BIDDING DOCUMENT

TENDER NOTICE No.: 4 / 2015 - 2016 / Biomedical Equipt//IGIMS/ Store

Supply, Installation & Commissioning of Bio-Medical Equipments / IGIMS/ Store

TENDER NOTICE No. - 04/ 2015 - 2016 /Bio Medical 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.

INDEX

IMPORTANT DATES

Last date for Purchase of Bidding Document	Can be downloaded from Institute website
Last date for submission of Technical bid.(Hard copy)	22/7/2015 up to 11.00 A.M. by registered/speed post/ Courier only
Date of opening of technical bid	22/7/2015 at 15:00 hours on **www.eproc.bihar.gov.in.**
Date of demonstration of equipment	Will be informed to the qualified bidders 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 drawn in favour of **Director I.G.I.M.S. - Patna (payable at Patna)** towards **EMD / Bid Security. NO Scane copy should be loaded on site**

   (EMD AND COST OF BIDDING DOCUMENTS MUST BE SUBMIITED IN SEPRATE ENVELOP.TENDERS NOT ACCOMPANIED WITH EMD/BIDSECURITY ALONGWITH THE TECHNO-COMMERCIAL BID SHALL BE SUMMARILY REJECTED, DO NOT ATTACH SCAN COPY OF EMD WHILE UPLOADING THE TENDER AND ALSO DO NOT MENTION THE AMOUNT OF EMD).

2.1 **TENDER FEE RS.2000 IS APLLICABLE FOR EACH GROUP.THE BIDDERS PARTICIPATING FOR MORE THAN ONE ITEM OF THE GROUP MAY UPLOADED THE SAME SCAN COPY OF TENDER FEE.**

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:** • 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.	**Quality Assurance 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.	Certificate, to the effect that bidder will maintain the quoted item(s) during Warranty period of three years including all spares, accessories, consumables etc., (Please mention the name of the item / items with price, which are not supplied by the bidder free of cost with frequency of replacement)		
19.	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**. (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)		
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.		
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.
02	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	(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. (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.	
04	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.	
05	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 31st March 2015.	
06	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 T0 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 be submitted in the E- tender mode only

2. The tender offers, duly filled, shall be submitted in sealed covers for **technical**. 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**

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 alongwith 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 of bidding document : as mentioned in NIT..

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

   a:- Earnest Money 2% of the cost of equipment 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 locted in India, in the form prisecrived 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.

8. 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.

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

10. 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.

i. For any technical assistance regarding **E-tendering, bidder can contact below address and telephone no.-**
E-Procurement Help Desk,
First Floor, M/22, Bank of India Building
Road No.-25, Sri Krishna Nagar
Patna-800001
Telephone: 0612-2523006
Mobile No. -7542028164

11: 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?

12. <u>After Sales Service Conditions</u>:

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.

iii. 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

iv. 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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.

x. 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.

xi. 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.

xii. Any mandatory approval required for installation shall be obtained by the successful Bidder in liaison with the respective authorities.

xiii. The Bidder shall submit the parameters which require calibration and the frequency of calibration required.

xiv. 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, Probes, all types of sensors and transducers, Electrodes, Detectors, battery, battery for UPS, other vaccumatic parts etc wherever applicable and also the accessories and other devices supplied along with the equipments like stabilizer, UPS, AC, Computer, Compressor, Monitor, etc, 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.

13. 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 charges	Every six months after completion of the Period.
f.	Submission of Performance Security and entering into contract	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.

14. 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.

15. 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.

16. Supplier will submit undertaking for ensuring uninterrupted supply of spares during the total life span of the equipments.

17. Indian agency commission and Installation charge if any will be paid in Indian rupees after successful installation and demonstration of the equipments.

18. Principal's Invoice of the quoted items must be submitted with the quotations.

19. Proof of the official Indian agent certificate of the firm must be attached. (Notary Certified Photocopy)

20. 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).

21. 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.

22. 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.

23. Bidder might be required to demonstrate the system at the discretion of the institute.

24. 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.

25. **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.

26. The Director reserves the right to accept or reject any or all tenders without assigning reasons.

27.The Director reserves the right to modify, add or delete any terms & conditions of the contract as and when required.

28. **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.

29. The Dispute, if any, will be subject to Jurisdiction at Patna (Bihar).

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

CONDITIONS OF THE CONTRACT

01. **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 for which this Institute will not pay the charges.

02. **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.

03. **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 allied supporting components like UPS, Computer System, Printer, De-ionizer, Dehumidifier etc 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**" :

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, PCB, 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 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 biding on both the parties.

04. **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 like UPS, Stabilizer, Computer System, Printer, De-ionizer, Dehumidifier etc 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 .
1 year= 365 days
95% 0f 365 days= 347 days per annam

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 Comprehensive Annual Maintenance Contract, **bidder** will keep the "**Complete System**" in satisfactory working condition. In case, any spare parts, accessories, PCB, all type of 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.**

g. 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.

h. 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.

i. 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 biding on both the parties.

05. Performance Security

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: -

Goods should be delivered within 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..

07. <u>Payment: -</u>

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 10% 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 whohave 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.

08. **Validity of Price:-**

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

09. **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 (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 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).

Director,
IGIMS - Patna
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CHAPTER:

Schedule of the allied specification

ANNEXURES

Annexure - I (a)

PRICE SCHEDULED FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN

LOCATED WITHIN INDIA.

1	2	3	4	5							6
				Price per unit (Rs.)							
scheduled	Brief description of goods Make: Model:	Country of origin	Qty. nos.	Ex-factory/ex-warehouse /ex-showroom/ off-the shelf (a)	Excise duty(if any) % and value. (b)	Sales tax/ vat(if any % and value. (C)	Packing and forwarding charge (d)	Inland transportation , insurance for a period including 3 months delivery, loading/ unloading and incidental cost till consignee site. (e)	Incidental services (including installation and commissioning, supervision, demonstration and training) at the consignee site. (f)	Unit price (at consignee site basis(g) a + b + c + d+ e + f	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: Name:

Date: 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)					
schedule d	Brief description of goods Make: Model:	Country of origin	Qty. nos.	FOB price at port/ Airport of lading (a)	Carriage & Insurance (port of loading to port of entry) and other incidental cost . (b)	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 . (d)	Unit Price on CIP Named port of Destination + Extended Insurance (Local Transportation and storage) (e_)	Total Price on CIP Named Port of Destination + Insurance (Local Transportation and storage) 4x5(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 Description	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.	6th Yr.	7th Yr.	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)
a	b	c	d	e	f	g	h	i	j
1.	Name of the Equipment: Make: Model: Qty.:								
2.	Name of the Equipment: Make: Model: Qty.:								

Scope of Contract (details as mentioned in the Clause No. – 13 of "Instruction to Bidder" & Clauses No.: 3, 4 and 5 of "Condition 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/warrantee /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

ANNEXURE - 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 authoriseSri/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-

GASTROENTEROLOGY

Technical Specification for Gastroendosonography System(Qty.-1)

System Includes :

i) Ultrasonic Gastrovideoscope (Radial)
ii) Ultrasonic Gastrovideoscope (Linear)
iii) Ultrasound Processor with colour Doppler function.
iv) Video Processor
v) Light Source and monitor
vi) Trolly
vii) Suction Machine
viii) UPS
ix) EUS Accessories
x) Standard Accessories

Specifications:-

Ultrasonic Gastrovideoscope (Radial):- Should have following technical specifications/ features:-

- Working Lenth- around 1250 mm
- 360 degree electronic radial scanning and facility for image rotation
- EUS images with four or more selectable frequencies – 5 to 10 Mhz or more
- Colour and Power Doppler for effective confirmation of blood flow
- Lens cleaning function for keeping the endoscopic field of view clear at all times
- Field of view should be around 100 degree or more
- Direction of view should be Forward-oblique or forward viewing
- Depth of field should be 3 to 100 mm or less
- Insertion tube outer diameter should be around 11-12 mm
- Instrument channel diameter should be around 2-3 mm
- EUS Scope should be fully immersible for thorough cleaning
- Bending section Up 130^0 and above Down 60^0 and above Right and Left $60^0/60^0$ and above.

