

BIDDING DOCUMENT

TENDER NOTICE No.:22 / 2015 - 2016 / Dental Chair & Other machine/ IGIMS / Store



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

TENDER NOTICE No 22/ 2015 - 2016 / Dental Chair & Other machine / IGIMS / Store

Issued to:

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

Paid By: Cash: Receipt No.:

Demand Draft: No.:

Issuing Bank:

(Authorized Signatory)

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,

SHEIKHPURA, PATNA - 800014.

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IMPORTANT DATES

Last date for Purchase of Bidding Document	Can be downloaded from Institute website
Last date for submission of bidding document.	07 /5/2015 up to 3:30 P.M. by registered/speed post/ Courier only
Date of opening of technical bid	08/5/2015 at 3:00 P.M. in conference hall IGIMS, Patna.
Date of demonstration of equipment	To be informed to the qualified bidders qualifying after opening of technical bids.

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

SI. No. OF TENDER: _____

FILE NO. : Tender No.: _____

Tender form issued in favour of:

Dear Sir,

1. I/We hereby submit our tender for the

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

(EMD AND COST OF BIDDING DOCUMENTS MUST BE SUBMITTED IN SEPRATE ENVELOP.TENDERS NOT ACCOMPANIED WITH EMD / BIDSECURITY ALONGWITH THE TECHNO-COMMERCIAL BID SHALL BE SUMMARILY REJECTED).
3. I/We have gone through all terms and conditions of the tender documents before submitting the same.
4. I/We hereby agree to all the terms and conditions, stipulated by the I.G.I.M.S. - Patna including delivery, warranty, penalty etc. Quotations for each group are being submitted under separate covers, and sheets and shall be considered on their face value.
5. I/We have noted that overwritten entries shall be deleted unless duly cut & rewritten and Initialled.
6. Tenders are duly signed and stamped.(No thumb impression should be affixed)
7. I/We undertake to sign the contract/agreement, if required, within 15 (Fifteen days) from the date of issue of the letter of acceptance, failing which our/my EMD/Bid deposited may be forfeited and our/my name may be removed from the list of suppliers

Yours faithfully,

(Signature of Bidder with full name and address)

CHECK LIST FOR TERMS AND CONDITIONS

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

Sl. No.	Terms & Conditions as per Bidding Document	Page No.	Remarks
1.	<p>Status of Bidder:</p> <ul style="list-style-type: none"> • Manufacturer or Authorized Agent of the Manufacturer • Whether Public Undertaking, Public Ltd., Private Ltd. Company or Proprietary Firm/partnership firm • <p>(Please attach Notary certified MANUFACTURER'S AUTHORISATION FORM as per FORMAT placed at Annexure – III)</p>		
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		
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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	<p>(a) The manufacturer should have completed at least 05(Five) nos. installations of the quoted items in Govt. /Pvt. Institutions /Hospitals in India. The installations mentioned by the manufacturer in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.</p> <p>(b) The bids quoted as the authorized representative of the manufacturer meeting the above criteria 02 (a) should have also supplied and installed at least 03(Three) nos. installations of the quoted items in Govt. /Pvt. Institutions/ Hospitals in India in last five years from the last date of submission of tender. The installations mentioned by the authorized representative in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.</p>	
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 31 st 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 TO BIDDERS

1. Tendering System

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

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

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

2. The tender offers, duly filled, shall be submitted in two separate sealed covers separately for **technical and price bids** respectively. Such covers shall be super scribed as **“Tender No..... (here mention the tender no as specified) TECHNICAL BID for supply of (here mention the name of the equipment)”** or **“Tender No..... (here mention the tender no as specified) PRICE BID for supply of (here mention the name of the equipment)”** as the case may be. Both the sealed covers shall be enclosed in another sealed (third) bigger cover which should also be super scribed as **“Tender No..... (here mention the tender no as specified) TENDER for supply of (here mention the name of the equipment)”**

3. Quantity of items may increase or decrease. Director, I.G.I.M.S. - Patna reserves the rights to purchase different sub items/ components of items from different bidders.

This rate Contract will be valid for one FY and repeat Supply Order will be placed as per requirement of the deptt. of all the quoted and approved items.

4. The “Bidding Document” along with terms and conditions, technical specification can be obtained from the office of the Store Officer, IGIMS, Patna on payment of Rs. 2000/- (Rs. Two thousand only) Non –refundable for each Group either by cash or demand draft favouring Director , IGIMS, Patna payable at Patna.

5. The “ Bidding Document” can also be downloaded from institute website www.igims. Org.. In case, downloaded bidding document is used ,Bidder(s) have to submit the cost of the Tender Document 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 is

7. Last date for submission of bidding document is 07/ 05 /2015 up to 3:30 P.M. by registered post / speed post/ Courier only. Bidder(s) are requested to send the bid well in advance so as to ensure that bid reaches in time. Institute will not be responsible for any postal delay. Bids received after due date and time shall be summarily rejected.

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

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

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

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

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

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

- a. User List (List of Govt. / Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.
- b. Supply order Minimumm 03 nos. or more issued by Govt./Semi Govt./Reputed Pvt. Institutions/organization for the quoted items.(same model)
- c. Performance certificate of the same supplied machine (of quoted make and Model) issued by **Head of the deptt. or Institution** after a minimum period of six months of installation.

- d. Prerequisite (if any) for installation of the Machine if any to be provided by the Institute.
- e. If the manufacturing company and/or its Indian agent (for Foreign manufactured) have authorized some agency for participation in this tender for a limited period than in that case they (Manufacturer / Indian agent) shall have to submit an undertaking duly notarized by Public notary that if their tender is selected they shall be solely responsible for compliance of all the terms and conditions mentioned in the bilateral agreement for purchase and subsequent supply order even if their authorized agent is changed. Any tender offer without such certificate duly certified by public notary shall be rejected in technical scrutiny itself.
- f. Bidder must submit a compliance checklist along with the technical bid itself.
- g. (Any tender offer without submission of above mentioned document (i.e. a to e) shall be rejected during technical scrutiny.)
- h. If any new System/ Latest model machine is a launched in the market and seller has not installed such quoted models they should submit an undertaking that he has not installed such models previously (Notarized by Public Notary). . They may submit supply order / performance certificate of previous model, which was recently installed by them.

12. Installation & site plan:-

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

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

13. After Sales Service Conditions:

- a. The Institute is in the pursuit of ensuring excellent after sales service for every user in respect of the equipments supplied under this contract. The after sales services terms and conditions will be strictly enforced and those Bidders who are willing to support the Institute in its endeavor to provide trouble free operation/performance of the equipments for the prescribed period need only participate in the tender.
- b. The after sales service shall be performed during the warranty period and also during the Comprehensive Maintenance Period (CMC)/ Annual Maintenance Contract, if awarded. The detailed terms and conditions for after sales service are mentioned hereunder.

c. Guarantee/Warranty Terms:

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

- 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.

