>60ml, 400ml,600ml,1000ml</u>	4
4	Kidney tray length 250-265mm	1
5	Sponge holding forceps Serrated fenestrated Jaw, straight length	2
6	Backhaus Towel clamps length 115-135mm	6
7	Halsted ring handled mosquito forceps non-tooth: straight length 120-130mm	10
8	Halsted ring handled mosquito forceps non-tooth: curved length 120-130mm	4
9	Crile ring handled haemostatic forceps curved length 150-165mm	2
10	Adson ring handled haemostatic forceps curved length 175-190mm	2
11	Pean ring handled haemostatic forceps curved length 250-265mm	2
12	Pean ring handled haemostatic forceps curved length 280-300mm	2
13	Allis tissue forceps 5x6 teeth length 175-190mm	2
14	Kelly Artery Forceps 8"	2
15	Overholt dissecting and ligature forceps length 210-225mm	1
16	Lahey forceps length 210-225mm	1
17	Kocher's ring handled haemostatic forceps 1x2 teeth straight length 275-290mm	2
18	Hegar Mayo needle holder with tungsten carbide inserts; length 200-210mm	2
19	Debakey needle holder with tungsten carbide inserts length 200-210mm	1
20	De-Bakey A traumatic tissue forceps 2mm wide, length 165-175mm	2
21	De-Bakey A Traumatic tissue forceps 2mm wide, length 240-250mm	2
22	Adson non-tooth dissecting forceps with tungsten carbide tip inserts; length 245-255mm	2
23	Tooth dissecting forceps standard 1x2teeth length 140-155mm	2
24	Russ. Modell tissue forceps length 140-155mm	2
25	Mayo dissecting scissors round blade, straight with carbide cutting edges length 175-185mm	1
26	Metzenbaum dissecting scissors curved standard with carbide cutting edges length 295-305mm	1
27	Metzenbaum dissecting scissors curved standard with carbide cutting edges length 200 mm – 225 mm	1
28	Metzenbaum dissecting scissors curved standard with carbide cutting edges length 245 mm	1
29	Tray for sterilizing instrument (with perforation) with cover: width	1

	250-300mm, depth 75-100mm, length 350-400mm	
30	Tray for sterilizing instrument (with perforation) with cover: width 250-300mm, depth 75-100mm, length 500-550mm	1
31	Gigliaw Wire Handle	2
32	Balfaur Retractor with Blade	1
33	Baby Balfaur Retractor with Blade	1
34	Self retaning retractor / Mastoid retractor	1
35	Meddium Chest Retractor	1
36	Large Chest Retractor	1
37	Debakey Aortic Aneurysm clamp 27cm	1
	TOTAL INSTRUMENT	72

Thompson Retractor Attachment Description per set

S.NO.	Description Of Item	QTY.
1	ELITE II RAIL CLAMP W/2 CAM JOINTS 18"	2
2	CROSSBAR W/2 CAM JOINTS 24"	1
3	BILATERAL CROSSBAR HINGED 11"	1
4	24" ANGLED ARM 8"X16"	2
5	18" ANGLED ARM 8"X10"	2
6	CAM II CLIP-ON W/ANGLING HEAD	3
7	MICRO-ADJUSTABLE II CLIP-ON ANGLING 10"	2
8	MALLEABLE 25MMX203MM	2
9	MALLEABLE 25MMX102MM	1
10	MALLEABLE 51MMX203MM	1
11	MALLEABLE 64MMX254MM	1
12	KELLY 64MMX76MM	1
13	KELLY 89MMX76MM	2
14	FENCE 102MMX127MM	1
15	BALFOUR 70MMX76MM	2
16	BALFOUR 83MMX76MM	2
17	RICHARDSON 51MMX102MM	1
18	HARRINGTON 64MMX152MM	1
19	DEAVER 2½" X 5"	1
20	MALLEABLE FINGER BLADE	1
21	INSTRUMENT CASE	1

LIVING DONOR TRANSPLANT INSTRUMENTS SET

S.No	Description of Item	Qty{each set}
1	B. P. Knife handle No. 3 length 130-155mm	1
2	B. P. Knife handle No. 4 length 130-155mm	1
3	B. P. Knife handle No. 7 length 130-155mm	1
4	Mayo dissecting scissors round blade, curved with carbide cutting edges length 175-185mm	1
5	Metzenbaum dissecting scissors curved standard with carbide cutting edges length 175-185mm	2
6	Metzenbaum dissecting scissors curved standard with carbide cutting edges length 295-305mm	1
7	Metzenbaum dissecting scissors curved delicate with carbide cutting edges length 175-185mm	1
8	Ligature scissors with carbide cutting edges length 165-180mm	1
9	Ligature scissors with carbide cutting edges length 250-265mm	1
10	Rectal scissors length 320-330	1
11	De-Bakey Atraumatic tissue forceps 1.5mm wide, length 240-250mm	2
12	De-Bakey Atraumatic tissue forceps 2mm wide, length 240-250mm	2
13	Adson non-tooth dissecting forceps with tungsten carbide tip inserts; length 145-155mm	1
14	Adson non-tooth dissecting forceps with tungsten carbide tip inserts; length 245-255mm	1
15	Tooth dissecting forceps standard 1x2teeth length 140-155mm	1
16	Russ. Modell tissue forceps length 140-155mm	1
17	Overholt dissecting and ligature forceps length 210-225mm	2
18	Mixer forceps length 245-255mm	1
19	Baby Mixer forceps length 135-145mm	1
20	Lahey forceps length 210-225	2
21	Badcock tissue forceps with tungsten carbide jaw inserts: length 150-165mm	2
22	Badcock tissue forceps with tungsten carbide jaw inserts length 225-235mm	2
23	Allis tissue forceps 5x6 teeth length 155-165mm	2
24	Allis tissue forceps 5x6 teeth length 175-190mm	2
25	Desjardine stone holding forceps length 230-240mm	2
26	Sponge holding forceps Serrated fenestrated Jaw, straight length	2
27	Backhaus Towel clamps length 115-135mm	10
28	Halsted ring handled mosquito forceps non-tooth: straight length 120-130mm	12
29	Halsted ring handled mosquito forceps non-tooth: curved length 120-	12

	130mm	
30	Adson ring handled hemostatic forceps curved length 175-190mm	6
31	Crile ring handled hemostatic forceps straight length 150-165mm	6
32	Crile ring handled hemostatic forceps curved length 150-165mm	6
33	Pean ring handled hemostatic forceps curved length 250-265mm	6
34	Pean ring handled hemostatic forceps curved length 280-300mm	6
35	Kocher's ring handled hemostatic forceps 1x2 teeth straight length 225-240mm	6
36	Kocher's ring handled hemostatic forceps 1x2 teeth straight length 275-290mm	6
37	Kocher's retractor (Right angled) length 220-230mm : blade 50-65mm deep; 25-40mm wide	2
38	Kelly retractor (Right angled) length 240-260mm : blade 65-85mm deep; 55-75mm wide	2
39	Deaver retractor length 290-310mm blade width 25-30mm	1
40	Deaver retractor length 290-310mm blade width 50-55mm	1
41	Devear retractor length 290-310mm blade width 75-80mm	1
42	Ribbon malleable retractor length 220-230mm, width 10-15mm	1
43	Ribbon malleable retractor length 220-230mm, width 18-23mm	1
44	Langenback retractor length 220-225mm blade width 10-15mm depth 40-50mm	2
45	Czerny retractor length 180-205 blade width 20-25mm depth 38-45mm	2
46	Cushing vein retractor length 180-205mm depth 12-18mm	2
47	Parks anal retractor with 2 pairs of blades 72 and 94mm and central blade 94mm	1
48	Hegar Mayo needle holder with tungsten carbide inserts; length 150-160mm	1
49	Hegar Mayo needle holder with tungsten carbide inserts; length 200-210mm	2
50	Hegar Mayo needle holder with tungsten carbide inserts; length 295-305mm	1
51	Sarot needle holder with tungsten carbide inserts length 175-185mm	1
52	Sarot needle holder with tungsten carbide inserts length 255-265mm	1
53	Debakey needle holder with tungsten carbide inserts length 200-210mm	1
54	Doyen intestinal clamps non-crushing straight length 230-240mm	2
55	Doyen intestinal clamps non-crushing curved length 230-240mm	2
56	Llyod davis rectal clamp, non-crushing right angled length 230-240mm jaw size 75-90mm	1
57	Yankaeur suction cannula 10mm	1
58	Plester suction cannula 2-3mm	1
59	Pool suction cannula 10mm	1
60	Bowman lacrimal probe No.1-2	1

61	Bowman lacrimal probe No. 3-4	1
62	Bowman lacrimal probe No.5-6	1
63	Bowman lacrimal probe No.7-8	1
64	Metallic ruler 150mm	1
65	Round bowls with capacity of 60ml, 400ml, <u>1000ml</u>, <u>2500ml</u>	01 each
66	Kidney tray length 165-185mm	2
67	Kidney tray length 250-265mm	2
68	Kidney tray length 290-305mm	2
69	Tray for sterilizing instrument (with perforation) with cover: width 250-300mm, depth 75-100mm, length 250-300mm	2
70	Tray for sterilizing instrument (with perforation) with cover: width 250-300mm, depth 75-100mm, length 350-400mm	2
71	Tray for sterilizing instrument (with perforation) with cover: width 250-300mm, depth 75-100mm, length 500-550mm	2

OTHER INSTRUMENTS

S. No.	Description of Items	Qty
1.	Tenotomy scissor Curved Blade 8"	1
2.	Tenotomy scissor 7" (Arteriotomt Scissor)	1
3.	Fiber mallet- Codman	1
4	Bull dog clamp maxi st Blue	1
5	Bull dog clamp mini st Red	1
6	Bull dog clamp mini st White	1
7	Debakey's Forcep titanium- 210 mm	2
8	Debakey's Forcep titanium- 180 mm	1
9	Castroviejo Needle Holder titanium	1
10	Microtying Forcep (S & T) - Dilator	1
11	TITAN Diamond Microforcep Ring 1 mm STR. 210 mm	1
12	Round Body Suture Forceps CVDO. 6 mm- 180 mm	1
13	TITAN Diamond Micro Needle Holder. RD HDL- 185 mm	1
14	TITAN Micro Forceps Debakey 1 mm Straight- 210 mm	1
15	Metal Tip Cannula	2
16	Watson-Cheyne Dissector- 190 mm	1
17	Watson-Cheyne Dissector- 150 mm (fine)	1
18	Micro Bull Dog Clamp-45 mm straight- 8 mm	1
19	Debakey Hies spring loaded Bull Dog Clamp straight- total length 45 mm, jaw length- 19 mm	1
20	Debakey Hies spring loaded Bull Dog Clamp curved- total length 45 mm, jaw length- 19 mm	1