Ultrasonic Gastrovideoscope (Linear): Should have following technical specifications/ features:-

-Should have 120 degree or more electronic curved/convex linear scanning
- Should have EUS images with four or more selectable frequencies 5-10 Mhz or more.
- Should have Colour and Power Doppler for effective confirmation of blood flow
- Should have lens cleaning function for keeping the endoscopic field of view clear at all times
- Field of view should be around 100 degree or more
- Direction of view should be 40^0 or above Forward-oblique or forward viewing
- Insertion tube outer diameter should be around 11-12.8 mm
- Distal end should have short rigid portion for less trauma to the patient.
- Instrument channel diameter should be around 3-4 mm
- Videoscope should have FNA (therapeutic) capability.

- EUS Scope should be fully immersible for thorough cleaning
- Preferable if a cable to EUS processor is detachable from the scope itself for easier carrying purpose.
- Better to have compatibility of special light function such as NBI, FICE and i-scan.
- Working length around 1250 mm.
- Bending Section Up 130^0 and above Down 90^0 and above Right and Left 90/90 and above.

Ultrasound Processor with Colour Doppler Function:-

- Compact & easily transportable unit with Ultrasound & color and power Doppler function

- Inbuilt with Electronic scanning and preferably mechanical scanning probes

- 3D imaging option for radial scanning probes

- Preferable Mechanical Generated frequency range: upto 30 Mhz

- Preferable Electronic Generated Frequency range: 5-10 Mhz or more

- Touch screen, dedicated and user friendly key board.

- Cine Memory: 120 frames or more

- Possibility to retrieve images thru USB port to record.

- AGC, GAIN, STC functions.

- High Definition (SDI) out put

VIDEO PROCESSOR MODULE

- HD Processor
- Color CCD technology
- Separate/Combined unit from light source
- Video outputs: DVI/RGB/HDTV, Y/C & Composite
- Digital Image processing
- System should have facility of processing images to enhance the visibility of fine capillaries and mucosal details using latest technology.(NBI.FICE, i-SCAN)

LIGHT SOURCEAND MONITOR

- Lamp xenon 100-300 watts which can support NBI,FICE, i-SCAN
- Separate/combined unit from video processor
- HIGH RESOLUTION MONITOR:
- 19-26 inches LCD monitor with HD Monitor.

Endoscopy Trolly: Trolly for Endosonography complete system.

Suction Machine:- 2 nos, low noise heavy duty preferably imported.

UPS:- 1 KV 1 no.

EUS Accessories:- Endoscopic Ultrasound Aspiration needles 22G – 20 nos

Endoscopic Ultrasound Biopsy needles 19G -10 nos

Endoscopic Ultrasound celiac plexus Neurolysis needles – 05 nos

BALLOONS: Compatible balloons - 10 sets for both Linear & radial scope
Software:- Free update up to 8 years.

Standard Accessories:- Endoscopic cleaning brush 2 nos

Leakage tester 1
Water bottle 2 nos.

Technical Specification for VIDEO ENTEROSCOPE System(Qty.01)

System Includes :

xi) Enteroscope
xii) Video Processor
xiii) Light Source and monitor system
xiv) Trolly
xv) Suction Machine
xvi) UPS

High resolution CCD for quality imaging and finer details. Suitable for narrow band imaging observation. Slimmer insertion tube. Fully immersible in disinfectant solution. Designed for ante grade and retrograde applications both.

Viewing Direction	: Forward
Observation range	: 3 to 100 mm or less
Field of view	: 140^0 or more
Distal end diameter	: 9.4 mm or less
Bending capacity	: Up & Down 180^0, Left & Right 160^0 and above
Forceps channel diameter	: 2.8 mm or above
Working length	: 2000 mm or more

BALLOON INFLATION CONTROL UNIT
Single or double balloon system
Automatic pressure control function, Simple operational system for balloon inflation and deflation, Balloon pressure indicator with display on front panel.

SPLINTING TUBE (WITH HYDROPHILIC COATING)

Insertion Tube Outer dia	: 13.2 mm or less
Insertion Tube Inner dia	: 11.0 mm or less
Working length	: 1320 mm or more
Total length	: 1400 mm or more
Tube & Balloon material	: Silicon rubber (Latex free material)

VIDEO PROCESSOR (RGB O/P) AND LIGHT SOURCE UNIT

Digital signal processing unit with digital and RB outputs both compact and light unit, built in air pump for regulated and controlled leakage testing.

Video output	: RGB y/c
Light source	: Xenon
Spare lamp	: Switch able as the when required

HIGH RESOLUTION MONITOR

19'' : (or bigger) high definition LCD color monitor.
COMPUTER : Window 7 or latest version with multimedia DVD writer and Drive, Scroll Mouse, 500 monitor, Photo quality inkjet printer, UPS with 1 hour back up.

VIDEO PROCESSOR MODULE

- HD Processor
- Color CCD technology
- Separate/Combined unit from light source
- Video outputs: DVI/RGB/HDTV, Y/C & Composite
- Digital Image processing
- System should have facility of processing images to enhance the visibility of fine capillaries and mucosal details using latest technology.(NBI.FICE, i-SCAN)

LIGHT SOURCE

- Lamp xenon 100-300 watts which can support NBI,FICE, i-SCAN
- Separate/combined unit from video processor
- HIGH RESOLUTION MONITOR:
- 19-26 inches LCD monitor with HD Monitor.

Endoscopy Trolly:- Trolly for Video Enteroscope complete system preferably imported.

Suction Machine:- 2 nos, low noise heavy duty preferably imported.

UPS:- 1 KV 1 no.

Software:- Free update up to 8 years.

Standard Accessories:- Endoscopic cleaning brush 2 nos

Leakage tester 1
Water bottle 2 nos.

.

Video Endoscope set-A (Qty.2) Consisting of :-

1:-_ TECHNICAL SPECIFICATION OF VIDEO – PROCESSOR

- Based on colour CCD chip technology
  should have facility for automatic gain control, selective iris setting and variable contrast

  setting .