14. Time Limits prescribed

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

15. Firm have to provide a minimum **UPTIME GUARANTEE** of 95% (95% of 365 Days) per year during the warranty period as well as during the Comprehensive Annual Maintenance Contract.
16. While calculating the total unit price of the item / system to be procured, expenditure to be incurred in maintenance of the quoted item / system including all spare parts for a total period of seven years after expiry of the warranty period of three years shall also be taken into consideration. Accordingly, it is mandatory for the bidders to submit the rate for Comprehensive Annual Maintenance Contract (with spares) for a minimum period of seven years after the expiry of warranty period of three years.
17. Supplier will submit undertaking for ensuring uninterrupted supply of spares during the total life span of the equipments.
18. Indian agency commission and Installation charge if any will be paid in Indian rupees after successful installation and demonstration of the equipments.
19. Principal's Invoice of the quoted items must be submitted with the quotations.
20. Proof of the official Indian agent certificate of the firm must be attached. (Notary Certified Photocopy)
21. 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).
22. Bidder(s) have to submit an affidavit to the effect that they have not supplied the offered item(s) to any Govt., semi Govt. / Pvt. Organization, Institution, Nursing Home etc. at the price lower than the price offered to I.G.I.M.S. – Patna.

23. All the claims regarding meeting the specifications shall be duly supported by appropriate, latest technical catalogues/brochures from the manufacturer. Simply stating that the equipment(s) meets the specifications is not sufficient and any such quotations will be summarily rejected. Computer printed documents or Photostat copy or laser printouts will not be accepted as technical catalogues / brochures.
24. Bidder might be required to demonstrate the system at the discretion of the institute.
- 25. Notification of Award/Letter of Intent (LOI)**
- a. Before expiry of the tender validity period, the Institute will notify the successful Bidder(s) in writing, by registered / speed post or by fax or by email (to be confirmed by registered / speed post immediately afterwards) that its tender for equipment(s), which have been selected by the Institute, has been accepted, also briefly indicating there in the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. This notification is undertaken by issuing a Letter of Intent (LOI) by the Institute.
- b. The successful bidder, upon receipt of the LOI, shall furnish the required performance security and submit an agreement in the prescribed format within ten days, failing which the EMD will be forfeited and the award will be cancelled.
- c. The Notification of Award shall constitute the conclusion of the Contract.
- 26. Signing of Contract**
- The successful bidder shall execute an agreement for ensuring satisfactory supply, installation, commissioning and the after sales service/support during the warranty period and during the Comprehensive Annual Maintenance Contract.
27. The Director reserves the right to accept or reject any or all tenders without assigning reasons.
28. The Director reserves the right to modify, add or delete any terms & conditions of the contract as and when required.
- 29. Amendment of tender documents:**
- a. At any time prior to the dead line for submission of Tender, the Institute may, for any reason, modify the tender document by amendment.
- b. The amendment shall be notified and uploaded on the institute website www.igims.org only and such amendments shall be binding on them thereafter.
- c. The Institute shall not be responsible for failure to inform the prospective bidders. Purchasers of tender documents are requested to browse the website of the Institute for information/general notices/amendments to tender document etc on a day to day basis till the tender is concluded.
30. The Dispute, if any, will be subject to Jurisdiction at Patna (Bihar).

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

CONDITIONS OF THE CONTRACT

CONDITIONS OF THE CONTRACT

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**" as per calculation given below:-

$$1 \text{ Year} = 365_{\text{days}}$$
$$95\% \text{ of } 365 \text{ days} = 347 \text{ Days per annum}$$
- e. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.
- f. During warranty period, **bidder** will make the "**Complete System**" in satisfactory working condition. In case, any spare parts, accessories, 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 binding 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 given below:-

1 Year = 365_days

95% of 365 days = 347 Days per annum

- f. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.
- g. During Comprehensive Annual Maintenance Contract, **bidder** will keep the **“Complete System”** in satisfactory working condition. In case, any spare parts, accessories, 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.**
- h. The payment of Comprehensive Annual Maintenance Contract will be made on half yearly basis after submission of satisfactory functioning report of the Complete System by the officials authorized by the Institute.
- i. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the Comprehensive Annual Maintenance Contract will be extended by the period for which the item / accessories could not be operated because of supplier not being able to provide services.
- j. During Comprehensive Annual Maintenance Contract, in case of any alleged damage due to accident / human error, a committee under the Chairmanship of Director, I.G.I.M.S. – Patna with one member from the bidder and one member from the Institute will decide the authenticity of the claim. The decision of the committee shall be final and binding on both the parties.

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. Payment: -

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

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

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 warranty 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

servicing 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 inter alia, the extent to which the successful bidder's performance under the contract is terminated, and the date with effect from which such termination will become effective.

21. **Fall Clause:**

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

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

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

**Sd/-
Director,
IGIMS - Patna**

CHAPTER:

Schedule of the Requirement.

SCHEDULE OF THE REQUIREMENT

SI No	Name of the Department	Name of the equipment			
Group	Name of Department	Name of Machine Equipments	Group	Name of Department	Name of Machine Equipments
A	Dentistry	<p>*Dental Chair</p> <p>*Dental Air Compressor * Radio Visuo Graphy Machine * Led Light Cure Unit * Digital Ultrasonic Scanner (Setalac P-5) Contra Angle Hand Piece, * Straight Hand Piece * Micro Motor *Movable IOPA x-ray unit * Pulp Vitality Tester * Apex Locator * Endo Motor * Motorised suction machine, Automatic Dental IOPA film developer,Orthodontic spot welder * Table Top Front Loading Autoclave& Instruments with consumables.</p> <p>All equipment must be CE/FDA approved</p>	B	ENT	<p>1;- Operating Microscope for ENT</p> <p>2 .Micro Ear Instruments.</p> <p>3; Basic Instruments for OPD & Operation Theatre</p> <p>4;- Heavy duty Micro motor (drill)</p>
C	G. I .Surgery	<p>1. Fiber optic Choledochoscope with light sources,</p> <p>2. Harmonic ACE with Complete set.</p> <p>3.Various accessories required for the surgery i.e Fistuloscope with its accessories.</p>	D	Neurosurgery	<p>1: Ultrasonic Aspirator/dissector for Micro Neurosurgical Operation.</p> <p>2; Operating Microscope unit for Micro Neurosurgical Operation.</p> <p>3*Neuro Endoscope for Cranial and spinal use complete with all accessories.</p> <p>4;. High Speed Drill (Pneumatic and Electrical) with all accessories</p>
E	Reproductive Biology	<p>*Hysteroscopy Set with accessories</p> <p>*End vision System</p> <p>*. USG Machine with Color Doppler</p>	F	Gynaecological Oncology	<p>*Zoom Colposcopy System</p> <p>*Hysteroscopy Set with accessories</p> <p>*Laparoscopic Surgery set</p>
G	Nephrology	<p>1;- Dialysis machine</p> <p>2- R O System</p>	H	Paediatric Surgery	<p>1:-Laparoscopic surgery set with standard accessories</p> <p>2:ped./NeonatalRigid Bronchoscope set</p> <p>3;RegidBonchoscope /Esophaoscope</p>

ANNEXURES

Annexure - I (a)

PRICE SCHEDULED FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN

LOCATED WITHIN INDIA.

1	2	3	4	5							6
Scheduled	Brief description of goods Make: Model:	Country of origin	Qty. nos.	Price per unit (Rs.)							Total unit price (At Consignee Site) Basis Rs. 4x5(g)
				Ex-factory/ex-warehouse /ex-showroom/off-the shelf	Excise duty(if any) % and value.	Sales tax/vat(if any % and value.	Packing and forwarding charge	Inland transportation , insurance for a period including 3 months delivery, loading/unloading and incidental cost till consignee site.	Incidental services (including installation and commissioning, supervision, demonstration and training) at the consignee site.	Unit price (at consignee site basis(g)	
				(a)	(b)	(C)	(d)	(e)	(f)	a + b + c + d+ e + f	

Total quoted price in Rs.