21	Magnetic Rubber Mat- 330x230 mm	1
22	Metzenbaum dissecting scissor curved standard with carbide cutting edges length- 200 mm- 225 mm	1
23	Metzenbaum dissecting scissor curved standard with carbide cutting edges length- 245 mm	1
24	Rigid Suction Cannula (Microsuction Tip)	1

Dialator and Retractor

Vascular Surgery Content	Qty.
Omni-Flex , Sterile Field Post	1
Omni-Flex , Support Arm	1
SnapClamp Blade Holder	1
Mayo Swivel Retrator, 2-3/4"X2"(7cmX5cm)	1
Mayo Swivel Retrator, 3-1/2"X2"(8.9cmX5cm)	1
Fence Swivel Retrator, 4"X6"(10.2 cm X 15.2cm)	1
Splanchnic Swivel Retrator, 2"X6"(5cmX15.2cm)	1
Deaver Swivel Retrator, 2-3/4"X4-1/2"(7cmX11.4cm)	1
Malleable Slotted Swivel Retrator, 2"-6"-1/2"(5cmX16.5cm)	1
Malleable Slotted Swivel Retrator, 3"X6-1/2"(7.6cmX16cm)	1
Harrington Sweetheart Swivel Retrator, 2"X5"-(5cmX12.7cm)	1
Splanchnic Swivel Retrator, 2"X4-1/2"(5cmX11.4cm)	1
Renal Vein Swivel Retrator, 1"X6"-(2.5cmX15.2cm)	1
Omni –Flex, Standard Wishbone Frame Arm	1
Omni –Flex, Small Wishbone Frame Arm	1
Hinged Extension Arm, 19"(48.3 cm)	1
Urology Surgery System Content	Qty.
Omni-Flex , Sterile Field Post	1
Omni-Flex , Support Arm	1
SnapClamp Blade Holder	1
Mayo Swivel Retrator, 2"X2"(5cmX5cm)	1
Mayo Swivel Retrator, 2-3/4"X2"(7cmX5cm)	1
Fence Swivel Retrator, 4"X6"(10.2 cm X 15.2cm)	1
Deaver Swivel Retrator, 2-3/4"X4-1/2"(7cmX11.4cm)	1
Malleable Slotted Swivel Retrator, 2"-6"-1/2"(5cmX16.5cm)	1
Malleable Slotted Swivel Retrator, 3"X6-1/2"(7.6cmX16cm)	1
Harrington Sweetheart Swivel Retrator, 2"X5"-(5cmX12.7cm)	1
Harrington Sweetheart Swivel Retrator, 2-1/2"X7"	1
Splanchnic Swivel Retrator, 1-1/2"X4(3.8cmX10.2cm)	1
Deaver Swivel Retrator, 1-1/2"X6"-(3.8cmX15.2cm)	1
Omni –Flex, Standard Wishbone Frame Arm	1
Omni –Flex, Small Wishbone Frame Arm	1
Hinged Extension Arm, 19"(48.3 cm)	1

2

Table Mounted Speed Tract (Ring Retractor) System Framing Components Contents	Qty.
Speed –Tract Support Arm	1

Speed-Tract, Sterilee Field Post, w/coupler-18"	1
Speed-Tract, Sterile Field, W/coupler-24"	1
Speed-Tract, 1"X1" Coupler	1
Speed-Tract extension Bar, 1" DIA	1
RINGS	
Extra Small Oval Ring, 6"X7-3/4"	1
Small Oval Ring, 8-1/2"X12"	1
Medium Oval Ring, Lite	1
Large Oval Ring, Lite	1
Medium Round Ring, Lite	1
Small Round Ring, 8-1/2"	1
Large Round Ring, 12-1/2"	1
Small Segmented Ring, 8-1/2"X14"	1
Round Segmented Ring	1
Perneal Segmented Ring	1
Speed-Tract Split Frame, Oval	1
Speed-Tract Split Frame, Round	1
CLAMPS	
Standard Blade Clamp	1
Tilting Ratchet Clamp, w/o lip	1
Tilting Ratchet Clamp	1
Ratchet Ball Clamp	1
BALFOUR RETRACTOR	
Balfour Retractor, Child,2.25"X1.5"(5.7cmX3.8cm)	1
Balfour Fixed Retractor, SQ Shaft, 2-3/4"X3"	1
Balfour Fixed Retractor,3.5"X2.75"(8.9cmX7cm)	1
Balfour Swivel Retractor,SQ Shaft,2-3/4"X3"(7cmX7.6cm)	1
DEAVER RETRACTOR	
Deaver Retractor, Small, .75"X3.0"(1.9cmX7.6cm)	
GELPI RETRACTOR	
Gelpi Retractor, Small,.75"X3.0"(1.9cmX7.6cm)	1
HARRINGTON RETRACTOR	
Harrington Fixed Retractor, SQ Shaft,2-1/2"X7"	1
Harrington Swivel Retractor, SQ Shaft,2-1/2"X7"(6.3cm)	1
Harrington Fixed Retractor, SQ Shaft,3-1/2"X10"	1
KELLY RETRACTOR	
Kelly Fixed Retractor SQ Shaft, 2" x 2-1/2"	1
Kelly Fixed Retractor SQ Shaft, 1" x 1-1/2"	1
Kelly Fixed Retractor SQ Shaft, 1" x 2-1/2"	1
Kelly Fixed Retractor SQ Shaft, 2" x 3"	1
Kelly Fixed Retractor SQ Shaft, 2" x 4"	1
Kelly Fixed Retractor SQ Shaft, 2" x 5"	1
Kelly Fixed Retractor SQ Shaft, 2" x 6"	1
Kelly Fixed Retractor SQ Shaft, 2" x 8"	1
Kelly Swivel Retractor, SQ Shaft, 2" x 4" (5cm x 7.6 cm)	1
Kelly Swivel Retractor, SQ Shaft, 2" x 4" (5cm x 10.2 cm)	1
Kelly Swivel Retractor, SQ Shaft, 2" x 5" (5cm x 12.7 cm)	1
Kelly Swivel Retractor, SQ Shaft, 2" x 6" (5 cm x 15.2 cm)	1

MALLEABLE RETRECTOR	
Malleable fixed retractor .50" x4" (1.3cmx10.2cm)	1
Malleable fixed retractor a"x5" (2.5cmx12.7cm)	1
MALLEABLE FIXED RETRECTOR SQ SHAFT,1-1/2 X6"	1
MALLEABLE FIXED RETRECTOR 2"X 10" (5.1CMX 25.4CM)	1
MALLEABLE FIXED RETRECTOR SQ SHAT 2"X6-1/2"	1
MALLEABLE FIXED RETRECTOR SQ SHAFT 3"X6-1/2	1
MALLEABLE FIXED RETRECTOR 4"X8" (10.2CMX20.3CM)	1
MALLEABLE FIXED RETRECTOR SQ SHAFT 2"X8"	1
MALLEABLE SWIVEL RETRECTOR SQ SHAFT 1-1/2"X 6" (3.8CM)	1
MALLEABLE SWIVEL RETRECTOR SQ SHAFT 2"X6-1/2" (5CMX16)	1
MALLEABLE SWIVEL RETRECTOR SQ SHAFT 3"X6-1/2"(7.6CM)	1
NOTCHED MALLEABLE RETRECTOR FIXED 2-1/2"X7"	1
NOTCHED MALLEABLE RETRECTOR FIXED 2"X8"	
RENAL RETRECTOR	
RENAL RETRECTOR FIXED 1"X6" SQ SHAFT	1
RICHARDSON RETRECTOR	
RICHARDSON FIXED RETRECTOR SQ SHAFT ¾"X1"	1
RICHARDSON FIXED RETRECTOR.75"X2"	1
VAGINAL RETRECTOR	
VAGINAL LATERAL FIXED RETRECTOR 1"X3"	1
VAGINAL DEAVER RETRECTOR SMALL 1"X3.5"(2.54CMX8.9CM)	1
VAGINAL DEAVER RETRECTOR LARGE 1"X5"(2.54CMX12.7CM)	1
VAGINAL POSTERIOR RETRACTOR, 1" X 4.5" (2.54CM X 11.4CM)	1
Aluminium Blades	
ALUMINUM, DEAVER ABH BLADE, 2-3/4" X 4-1/2"	1
ALUMINUM, MALLEABLE ABH BLADE, 2" X 6-1/2"	1
ALUMINUM, MAYO ABH BLADE, 2-3/4" X 2"	1
ALUMINUM, MAYO ABH BLADE, 3-1/2" X 2"	1
ALUMINUM, SPLANCHNIC ABH BLADE, 2" X 4-1/2"	1
ALUMINUM SPLANCHNIC ABH BLADE, 2" X 6"	1
ALUMINUM RENAL ABH BLADE, 1" X 3" (2.5 CM X 7.6CM)	1
ALUMINUM RENAL ABH BLADE, 1" X 4" (2.5 CM X 10.2CM)	1
ALUMINUM RENAL ABH BLADE, 1" X 5" (2.5 CM X 12.7CM)	1
ALUMINUM RENAL ABH BLADE, 1" X 6" (2.5 CM X 15.2CM)	1
ALUMINUM RENAL ABH BLADE, 1" X 7" (2.5 CM X 17.8CM)	1
ALUMINUM RENAL ABH BLADE, 1" X 8" (2.5 CM X 20.3CM)	1

General Surgery	
Omni-Flex, Sterile Field Post	1
Omni-Flex, Support Arm	1
SnapClamp blade holder	1
Hinged Extension Arm, 19" (48.3cm)	1
Mayo swivel Retractor, 2-3/4" x 2" (7cm x 5cm)	1
Fence Swivel Retractor, 4"x6" (10.2cm x 15.2 cm)	1
Splanchnic swivel Retractor, 2"x6"(5cmx15.2cm)	1