- Should be compatible with light source monitor and video-endoscope - to be purchased with the set .
- Durable high efficiency key board
- .Power supply – 220 to240 volt , frequency 50-60 HZ
  TECHNICAL SPECIFICATION OF LIGHT SOURCE

1. Light source fitted with Xenon short arc lamp -300 w. with average lamp life of approx 500 hours
2. Emergency Halogen lamp 100-150 W having lamp life of approx 100 Hours .
3. Automatic brightness control
4. Compatible with Video processor, monitor and Video-endoscope being purchased with this set.

MONITOR

1. Medical grade high definition flat panel L C D /LED colour monitor of size 17 inch with full screen picture capability
2. Antiglare control
3. Facility for PIP and POP will be considered an extra advantage
4. Setting memorization when power is off
5. Power supply 220to240 Volt – frequency 50-60 HZ
6. Compatible with Video processor, light source and Video-endoscope being purchased with this set.

2 :-**TECHNICAL SPECIFUCATION OF U G.I VIDEO ENDOSCOPE**

1. DIRECTION OF VIEW: FORWARD VIEWING

2. FIELD OF VIEW:- 140 DEGREE OR MORE

3: DEPTH OF FIELD: 3- 100 mm

4; DISTAL .END OUTER DIAMETER;- < 9.5mm

5:- RANGE OF TIP DEFLECTION;- UP -216° DEGREE ;DOWN -90 DEGREE

LEFT-100 DEGREE; RIGHT 100 DEGREE

6. INSTRUMENT CHANNEL DIAMETER : 2.8 MM OR MORE

5. WORKING LENGTH: APPROX. 1030MM

SHOULD BE COMPATIBLE WITH VIDEO PROCESSOR , MONITOR AND LIGHT SOURCE- BEING PURCHASED WITH THIS SET.

Specify the list of accessories supplied with upper GI video -endoscope

3:- SPECIFICATION FOR VIDEO- DUODNOSCOPE

1. DIRECTION OF VIWW:- Side view
2. DEPTH OF FIELD:- 5- 60 mm(pprox.)
3. FIELD OF VIEW:- 100mm or more
4. OUTER DIAMETER:- 11-13 mm or less
5. INSTRUMENT CHANNEL:- 4.2mm or mere
6. RANGE OF TIP DEFLETION-UP 120 Degree ;down 90 Degree. Right. 110 , Left, 90 or More
7. WORKING LENGTH - APPROXIMATLY 1240mm
8. COMPATABLE WITH VIDEO- PROCESSOR AND LIGHT SOURCE TO BE PURCHASED IN THE SET.
9. Specify the List of accessories supplied with DUODENOVIDWO-SCOPE.

4 ;- **SPECIFICATION FOR VIDEO- COLONOSOPE**

1. DIRECTION OF VIEW:- FORWARD VIEW
2. FIELD OF VIEW:- 120 DEGREE(Approx.)
3. DEPTH OF VIEW:- 5-100mm.(APPROX)
4. OUTERR DIAMETER:- 12mm-14 mm. Or less.
5. INSTRUMENT CHANNEL: 2.8mm or More
6. TOTAL WORKING LENGTH- BETWEEN 1300-1700MM
7. COMPATIBLE WITH VIDEO- PROCESSOR AND LIGHT SOURCE TO BE PURCHASED IN THE SET.
8. SPECIFY THE LIST OF ACCESSORIES TO BE SUPPLIED WITH VIDEO-COLONOSCOPE
9. VARIABLE STIFFNESS OF INSERTION TUBE WILL BE CONSIDERED AS ON EXTRA ADVANTAGW .
10. Range of tip deflection up and down -180 or more right and left 160 degree or more

Video Endoscope set-B (Qty.01) Consisting of:-

1:-

VIDEOENEDOSCOPY SYSTEM

Video Processor Module:-Should have following technical specifications

- Portable and light weight.
-
- Capable of storage up to 35 to 45 patient's data.
-
- Capable of registering & recalling scope information

- Zoom capability for images (Medium & Full Height for difficult procedures) & sharpness control.
- Edge and Structure enhancement facility.
  Preferably should have separate unit for light source.
- Should be equipped with HD TV imaging capability for observing of
  Capillaries, mucosal structures and other patterns .

- Should have Narrow Band Imaging/ FICE capability to enhance the visibility of capillaries and other structures on the mucosal surface and it should be compatible with FICE/N.B.I.video-endoscopy supplied with the set.
- Digital signal processing for signal received from colour CCD Chip . equipped with high resolution , high definition T.V imagining capacity .
- Should have convenient digital-to- digital recording facility for both still and Moving images.
  Should have PIP (picture in-picture) display for any combination of endoscopic images, fluoroscopic images , ultrasound images etc.

Light Source:

- Should have following technical specification /features;
- Lamp-Xenon short arc lamp ozone free 300 W or more
- Emergency lamp of at least 100W – 150W backup , which should automatically ignite , in case the main lamp gets defective .
- Should be compatible for narrow band imaging / FICE or equivalent technology in the video endoscopic sets .
- Function of automatic switch off when unit has been used for an extended period of time and facility for automatic brightness control.

- Should be separate unit from video processor

VideoMonitor : Should have following technical specifications

- 19-20 inches or more in size

- Flat panel LED/LCD High definition colour monitor

- Anti – Glare coating for less reflection

- Should be fully digital HD TV compatibility

- Should have progressive scanning facility

- Should have PIP facility(Endoscopic view as well as fluoroscopic view in single screen.)

- Power supply -220-240 Volt .

- **Others**:- Software modules for recording of endoscopic images along with regular hardware . High resolution colour laser printer, Hot burn C.D facility e.t.c
  and leakage tester with trolley .

Upper G.I Video endoscope with Narrow Band Imaging FICE/Equivalent picture Capability

- Should have following technical specification /features:

- Autoclavable Air – Water & Suction valves for hassle free maintenance

- Maximum Scope Switch in order to permit user with instant Decision.

- Minimum biopsy forceps visible distance 3mm or less to 100 mm or more
- Dedicated Flushing Adapter for ensuring Optimum Scope cleaning /disinfection.
- Should have Narrow Band Imaging /FICE/equivalent capability with high-resolution HD TV imaging.
- Should have close focus observation without electronic magnification .
- Facility to inform and keep track of Maintenance schedule to be inbuilt within endoscope.

Field of view : Not less than 140 degree

Distal end & Insertion tube dia : 9-10 mm

Distal end bending at least : Up > 210deg. Down> 90 deg.

Right & left > 100 deg.

Working length : 1000 mm and more

Instrument channel diameter : 2.8mm

Direction of view- : Forward viewing

Mention all the accessories supplied with endoscope and Endoscope should be compatible with video processor and monitor being purchased with set.