In Words:

Note:

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warrantee shall be quoted separately as per price scheduled.

Place:
Date:

Name:
Business Address;-
Signature of Bidder;-
Seal of the Bidder;-

Annexure: I (b)

PRICE SCHEDULED FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5				6	
				Price per unit (CURRENCY)					
schedule d	Brief descrip tion 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 Installatio n & Commissi oning, supervisio n, Demonstr ation 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 Transportati on and storage) (e_)	Total Price on CIP Named Port of Destination + Insurance (Local Transportati on 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	1 st Yr.	2 nd Yr.	3 rd Yr.	4 th Yr.	5 th Yr.	6 th Yr.	7 th 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/warranty /Comprehensive Annual Maintenance Contract as agreed by the bidder in the event the bidder is changed as the dealers or the bidder fails to provide satisfactory after sales and service during such period of Comprehensive Warranty / Comprehensive Annual Maintenance Contract and to supply all the spares/ accessories / consumables etc. during the said period.
4. We also hereby declare that we have the capacity to manufacture and supply, install and commission the quantity of the equipments tendered within the stipulated time.

(Name)

for and on behalf of M/s. _____

Date:

(Name of manufacturers)

Place:

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

ANNEXURE – IV
BANK GUARANTEE FORM

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

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

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

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

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

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

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

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

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

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

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

(Signature with date of the authorized officer of the Bank)
Name and designation of the officer

.....
.....

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

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

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

Dated this the ___ day of 201_ For _____

(Name, Designation and Address)

Accepted

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

Date : _____

SPECIFICATION AND ALLIED TECHNICAL DETAILS

Group-A-Dentistry

DEPARTMENT OF DENTAL SCIENCES AND RESEARCH, IGIMS, PATNA

LIST OF INSTRUMENTS

S.N.	PARTICULARS	STANDERED SPECIFICATIONS	QUANTITY)
1.	Dental Chair	<p style="text-align: center;"><u>Dental Chair</u></p> <ul style="list-style-type: none">• Computerized & electrically operated chair• Independent up/down & backrest movement• Double articulated head rest• Automatic right arm rotatable with zero degree return• Seven working programmes including four programmable working positions with one switch for each and rest three for spitting, last working position and zero return.• Anticrushing & movement locking system• Two Doctor's stool with adjustable back rest tilt & height adjustment and suitable foot ring for attaining correct posture• Three axis movement of shadow less cold & white 5 LED touch less sensor lights with variable intensity & of 35000 LUX(1 extra light set)• Removable and autoclavable handles for dental light head• Emergency RED switch to lock chair during emergency• Multifunctional electrically operated foot control with joysticks for all 7 programmes• Water heating system with three way syringe• Three way syringe , and points for low volume and high volume suction on assistants side• Auto sensor water activation for spittoon & cup filler• Stainless steel autoclavable Delivery tray with minimum size of 18*20 inches• 18*20 size dash board with computerized switches for all 7 programmes and 2 points for air rotor(1 airtor cable should be optic light cable & 1 without optic light cable), 1point for micro motor and 1 point for three way syringe attachment, with inbuilt LED IOPA viewer on dash board.• Removable ceramic water spittoon with 180 degree movable water unit• 3 KV Voltage stabilizer attached with the chair• Dental unit water supply with RO system• Imported Chairs preferred excluding Chinese make• Chairs with recent advances preferred	2	

2.	DENTAL AIR COMPRESSOR	<p style="text-align: center;">-----</p> <p style="text-align: center;"><u>DENTAL AIR COMPRESSOR</u></p> <ul style="list-style-type: none"> • Oil free & low noise level • With all proper safety device • Medical grade air • Epoxy coated tank of 50 L capacity • Moisture drain facility • Air filter with outlet • Wheels for easy displacement • Minimum power 1.5HP/ 750 W • Imported Compressor preferred excluding Chinese make • Compressor with recent advances preferred <p style="text-align: center;">-----</p>	2	
3.	RADIO VISUO GRAPHY MACHINE	<p style="text-align: center;"><u>RADIO VISUO GRAPHY MACHINE</u></p> <ul style="list-style-type: none"> • Universal standard size of 1.5 inch • High sensitivity index • Good signal to noise ratio • Tapered edges and ergonomic design • Aluminum metal casing for perfect grounding & protection from mechanical shocks • Advanced software operating system • Reinforced bend resistant cable with Minimum 3+3 meter cable length • Pixel pitch of 0.035 mm • Pixel array of 686 * 944 pixels • Up to 4096 (12 BIT) dynamic range • Standard dimensions (1.15* 1.52* 0.19) inch • Advanced hybrid CMOS technology • CPU attached RVG machine along with computer & printer • Imported RVG machine preferred excluding Chinese make • RVG machine with recent advances preferred 	2	
4.	LED LIGHT CURE UNIT	<p style="text-align: center;"><u>LED LIGHT CURE UNIT</u></p> <ul style="list-style-type: none"> • Cordless light cure unit • High power LED with dental blue light • Adjustable work time setting (0-20 sec) with digital display • Strong standby time • Over temperature protection alarm • 5W LED lights with 3 modes (normal /ramp/pulse) • Wavelength up to 470 nm • Working voltage 100-220 V AC with 0.7 ampere current. • Light intensity up to more than 1000mw/cm 2 • Imported light cure unit preferred excluding Chinese make • Light cure unit with recent advances preferred 	2	

5.	DIGITAL ULTRASONIC SCALER (SETALAC P-5)	DIGITAL ULTRASONIC SCALER (SETALAC P-5) <ul style="list-style-type: none"> • Detachable & autoclavable hand piece • 3 working modes – scaling/ Perio / Endo • Automatic frequency tracking • 5 titanium scaling tips (3 scaling , 1 perio , 1 stain remover , 1endo attachment) • Must work on piezon technology • 100 V to 240 V (50-60 Hz) • Imported digital ultrasonic scaler preferred excluding Chinese make • Digital ultrasonic scaler with recent advances preferred 	2	
6.	CONTRA ANGLED HAND PIECE	CONTRA ANGLED HAND PIECE <ul style="list-style-type: none"> • Equipped with self-illuminating LED • Should connect to any standard air tubings • Cellular glass optic – pure day light illumination • Stainless steel hand piece which should be durable and stable • Speed 380000-450000 RPM (MINIATURE HEAD) • Speed 330000-430000 RPM (STANDARD HEAD) • Clean head system with push button chuck • Quattro spray system • ISB turbines with power 9 W • Bur size attachable to hand piece should be of 2.35 mm • 1 airotor spray with hand piece • Imported Contra angled hand piece preferred excluding Chinese make • Contra angled hand piece with recent advances preferred 	2	
7.	STRAIGHT HAND PIECE	STRAIGHT HAND PIECE <ul style="list-style-type: none"> • Speed 35000-40000 RPM • 1:1 hand piece • Light weight minimum up to 56gm • Bur size attachable to hand piece should be of 2.35 mm • Imported straight hand piece preferred excluding Chinese make • Straight hand piece with recent advances preferred 	2	
8.	MICRO MOTOR	MICRO MOTOR	2	