Deaver Swivel Retractor, 2-3/4" x4-1/2" (7cm x 11.4cm)	1
Malleable Slotted Swivel Retractor, 2"x6-1/2" (5cmx16.5c)	1
Malleable Slotted Swivel retractor, 3"x6-1/2" (7.6cmx16.	1
Harrington Sweetheart Swivel Retractor, 2"x 5" (5cmx 12.7C	1
Kelly Modified Swivel Retractor, 3" x 2-1/2" (7.6cmx 6.4 cm)	1
Kelly Modified Swivel Retractor, 3"x 4" (7.6cm x 10.2cm)	1
Omni-Flex, Standard Wishbone Frame Arm	1
Omni-Flex, Small Wishbone Arm	1

Articulating Blade holder and Blade Kit

Articulating Blade holder	1
Articulating Blade Holder with SnapClamp	1
Deaver ABH Blade, 2-1/2"x4-1/2" (7cmx 11.4cm)	1
Fence ABH Blade, 4" x6" (10.2 cm x 15.2 cm)	1
Harrington Sweetheart ABH Blade, 2"x5" (5cmx12.7cm)	1
Malleable Slotted ABH Blade, 2"x6-1/2" (5cmx 16.5 cm)	1
Mayo ABH Blade, 2-3/4" x 2" (7cmx5cm)	1
Renal Vein ABH Blade, 1" x 6" (2.5cmx15.2cm)	1
Splanchnic ABH Blade, 2"x8" (5cm x15.2cm)	1
Splanchnic ABH Blade, 2"x8" (5cm x20.3cm)	1
Sternal heavy ABH Blade, 3" x2-3/4" (7.6cmx7cm)	1
St. Mark's ABH Blade, 2-1/2"x7" (6.4cm x 17.8cm)	1

Liver Transplant	
Omni-clamp Sterile field Post, double Joint	1
Standard Cross Bar	1
Hinged Cross Bar	1
Snap clamp Blade holder	1
Angled Side Arm, 8" x 18"(20.3cm x 45.7cm)	1
Doherty-Harrington Retractor Blade	1
Sternal Retractor. 3"x 3"(7.6cm x 7.6cm)	1
Mayo Swivel Retractor, 3-1/2"x 2-3/4"(8.9cm x 7cm)	1
Blade holder with 3626 Knopb, 9"(22.9cm)	1
Malleable Swivel Retractor, 2"x 6-1/2" (5cm x 16.5cm)	1
Malleable Swivel Retractor, 3"x 6-1/2"(7.6cm c 16.5cm)	1
Obesity Blade Kit	
Splanchnic Retractor, 2"x 8"(5cm x 20.3 cm)	1
Renal Vein Swivel Retractor, 1"x 8"(2.5cm x 20.3 cm)	1
Deaver Retractor, 2-3/4"x 8"(7cm x 20.3cm)	1
Mayo Swivel Retractor, 3-1/2"x 2-3/4"(8.9cm x 7cm)	1
Fence Swivel Retractor, 4"x 8"(10.2cm x 20.3cm)	1
Malleable Swivel Retractor, 2"x 8"(5cm x 20.3 cm)	1
Malleable Swivel Retractor 3"x 8"(7.6cm x 20.3cm)	1
Malleable Swivel Retractor 4"x 8"(10.2cm x 20.3cm)	1
Pittman IMA Retractor	
Pittman IMA Rail clamp	1
Bent Pittman IMA Post	1
Adjustable T Post with Clamp Assemblies	1
Micro Adjust knob	1

Choose one of the following rake assembly	
Rake Assembly IMA, Blunt Teeth, Curved 16-3/8"	1
Rake Assembly IMA Blunt Teeth Squared, 16-3/8"	1
Rake Assemble IMA, Sharp Teeth Curved, 16-3/8"	1

6.

Vascular Surgery		Qty
Content		
FastSystem, Sterile Field Post		1
FastSystem, Standard Wishbone Frame		1
SnapClamp Blade Holder		1
Hinged Extension Arm, 25"		1
Mayo Swivel Retractor, 2-3/4"x2"(7cmx5cm)		1
Mayo Swivel Retractor, 3-1/2"x2"(8.9cmx5cm)		1
Fence Swivel Retractor, 4"x6"(10.2cmx15.2cm)		1
Splanchnic Swivel Retractor, 2"x6"(5cmx15.2cm)		1
Deaver Swivel Retractor, 2-3/4"x 4-1/2"(7cm x 11.4cm)		1
Malleable Slotted Swivel Retractor, 2"x 6-1/2"(5cm x 16.5cm)		1
Malleable Slotted Swivel Retractor, 3"x 6-1/2"(7.6cm x 16.5cm)		1
Harrington Sweetheart Swivel Retractor, 2"x 5"(5cm x 12.7cm)		1
Splanchnic Swivel Retractor, 2"x4-1/2"(5cmx11.4cm)		1
Renal Vein Swivel Retractor, 1"x 6"(2.5cm x 15.2cm)		1

Pelvic Surgery System		Qty
Content		
Omni- Flex, Sterile Field Post		1
Omni- Flex, Support Arm		1

SnapClamp Blade Holder	1
Omni- Flex, Small Wishbone Arm	1
Extension Arm(0.75" diameter), 20"	1
Anterior Swivel Retractor, 1-1/2"x 3"(3.8cm x 7.6cm)	1
Malleable Swivel Retractor, 3/4"x 2"(1.9cm x 5cm)	1
Malleable Swivel Retractor, 3/4"x 3"(1.9cm x 7.6cm)	1
Malleable Swivel Retractor, 3/4"x 4"(1.9cm x 10.2cm)	1
Posterior Swivel Retractor, 1-3/4"x 3"(4.5cm x 7.6cm)	1
Posterior Swivel Retractor, 1-3/4"x 4"(4.5cm x 10.2cm)	1
General Surgery	
Content	Qty
FastSystem, Sterile Field Post	1
Fastsystem, Standard Wishbone Frame	1
SnapClamp Blade holder	1
Hinged Extension Arm, 25"	1
Mayo Swivel Retractor, 2-3/4"x2" (7CMX 5CM)	1
Fence Swivel Retractor, 4"x6" (10.2cm x 15.2 cm)	1
Splanchnic Swivel Retractor, 2" x6x (5cm x 15.2 cm)	1
Deaver Swivel Retractor, 2-3/4"x 4-1/2"	1
Malleable Stotted Swivel Retractor, 2"x 6-1/2" (7.6 cm x 16.)	1
Harrington Sweetheart Swivel Retractor, 2"x5" (5cm x 12.7c)	1
Kelly Modified Swivel Retractor, 3" x2-1/2" (7.6 cm x 6.4cm)	1
Kelly Modified Swivel Retractor, 3" x " (7.6cm x 10.2cm)	1

C: SALINE TURP WITH ELECTRO – CAUTRY

This system should be compatible with following procedures:

- Saline TUR
- Conventional TUR
- Can be used for open surgery and Laparoscopic surgery

System should have following features:

- Output mode: Monopolar, Bipolar and Saline
- Monopolar cutting and coagulation and vaporization
- Saline cutting and coagulation
- Base frequency range : 350 kHz – 450 Hz
- Protection against electric shock
- Automatic Smoke Evacuation facility.

System should include following:

- Electrosurgical Unit
- Footswitch
- Telescope 30 Degree, 4mm, Autoclavable
- Bipolar Active Working Element for Transurethral resection in saline (TURIS)
- Bipolar HF cable
- Rotatable outer sheath, 26 Fr. , 2 stopcock
- Resection inner sheath, 24 Fr.
- Cutting electrode – 12 pieces

- Roller electrode – 12 Pieces.
- Needle electrode – 12 Pieces.
- Button electrode for plasma vaporization – 12 pieces.
- Enucleation electrode – 12 pieces.
- Light Guide cable, 3.5 mm, 3 Meter.
- Cystoscopy sheath, 22.5 Fr.
- Cystoscopy Bridge, 2 Way
- Rotatable Irrigation Port, 2 stopcocks.
- Ellick Evacuator
- Bipolar Forceps, Laparoscopic Bipolar and instruments used for vessel sealing.
- HF Electrosurgical device compatible with bipolar enucleation & Vaporization of prostate.
- Morcellator System along with suction and Morcelloscope.

Group-C Trauma& Emergency

A: ABG Machine (Cartridge Based)

- System should have facility to test broad range of Testing includes blood gases, electrolytes and other critical chemistry tests on one robust self-contained platform for measuring :PH, Pco2, PO2, Na+, K+,Cl-,,iCa, Glu, BUN, Hct, Creatinine, Lactate, HCO3*, TCo2*, BEecf*, BEb*, O2SAT*, iCa(N)*, tHb*, MDRD GFR.
- System should have facility to test following ABG parameters in single and multiple test cartridges-
PH, Pco2, PO2, Na+, K+,Cl-,,iCa, Glu, BUN, Hct, Creatinine, Lactate, HCO3*, TCo2*, BEecf*, BEb*, O2SAT*, iCa(N)*, tHb*, MDRD GFR.
- System should be USFDA approved or European CE Certified.
- The analyzer should not require any pressure cylinder.
- System should be portable so No Sample Transport required , so no delay, lost patient sample or sample integrity issues.
- System should have colored Touch – Screen in operation
- System should have in-built printer
- System should have complete menu for blood gases, hematocrit, electrolytes and other chemistries
- Analyzer should have solid state design with touch screen, in-built printer and with No moving parts, resulting in a high degree of reliability, with self-calibration for Each Test Accuracy and real-time results
- Portable, self-contained unit, battery and AC operation.
- Automatic Test Data Output Ensures efficient test reporting via the built-in printer and integrated data transmission to LIS and EMR.
- System should delivers real-time patient results using electrochemical sensor technology and single-use cartridges.
- System should be cost effective, reduced risk of blood exposure to users, no additional reagents
- System should have Automatic Calibration.
- 3 Years Warranty and up to 7 years CMC.