Lower G.I Videoendoscope with Narrow Band Imaging FICE/ equivalent picture capability :-

Should have following technical specification / features: Autoclavable Air – Water & Suction valves for hassle free maintenance

- Maximum scope Switch in order to permit and user with Instant decision,
- Minimum biopsy forceps visible distance 3mm of less to 100 mm or more
- Facility to inform and keep track of maintenance schedule to be inbuilt within endoscope.
- Dedicated Flushing Adepter for ensuring Optimum scope cleaning / disinfection .
- Should have Narrow Band/ Imaging/FICE/ equivalent capability with high-resolution HD TV imaging
- Should have close observation without electronic magnification HDTV imaging
- Scope guide facility to provide real time 3D visualisation of scope position and configuration –it will be considered extra advantage.
- Variable stiffness compatibility
- Mention all accessories supplied with the
- Endoscope should be compatible with video monitor and processor to be purchased with the set.
- Field of view : Not less than 160 degree

- Distal end & Insertion tube dia. : 12-14 mm
- Distal end bending at best : Up & Down 180 deg

  : Right and left 160 deg

  Working length . 1600mm or more

  Instrument channel diameter :- 3-4mm

Therapeutic ERCP Videoendoscope : Should have following technical specifications / features :

- Maximum scope Switch in order to permit user with Instant decision.
- Should be possible to effectively clean and remove blood/ tissue particles behind the elevator, by way of removal of distal- cap.
- Dedicated Flushing Adapter for ensuring optimum scope cleaning/ disinfection for all the channels.
- Minimum biopsy forceps visible distance 10mm or less .
- Facility to inform and keep track of maintenance Schedule to be inbuilt within endoscope .
- Autoclavable Air – Water & Suction valves for hassle free maintenance.
- Should have locking mechanism at the forceps elevator to lock the

  Guidewire in position .

  Field of view : Not less than 100 degree

  Direction of view : 5 to 6 deg Backward oblique

  Depth of field : 5 mm to 60 mm

  Distal end outer diameter : 11 mm to 13mm

  Distal and bending : Up > = 120 deg . Down > 90 deg.

  Right >110 deg . Left> 90dg

  Working length : 1200 mm to 1300mm

  Instrument channel

  diameter : 4.2mm

Mention all accessories supplied with the endoscope .Endoscope should be compatible with video monitor and processor and electrocautery to be purchased with the set

3:_Ultra Sound Machine(Qty.02)

This ultrasound machine should be a state of the art with full digital technology for the application for trans –abdominal examination with color Doppler

1 Description or Function

High resolution Grey scale ultrasound with color Doppler for trans-abdominal examination

2 Operational Requirements

2.1 latest generation electronic phased array system with 25,000 electronic channel system should be DICOM ready and capable to being interfaced with HIS/RIS/PACS

2.2 should be field up gradable to next generation system on site new software be upgraded free of cost for at least 3 years

2.3 Frequency compounding or better technology for bett3r resolution and penetration

3 **Technical Specification**

3.1 phased array probe system with 25,000 electronic independent channels system
3.2 256 gray shades for sharp contrast resolution
3.3 Probe to be supplied which should be latest generation wide band transducer
3.4 Harmonic imaging –system should have harmonics on all the probes following modes in harmonic with separate setting for
3.5 Trapezoidal image
3.6 Automated gain control with lateral gain compensation (LUC) FOR additional level of flexibility to image quality control
3.7 Real time high frequency 2D for higher resolution
3.8 Monitor should be 17" or more high-resolution colour monitor Tilt and swivel monitor should be able to view in all angles and all light condition
3.9 Various maps for pre and post processing
3.10 User defined system and application presets for multi-user department
3.11 Minimum 4.8 GB optical disc drive /80 GB hard drive for image storage and retrieval (standard with system)
3.12 Cine loop memory-than 100 frames
a.High frame rate review for better clarity of play back images study in slow motion

b. c.Memory-256 frames or more

3.13 Facility for high definition digital acquisition review and editing of complete patient studies

3.14 Frame rate should be 1000 FPS or more.

4 **System configuration Accessories spares and consumable**

4.1 convex probe 2 -5 MHz and linear HR probe (4-12 mhZ)

4.2 B/W thermal printer of latest moder

4.3 DVD / CD recorder with DICOM media transfer

5 Environmental factors

5.1 The unit shall capable of operating continuously in ambient temperature of 30 deg c and relative humidity of 80%

5.2 pre requisites should be clearly spelt out in terms of room requirements

6 Power supply

6.1 power input to be 220-240v Ac , 50Hz fitted with Indian plug

6.2 Reset table over current breaker shall be fitted for protection

6.3 Online UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up.

7 Standards safety and training

7.1 should be FDA or CE approved product

7.2 electrical safety conforms to standards for electrical safety IEC-60601/IS -134540 product should comply to IEC 60601-2-237 edl medical diagnostic and monitoring equipment

7.3 type of protection against electric shocks class 1 degree of protection against electric shocks for ultrasound d probes type “BF” for ECG electrodes type CF

7.5 manufacturer / supplier should have ISO certification for quality standards

8 Documentation

8.1 user manual in English

8.2 service manual in English

8.3 list of important spare parts and accessories with their part number and costing available in stock with the supplier

9 Maintenance and serviceability

9.1 Remote service network connectivity

9.2 optional service agreement

9.3 online phone support

9.4 clinical application support

CAPSULE ENDOSCOPY SET (Qty-01)

A COMPLETE SET INCLUDING THE FOLLOWING

02. DATA RECORDER
03. WORK STATION
04. CAPSULES .

WORKSTATION

01 WORK STATION WITH HIGH QUALITY COLOR INK JET PRINTER AND CUSTOMISED UP TODTE SOFTW ARE.

02 SHOULD BE ABLE TO EXPROT DATA THROUGH J PEG IMAGE AVI MOVIES, STML REPRORTS.

03 DISPLAY SHOULD CONSIST OF IMAGE, LOCATION TRACK AND TIME BAR LATEST SOFTW ARE .

DATA RECORDER

RECORDING LENGH APPROX 10 HOURS OR MORE.

CAPSULE

- At least 10 capsules should be supplied with the set.
- Dimension should not be more than 26 mm x 11mm

5:- Argan Plasma Coagulation System(Qty.01)

ARGON BEMERSYSTEM.

SHOULD CONSIST OF:

01. ARGON BEAMER SYSTEM WITH TROLLEY WITH ARGON GAS SUPPLY SYSTEM, PATIENT PLATE AND DOUBLE FOOT SWITCH.
2 ELECTRO SURGICAL UNIT.
3 FLEXABLE AUTO- CLAVABLE GIT PROBES.

ARGTEM BEAMER SYSTEM.

1. SYSTEM SHOULD BE SUTABLE FOR USE DURING VARIOUS G.I ENDOSCOPIC PROCEDURES.
2. ALL SISPLAY AND SIGNAL SETTING CAN BE SELECTED INDIVISUALLY .
3. FACILITY FOR PROGRAME STORAGE POSITION FOR CUSTOMISED SETTINGS
4. ADEQUATE SAFTY FEATURE .
5. SHOULD CLEARLY MENTION ABOUT THE

AVAILABILITY SUPPLY AND APPROX. PRICE OF ARGON GAS) .

ELECTRO SURGICAL UNIT.

- SHOULD HAVE MONOPOLAR CUTTING COAGULATION AND BLENDED CURRENT FACILITY AND BIPOLAR COUGULATION MODE .
- SHOULD HAVE TIME CONTROLLED CUTTING MODE (ENDOCUT)
- SHOULD HAVE ADEQUATE SAFETY FEATURES.