9.	MOVABLE IOPA X-RAY UNIT	<ul style="list-style-type: none"> • Digital display of speed readings • Speed 35000 RPM with speed control button • One extra carbon brush set • Low heat generator • Micro motor box with forward & reverse direction • Should have both hand and foot operating system • Extra torque for smooth working • Imported micro motor preferred excluding Chinese make • Micro motor with recent advances preferred • 5 years warranty with 5 years AMC (Annual maintenance cost) is must <p><u>MOVABLE IOPA X-RAY UNIT</u></p> <ul style="list-style-type: none"> • Digital display and soft touch buttons • Double pantographic arm • Smooth vertical and horizontal movements • Tube head & cone LEAD coated • High efficiency • 4 lead aprons and 2 lead color • 1 set of developer & fixer solution (1 L) • 70 KV / 7 m A tube • Focal spot of 0.8 mm • Focal length 20 cm • Exposure time 0.06 -3.2 seconds • Imported IOPA X-ray machine preferred excluding Chinese make • IOPA x-ray machine with recent advances preferred 	2	
10.	PULP VITALITY TESTER	<p><u>PULP VITALITY TESTER</u></p> <ul style="list-style-type: none"> • Preset speed mode (high / medium /low) • Gentle pulse stimulator (maximum 80) • Easy to operate • Auto off after 3 minutes • Standard battery up to 9 V • Imported pulp vitality tester preferred excluding Chinese make • Pulp vitality tester with recent advances preferred 	2	
11.	APEX LOCATOR	<p><u>APEX LOCATOR</u></p> <ul style="list-style-type: none"> • Precision digital apex locator • Auto detects apex in wet & dry conditions • Alert sound for location of file tips • 3 colour LCD panel with low reflectivity • Audible warning system • Auto power off • Long standing battery 60 Hr • Imported apex locator preferred excluding Chinese make 	2	

12.	ENDO MOTOR	<ul style="list-style-type: none"> • Apex locator with recent advances preferred <p><u>ENDO MOTOR</u></p> <ul style="list-style-type: none"> • Simple interface design for easy control • Ergonomic and compact body • 5 memory programmes • Setting torque limit function • Motor on –off switch button • RPM 100-600 • Gear ration 16:1 & 20:1 • 10 rotary file each (Sx ,S1 S2 F1 F2 F3) • Imported Endo motor preferred excluding Chinese make • Endo motor with recent advances preferred 	1	
13.	MOTORISED SUCTION MACHINE	<p><u>MOTORISED SUCTION MACHINE</u></p> <ul style="list-style-type: none"> • Low noise level • Must drain by gravity • Easy installation even up to 7 m • Less power consumption (0.45 KW) • Anti-vibration system • Level sensor to check reservoir • Minimum 1 L capacity • Imported motorized suction machine preferred excluding Chinese make • Motorized suction machine with recent advances preferred 	1	
14.	AUTOMATIC DENTAL IOPA FILM DEVELOPER	<p><u>AUTOMATIC DENTAL IOPA FILM DEVELOPER</u></p> <ul style="list-style-type: none"> • One automatic developer for 10 films • One automatic developer for 50 films • Imported Chairs preferred excluding Chinese make • Chairs with recent advances preferred • 5 years warranty with 5 years AMC (Annual maintenance cost) is must. • Imported automatic dental IOPA film developer preferred excluding Chinese make • Automatic dental IOPA film developer with recent advances preferred 	1 each	
15.	ORTHODONTIC SPOT WELDER	<p><u>ORTHODONTIC SPOT WELDER</u></p> <ul style="list-style-type: none"> • Electrically operated & shock proof Standard spot welder 		

16.	TABLE TOP FRONT LOADING AUTOCLAVE	<ul style="list-style-type: none"> • 5 extra electrodes • Imported spot welder preferred excluding Chinese make • Spot welder with recent advances preferred <p>TABLE TOP FRONT LOADING AUTOCLAVE</p> <ul style="list-style-type: none"> • Table top class B autoclave for hollow & porous products • Should have 17-25 L tank capacity • Should have temperature range of 121-134 C • Should be fully microprocessor controlled with wide LCD screen display • Should have electromechanical system with double protection lock • Should have push button control system to operate • Should have high penetration fractioned vacuum system to ensure the complete removal of air • Should have customized vacuum drying facility • Should go on standby mode after completion of cycle • Should have automatic shutdown facility • Must have integrated safety features and process evaluation system • Should have B universal 134/B prion 134 & B universal 121 all types of cycles • Should be supported with tray holder, 3 trays, tray remover, integrated water filling and draining tank & one pen drive USB point • Should be FDA approved • Imported autoclave preferred excluding Chinese make • Front loading autoclave with recent advances preferred <p>All equipments must be CE & FDA Approved</p>	1	1
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DEPARTMENT OF DENTAL SCIENCES AND RESEARCH, IGIMS, PATNA

LIST OF INSTRUMENTS

S.NO	PARTICULARS	QUANTITY	
1.	Transfer instruments (Chittel forceps) of standard thickness	5	
2.	Instruments keeping kidney tray(small /medium/large)	2 each	
3.	Instruments keeping utility tray(small /medium/large)	2 each	
4.	Instruments keeping drums(small /medium/large)	2 each	
5.	Diagnostic instruments set (stainless steel & autoclavable plane mouth mirror tip with handle , dental probe , dental explorer , dental twizzer	100	
6.	Swab holding forceps 6"	5	
7.	Bard parker handle no. 3	5	
8.	No. 9 molts periosteal elevator	5	
9.	Howarth's periosteal elevator	5	
10.	Austin's tissue retractor forked	2	
11.	Channel retractor regular (size 8mm & 12mm)	2 each	
12.	Kilner retractor C shaped (small & medium)	2 each	
13.	Malleable copper retractor 8 inch long	2	
14.	Langenback's retractor (small 6* 20 mm) (medium 10*30mm)	2 each	
15.	Plastic cheek retractor (small & big)	2 each	
16.	Tongue depressor	5	
17.	Towel clips	10	
18.	Adson's Dissecting tissue holding forceps plain 5" & 7"	5 each	
19.	Adson's Dissecting tissue holding forceps tooth 5" & 7"	5 each	
20.	Crile artery forceps 6"	5	
21.	Mixer artery forceps 6"	5	
22.	Mosquito artery forceps 4" & 5"	5 each	
23.	Mayo needle holder fine 5"	5	
24.	Bone end cutting rongeur's 7.5"	2	
25.	Bone side cutting rongeur's 7.5"	2	
26.	Monobevel fine chisels (4,6,8,10 mm)	1 each	
27.	Bibeveled fine osteotomes (4,6,8,10 mm)	1 each	
28.	Nylon faced hammer	2	
29.	Miller bone file double end straight & curved	2 each	
30.	Lucas curettes	2	
31.	Volksman bone scoop	2	
32.	Sinus forceps for drainage	2	
33.	Mouth props set of 3 (small , medium , large)	2	
34.	Ferguson mouth gag	2	
35.	Dean's suture cutting scissors	5	
36.	Kilner's angular scissors	2	
37.	Iris dissection scissors	2	
38.	Frazier no 3 suction cannula	5	
39.	Gillies skin hook	5	
40.	Dental elevator straight	5	
41.	Dental elevator cryer mesial & distal	5 each	