Group: E - Physiotherapy

Sl. No.	Items	Specifications
a.	High power LASER for Physiotherapy	<ul style="list-style-type: none"> • Microprocessor based scanning LASER machine. • The unit should be suitable for deep tissue penetration and pain management (Analgesic effects). • Simple controls with LCD display. • Continuous and pulsed mode operations. • Combined output of visible Red and Infrared LASER. • Laser output as per International standards. • Meridian point detector. • Computerised control panel with independent controls for X and Y axis. • External Battery back up • Slandered accessories. • Mobile mounted on trolley. • The unit should be of international standards with medical CE marking & other international safety
b.	Microwave Diathermy for Physiotherapy	<ul style="list-style-type: none"> • Thermal & non-thermal, Continuous & pulsed microwave therapy unit. • Controlled unit with one touch keys on control panel and automatic compensation for fluctuations in main voltage. • Memorizes Protocols. • Smart Card with wide range of protocols to memorise.(at least 50). • Facility to upgrade the equipment through website/ smart card. • LCD Graphic Display. • 250 W (In Constant Mode) And 1600 W (In Pulsated Mode). • Overheating Alarm. • Double protection system to guarantee extended magnetron life. • Integrated Serial Controller • Microprocessor based. • The unit should be international standards with medical CE marking & other international safety
c.	Ball Pool	<ul style="list-style-type: none"> • Dense foam padded mini ball pool • Round shape

- At least 500 multicolour balls of 7 and 8 cm diameter.
 - Pool side and bottom should be covered with durable rexene that wipes clean.
- d. Multi functional upper extremity Work station
 - Sturdy construction with durable laminated work surface.
 - Wheel chair accessible side shelves.
 - Dropout doors convertible into work space.
 - Facility to permit many activities in standing as well as sitting position.
- e. Equilibrium Board
 - Multiple patients can use it simultaneously.
 - Rocker, Rectangular
 - Rexene covered cushioned platform.
 - Platform size 45cm× 60cm× 15cm heigh.
- f. Stand-In- Table
 - For paediatric use
 - Height adjustable chest , pelvic and knee support.
 - Adjustable foot restrains.
 - Detachable rimmed tray for activities.
 - Chrome-plated uprights fitted on non-slip matted foot board.
- g. Bean Bags (Body Positioner)
 -
 - For paediatric use
 - Fit to provide customised semi-permanent positioning .
- h. Bolsters
 - Set of different size
 - Fit for paediatric use
 - Foam padded, covered with bright coloured Nylon/Tetron.
 - Solid, suitable for Rolling/Rocking exercises.
- i. Physio Gym Balls
 - Bright single coloured.
 - Inflatable, heavy duty vinyl ball.
 - Can support up to 150 kg
- j. Activity mattress
 - High quality
 - For paediatric use
- k. Hand Evaluation Kit
 - Kit should includes
 - Hydraulic Hand Dynamometer
 - Hydraulic Pinch Gauge
 - Finger Goniometer and other standard accessories.

GROUP: D :OBST & GYNAE

A: Surgical Instruments

Sl. No.	Instrument Name	Size
1.	Big Auto Clave	
2.	Boiler Big	4'x3'x2'
3.	Big Size Drums	(SS)
4.	Medium Size Drums	(SS)
5.	Small Size Drums	(SS)
6.	Steel Tray with cover	(12''X10'')
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7.	Steel Tray with cover	20''x 16''
8.	Self Retaining Abdomnal Wall Retractor	
9.	Gar – 130 Mayo Abdominal Trivalve Retractor	267 mm
10.	Leish Wilkinson cannula	Medium – GLC – 101 Small – GLC – 102
11.	Bladder Sound	
12.	Small Katori Bowl	(Gilli Pot)
13.	Stitch Removal Scissor	
14.	Right Angled Artery Forceps (Lahey Type) Blunt Tipped	8-10''
15.	Intestinal Non Crushing Clamp Staight	(28-30cm)
<hr/>		
16.	Intestinal Non Crushing Clamp Curved	(28-30 cm)
17.	Humbeys Skin Grafting Knife Handle	(Small)
18.	Artery forcepes curved (Spencer well type)	6'' 8''

10”

19. Artery forceps Straight – Small	
20. Artery forceps Straight – Long	
21. Curved artery forceps size	10cm (Micro Mosquito)
22. Right Angle artery forceps	(Lahey Type) Blunt tipped 8-10 inch
23. PEB Cannula	
24. Karman’s cannula	No-6
25. B.P Handle	
26. Kidney Tray	
27. Zerney retractor	Medium
28. Thudiwm nasal Speculum	16.5X9.0X74mm 19.5X10.5X76mm
29. Uterine Manipulator Double Ring Handle	(250mm)
30. Episiotomy Scissors	

INSTRUMENTS

Sl. No.	Instrument Name	Size
1	Faure Biopsy Forceps	(240mm)
2	Gauss Scalp Flap Forceps	(260mm)
3	Yaunkers Suction Tube	(300mm)
4	Bonneys Myomelotomy Clamp	(250mm)
5	Cusco Vaginal Speculum – Small	(90X25mm)
6	Cusco Vaginal Speculum –Medium	(100X28mm)
7	Cusco Vaginal Speculum – Large	(110X30mm)
8	Sims Vaginal Speculum – Small	65X26X72X30mm

9	Sims Vaginal Speculum – Medium	70X32X75X35mm
10	Sims Vaginal Speculum – Large	72X34X80X38mm
11	Deidl vaginal speculam children & Infant	80X8mm
12	Deidl vaginal speculam children & Infant	80X10mm
13	Deidl vaginal speculam children & Infant	90X14mm
14	Deavers abdominal Retractor Adult	50mm
15	Kevourkian younge endo cervical biopsy curette scraping end with specimen basket	300mm
16	Recamier uterine curettes fibre handel sharp rigid	300X14mm
17	Recamier uterine curettes fibre handel blunt rigid	300X16.5mm
18	Recamier uterine curettes fibre handel blunt rigid	300X19.5mm
19	Bozemann Uterine dressing forceps plain	250mm
20	Blumenthal uterine dressing force	300mm
21	Teale uterine vulswllum forceps	3X4 Teeth 250mm
22	Novak endometrial biopsy curette	240mm
23	Teale uterine vulsllum forceps	4X5 Teeth 250mm
24	Dartigues uterus holder forceps	255mm
25	Collin uterus holder forceps	285mm
26	Doyen myoma screw ring handle four spiral	180mm
27	Doyen myoma screw “T” handle two spiral	150mm
28	Wertheim Uterine scissors curved	200m
29	Baby Mikulicz Peritoneum forceps	140mm
30	Heaney Hysterectomy forceps deeply curved atraumatic jaw	215
31	Smellie Perforator perforator	270mm
32	Pinard for fetal heart sound aluminium (Feto scopes)	155mm
33	Wartheim Needle holder with T/C Tip	

34	Castro Viejo Needle holder T/C Tip straight with catch	
35	Saunders I.U.D Removing hook	320mm
36	Vegotomy hook, Blunt	256mm
37	Burike parametrium clamp – Short Mouth	250mm
38	Burike parametrium clamp – Long Mouth	250mm
39	Kie back parametrium scissors	240mm
40	Maingot’s Hysterectomy clamp	200mm
41	Heywood – smith sponge & dressing forceps	215mm
43	Mayo hegars needle holder with TC TIP	150mm
44	Mayo hegars needle holder with TC TIP	180mm
45	Mayo hegars needle holder with TC TIP	205mm
46	Allis tissue grasping forceps	150mm
47	Allis tissue grasping forceps	200mm
48	Abdominal scissors sharp x Blunt	160mm
49	Wertheims uterine scissors curved	145mm
50	Wertheims uterine scissors curved	230mm
51	Sims uterine sharp scissors (Sharp x Sharp)	200mm
52	Sims siebold Uterine Scissors Straight	250mm
53	Kochers hysterectomy clamps straight	230mm
54	Sims uterine depressor double ended toothed (Both side)	260mm
55	Sims uterine probe malleable, Curved	330mm
56	(8X5mm) Sims uterine curettes sharps & Blunt	275mm
57	(8X7mm) Sims uterine curettes sharps & Blunt	275mm
58	Braun Obstetrical Forceps	350mm
59	Green Armytage caesarean section haemostatic forceps	220mm

60	(40X60mm) Doyens retractor	230mm
61	(25X300mm) Deavers retractor	
62	(38X300mm) Deavers retractor	
63	(50X300mm) Deavers retractor	
64	Zerney retractor	18-20mm Long
65	8mm OVUM Forceps	250mm
66	Adson dissecting forceps	125mm

MICRO INSTRUMENTS

Sl. No	Instrument Name	Size
1	Adson Micro Dissecting Forceps Fine	(125mm)
2	Adson Micro Dissecting Forceps Toothed	(125mm)
3	Micro scissors Curved Sharp	(145mm)
4	Micro scissors curved Blunt	(145mm)
5	Castroviejo needle holder T/C T/P with catch straight	(180mm)

Group: F-RCC

A: Medical Physicist Accessories

Specification for Secondary Standard Dosimeter (Reference Grade)

A reference grade Advanced Therapy Dosimeter instrument used to measure the charge and current from ion chambers in radiation therapy, and provides bias voltage for all commonly-used chambers. The instrument should have customized display screens & simultaneously show dose, exposure time, dose rate, effective exposure time, average current/rate, accumulated charge/dose, bias voltage, leakage, and other important information that ensures the validity of the instrument. A customization software should allow design of 16 screens that display conditions, parameters, values and text. Up to 32 chamber factors, 11 bias voltages can be programmed. It should be PC compatible and connects via a RS-232 cable.

Should have the minimum Technical features:

Programmable Reference grade Electrometer

Chamber Library for 32 chambers with Auto/TP corrections

Display: 4 line x 20 character

Measuring units: electrical units, Amps & coulombs, integrated dose rate (or charge) and dose rate (or current)

Charge: Range – 1pC to 2,400nC, Resolution- 1pC to 1nC

Rate: Range – 0.1pA – 100.0nA, Resolution: 0.1pA – 0.1nA

Timing feature: 0-3,540 second

11 user-defined bias settings from -500 to +500V

Readout in C, A, R, Gy, Sv, Bq and more

Long Term Stability: $\pm 0.1\%$ per 5 years.

Leakage: <10 fA

Power Supply: 220V, inbuilt rechargeable battery.

Supplied complete with Farmer-Type Ionization Chamber, 0.6 cm³, Waterproof including a 1 m (3.3 ft) cable, BNC Triax connector, and a PMMA buildup cap, extension cable (10m) & water phantom 30 x 30cm. Calibration certificate from manufacturer to be provided.

B: Mould Room Accessories

Specification for patient Immobilization device:

Set of state of the art Carbon fiber system to be quoted including: A unique base plate for immobilization of Head-Neck-Shoulder and Pelvic in prone or supine position. Must be State-of-the-art finish, precise marking scale and centre line. Should have the facility to index to any couch top, using indexing rod.