FLEXIBLE G.I T PROBES.

01 GIT flexible APC probe 2.3 mm dia and working length about 2.2 meters .

02 G.I.T flexible A.P.C Probe 3.2mm día meter and working length about 2.2 meters .

01 G.I.T Flexible A.P.C Probe Dia 1.6 mm and 1.5meter long
02.Appropriate connection cable.

6:- Electro Surgical Unit(Qty-02)

Unit should Have

1 Monocular cutting Coagulation & Blended current facility and bipolar and Coagulation mode.

2 Have time control cutting mode and special mode of under water application (ENDOCUT)

3 Equipped with Micro- Processor based continuous feedback system which continuously take feedback system of the impidence of tissue and delivered constant power

4 Capacity to auto start last set values on the front panel, if unit shutoff.

5 Should have adequate high quality safety measures including safety alarm for leakage of current, patient plate, disconnection and continuous activation of unit

6 Foot switch, patient plate and required cable connection

7 Suitable for the various GI procedure including gastro- intestinal endoscopic procedure like endoscopic papilotomy and polypectomy etc.

Group-B

Gyne Oncology

TECHNICAL SPECIFICATION COLPOSCOPE SYSTEM Qty. (01)

Sl No	Apochromatic optics with magnification Range o.4xto 2.5x or more
	Working distance f= 200mm to 300mm continuous focus
	180 degree tiltable tube f=170mm/200mm or straight binocular tube f=170mm/ 200mm with 200mm inter- papillary distance adjustment from 55 mm to 75mm or more
	Pair of wide field push- in eyepiece 10x with sleeves and magnetic locks, diopter setting from -8D to +5D
	K0/120 degree swivel coupling depending on the need.
	Handgrips for movement of Colposcope.
	Coaxial fiber optics illumination system with proper backup.
	Dual lamp system with quick change over.
	Continuously lamp intensity adjustment by control knob near to the surgeon
	Automatic lamp cut off by moving up the carrier arm ensuring optimal usage of bulb
	Stable and sturdy floor stand on four lockable castors, column (height: minimum 1.7m)
	Auto Balance or spring balance articulated arm carrier arm, power supply unit light guide 2m, power cable
	Sterlizable rubber caps for all knobs, dust cover.
	Fully integrated HD camera (full HD1080p). The HD camera should not be visible from outside. Camera should be control by Foot Switch & Remote Control and it should be CE & FDA certified
	Fully integrated HD medical Grade Recorder. The HD Recorder should not be visible from outside. HD Recorder should have 500 GB or more HDD.It should by CE & FDA certified
	Fully integrated 21”HD medical Grade monitor which integrated with the Colposcope stand and Monitor should by CE & FDA certified.
	Suitable software for Video Editing and Reporting software
	`Computer with Printer and Accessories
	Equipment should be CE & FDA certified

GROUP_C- ENT

Rigid Bronchoscope

1	**1. Rigid Bronchoscope** **Specification:** **ADULT** 1 Straight Forward Telescope 0°, diameter 4.5 mm, length 50 cm, autoclavable.Fiber optic light transmission incorporated, 01 ADULT + PAEDIATRIC 2 Bronchoscope Tube Universal, without distal fiber optic light carrier for use with proximally insertable prismatic light deflector and plugs length 43 cm, size 8.5 3 Bronchoscope Tube Universal, without distal fiber optic light carrier, for use with proximally insertable prismatic light deflector and plugs length 43 cm, size 7.5 4 Bronchoscope Tube Universal, without distal fiber light carrier, and plugs length 43 cm, size 6.5 5 Prismatic Light Deflector, autoclavable, with connection fiber optic light cable 6 Glass Window Plug 7 Rubber Telescope Guide 8 Adaptor with sliding glass window plug, sealing cap, notched lens and keyhole opening, movable, for use with Full Lumen Tracheoscopes and Bronchoscopes 9 Injection Cannula, for positive pressure assisted ventilation system, O.D. 3.5 mm for use with bronchoscopes and tracheoscopes with LUER-lock	

	10 Instrument Guide, for suction catheter 01 11 Adaptor from bronchoscope to respirator 12 Optical Bronchoscopic Forceps, circular cup, alligator for hard foreign bodies 13 Optical Bronchoscopic Forceps, for peanut and soft foreign bodies With spring- action handle 14 Optical Bronchoscopic Forceps, round cupped jaws for Biopsy, cup diameter 3.3mm 15 Optical Bronchoscopic Forceps, Universal for biopsy, for removing foreign bodies and denatured tissue 16 Rigid Suction Tube, diameter 4mm, working length 50 cm 02 Page 43 of 47 Sign of Bidder 17 Rigid Suction Tube, diameter 2.5mm, working length 50 cm **PAEDIATRIC** 1 · Bronchoscope, length 30 cm, size 6 · Bronchoscope, length 30 cm, size 5 · Bronchoscope, length 30 cm, size 4.5 · Bronchoscope, length 30 cm, size 4 · Bronchoscope, length 30 cm, size 3.5 · Bronchoscope, length 26 cm, size 4 · Bronchoscope, length 26 cm, size 3.5 · Bronchoscope, length 18.5 cm, size 3.5 · Bronchoscope, length 18.5 cm, size 2.5 each 2 Compatible Telescopes for above mentioned Bronchoscope tubes, Straight Forward- scope 0°, auto- clavable. Fiber optic light transmission incorporated 01 each Compatible Optical Alligator Forceps for	

	Pediatric Broncho Esophagoscopes, for use with telescope forced controlled handle for removal of hard foreign bodies Compatible Optical Forceps for PediatricBroncho-Esophagoscoes, with bean jaes, for use with telescope forced controlled handle for removal of peanuts and soft foreign bodies. Compatible Optical Forceps, for use with telescope for biopsy. Compatible Optical Pediatric Scissors, for use with telescope and Broncho-Esophagoscopes Compatible Optical Forceps for use with telescope Universal, biopsy and grasping. Rubber Telescope Guide for use with Telescopes or optical forceps Prismatic Light Deflector, Autoclavable, with Connection to fiber light cable Glass window Plug Adaptor with sliding glass window plug, sealing cap, notched lens and keyhole opening, moveable Adaptor from bronchoscope to respirator 01 13 Instrument guide, for suction catheter 14 Injection Cannula for positive pressure assisted ventilation system,O.D. 3.5 mm and 2.7mm with LUER-lock Compatible Suction tube, straight, with rubber tip, diameter 2mm Working length 35cm Cotton Applicator, working length 35cm, 01 17 Sponge Holder, spring handle, working length 35cm Video system Endoscopic image processor: Full HD quality,	

	ICM modul, Capture Full HD still images (1920 x 1080), Record videos in SD (MPEG4-format), Intuitive and easy to use, Suitable to connect a USB printer (Plug &PlayMonitor: 17" flat screenlight source: Xenon of 300W Fiberoptic cable: 5 meter Devise carrying trolley Equipment should be US FDA and CE Certified.	

Group-D
CTVS deptt.