42.	Dental elevator coup land's straight	5	
43.	Dental elevator coup land's curved	5	
44.	Dental elevator coup land's serrated	5	
45.	Dental elevator cross bar	5	
46.	Dental elevator apexo mesial & distal	5 each	
47.	Dental elevator root pick	5	
48.	Dental elevator warwick james mesial & distal	5 each	
49.	Maxillary anterior extraction forceps	5	
50.	Maxillary premolars extraction forceps	5	
51.	Maxillary molar extraction forceps(left & right)	5 each	
52.	Maxillary molar extraction forceps (Bayonet)	5	
53.	Maxillary root extraction forceps	5	
54.	Mandibular anterior extraction forceps	5	
55.	Mandibular premolars extraction forceps	5	
56.	Mandibular universal molar extraction forceps	5	
57.	Mandibular molar extraction forceps Cowhorn	5	
58.	Pediatric extraction forceps (2maxillary molar,1mandibular molar,1anterior,1root)	2	
59.	Marking ink pen (stainless steel & autoclavable)	2	
60.	Wire twisting forceps	2	
61.	Wire cutter double action strong with tungsten carbide tip	2	
62.	Arch bar cutter	2	
63.	Mini plate cutter	2	
64.	Self holding screw driver with fiber handle (1.5 , 2, 2.5 mm)	2 each	
65.	Ordinary screw driver (1.5 , 2, 2.5 mm)	2 each	
66.	Plate bending forceps	2	
67.	Plate holding forceps	2	
68.	Bone holding forceps pointed 6"	2	
69.	Rowe maxillary disimpaction forceps (right & left)	2 each	
70.	Asch nasal septum forceps (small & big)	2 each	
71.	Rowe zygomatic elevator	2 each	
72.	Orthodontic bird beak plier	1	
73.	Orthodontic distal end cutting plier	1	
74.	Orthodontic universal plier	1	
75.	Orthodontic Adam's plier	1	
76.	Orthodontic bracket placement forceps	2	
77.	Orthodontic heavy wire cutter	1	
78.	Orthodontic light wire cutter	1	
79.	Orthodontic bite block	1	
80.	Orthodontic band pusher	1	
81.	Orthodontic soldering torch with gas	1	
82.	Dappen dish	5	
83.	Amalgam plugger (Teflon coated)	2	
84.	Amalgam carrier stainless steel(Teflon coated)	2	
85.	Mortar & pestle	2 each	
86.	Spoon excavator(Teflon coated)	2	
87.	Ball burnisher (Teflon coated)	2	
88.	Diamond shaped carver(Teflon coated)	2	
89.	Cement spatula(Teflon coated)	2	
90.	Cement plugger(Teflon coated)	2	
91.	Cement condensor(Teflon coated)	2	
92.	Teflon coated Agate spatula	2	
93.	Glass slab for cement mixing (dental use)	2	

94	Impression trays edentulous (0 to 4 no.)non perforated (stainless steel and plastic)	2 sets each	
95	Impression trays dentulous (0 to 4 no.) perforated (stainless steel and plastic)	2 sets each	
96	Wax knife	5	
97	Le cron's carver	5	
98	Mean value articulator	1	
99	Rubber bowl (small & medium)	2 each	
100	Plaster spatula (metal & plastic)	2each	
101	Plaster knife	2	
102	Crown remover (gun type & manual)	1 each	
103	Double door refrigerator(350L with stabilizer) 5 star	1	
104	Desktop computer with printer & scanner(imported and recent advances preferred excluding Chinese make)	2	
105	Digital camera up to 15 pixels(imported and recent advances preferred excluding Chinese make)	1	
106	Laptop with LCD projector& projection screen	1	
107	Projection board (white) with colour markers& eraser	1	
108	Notice board	1	
109	Department name plates for various rooms	1 each	
110	Water bath sterilizer standard large size	2	
111	Ultra violet sterilizing cabinet (24 tray capacity) (imported and recent advances preferred excluding Chinese make)	1	
112	Dog bite articulator	3	
113	Sphygmomanometer with stethoscope (imported and recent advances preferred excluding Chinese make)	2	
114	Bio star machine	1	
115	Digital Weighing machine	1	
116	Wheel chair (standard)	1	

N/B: - 1. All instruments should be made of standard quality stainless steel and must be rust proof.

2. All equipments must be CE & FDA approved.

DEPARTMENT OF DENTISTRY IGIMS, PATNA

LIST OF CONSUMABLE ARTICLES(2014-15)

SNO	NAME OF ARTICLE	QUANTITY	
1	ALGINATE IMPRESSION MATERIAL	225 GM 3PKTS	
2	ZINC OXIDE EUGENOL IMPRESSION PASTE BASE AND ACCELARATOR	75 GM EACH 2 PKTS	
3	IMPRESSION COMPOUND	2 PKTS	
4	ADITION SILICON PUTTY	400 GM JAR	
5	ADDITION SILICON FLOWABLE	30 GM 1 PKT	
6	GREEN STICK WAX	2 PKTS	
7	SELF CURE ACRYLIC POWDER AND LIQUID	110 GM EACH 1 PKT	
8	TRANSPARENT SELF CURE ACRYLICIN B2 SHADE POWDER LIQUID	110 GM I PKT EACH	
9	COLD MOULD SEAL	100ML 1 PKT	
10	MODEL PLASTERS 5KG	1 PKT	
11	DENTAL STONE TYPE-1V 1 KG	3 PKTS	
12	TISSUECONDITIONER 100GM	1 PKT	
13	BITE REGSTRATION WAX	1 P-KT	