Set of six Head rest with low density, Prone Head Holder, Tilting / Pituitary Base Plate for head (from 5° to 45° head elevation) to be offered.

A sturdy breast board made of full carbon fiber with complete patient positioning accessories including adjustable upper & lower arm support, round head rest, different elevation positions and

adjustable bottom-stopper. All patient positions are reproducible. 16" wide CT compatible design. Should have the facility to index to any couch top, using indexing rod.

Wing / Butterfly Board made of carbon fiber with adjustable 'T' handle for patient positioning in arms-up position. Slot for head rest should be standard.

System to be included for extending neck region treatment & various sizes of comfort cushions .

Digital water bath suitable for accommodating bigger sheets of AIO base plate with Digital LED readout be included.

Thermoplastic sheets for Head, Head & Neck, Breast, Hip & Pelvic to be offered minimum 25each

Group: G- Gastroenterology

A: Electrosurgical cautery-

Description and Specification: -

- System should be European CE and/or US FDA approved.

Suitable for use during GI Endoscopy Procedure

Should have mono polar cutting coagulation and blended current Facility and Bipolar configuration mode for polypectomy and Procedure like POEM etc.

Should have time controlled cutting (Endo cut mode)

Should have adequate safety feature

Must be compatible with argon beamer system .

Pedal foot switch (Monopolar and Bipolar)

Reusable patient plate with cable

Should have display unit

Standard set of Accessories including universal adaptor and monopolar and Bipolar cable etc. They should be compatible with basic machine of major manufacturer.

Group: H- Radiology

A: Rate contract of dry film used in X-ray and CT scan with installation of CR System free of cost.

Dry Imaging X-ray Films

Size: 14”X17” in. (35X43 cm) Per Sheet

Size: 11”X14” in. (28X35 cm) Per Sheet

Size: 10”X12” in. (25X30 cm) Per Sheet

Size: 8”X10” in. (20X25 cm) Per Sheet

Note:

- 1. X-ray films should be dry imaging films and should supply with 3 nos. of new updated printers with CR System free of costs with minimum two or more tray based compatible laser/imager, capable to print all sizes of films, with minimum throughput of 100 Sheets/hour with higher resolution of minimum 500 ppi at a spot of 50µm.**
2. The printer for the X-ray systems films supplied should be compatible with our existing equipment's like CR System, DR Systems etc.
3. All preventative maintenance, spares, onsite services shall be the responsibility of the bidder throughout the contract period.
4. The imager can have integrated interface supports printing from DICOM print modalities and can connect non-DICOM modalities using PACS Link Medical Image Managers.
5. Each Film draw of the supplied imager is compatible with five following sizes.
 - Size: 14”X17” in. (35X43 cm)
 - Size: 11”X14” in. (28X35 cm)
 - Size: 10”X12” in. (25X30 cm)
 - Size: 8”X10” in. (20X25 cm)
6. The quoted dry imaging X-ray should have CE or FDA or BIS certification.
7. The manufacture/ bidder should quote for per sheet of X-ray films of each size irrespective of pack size and declare the pack sizes in the bidding document.
8. Supplier may have to demonstrate the sample of above unexposed films.

B:PACS for deptt. of Radiology

General Description and System Components :-

- The supplier shall supply, install and commission a DICOM 3.0 compliant Picture Archiving and Communication System (PACS) with unlimited modality connections and integrated Radiology Information System (RIS).
- The PACS and RIS shall integrate with the existing Hospital Information System (HIS) and Electronic Medical Recording (EMR). The supplier must successfully demonstrate its full integration during post-qualification period within a span of 15 days.
- The PACS can be able to store/archive and distribute images and text data from the existing radiographic equipment using either Computed Radiography System (CR) or Digital Radiography System (DR), CT Scan, MRI and Ultrasound machines of the hospital. This should also be able to accommodate additional compatible imaging modalities in the future.
- The supplier shall migrate/transfer the patient data and images using the new PACS from the existing archiving system used by the hospital without interrupting the operation of the radiology department.
- The supplier shall provide all the technical support and training that will be required by the hospital to ensure the smooth and efficient operation of the PACS.
- The supplier shall provide the required license for the RIS/PACS software that will allow unlimited access information by the radiologists and referring physicians either for viewing inside the hospital or for remote access. It also include a 3D License (if required) for Radiologist be able to use this feature for reading outside the hospital. The Licenses must be unlimited.
- The system must allow viewing of images and reports by other clinical department of the hospital which is remote from the radiology department without additional fees charged by the supplier of PACS/RIS

Group: I- Microbiology

A: Automated Microbial ID/AST System

- a. Analytical Parameters: Identification up to species level Direct growth based (up to MIC level)
- b. Testing base: Should be on disposable sealed bar coded card (ready to use) with pre filled reagents with pre inserted transfer tube for easy automatic transfer of inoculums.
- c. Type of panel: It should have different panels (ID & AST separately depending on the user to save cost) it should be based on advanced colorimetric principle
- d. Panels for: Gram negative panels, Gram positive panels, anaerobic ID panels, ESBL confirmation panels, Neisseria & hemophilus & yeast panels.
- e. Panel capacity : 30 or more panels on board
- f. Sample dispensing: system should not require any manual dispensing of inoculum to avoid human error, it should be done automatically
- g. Additional reagents: system to be compatible with cost effective test cards to avoid any extra costs of additional reagents.
- h. Incubator: On board incubation chamber.
- i. Testing time : Ideally be on the same day (between 3-10 hrs), which reduces time to result.
- j. Printer: External printer for direct report print outs.
- k. Bar Code: Positive sample identification with the bar code on the card. (ID of AST card)
- l. Software : should be windows based, user friendly with touch screen key pad. Should facilitate monitoring of all the functions of a Microbiology lab and infection control procedure (HAI) Comprehensive antibiotic scope including the latest drugs, compliments formulary needs. Should have facility to design user defined alerts and option for designing drug suppression rules as per hospital internal infection control policy (antibiotic policy) Customized reports, nosocomial and epidemiology reports should also be obtained.
- m. Installation in India: Minimum 300 installations in the country with reputed hospitals / Organizations.

B:Automated Multi Parametric Immunoassay Analyzer.

1. The system should be fully automated walkway Immunoassay analyser based on ELFA technology.
2. The system should have independent sample processing section with each section of having minimum six tests at a time.
3. The system should be based on disposable single dose concept with ready to use reagent strips & solid phase receptacle (SPR)
4. The system should be free from any tubing for mixing of reagents.
5. The system should have dry calibration card or barcode which should be provided with each kit.
6. The kits should have maximum pack size of 60 tests with all the reagents including calibrator & control provided inside – no additional reagents for running the test.
7. The test kit should have Thyroid, Fertility, Infectious Diseases, Drug Assays (Digoxin) & some emergency tests like HS Troponin I, Myoglobin, CK-MB, HIV-4th Ge. & D-Dimer Exclusion, Galectin – also Toxoplasma & CMV Avidity & Hepatitis Markers.
8. Calibration stability should be at least 14 days or 28 days.
9. All reagent should be bar coded and shelf life of the kit should be at least 6 months

10. User friendly graphic interface and automated barcode identification with complimentary updates of software.
11. Comprehensive training for lab staff and support service at free of cost
12. Should have software and hardware to communicate with laboratory personal computer.
13. Should be FDA or CE or ISI approved product.

Group: J-- Pharmacology

A: Polygraph

Sl. No.	Name of equipment	Specification
1.	Polygraph	<p>a) The signal should be acquired and analyzed in two different modes, one should be logging & another should be wired mode.</p> <p>b) Logger/wireless system should have the facility to measure and analysis of electrocardiogram, R-R interval, Heart rate, electromyogram, electroencephalogram, Respiration, Pulse, Skin temperature and electro dermal activity (GSR) integrated into the system.</p> <p>c) Wired system should have the facility to measure and analysis of Nerve conduction velocity, Blood pressure, Heart sound as well as Electrocardiogram, Electromyogram, Electroencephalogram, Respiration, Pulse, cardiac axis analysis.</p> <p>d) Should have constant current and constant voltage isolated stimulator for nerve conduction studies.</p> <p>e) The teaching software should have step by step instructions, protocol and experimental design for performing various experiments in physiology and/or pharmacology teaching applications. Also should have sample data for human and animal experiments for demonstrating to the students.</p> <p>f) Logger system should allow to record data from dual channel wearable device with recording facility of 256 to 1000 per second.</p> <p>g) It should provide a color display for visual feedback, speaker for auditory feedback, vibration for haptic feedback, event markers and alarms.</p> <p>h) It should have the memory capacity of eight (8) GB with operating time of twenty-four hours</p> <p>i) Logger Software should have signal averaging, filtering, FFT, histogram, automatic data reduction, template analysis, peak detection, equation generator, detect & classify heart beats, locate ECG complex boundaries, heart rate variability and other analysis tools.</p> <p>j) It should have calculation channel for the raw signals like heart rate from ecg, R-wave amplitude from ecg, R-R interval from ecg, root means square from emg, integrated emg, alpha, beta, delta, theta & gamma from eeg, respiration rate from respiration.</p> <p>k) It should customize and automate analysis routines with new developer tools including scripting, network data transfer.</p> <p>l) Wired system should have the facility for electrode performance checking.</p> <p>m) It should have twenty-four bit analog to digital resolution with programmable analog & digital filter.</p> <p>n) Filters should be automatic or user adjustable with pulse level TTL compatible.</p> <p>o) Sample rate should be 400 k samples/second aggregate across four channel, 100 k samples/second on all four channels for short duration, 50 k samples/second on all four channels continuously</p> <p>p) The system should communicate through USB cable with gain range of 10X to 50,000X.</p> <p>q) System should supply with compatible software version and user manual with GLP security option.</p> <p>r) It should support the latest operating systems with multiple display modes.</p> <p>s) Both the wired and wireless system should be able to record and analyze independently and together when required.</p> <p>t) Software should have the event marking features.</p> <p>u) Compatible PC with i3 processor, 1TB HDD, 4 GB RAM, Original operating system and other latest softwares, DVD+RW, UPS</p> <p>v) Colour Laser printer (wireless) with Photocopy and scanning facility should come with the system.</p> <p>w) Should be CE approved product.</p>
2.		