1. Heart lung machine with accessories (Qty.-1)

1. Description of function

1.1 Heart Lung Machine is an apparatus through which blood is temporarily diverted, during heart surgery, to oxygenate it and pump it throughout the body, thus maintaining circulation until the heart and lungs are able to return to normal functioning

2. Operational requirements

2.1 BASIC EQUIPMENT will consist of the following unit

1) 5- Pump Console
2) Temperature Control Module (Hypo-Hyper thermia unit)
3) Monitors:
    a) Pressure monitor – arterial and cardioplegia with transducers

b) Time – at least three timers

c) Temperature Monitor with at least two probes

d) Display of total volume of each infusion along with delivery time

4) a). Air- Oxygen Blender with hoses and Flow meter

b). CO_2 Blender Optional

5) Safety Devices –

a) Level Sensor

b) Ultrasonic air sensor (optional)

2.2 ACCESSORIES will include

1. Stainless steel line clamps
2. Stainless steel intra cardiac suckers
3. Remote Control module for Temperature Control Monitor Instrument tray with mounting arm S.N. Technical Specifications

3.1 5- Pump Console

1. The unit should have 5-pump console compactly arranged with separate power supply and control modules. Should have easy access connectors for interchanging the pump.
2. Each individual roller pump should be capable of running independently on 180-270 V/50-60 Hz or DC supply.
3. Should have a spill proof base.
4. The unit should be supplied with a Battery backup for at least two pumps, all safety systems and accessories for a minimum of 60 minutes. Switch over from main power to battery backup should be automatic and immediate. The battery unit should be built in to the pump base and it should be recharged automatically when the system is operating with main power supply.
5. Individual pump heads should have Harvey Roller pumps with facility for tubing to be used adjustable and easily changeable mechanism.

6. Individual pump heads should have display in digital –The total infusion volume in litres and delivery time, the flow rates in LPM and in RPM

7. Each Pump should have easy mechanism for occlusion setting for different thickness of tubes available in the market

8. Should have unidirectional hand crank facility as a critical safety feature hand crank loading should be from top for faster access.

9. The Console should have a compact base mount for the entire pump heads together, with pole and handles.

10. Should have variable, changeable tubing holders in each pump head

11. Should have movable oxygenator holder.

12. Roller pump should have a self diagnostic circuit with provision to detect and display critical alarm conditions. Optional Pulsatile module which can be mounted on any of the blood pump.

3.2 Should have a venous control module with single pole mast with electronic venous line occluder.

3.3 Should have a monitor mount with adjustable monitoring arm

3.4 Instrument tray positionable with long monitoring arm

3.5 Lightweight surface table; writing surface

3.6 TEMPERATURE CONTROL MODULE:

Temperature control and Monitor system with Cardioplegia supply and remote Temperature display with the following features:

1. Simultaneous delivery of water for arterial and cardioplegia heat exchangers and to thermal blankets to be available from suitable ports.

2. To work with power supply of 220± 20 V 50 Hz.

3. Pressure regulated blanket ports maintaining the temperature of the arterial port.

4. Temperature display range of 0- 50 ° Celsius; remote accuracy of 0.3 ° Celsius and remote temperature display unit module with 3-temperature display.

5. Microprocessor based unit to control, cool, re-warm and maintain temperature.
6. Water outlet temperature of heat exchanger and blanket range 0-42° C.
7. Maximum flow performance of oxygenator heat exchanger supply port 15 – 22 LPM for fast cooling; 480mmHg maximum pressure; Blanket 1.5 to 2.5 LPM at zero head.
8. Built in Ice Maker to provide 50 lbs of ice in about 8 hours from 25º C water.
9. Should be capable of providing ice water for cardioplegia independently with variable cooling rate
10. Rewarming facility with venous difference mode settable at 6 to 10 ° C gradients to hold the water bath temperature at higher than the venous blood temperature.
11. Temperature probe module for the operating ranges of 0-50° C.
12. Temperature probes to fit in standard oxygenators (bubble / membrane)
13. Optional remote control unit should be capable of taking 9 Temp. Probes and display temperature in digital readouts. Alarm limits setting for at least three probes at crucial sites.

3.7 **MONITORS:**

PRESSURE MONITOR: Facility to monitor one arterial line pressure and one cardioplegia line pressures (total 2); along with necessary pressure transducers, cables six (2 x 3 = 6) and domes reusable, with accurate digital display and alarm facilities audio and visual.

TIME MONITOR: Facility for 4 time displays -- 2 for arterial and 2 for cardioplegia delivery. With stop, reset and start function.

TEMPERATURE: 6 temperature displays for patient monitoring and for cardioplegia monitoring with digital display in Celsius with 6 necessary compatible temperature 6 probes and 6 additional probes (6x2=12 probes) with 3x2 = 6 of them for nasal, rectal and oesophageal use

3.8 **AIR- OXYGEN BLENDER:**

To work at 50-60 PSI for membrane oxygenator with water trap attached with necessary hoses and connections of minimum of 5 meters length and with triple flow glass flow meters.

3.9 SAFETY DEVICES: Safety monitor should have optional capability for computer interface to retrieve perfusion data

ULTRASONIC AIR SENSOR: Ultra sonic air sensor to detect bubbles to work equally well with crystalloid and blood; should be possible to fit anywhere in the circuit easily.

LEVEL SENSOR SYSTEM: Ultrasonic transducers to work well with crystalloid and blood with adhesive pads, with alarm settings.

3.10 **ACCESSORIES:**

1. STAINLESS STEEL LINE CLAMPS for cardio pulmonary bypass 12 Nos.
2. REMOTE CONTROL MODULE FOR THE TEMPERATURE CONTROL MONITOR

   Optional remote control unit should be capable of taking 9 Temp. Probes and display temperature in digital readouts. Alarm limits setting for at least three probes at crucial sites.
3. INSTRUMENT TRAY WITH MOUNTING ARM
4. AT LEAST TWO THERMAL BLANKET.
5. ON LINE MEASUREMENT OF PH, PCO2*& HB FOR NEONATAL CARDIAC SURGERY

4. System Configuration Accessories, spares and consumables

4.1 12 Stainless steel line clamps

4.2 Remote Control module for Temperature Control Monitor

4.3 Instrument tray with mounting arm

4.4 Machine cover

4.5 System should be provided with appropriate furniture like adjustable revolving chair for

the perfusionist to operate the system. The system should contain all the above accessories in Integrated or as separate accessories.

5. Environmental factors

5.1 The unit shall be capable of operating continuously in ambient temperature of 10 -40^0 C and relative humidity of 15-90%

5.2 The unit shall be capable of being stored continuously in ambient temperature of 0 -50^0 C and relative humidity of 15-90%

5.3 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

6. Power supply

6.1 Power input to be 180-270VAC, 50-60 Hz,/440 V 3 Phase as appropriate fitted with special imported plug dedicated to the unit.