14	SHELLAC BASE PLATE (UPPER/LOWER ARCH)	2 PKTS	
15	STICKY WAX	1 PKT	
16	MODELLING WAX PINK	3 PKT	
17	TEMPORARY CROWN PLASTIC	2PKTS	
18	PLASTIC TEETH ACRYLIC TYPE IN A3 AND B2 SHADES FOR ANTERIOR AND POSTERIOR TOOTH	2 SETS	
19	BIOSTAR SOFT PLASTIC SHEETS FOR SOFT SPLINT	2 PKTS	
20	LIGHT CURE BONDING AND ETCHING AGENT	3PKTS	
21	LIGHT CURE COMPOSITE 3GM B2,A2,A3 SHADES	2 PCS EACH	
22	GLASS IONOMER CEMENT RESTORATIVE&LUTING POWDER AND LIQUID	35 AND 15GM EACH 2 PKTS	
23	ZINC-OXIDE EUGENOL POWDER AND LIQUID	100GM AND 50ML 1PKT	
24	AMALGAM ALLOY POWDER AND LIQUID(MERCURY FOR DENTAL USE)	30 GM 50GM EACH 1 PKT	
25	CALCIUM HYDROXIDE LIGHT CURE MATERIAL	5GM 1 PKT	
26	FORMOCRESOL PULP DEVITALIZER (IMPORTED)	1 PKT	
27	HYDROGEN PEROXIDE 6% BY VOLUME	5 LIT	
28	SODIUM HYPOCHLORITE 5.2%	5 LIT	
29	NORMAL SALINE	5 LIT	
30	BARBED BROCH (15-40MM) 21MM LENGTH	5 PKT	
31	REAMER 15-40&45-80 NO NITI- (21MM&25MM LENGTH) EACH	10 PKTS EACH	
32	K-FILES 15-40&45-80 NO NITI 21MM&25MM LENGTH	10 PKTS EACH	
33	PROTAPER ENDOMOTOR NITI FILE AND GUTTA PERCHA (ASSORTED SIZE)	10 PKTS EACH	
34	GUTTA PERCHA CONE 15-40&45-80 NO IN 21MM AND 25MM LENGTH	10 PKTS EACH	
35	LATERAL CONDENSER(FOR RCT) 21MM LENGTH	3 PKTS	
36	K-FILES 8 AND 10 NO 21MM AND 25 MM LENGTH	2 PKTS EACH	
37	GP SOLVENT	1 PACK	
38	EDTA 5GM	1 PACK	
39	GLIDE 5GM	1 BOTTLE	
40	AH-26 SEALER	5 PKT	
41	PRO ROOT-MTA FILLER 5GM	1 PKT	
42	FIBER POST FOR ANTERIOR AND POSTERIOR TEETH 0.8 AND 1 MM SIZE 5	1 PKT 50 POST EACH	
43	PRECISION DRILLS FOR POST CORE IN DIFFERENT SIZES	1 PKT	
44	PESSO REAMER	1 PKT	
45	PREMADE TEMPORARY FILLING MATERIAL (ZOE) 14GM	10 PCS	
46	SUTURES 3-0, 4-0. VICRYL REVERSE CUTTING AND CUTTING 2465	25 PCS 0-3, 25 PCS 0-4	
47	FACE MASK	200 PCS EACH	
48	COLOR MARKERS (BLAK,BLUE,RED)	5 EACH	
49	DRAPE FOR PATIENT	DISPOSABLE 100 PCS PLASTIC	
50	DOCTORS APRON(FULL AND HALF SLEEVE TERRY COTTONWITH 80% COTTON &20% TERRY WHITE HAVING IGIMS LOGO ON THE FRONT POCKET	5 PCS EACH 42/XL IN SIZE	
51	BARD PARKER BLADE SS 11, 12,15 NO	11 NO 100PCS,12 NO 15 PCS,15 NO 200 PCS	
52	LOCAL ANAESTHESIA 2%LIGNOCAINE WITH ADRENALINE (1:80000)	25 DOZENS	
53	SUTURES 3-0, 4-0. VICRYL REVERSE CUTTING AND CUTTING 2490	20 PCS EACH	
54	LOCAL ANAESTHESIA 2%LIGNOCAINE WITHOUT ADRENALINE	2 DOZENS	

55	DISPOSABLE SYRINGE 2.5 AND 5ML AND 10ML	1000PCS(2.5ML) 5ML(50PCS),10ML(15PCS)	
56	LOCAL ANESTHETIC SPRAY	5 PCS	
57	GEL FOAM (ABGEL)	1 PKT	
58	BOTROCLOT SOLUTION	1 BOTTLE	
59	DEXONA 4MG AND 2MG	5 VIAL	
60	ADRENALINE INJ (1:1000)	5 VIAL	
61	DOPAMINE 5GM	5 VIAL	
62	AVIL(CHLORPHENIRAMINE)	5 VIAL	
63	FLUX	ONE BOTELS	
64	IODOFORM GAUZE 4 INTO 4 CM	50 PACKS	
65	ANTI FLUX	ONE BOTEL	
66	AUSTRALIN ARCH WIRE (.0016 INCH	ONE SPOOL	
67	AUSTRALIN ARCH WIRE (.014 INCH)	ONE SPOOL;	
68	NITI WIRE	ONE SPOOL	
69	E CHAIN	ONE SPOOL	
70	SEPERATOR PLACING PLIER	ONE PC	
71	O-RING	ONE SACHET HAVING 500 PCS	
72	SEPERATOR	ONE SACHET HAVING 100PCS	
73	ECHANT AND BONDING AGEN WITH PRIMER(SELF CURE)	1 SETS	
74	SILVER SOLDER	ONE PC	
75	GAS TORCH DENTAL	ONE PC	
76	PREFORMED BAND FOR ALL TEETH	1 PKT	
77	LPG STOVE AND CYLINDER	ONE PC	
78	ELETRICAL HEATER (1000 WT)	TWO PCS	
79	BLOWER	2 PCS	
80	CROWN CUTTING BIRS WITH ALL THE BURS IN DIFFERENT SHAPES INCLUDING FINISHING BURS IN DIAMOND AND CARBIDE(IMPORTED)	10 SETS	
81	BONE CUTTING BURS FOR STRAIGHT HAND PIECE AND AIROTOR HAND PIECE STRAIGHT,TAPERING AND ROUND	5 SETS	
82	MICROMOTOR HANDPIECE BURS STRAIGHT FISSURE&ROUNDFOR BONE CUTTING	2 EACH	
83	ACRYLIC CUTTING BURS CARBIDE AND FINISHING STONE BURS FOR DENTURE(CYLINDRICAL,STRAIGHT,TAPERING) FOR STAIGHT HAND PIECE	5 EACH	
84	X-RAY FILM FOR ADULT(KODAK)	150 (1 PKT) PCS IN ADULT SIZE FOR IOPA	
85	X-RAY FILM HANGERS	1 DOZEN	
86	PREADJUSTABLE BRACKET WITH MOLAR BAND TUBES ALONG WITH .022 INCH ROTH PRESCRIPTION	10 SETS	
87	TITANIUM RECONSTRUCTION PLATES STRAIGHT 20 HOLES(2.5MM)	2 PCS	
88	TITANIUM BONE SCREWS 1.5MM DIAMETER(4MM/6MM/8MM LENGTH	25 EACH	
89	TITANIUM BONE SCREWS 2 MM DIAMETR(4MM/6MM/8MM LENGTH	25 EACH	
90	TITANIUM BONE SCREWS 2.5MM DIAMETER (4MM/6MM/8MM LENGTH	25 EACH	
91	ERICH DENTAL ARCH BARS	50 PCS	
92	STAINLESS STEEL WIRE(26 AND21 GAUGE)	5 EACH	
93	THICK BAND ELASTIC PACKET FOR IMF(3 MM)	2000 PCS	

94	UNIVERSAL STAINLESS STEEL PLIER	1 PC	
95	HALF ROUND PLIER STAINLESS STEEL	1 PC	
96	WIRE CUTTER STAINLESS STEEL	1 PC	
97	PLASTIC SUCTION TIPS FOR DENTAL CHAIR	1000 PCS	
98	TIN COATED DRILL BITS FOR MICROMOTOR(1,1.5, 2MM WITH 65 MM LENGTH)	10 EACH	
99	STAINLESS STEEL DRILL BITS FOR MICROMOTOR(1,1.5, 2MM WITH 65 MM LENGTH)	10 EACH	
100	TITANIUM BONE PLATES WITHOUT BAR(2,4,16 HOLES) 1.5,2 AND 2.5MM.	5 EACH	
101	TITANIUM BONE PLATES WITH BAR(2,4,16 HOLES) 1.5,2 AND 2.5MM.	5 EACH	
102	GLOVES SURGICAL 7 NO AND 7.5 NO LATEX POWDER COATED(STERILE)	500 EACH	
103	GLOVES DIAGNOSTIC 7 AND 7.5 NO LATEX POWDER COATED(STERILE)	1000 EACH	
104	DISPOSABLE GLASSES PAPER	1000 PCS	
105	BETADINE SDOLUTION 5 LITERS	1 PC	
106	DEXTROSE 5%	5 BOTTELS	
107	OXYGEN CYLINDER WITH MASK AND CYLINDER CARRYING TROLLEY DENTAL USE HAVING RENCH	1 PC	
108	FORMALIN 40%	2 BOTTELS	
109	K FILES 8 NO AND 10 NO 21MM	2 PKTS EACH	
	Note: materials are of standard quality.chienese materials not entertained. Materials of dentsply,kavo,orthomac preferable		