B: Soxhlet apparatus-

Manual, Stirrer bar, Still pot, Distillation path, Thimble, Solid, Siphon top, Siphon exit, Expansion adapter, Condenser, Cooling water out, Temperature range:- 50⁰ C to 350⁰ C

C: Items for Animal House

Sl. No.	Name	Specifications	Qty. required
1.	Sliding Type Battery/Rack for holding 25 Polypropylene Rat cages	<ul style="list-style-type: none">•AISI 304 quality stainless steel square pipe of Size 30mm x 30mm and stainless steel angle.•Movable on 4 No. of Polyurethane swivel castor wheels, 2 with brakes.•The entire Battery/Rack should have stoppers on the backside of the angles to prevent cage falling from the back.•All the joints welded with Argon Arc welding with Gossy / Mat finish.•For holding 25 Rat Polypropylene cages, each cage size:- 421x290x190 mm.	1
2.	Rat cages	<p>Polypropylene rat cage-size: 421x290x190 mm. With Stainless Steel Top Grill with Flap Cover and 300ml water feeding bottle arrangement.</p> <p>Body –</p> <ul style="list-style-type: none">•Autoclavable at 121 C temperature and pressure 15 LB/ Sq inch.•Unbreakable <p>Top Grill–</p> <ul style="list-style-type: none">•AISI 304 quality stainless steel material.•Provision for fixing water bottle.•Provision for Feed Pallets.•With two hooks for fixing the grill to the top of the body of cage•Welded on a frame of 4mm SS Rod.•With gap between the wires will be 5-8 mm. <p>Water Bottle–</p> <ul style="list-style-type: none">•Unbreakable, Autoclavable at 121 C.•Food Grade quality Polypropylene.•Capacity 300 ml.•With Neoprene Rubber cork.•With 304 quality stainless steel Nozzle.	25
3.	Sliding Type Battery/Rack for holding 25 Polypropylene Mice cages	<ul style="list-style-type: none">•AISI 304 quality stainless steel square pipe of Size 30mm x 30mm and stainless steel angle.•Movable on 4 No. of Polyurethane swivel castor wheels, 2 with brakes.•The entire Battery/Rack should have stoppers on the backside of the angles to prevent cage falling from the back.•All the joints welded with Argon Arc welding with Gossy / Mat finish.	1

		For holding 25 Mice Polypropylene cages, each cage size:- 290x220x140 mm.	
4.	Mice cages	<p>Polypropylene mice cage-size: 290x220x140 mm. With Stainless Steel Top Grill with Flap Cover and 250 ml water feeding bottle arrangement.</p> <p>Body –</p> <ul style="list-style-type: none"> •Autoclavable at 121 C temperature and pressure 15 LB/ Sq inch. •Unbreakable <p>Top Grill–</p> <ul style="list-style-type: none"> •AISI 304 quality stainless steel material. •Provision for fixing water bottle. •Provision for Feed Pallets. •With two hooks for fixing the grill to the top of the body of cage •Welded on a frame of 4mm SS Rod. •With gap between the wires will be 5-8 mm. <p>Water Bottle–</p> <ul style="list-style-type: none"> •Unbreakable, Autoclavable at 121 C. •Food Grade quality Polypropylene. •Capacity 300 ml. •With Neoprene Rubber cork. With 304 quality stainless steel Nozzle. 	25
5.	Restrainer/Holder for Rat and Mice		10
6.	Built in battery unit with polypropylene alloy Rabbit Cage	<ul style="list-style-type: none"> •Polypropylene Alloy Cage Body – <ul style="list-style-type: none"> •Autoclavable at 121 degree C temperature and Pressure 15 LB / Sq inch. •Unbreakable quality. •Food Grade quality. •The bottom of the cage will be removed to fix the stainless steel bottom grill. •Provision for fixing water bottle and food hopper in the body itself. •SIZE: 650 x 500 x 450mm. •Main Body : The battery structure should be fabricated from AISI 304 quality stainless steel square pipe of Size 30 x 30mm , SS wire mesh of 10 swg & sheet of 18swg. •Door : The door should be provided in the main structure of stainless steel as shown in the picture 1 & 2 Size : 400 x 200mm •Bottom Grill: fabricated from 12 swg Stainless steel wire. Size 12 x 12mm welded on a frame of 5mm. •Excreta Tray : Fabricated from 22swg AISI 304 quality stainless steel sheet. All the corners should be round and sheet double fold on the verges to provide good strength. Three handles will be provided, one in front to pull the tray and two on the side hinges to uplift the tray without spreading the Urine and fishes. 	1

		<ul style="list-style-type: none"> • Food hopper : Fabricated from 22swg sheet of size: 100 x 65 x 160mm with clamps to fit the hopper on the polypropylene body • Water bottle: 500 ml. Unbreakable, autoclavable Polypropylene alloy water bottle fitted with neoprene rubber cork, stainless steel bent nozzle & SS ball. • Wheels : The entire battery with cages should move on 4 nos. of Polyurethane swivel castor wheels two with brakes and two without brakes. • All the joints will be argon arc welded with smooth and glossy finish. • Overall Size: – 58” x 21” x 72” (L x B x H) 	
7.	Rabbit Holder	Rabbit restrainer-wooden box-type, front top lid opening, air-window push system with metallic head holder (14”x6”x7”)	5
8.	Built in battery unit with polypropylene alloy Guinea Pig Cages	<ul style="list-style-type: none"> • Polypropylene Alloy Cage Body : <ul style="list-style-type: none"> • Autoclavable at 121 degree C temperature and Pressure 15 LB / Sq inch. • Unbreakable quality. • Food Grade quality. • Provision for fixing water bottle and food hopper in the body itself. • SIZE: 650 x 500 x 270mm. • Main Body : The battery structure should be fabricated from AISI 304 quality stainless steel square pipe of Size 30 x 30mm , SS wire mesh of 10 swg & sheet of 18swg. • Door : The door should be provided in the main structure of stainless steel as shown in the picture 1. • Excreta Tray: Fabricated from 22swg AISI 304 quality stainless steel sheet. All the corners should be round and sheet double fold on the verges to provide good strength. Three handles should be provided, one in front to pull the tray and two on the side hinges to uplift the tray without spreading the Urine and fishes. • Food hopper : Fabricated from 22swg sheet of size: 100 x 65 x 160mm with clamps to fit the hopper on the polypropylene body • Water bottle: 500 ml. Unbreakable, autoclavable Polypropylene alloy water bottle fitted with neoprene rubber cork, stainless steel bent nozzle & SS ball. • Wheels : The entire battery with cages should move on 4 nos. of Polyurethane swivel castor wheels two with brakes and two without brakes. • All the joints should be argon arc welded with smooth and glossy finish. • Overall size: 58” x 21” x 70” (LxBxH) 	1
9.	S.S. Platform Trolley	S.S. Platform Trolley open type, for animal cage transportation	1
10.	SS Pedal operated	Stainless steel, Pedal operated	10

	dustbin		
11.	SS scoop	•S.S. Scoop	10
12.	SS Excreta Tray	•S.S. Excreta Tray	10
13.	SS Spatula	•S.S. Spatula	10
14.	Animal weighing balance for rat and mice	•for rat and mice	1
15.	Animal weighing balance for rabbit and guinea pig	•for rabbit and guinea pig	1
16.	Feeding water bottles 150 ml	<ul style="list-style-type: none"> •Unbreakable, Autoclavable at 121⁰ C., •Food Grade quality Polypropylene alloy water bottle fitted with Neoprene Rubber cork, •With stainless steel cap with straight Nozzle & SS ball. •Capacity 150 ml. 	10
17.	Feeding water bottles 150 ml	<ul style="list-style-type: none"> •Unbreakable, Autoclavable at 121⁰ C., •Food Grade quality Polypropylene alloy water bottle fitted with Neoprene Rubber cork, •With stainless steel cap with bent Nozzle & SS ball. •Capacity 150 ml. 	10
18.	Feeding water bottles 250 ml	<ul style="list-style-type: none"> •Unbreakable, Autoclavable at 121⁰ C., •Food Grade quality Polypropylene alloy water bottle fitted with Neoprene Rubber cork, •With stainless steel cap with straight Nozzle & SS ball. •Capacity 250 ml. 	10
19.	Feeding water bottles 250 ml	<ul style="list-style-type: none"> •Unbreakable, Autoclavable at 121⁰ C., •Food Grade quality Polypropylene alloy water bottle fitted with Neoprene Rubber cork, •With 304 quality stainless steel cap with bent Nozzle & SS ball. •Capacity 250 ml. 	10
20.	Feeding water bottles 300 ml	<ul style="list-style-type: none"> •Unbreakable, autoclavable at 121⁰ C, Food Grade quality Polypropylene alloy water bottle fitted with neoprene rubber cork, •With stainless steel cap with straight nozzle & SS ball. •Capacity 300 ml 	10
21.	Feeding water bottles 300 ml	<ul style="list-style-type: none"> •Unbreakable, autoclavable at 121⁰ C, Food Grade quality Polypropylene alloy water bottle fitted with neoprene rubber cork, •With stainless steel cap with bent nozzle & SS ball. •Capacity 300 ml 	10
22.	Feeding water bottles 500 ml	<ul style="list-style-type: none"> •Unbreakable, autoclavable at 121⁰ C, Food Grade quality Polypropylene alloy water bottle fitted with neoprene rubber cork, •With stainless steel cap with bent nozzle & SS ball. •Capacity 500 ml 	10
23.	Oral feeding needles for mice	•20 swg for mice	50
24.	Oral feeding needles for rat	•18 swg for rat	50

25.	Oral feeding needles for Rabbit/ Guinea pig	• 16 swg for Rabbit/ Guinea pig	25
26.	Ear Punch for rat and mice		10
27.	Animal Identification device		100
28.	Rodent bleeding capillaries		100
29.	S.S. Working Table with shelves	• 5ftx3ftx3ft (LxBxH) with drawers and shelves	1

D: Blood Pressure Simulator

- | |
|--|
| <ul style="list-style-type: none"> • Redesigned and durable control unit • Palpable radial pulse • Simple calibration procedure • External speaker |
| <ul style="list-style-type: none"> • Control unit allows instructor to <ul style="list-style-type: none"> • Select systolic and diastolic settings • Turn auscultatory gap on or off • Easily calibrate unit for use with any sphygmomanometer • Adjust volume • Adjust pulse rate |
| <ul style="list-style-type: none"> • Students <ul style="list-style-type: none"> • Use normal procedure to place cuff on arm • Check palpable pulse at the radial site • Pump cuff • Pressures are activated at release valve • Read pressures on sphygmomanometer • Auscultate Korotkoff sounds with any stethoscope through a speaker in the arm |
| <ul style="list-style-type: none"> • Amplifier/Speaker system <ul style="list-style-type: none"> • 30 watt amplifier reproduces sounds with extreme clarity. For group presentations. Complete with speaker and wire connections. AC. Sh. Wt. 11 ls (4.99 kg) • Adult Vein Puncture and different types of Injection Training Arm • Complete venous access for <ul style="list-style-type: none"> • Basilica vein • Cephalic vein` |

Group- K- Cardiology

Cardiac Cath Lab.

a:Cardiac Cath Lab. (MECHANISED SINGLE PLANE SYSTEM) - Qty.01

State of the art single plane cardiovascular system with flat panel detector technology digital imaging system for diagnostic procedures and interventional cardiovascular procedures, valvuloplasty , vascular Angiography, pediatric interventional cardiology and online DSA. The system must include all package for Cardiac applications. The system should be of latest generation and options for future upgradations if required later on (should be future ready).