6.2 Resettable over current breaker shall be fitted for protection

6.3 Suitable UPS of with voltage regulation and spike protection for 60 minutes back up.

7. Standards, safety and training

7.1 Should be US-FDA or European CE approved product (Copy has to be enclosed)

7.2 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

7.3 One engineer should be posted for a week to impart training

7.4 Manufacturer should have ISO certification for quality standards.

8. Documentation

8.1 User manual in English

8.2 Service manual in English

8.3 List of important spare parts and accessories with their part number and costing available in stock with the supplier.

8.4 Certificate of calibration and inspection from factory.

8.5 Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out

8.6 List of Equipments available for providing calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual

2. Cell Saver (Qty-1)

1. Description of Function

1.1 The Cell Saver system reprocesses blood for the patient and separates it into blood cells and plasma. Used in Surgical procedures in which there is rapid bleeding or high volume blood loss. It can also separate and remove clotting agents for the plasma. In this manner, blood may be prepared for long term storage or may be re-infused back into the patient during surgery. This reduces the need for blood from donors.

2. Operational Requirements

2.1 Manual & Automatic operation

2.2 Compact, portable design

3. Technical Specifications

3.1 Spinning centrifuge

3.2 Built-in programming

3.3 Built-in safety features

3.4 Sound volume control

3.5 Automatic protocols

3.6 Set up guide

3.7 The equipment should have inbuilt and regulated vacuum pump to suck the blood.

3.8 Centrifuge speed should be adjustable from 0 to 10000 RPM with variable speed wash.

The pump flow 25 to 1000 ml. per minute.

3.9 System should have smaller foot print with big lockable castor wheel and weight should

be less then 35Kgs.(inclusive of accessories and cart) for ease of mobility.

3.10 System should be fully automated with single button operation with self start capability

and absolutely minimal user intervention.

3.11 Centrifugal bowl capacity should be 125-150ml with two stage filling cycle.

3.12 System should be approved by US FDA for autologous blood transfusion.

3.13 The company should quote a price for buy back of the existing machine (one) on an "as

is where is" basis including the physical shifting of the machine.

3.14 It should have display to show all information during the operation as pump speed, centrifuge speed and alert messages.

3.15 The equipment should be able to separate lost blood, anti coagulant, filter store concentrate and wash.

3.16 Beside the RMC separation and washing it should able to sequester plasma and platelet

from salvaged blood in separate bags

4.System Specification, Accessories, spares and consumables

4.1 Electrical specification:

Class I type B, ordinary Continuous operation.

4.2 Power :

Voltage – 220/240V or 110/120

Cycles – 50-60 Hz.

Phase – Single.

4.3 Speed and Flow rate specification :

Centrifuge – 0-10000 rpm.

Pump – 0-600 ml/min (+/- 5%)

Vacuum – 200-280 mbar.

4.4 Temperature Limit :

Operational : $10\text{-}40^0$

Storage : $5\text{-}30^0$.

4.5 Humidity range :

Operational : 10-95% non-condensing.

Storage : 10-95% non- condensing.

4.6 30 disposables should be provided with equipment

4.7 All consumables required for installation and standardization of system to be given free of cost.

5.Environmental factors

5 .1 The unit shall be capable of being stored continuously in ambient temperature of 05 - 30^0 C and relative humidity of 10-95%

51 The unit shall be capable of operating continuously in ambient temperature of 05 – 40^0 C and relative humidity of 10-95%

6. Power Supply

6.1 Power input to be 180-270V AC, 50 Hz Fitted with Indian plug

6.2 Suitable UPS of rating with spike protection, voltage regulation and for 60 minutes back up.

7. Standards, Safety and Training

7.1 Should be USFDA and European CE approved product

7.2 Manufacturer/Supplier should have ISO Certification for quality standards.

7.3 Comprehensive training for lab staff and support services till familiarity with the system.

8 Documentation

8.1 User/Technical/maintenance manuals to be supplied in English

8 . 2 Certificate of calibration and inspection.

8.3 List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service/ technical manual.

8.4 List of important spare parts and accessories with their part number and costing.

8.5 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

3. Octopus cardiac tissue stabilizer(Qty.-4)

Specification:-

1	Automatic pod spread for effective visualization of anastomotic site.
2	very secure arm for maximum stabilization
3	Greater flexibility with unlimited positioning options with 360deg movement
4	simple, secure one handed attachment of the clamp to the retractor
5	Dual vacuum tubes for superior tissue capture, whale tail easily tightening facility
6	Head-lock design for toes up position, pod spread and bend
7	Rigid clamp to eliminate rocking
8	Reduced handling profile to improve visibility of surgical site.
9	Should be European CE or USFDA approved. Copy of certificate is to be enclosed with bid.
10	Demonstration of all the product is must.

4. ICU Ventilator- High End (Qty.-2)

SPECIFICATIONS :-

The ventilator should be microprocessor based and work with hospital external high pressure line/ external compressor to be used in ICU for Adult, Paediatric and infant patients. It should be easy to use having a color inbuilt touch screen at least 12 inch or more in size with screen lock, intuitive menu structure, , Mode preset capability, Pressure bar graph/ breath indicator and prioritized alarms alongwith the following settings/ features :-

1. Ventilation Mode

Volume Controlled ventilation (Assisted / Control) VCV

Pressure Controlled ventilation (Assisted / Control)	PCV
Synchronized intermittent mandatory Ventilation	V-SIMV AND P-SIMV
Pressure support ventilation (Spont, CPAP, PEEP)	PSV
Non invasive ventilation	VCV, PCV, SIMV, PSV
Volume assured pressure support	VAPS
Mandatory rate ventilation	MRV
Airway pressure release ventilation	APRV/BI-PHASIC VENTILATION
Pressure regulated volume control	PRVC
Continuous positive airway pressure	CPAP

2. Ventilation Settings & Ranges

Tidal Volume	20 ml to 2000 ml or more
Inspiratory Peak Flow	0 to 200 LPM (Compensated) [preferred]
Maximum Inspiratory Peak Flow pressure)	> 200 l/min (depending on gas supply
Respiratory Rate	upto 100 BPM
SIMV Respiratory Rate	1 to 60 BPM
Inspiratory plataeu	0 to 60 % of IT
FiO2	21% to 100%

Insp pause, Exp Pause, sustained exhalation, programmable sigh

Inspiratory Trigger (pressure and flow trigger)

Should have apnoea back up of atleast 20 seconds.

3. Monitored Parameters

Respiratory Phase & Type, Respiratory Rate, Exhaled Tidal Volume, Exhaled Min. Volume Total, I : E : Ratio, Peak Inspiratory Pressure, Average Pressure, Plateau Pressure , End Expiratory Pressure, % Oxygen Delivered, f/Vt (RSBI), etCo2(End tidal Co2)

4. Respiratory Mechanics Maneuvers

Static Compliance and Resistance ,

Low Inflation flow (LIP) and upper inflection point (UIP),

Some form of alveolar recruitment monitoring to be present to determine the right level of PEEP.

5. Displayed Trends Values for 72 hours atleast

6. Graphics Module with
Scalars

Flow vs. Time

Pressure vs. Time

Adjustable Time Scale. Contd.....