Group- B- (E N T)

SN	Name of Instruments	Quantity	Specification
1	Operating Microscope for ENT (Basic)	1	Surgical Operating Microscope with heavy sturdy floor base with precision to produce sharp images with following specifications, Magnification Range: 4X to 25X, in 5 steps. Achromatic lens, Field of View: 52 mm to 8 mm Objective Focal Lengths: 200mm//400mm Fine focusing range (Manual): 24mm – 30mm Tilt Range of optical head: Axial + 90deg. With side tilt provision Illumination: High intensity up to 100,000 Lux with built-in cold light source with fiber optic light guide with provision for filters. The microscope should have CCTV Attachment, video ports, Integrated/external Camera, motorized zoom focusing, Beam Splitter, C Mount/ Video-objective lens, 3 CCD Camera with software for recording & photography, Monitor color 14’’ mounted on main stand of microscope, single monocular co-observation tube. heavy sturdy floor base Floor Stand, Electrical Power: AC 220V, 240V, 50/60 Hz
2	Heavy Duty Micro Motors	1	Speed Variation: Maximum should not be less than 40,000 rpm Rotations: Clockwise & Anticlockwise Foot Control : Variable speed type Surgical type hand pieces suitable for ENT– Straight type & angled type.
3	Hand straight piece	3	Compactable to 40,000rpm Micrometer
4	House Graft Press forceps	1	
5	Ferguson suction tubes	Two each	7 FR, 9 FR, 10 FR , 12 FR, 14 FR
6	Mc Gee forceps	4	3.5 X 6mm, serrated, straight
7	Micro instrument tray	Two	Forceps and micro point with silicone mat
8	Mc Gee forceps	2	4 X 6mm, serrated, right
9	Mc Gee forceps	2	4 X 6mm, serrated, left
10	Micro scissor (Bellucci)	2	4 X 8mm, straight
11	Micro scissor (Bellucci)	2	4 X 8mm, right
12	Micro scissor	2	4 X 8mm, left

	(Bellucci)				
13	Micro cup forceps	2	1 X.9mm, Straight		
14	Micro cup forceps	2	1 X.9mm, bent up		
15	House-Dieter Malleus Nipper	2	1.3mm, down cutting		
16	Fuller Teflon prosthesis introducer	1	80 mm length		
17	Sickle knife	2	14.5 cm		
18	Flap knife	2	15 cm		
19	Rosen circular knife	2	1.6mm		
20	Rosen circular knife	2	2.6mm		
21	Microear needle	2	Curve		
22	Microear needle	2	Straight		
23	Micro ear hook	2	.3mm, 90 degree		
24	Micro ear periosteal elevator	2			
25	House micro measuring rod	1	3.5,4,4.5,5mm		
26	Measuring jig	1			
27	House micro curate	1	1.5,1.8mm		
28	Farrior ear speculum	2set	3.6cm		
29	Holmgren self retaining aural speculum	2			
29	Ear forceps	2	14.5cm		
30	Lampert micro ear periosteal elevator	2	18cm		
31	Myringotom	1	Curve		
32	Weitlanger self retaining mastoid retractor	2	13.5cm, 3:3mm teeth, blunt		
33	Plester self retaining mastoid retractor	2	10.5cm, blunt, 2:flat		
34	Langenbeck mini retractor	2	16cm		
35	Hartment forceps	2	Fine		
36	Freer periosteal elevator	2	Light		
37	Tungston carbide cutting burrs of all sizes	3sets	0.6mm to 7mm		
38	Dimond burrs	2sets	0.6mm to 7mm		

Nasal surgery					
1	Hartmann halle forceps	2	15.5cm, 27mm blade		
2	Killian self retaining forceps	Two set	13cm with 35mm, 50mm, 75mm, 85mm blade		
3	Grunwald nasal forceps	2	21cm		
4	Luc ethmoid bone forceps	2	18.5cm		
5	Freer septum elevator	2	18.5cm		
6	Ballenger swivel knief	1	3mm.		
7	Killian septum gauge	1	5mm		

8	Ballenger septum gouge	1	4mm		
9	Silver rhinoplasty chisel	1	18cm, 5mm, straight		
10	Silver rhinoplasty chisel	1	18cm, 5mm, right		
11	Silver rhinoplasty chisel	1	18cm, 5mm, left		
12	Sheehan Osteotome	1	14cm,4mm		
13	Maltz nasal rasp	1	34 X 7 drawing cut		
14	Button end alar hooklet	2			
15	Freer mucosal hooklet	2	15cm sharp		
16	Aufricht nasal retractor	4			
17	Nasal suction tip no- 1,2,3	Three SET	Nasal suction tip no- 1,2,3		
18	Lac' tongue depressor	Three sets	Lac' tongue depressor		
19	Heymann turbinectomy scissor	One set	Tungsten carbide		
20	Thudichum nasal speculum		Set of four		

For oral cavity and Throat surgery			
1	Davis Boyle mouth gag		Width X length, 29 X 67mm, 33 X 75mm, 38 X 85mm, 40 X 92mm, 46 X 100mm
2	Tongue blade for gag	One	Blohmke type, 205mm
3	Tonsil holding forceps	One set	195mm
4	Tonsil scissor	One	290mm
5	Eves tonsil snare	One	240mm,
6	Anterior pillor retractor	One	For paediatric and adult
7	Adenoid curette	One	12mm and 15mm
8	Tonsil dissector	One set	290mm
9	Yankauer suction	One each	13cm and 11cm
10	Molt mouth gag	One	Young type, 15cm
11	Tongue holding forceps	One each	
12	Draffin bipod stand with plate	One	
13	Peri Tonsillar (Quinsy) forceps	Two	Set of three
14	Luc Tongue depressor	One	
15	Coblator	One	
	Tracheotomy set	one	
1	Tracheal dilator	Two	Trousseau type, 14.5cm
2	Tracheal hook	Two	Rose type, 13cm
3	Thymus retractor	Six	Lukens type, 17cm
4	Adson tissue forceps	Two	14mm
5	Mosquito artery forceps	Four	Small, fine, curved, titanium
6	Kilner needle holder	Two	Fine, small, tungsten carbide