1.0 Single Plane Gantry system

1.1 The system should have slim design multidirectional C' arm gantry: ceiling suspended/ floor mounted providing full body coverage. Gantry movements should be rapid, motorized & collision proof. Manual override by the operator should be possible. There should be equivalent maneuverability for unobstructed resuscitation during cardiac arrest, while continuing to do fluoro/cine at various angulations without any obstruction at head end.

1.2 It should be possible to pre-programme the gantry and table for multiple/several user defined examination positions. (at least 30).

1.3 Gantry should have fast speed for angulations and positioning. All movements should be motorised with minimum speed of 18deg/sec for all positions..

1.4 Head to toe coverage with Single plane without repositioning the patient should be available.

1.5 Motorised peripheral position for peripheral and vascular interventions should be available.

1.6 Facility for motorised positioning/rotation of ceiling pivot by +/- 90 deg for improved workflow. Patient access should be possible from both left and right side

2.0 Table

2.1 Table should be floor mounted long table with carbon fiber table top with easy patient transportation capability.

2.2 Table should have at least +/- 15 deg head up/down table tilt and table pivot/ rotation facility

2.3 It should support patient load of min 160 kg or more.

2.4 Table should have a Radial procedure compatibility arm/accessories as part of standard.

3.0 X-Ray Generator:

3.1 100 KW or more high frequency generator with latest technology compatible with high resolution imaging along with facility to automatically adjust the dose according to the size of the patient.

4.0 X-Ray Tube:

4.1 X-Ray tube should be with fine focal spot (small & large) with high cooling rate to ensure continuous operation, capable of pulsed fluoroscopy on both focal spots. The large focus power output 80 KW or more. The Pulsed Fluoroscopy should be offered with pulse rate of 3.75 frames /sec to 30 frames/sec.

4.2 The X-Ray tube should have Anode heat storage capacity of at least 2.4 MHU or more to run continuously for 6-8 hours without shutting off.

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4.3 X-Ray tube must be capable of long fluoro time of at least 2 min at one go as occurs in CTO cases or long interventional procedures without getting heated.

4.4: The system should have latest hardware and software to prevent unnecessary radiation.

5.0 Radiation protection:

5.1 The system should have integrated computer controlled (preferably automatic) X-Ray Beam filtering with copper filters of various sizes (0.2mm to 0.9mm) for soft radiation filtration in both fluoro and acquisition mode . Please list the special filters available

5.2 The system should have positioning of collimator blades without radiation.

5.3 The system should have monitoring and display of X-ray dose during the patient examination. It should be possible to create a DICOM based dose report of the patient.

5.4 The system must have all software/hardware package for radiation safety of operation and patient like CLEARITY IQ/ CARE & CLEAR OR ITS EQUIVALENT.

5.5 System should meet all National & International safety standards & comply with BARC & AERB guidelines.

6.0 Digital imaging System:

6.1 It should have flat panel detectors 30 cm X 30 cm to max of 30cmX 40cm. Optimal for both coronary and peripheral work.

6.2 Option for 3-4 zoom fields with smallest of atleast 6|| or 15-16 cm in diagnol.

6.3 System should have acquisition and processing in 1024x1024 matrix up to 25/30 fps

6.4 System should have cine loop replay facility & Last image hold facility during fluoroscopy

6.5 System should have image storage capacity of at least 1,00,000 images in 1024 x 1024 matrix.

6.6 System should have capability of ECG display on the live image monitor and archive the ECG display along with angio images on CD, during the acquisition.

6.7 System should have on-line & off-line validated coronary analysis and ventricle analysis program. The software should have Auto calibration facility for stenosis measurement with geometrical and

densitometry calculations. The analysis should be possible from table side in the examination room and from the control room and review station possibly.

6.8 The system should have table side control operation with touch screen for complete acquisition and post processing capabilities.

6.9 The system should have on-line DSA capabilities in 1024 x 1024 matrix with acquisition frame rate of 1 frame/sec to 7.5 frames/sec. 6.10 It should be possible to have digital rotational angiography and rotational DSA facility

6.11 The system should have facility for storage of fluoro loop scene of last fluoro run (as long as the run). Unlimited and continuous forward fluoro storage facility with excellent quality of fluoro images.

6.12 The system should have auto image transfer to PACS facility in background mode

6.13 The system should be quoted with 3D modeling/analysis of coronary arteries.

6.14 The latest complete software and hardware for visualizing stent with extra high-resolution from table side control.

6.15 It should be possible to do angle and distance measurements.

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7.0 Monitors / Display :

7.1 The monitor display system in examination room should be ceiling suspended and it should be possible to position it on the left or right side of patient table. The monitor should be a single high resolution monitor of at least 56" and 8 megapixel resolution with PIP facility to display live and reference image from each plane, patient hemodynamic monitoring, 3D image and CT imaging or IVUS images. One medical grade back up monitor to be provided in console room and one in review station (outside the lab)

7.2 High resolution medical grade TFT/LCD monitors for live image of both planes in control room and monitor to display 3D image along with multi modularity workstation

8.0 Digital Archiving

8.1 System should have facility of image archiving on CD/DVD in 512X512 matrix.

8.2 Networking for auto Image transfer during procedure from cathlab in background mode without affecting the system operation into distant review stations.[2 in no].

8.3 All review station to have high end medical grade monitors.

9.0 3D Acquisition and Cross-Sectional Imaging:

9.1 The system should have cross-sectional CT like imaging based on rotational angiography /Pre Acquired CT data..

9.2 System should have software/hardware package for guidance of valve implantation in TAVI procedure from rotational angiography data

9.3 It should be possible to have 3D image reconstruction of vascular structure , Left atrium of heart and aortic arch from rotational subtraction angiography data. The cross-sectional & 3D images should have processing capabilities in the examination room and control room with dynamic 3D roadmapping

9.4 System should have facility of auto positioning of C Arm depending upon 3D image . It should be possible to differentiate between devices like stent and artery in 3D image .

9.5 System should have 3D fusion of cardiac CT data on live fluoro for optimized performance in Chronic total occlusion (CTO)cases.

10.0 CATHLAB RECORDING SYSTEM (Electro-Physiology and Hemodynamic Recorder)

10.1 The following features should be available in the recorder • 12 Lead ECG Amplifier with floating input • At least 2 pressures with floating inputs • Time and amplitude measurement with electronic calipers • Laser Printer with minimum 16 MB memory with minimum 1200 dpi

10.2 The patient connection box should be easy to install at the patient table in the examination room

10.3 18" color wave form monitor with programmable layout and digital monitoring readout – Two No in control room should be offered

10.4 Display on large 56" display in exam room should be offered

11.0 UPS 12.1 System should be offered with suitable online full back up UPSwith at least 30 min. battery backup for complete Cath Lab including cine and fluoroscopy. Emergency lighting should also be on UPS

12.0 Integrated Electrophysiology system with radio frequency ablator

12.1 EP recording system-

1. Minimum 40 intracardiac channels

2. digital amplifier with minimum 32 bit A/D converter with 2 KHZ resolution

3. Review software (PC ready)

4. Should be FDA and CE approved.

5. Sparatemoitor for EP recording and review. Set up should not interfere with routine interventional work.

6. Should be upgradable to 3D mapping system.

7. EP stimulator should be standalone with minimum of 9 pre-programmed protocols and 10 user defined protocol.

8. RF ablator – latest generation system with minimum 130 watt output. Compatibility- thermistor and thermocouple. Should have facility of sequential ablation of upto 4 electrodes. Compatibility with irrigation pump. Ablation catheters should also be included.

ACCESSORIES to be supplied:

13.1: State of the art High Pressure Injector – Two (table mounted)

13.2 Lead Glass 200 x 120 cm. (as per international radiation protection standard)

13.3 Good quality, light weight 0 Lead overlap Aprons skirt top types with hangers - 6nos and wrap around 12 nos. (as per FDA standard). Radiation protection CAPS- 6 nos.

13.4 Thyroid Guard - 12 nos. (as per international radiation protection system)

13.5 Ceiling suspended radiation protection - 1 no. (as per international radiation protection system)

13.6 Table mounted radiation protection - 1 no. (as per international radiation protection system)

13.7 Biphasic defibrillator cum multipara monitor with external pacing facility.

13.8 ACT machine 1 no with one set of cartridges.

13.9 Integrated two way communication system between control room and examination room. Light music system in the lab.

15. It should be CE & US FDA Approved

16. The bidders should quote their latest model and state of the art machine with Latest version and should specify the time of FDA approval of the Model.

(b)BIPAP Machine

BiPAP A40 Specifications (1/3)

Ventilation modes CPAP, S, S/T, PC, T, AVAPS-AE

Hybrid ventilation :Adjustable AVAPS (Average Volume Assured Pressure Support)

AVAPS rate: 0.5 cmH₂O/min. up to 5 cmH₂O/min.