Loops

Flow / Volume

Pressure / Volume

Facility for Freeze Screen

Individual Analysis of Each Curve

Loop Save and Overlay Function

Individual Analysis of Each Loop

Calculated Values

Inspiratory pause, Expiratory Pause

7. Should have audio-visual alarms alongwith appropriate message for
Inspiratory pressure (High), circuit, FiO2 (High/Low), Resp Rate, Tidal volume, minute ventilation,

8. The ventilator should have built-in programmable nebulizer

9. AC Power & Battery Indicators

- Loss of AC Power (visual)

- Charging, In Use, Low
- Main Battery in Use
- Should have atleast one hour back-up

10. Self Test / Self Diagnosis

- Quick Self Test and Extended Self Test

11. Interface Port

RS - 232 Output and Remote Communication

12. Ventilator should be EUROPEAN CE and US FDA APPROVED

13. Scope of supply

Ventilator	– 1 No
Air supply unit	– 1 No (OPTIONAL)
Patient Tubing (adult)	– 2 Nos/unit
Patient Tubing (paed)	– 2 Nos/unit
Nebuliser Kit	- 50 Nos/ Ventilator
NIV Mask with harness (Reusable)	- 2 Nos in each category/ Ventilator
Humidifier (F&P 810) with chamber	- 1 No/ Ventilator
Bacteriological filters	- 10 Nos/ Ventilator
Reusable mask(adult and pediatric)	- 2 each

14. OPTIONAL ITEM

1. **Air compressor(from the same manufacturer)**

15. The bidders should quote with Three years comprehensive warranty (including labour and spares) and Seven years CMC (including labour and spares).

16.DEMONSTRATION IS MUST AS AND WHEN REQUIRED.

5.) Specification of Dual Reservoir Cooler/Heater(TCM) Qty-1

Technical Specification:-

1. Should be capable of providing hot and cold water for heat exchanger and cardioplegia.
2. Microprocessor controlled with water temperature selection from 3° – 42°c, in one degree increment.
3. Should have a separate port for supplying water to the blankets.
4. Heat exchanger supply port should have a supply of 15.0 L/ min. for fast cooling and heating.
5. The hot water circulating system should have a reservoir capacity of 5.7 liters and cold system reservoir capacity should be 7.6 liters.
6. The system should operate on 220 V/50Hz. Single phase supply.
7. Should have separate ports for draining water from cold and hot tanks.
8. It should have a valid US FDA certification
9. The bidder should quote with 3 years comprehensive warranty (including labour and spares) and 7 years CMC (including labour and spares).

6. Sternal Saw Hand piece: (Qty.-1)

1. Should have Safe Mode
2. Should have minimum 14000 CPM
3. Weight of hand piece with battery should be not more than 3.5 lbs
4. Should have Pistol grip Hand piece
5. Should have tool less mounting of accessories for all blades or attachments
6. Saw noise level should not more than 93db
7. Should be ETO / Autoclavable.
8. The sternal saw is light weight and provide clear line of sight.
9. The sternal saw operates through a flexible drive cable by an electric motor/ Battery.

10. The blade holding mechanism is chuck type assembly for quickly replacing the blades.

11. The saw should have a blade protector on it and blade protector should be easily replaceable. Additional 10 blades of sterna saw should be provided.

12. Foot/Hand switch permits variable saw speeds with waterproof and anaesthetic agent proof..

13. The system operates on be 220V/250Hz. Single phase.

14. Should provide minimum1 Nos. of sterile micro oil 300 ml.

15. Overheating cut off of motor with reset facility.

16. With different blades it should have maximum speed of 14000CPM

17. Should have option of Sternum Guard.

18. Should be provide with Battery kit and Battery Charger and the sterilization case

19. Should be CE certified and US FDA approved.

20. Demonstration of the product is must.

Battery Charger:

1. 220-240 volts charger and should have the feature to count the charging cycle for a particular battery.
2. Should have capability to identify the worn out battery
3. Should have to charge four batteries at a time
4. Should have an indicator to provide battery status for charging.
5. Should be able to check over autoclaved battery cycles (Number of Time and Total time)
6. Should have reconditioning features for battery
7. Should be able to charge different batteries with same charger.
8. Should be CE certified and US FDA approved.

9. Demonstration of the product is must.

Battery Kit:

1. Ni Mh batteries with low internal impedance to deliver higher current than other battery Types.
2. Ni Mh cells with capacity to produce more torque and non autoclavable with life of 300 approximate charging cycles.
3. Should have a run time of minimum 21 minutes
4. Should include Autoclavable outer housing
5. Shield to protect battery from the housing
6. 180 degree opening of battery housing for easy insertion of battery
7. Should have option for autoclavable batteries.
8. Should be CE certified and US FDA approved.
9. Demonstration of the product is must.

Sterilization Case:

1. Should accommodate all hand piece, attachment and accessories for autoclave.
2. Demonstration of the product is must.

7. Specification of Redo STERNAL SAW (Saggital Saw) Hand piece with accessories (Qty.-1)

1. Should have two speed controls with standard and fast mode. Free speed of 10000-12000 Cycle's per minute.
2. Saw Noise level should not more then 89db

3. Weight of hand piece with battery should be not more than 3-4 lbs
4. Blade mount should be adjustable to different angles with 360 degree rotation
5. Should have tool less mounting of accessories
6. The sternal saw is light weight and provide clear line of sight.
7. The sternal saw operates through a flexible drive cable by an electric motor.
8. It is able to be ETO Sterilized/autoclaved.
9. The blade holding mechanism is chuck type assembly for quickly replacing the blades.
10. The reciprocating blade has a 5mm stroke length.
11. The saw should have a blade protector on it and blade protector should be easily replaceable. Additional 10 blades of sterna saw should be provided.
12. Foot switch permits variable saw speeds with waterproof and anaesthetic agent proof..
13. The system operates on be 220V/250Hz. Single phase.
14. Should provide minimum1 Nos. of sterile micro oil 300 ml.
15. Overheating cut off of motor with reset facility.
16. Should be ETO/autoclavable
17. Should have safe mode.
18. Should be provide with Battery kit and Battery Charger and the sterilization case
19. Should be CE certified and US FDA approved.

20. Demonstration of the product is must.

Battery Charger:

10. 220-240 volts charger and should have the feature to count the charging cycle for a particular battery.
11. Should have capability to identify the worn out battery
12. Should have to charge four batteries at a time
13. Should have an indicator to provide battery status for charging.
14. Should be able to check over autoclaved battery cycles (Number of Time and Total time)
15. Should have reconditioning features for battery
16. Should be able to charge different batteries with same charger.
17. Should be CE certified and US FDA approved.
18. Demonstration of the product is must.

Battery Kit:

10. Ni Mh batteries with low internal impedance to deliver higher current than other battery Types.
11. Ni Mh cells with capacity to produce more torque and non autoclavable with life of 300 approximate charging cycles.
12. Should have a run time of minimum 21 minutes
13. Should include Autoclavable outer housing
14. Shield to protect battery from the housing
15. 180 degree opening of battery housing for easy insertion of battery

16. Should have option for autoclavable batteries.
17. Should be CE certified and US FDA approved.
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Sterilization Case:

3. Should accommodate all hand piece, attachment and accessories for autoclave.
4. Demonstration of the product is must.