IPAP 4 – 40 cmH₂O

EPAP 4 – 25 cmH₂O

Target tidal volume: (when AVAPS enabled) 200 – 1500 ml Breath rate 0 – 40 BPM (4 – 40 BPM in T mode) Inspiratory time 0.5 – 3 sec. Triggering and cycling Digital Auto-TRAK algorithm / Flow trigger/sensitive autotrak Rise time 1 (100 ms) – 6 (600 ms) Size 21.6 cm W x 19 cm L x 11.5 cm H Weight 2.1 Kgs (with power supply) Noise level < 30 dBA at 10 cmH₂O Alarms • Patient disconnection • Apnea • Low minute ventilation • Low tidal volume (with AVAPS only) • High respiratory rate • Low leak Alarm (system alarm) Monitoring • Pressure • Tidal volume • Minute Ventilation • Respiratory rate • Leak • I /E ratio • SpO₂ and Heart Rate (when oximetry module connected) Battery module 5 hours at IPAP 12 / EPAP 5 and 12 BPM Data management • Internal memory (2 MB) • Compatible with oximetry module • Advanced detection of respiratory events: • Apnea/Hypopnea Index (AHI) • Obstructed Airway Apnea (OA) • Clear Airway Apnea (CA) • Hypopnea (H) • Periodic Breathing (PB) • RERA • Large Leak (LL) • Snore (S)

(c)EP Lab with RF Generator

Technical Specification of Electro Physiology System
RECORDING SYSTEM
1. Should have a 12 -Body Surface ECG
2. Should have unipolar intracardiac channels upto 120
3.Should have a facility of Invasive pressure recording & display- 2 Channels
4.Should have a facility of off-line Software/Hardware system to "Review Data" - one installation outside
5. Must be supplied with compatible laser printer
6. operating system must be Windows XP.EP system Should be configured to Laptop & Desktop Computer
7.HDD minimum 160 GB,at least 2.5 Ghz CPU,512MB RAM,High end VGA card
8.Data storage in standard HDD,Patient data writable only DVD/CD
9.Easy of use with simple commands using one Keyboard
10.Must have a facility of real time beat by beat display
11.Should provide retro recording for minimum of 10 sec.
12.Must have a facility of real time beat by beat display
13.Continuous surface ECG visualization
14.Facility of Split screen display for template viewing & matching
15.Online view of real time & review data simultaneously
16.Selectable amount of data to be stored per patient
17.Computer based display of RF parameter
18.Amplifier with 32 bit sample conversation rate at 2KH or more.
19. Should have option of automatic export of screen page to power point slide
20.Adequate filtering for good signal quality
21.User configurable reporting format
22.Data transfer to Power Point ,JPEG or similar format
23. on-line display of RF parameters graphically in the EP software
24.Aggregate report of RF delivery per case
25..Only one keyboard to control the complete system
STIMULATOR
1..Must be preferably separate Digital Stimulator Integrated to the Amplifier
2.Should have a facility of pacing channels with upto 6 extrastimulation option
3.Should have 9 preprogrammed protocol and 10 programmable protocol
4. Should have integrated Stimulator Touchscreen
5. Stimulation protocols can be controlled through touchscreen, keyboard and mouse.
Radiofrequency Ablator System
1.Should have minimum 100 Watt RF Ablator
2.Must be compatible with Thermister and Therocouple sensors in Ablation technology
3.Compatible to Dual sensing catheters & Irrigated tip catheter
4.Should have a memory features for ablation parameter storage & recall
5.Must have a facility of continuous update of Bioimpedence:pre,post & during ablation
6.Must have auto cutoff intelligence feature in RF ablator
7.Must have Temperature and Power control Mode available

STANDARD SPECS:
1.All the componenets should have FDA & CE certificate as the marke of quality Standard.
2. All the interconnection between the spare part should be through fibre optic cables.
3. All the three components of EP Lab: Recording System, Stimulator and ablator should be from Single Principle/manufacturer.

TECHNICAL SPECIFICATION FOR 3D ELECTROPHYSIOLOGY MAPPING SYSTEM 5 No Description
3D ELECTROPHYSIOLOGY MAPPING SYSTEM 1 Non-

fluroscopic 3 dimensional beat by beat mapping system to create true 3 dimensional matrix by point-by-point acquisition and mapping, to localize the chamber and the catheter with high precision in both Atrial And ventricular Chambers. The System should provide in vivo accuracy of upto 1mm and should have anatomical reference to overcome patient movement artifacts 2 The system should possess technology that combines the accurate magnetic-based technology of the 3D Electroanatomical mapping system with current-based data for accurate visualization and location of all catheters and the impedance mapping based technology 3 The system should provide both contact & non-contact mapping technology. The System should have the capability to provide on line activation maps, unipolar maps and bipolar maps as primary maps of the operators choice. In addition to the primary online maps the system should be capable of providing isochronal, mesh,propagation maps as needed by the operator. 4 The system should be capable of maintaining mapping accuracy independent of catheter movement due to respiratory motion, patient condition and procedure time either with respiration gating or compensation. 5 The System should offer multiple catheter visualization: a) Can visualize multiple catheters and at least 80 electrodes b) All electrodes can be seen (tip and curve) c) Complete visualization of the pulmonary vein mapping catheter and other spiral catheters of any brand 6 The system should be capable of itegrating the patient CT, DYNACT or MRI (DICOM 3 format) image with the image of the heart chamber and overlap them with the 3D maps with high degree of accuracy. The system should have the ability to create electro-anatomical maps with high resolution images and capable of segmenting the patient image with the in-built software. it should also provide compatability with robotic navigation systems 7 The system should be capable to displaying online parameters like power,temperature,time,intra-cardiac channels etc. 8 System should be capable of analyzing low amplitude and high frequency complex atrial electrogram suitably to deliver consistent and reliable performance. 9 Should offer option to do pediatric cases as well on the 3d system 10 Supplier should provide appropriate software to review and edit maps. Appropriate software should also be provided to be able to review and edit maps on a standalone. It should be possible to do most of the function that can be done with the main system in the lab. 11 Supplier should provide proper technical support team to to support the system for next 10 years and should also provide comprehensive list of system installations in government as well as corporate hospitals in india 12 Should provide software option to connect the 3D system to hospital PACS System for sharing and retrieving data. All data has to be transferred to the PACS and another separate hard drive of 5TB to ensure redundancy. It should be possible to write the data on to a CD/DVD/Blue ray and also to an external pendrive/Portable hard drive 13 The computer workstation should comprises of at least 2 nos. 21" or bigger high resolution medical grade monitors. 14 The supplier should provide the saline flow irrigation pumps (with options for both low and high flow rates) and integration to the RF ablator to facilitate irrigated ablations.It should be possible to switch between both low and high flow rates automatically (preferably) or manually. Interface with the RF ablator is highly preferable. this should include control and termination of the saline flow rates through the RF ablator. The RF ablator should be compatible to detect thermistor and thermocouple catheters, irrigated and dual sense catheter and be upgradable to support future catheter technologies. 15 A separate quote for providing Intracardiac Echocardiograph (ICE) Feature capable of providing detailed intracardiac echocardiograph imaging of the cardiac anatomy along with a compatible Ultrasound system to be provided by the vendor quoting for the 3D electro-anatomical system. The specs for ICE system are as follows: 1) A fully versatile echo

imaging platform that utilizes intracardiac electrocardiography(ICE) technology in invasive setting to visualize cardiac structures and blood flow. 2) It provides digital image acquisition and display of images from the intracardiac probe inserted into the heart through intravascular access. 3) An all-digital 9,216 channel system with broadband beamforming, 2D images from 1-15 MHz. 4) Tissue Harmonic Imaging with patented Pulse Inversion Technology. 5) Imaging Modes: 2-D, M-Mode, PW & CW Doppler, Color Flow Doppler, Tissue Doppler 6) DICOM Networking Compatibility 7) CD, DVD, thumb drive and PC format export capability 8) TEE and surface probe compatible 9) Interface capability with Conventional EP Lab platform. 10) Should provide Increased consistence from user to user and should adjust imaging parameters with the push of a button. 11) Should provide Fully articulating flicker free 20 inch high resolution flat panel display with nearly infinite positioning adjustments. 12) Support for up to three on-board peripherals. 13) On board patient reporting with embedded images. 14) High Q automatic Doppler analysis and Intelligent Doppler capability. 15) Black & White printer. 16) Adaptive image processing for noise and artifact reduction to improve tissue conspicuity. 16 The supplier should be able to interface the 3D Mapping system with the electrophysiology recorder and ablator in the dept. 17 The System should be US FDA/CE approved 18 Comprehensive Guarantee for 5 yrs for spare parts and labor. Comprehensive warranty for spare parts and labor from year 6 to 10 will also need to be quoted in price separately and will be taken into account (added in the price bid) while calculating the final price. All cables, electrodes, patches etc have to be provided by the vendor during the warranty period. 19 Equipment should be installed on turnkey basis

Group- L(Neurology.)

Portable EEG Machine

Technical specification for 32 Channel) Portable EEG System

1. The System shall be manufactured by an ISO -9001, US FDA/European CE and ISO-13485 certified manufacturer.
2. The system shall be certified and tested by a recognized test organization for compliance to IEC 60601-2- 26 Particular Safety of Electroencephalography Equipment.
3. Digital EEG recording system should have the laptop having windows 7/10 Operating system with minimum CPU configuration of Intel i3/i5/i7 Processor, 4/8 GB RAM, ½ TB hard disk capacity, DVD-Writer & extra battery backup (optional).
4. High Quality EEG amplifier should available with Industry Standard Ethernet Amplifier Interface shall provide at least 34 electrode inputs (32 EEG Plus 2 DC) which are optically isolated and certified to at least type CF classification.
5. System should have SQL based software.
6. The Video EEG amplifier shall be equipped with a minimum of 16 bit Analog-to – digital Converter (ADC), CMRR> dB, Sampling frequency of 2000 Hz and input Impedance of > 100MΩ and bandwidth of 0.05 to 500 Hz
7. The amplifier system should have facility to configure at least 9 pair of electrode inputs as bipolar inputs, as appropriate to accept Polysomnography signals and shall have integrated Pulse Oximeter.
8. The system should have a method to detect a poor electrode connection and provide a notification to the user and also should be possible to test Continuous electrode impedance.
9. It shall be possible to view the EEG data in any PC without loading any software.
10. System should have facility to upgrade with Video for Video EEG recording With

facility to record selective video by allowing automatic video recording only when specific user defined events occur.

11. The patient/Data Management software shall be available with optional hardware and software to provide an interface between the Patient/Data Management software and a Hospital Information System (HIS) via an HL/7 (Health Level 7) communications protocol.

12. The System should have Networking facility.

13. The System should be supplied with complete set of electrodes and consumables.