7	Bard Parker	Two	HANDLE No. 3
8	Metzenbaum scissor or equivalent	Two	Straight, Tungsten carbide
	Microsurgery		
1	Laryngoscope with fibro optic carrier	One each	Pediatric, adult, compactable for MLS
2	Anterior commissure laryngoscope with fibro optic carrier	One each	Pediatric, adult, compactable for MLS
3	Micro laryngeal forceps serrated jaws	One	25 cm
4	Micro laryngeal forceps cupped jaws	One	25 cm
5	Patterson biopsy forceps	One each	25 cm & 35 cm
6	Micro laryngeal scissor	One each	25 cm, straight, right curve, left curve
7	Jackson grasping forceps	One each	25 cm, 35 cm
8	Micro laryngeal sickle knife	One	Sharpe, curve
9	Jackson alligator forceps	One each	25 cm, 35 cm
10	Vocal Nodule forceps	One each	25 cm, 35cm
11	Laryngeal suction tubes	One each	1.5 mm, 2 mm & 2.5 mm
12	lewy laryngoscope holder	One	
13	Adapt compactable to laryngoscope		to convert fibro-optic cable
	Esophagoscopy		
1	Rigid esophagoscope Jackson type	One	Length:50cm, inner diameter: 10.7 X 12.6mm, outer diameter: 12.2mm X 16.2mm
2	Rigid esophagoscope Jackson type	One	Length: 30cm, Inner Diameter: 10.7mm X 12.6mm, Outer Diameter: 12.2mm X 16.2mm
3	Rigid esophagoscope Jackson type	One	Length: 20cm, Inner Diameter: 8.7mm X 10.6 mm, Outer Diameter: 10.2mm X 14.2mm
4	Foreign body forceps	One set	For metallic, vegetable foreign body and denture
5	Suction tube	One set	Compactable to esophagoscope
1	Electrical Otoscope	Five	Closed head design particularly suited to pneumatic testing <ul style="list-style-type: none"> • Features removable 2.5 x magnifying lens, allowing the introduction of small instruments • Range of reusable speculae supplied • Disposable speculae also available, Dry Cell Battery Version, replacement Bulbs & Batteries available
1	Head lamp	Two	
3	Bull's eye lamp	Four	
4	Head mirror	Four	with wide plastic headband

5	ET Catheters	Two	
6	Luc tongue depressor	Eight sets	13mm wide, 22mm wide, 19mm wide
7	Thudicum nasal speculum	Eight sets	
8	Cottle nasal speculum	Twelve	
9	Killian's nasal speculum	Four sets	
10	Hartman Aural Forcep	Eight	Crocodile action, 4.0mm x0.8mm extra fine serrated jaw
11	Aural Forcep	Four	Serrated jaw, bayonet, 14cm
12	Aural Syringe	Four	Conical metal pipe, with wings
13	Tilley Nasal Dressing Forcep,	Eight	Angled, 16.5cm
14	Kaluskar Fishbone Forcep	Four	12.5cm
15	Lister Bandage Scissors	Two	S/S, CE Marked, One probe Ended Blade, Autoclavable, Overall length 18cm
16	Wax Hook	Four	Blunt, 18cm
	Gardiner Brown Tuning Fork	Two sets	set of 6, complete with oak box pitch 128Hz, 256Hz, 512Hz, 1024Hz 2048Hz, 4096Hz
	Gardiner Brown Tuning Fork	Four	Pitch 512Hz
	Jobson Horne Probe Double ended	Eight	14cm, 18 cm
	Tilley Lichtwitz Trocar & Cannula	Four	Luer lock, with tubing mount, 6fg,9fg
	Laryngeal mirror with fixed handle	Four sets	6mm dia, 8mm dia, 10mm dia, 12mm dia, 14mm dia, 16mm , 18mm dia, 20mm dia, 22mm dia, 24mm di, 28mm dia, 30mm dia
	Posterior rhinoscopic mirror	Four sets	6mm dia, 8mm dia, 10mm dia, 12mm dia, 14mm dia
	Head mirror	Four	Ball & Socket fitting, adjustable webbing headband and 9cm dia mirror
	Gallipot	Four	64mm x 44mm, 110ml (4oz) Stainless Steel
	Kidney Dish	Eight	254mm x 115mm x 52mm Stainless steel
	Rectangular tray	Four	15" X 12"
	Nasal suction tip	Eight sets	no- 1,2,3
	Ear Suction tips set of three	two sets	
	Siegel's speculum	Four	
	Diagnostic microscope	One	
	Rigid sinoscope	One	0° Straight forward telescope - Rod lens system - Wide angle / enlarged view - Diameter 4mm, length 18 cms. - Autoclavable
	Rigid Laryngoscope	One	70° telescope - Rod lens system - Wide angle / enlarged view - Diameter 6 mm, length 18 cms. - Autoclavable
	Rigid Otoscope	One	0° telescope - Rod lens system - Wide angle / enlarged view - Diameter 2.7 mm, length 11 cms. - Autoclavable
	Flexible nasolaryngoscope	One	
	Cold light fountain XENON NOVA.	One	Power supply : 220-240 VA Output : xenon light 175 W, 15V.

	Fibre optic light carrier.	One	Glass fibre type , 2.5mm diameter length 180cms.
	Endovision tricam SL II.	One	Three chip endoscope camera. - Color system : PAL. - Integrated parfocal zoom. - Lens f = 14mm-28mm. - Programmable buttons. - Camera head autoclavable

Camera control unit:	One	Image 1 camera control unit with DV output(digital video) - Key board attachment. - Signal to noise ratio >or= 60 Db. - Video output : composit signal to BNC socket, S-Video signal to 4 pin mini DIN socket, RBG signal to D-sub socket. - DV signal to socket.
DVD recording facility.	One	Record digital video from camera control unit. - Pentium duo core based system. - 1 GB RAM - 200 GB HDD SATA. - 17 Inch TFT monitor, SONY. - SONY DVD RW drive. - Pinnacle image capture card.
carrying trolley	One	Four layered,with wheel and lock system

Note: 1. Size of general instruments is approximate. Minor fluctuation will be accepted to open the competition between companies.

1. Should be European CE/US FDA approved product Comprehensive training for lab staff and support services till familiarity with the system.
2. User/Technical/Maintenance manuals to be supplied in English for eligible instruments.
3. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered.
4. List of Equipments available for providing routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual
5. Price of individual instruments and/ or full set should be quoted.
6. Prior Demo if needed.
7. Instruments should be made from High Quality Surgical Grade Steel
8. Instruments should have Laser surface or ebonized or equivalent finish to provide appropriate reflection lowering finish.

Group -C (G.I. Surgery)

Technical SPECIFICATION OF FIBEROTIC CHOLEDOCHOSCOPE WITH LIGHT SOURCES

1. 4.5mm diameter, 1.7mm channel, 188cm length
2. 4.9mm diameter, 2.2mm channel, 38cm length
3. Box for keeping the instruments

Note:- Tenderer should quote rate of each items separately. Institute shall procure the items required only from the approved tenderer.

2:- Technical Specification of . Harmonic with ACE, with Complete set :- Harmonic with ACE, with Complete set

1. **Ultrasonic generator** with 55.5 KHz frequency functional for both Laparoscopic and Open surgery & compatible with 5mm and 10mm blades.
2. **5mm ACE** Lap and open shear for cutting and haemostasis.
3. **Wave** technology shear for open colorectal surgery & abdominal hysterectomy etc.
4. **Focus technology shear with Blue hand piece** for open procedures like Breast, Thyroid & head & neck surgery etc.
5. **Hand piece** with in- built transducer & silicon cable for all shears & blades of Harmonic.
6. CF isolated generator conforming to safety standard IEC601.1 class, electromagnetic compatibility, UL 2601-1 & defibrillator protection.
7. **Footswitch & cable** with max & min pedals.
8. **Cart** to House the equipment.
 - a. Frequency – 50/60Hz. Current Consumption :- 3 Amp & relative humidity 10-90% non-condensing.

System should have a universal connector to connect ultrasonic energy and advanced RF energy instruments.

System should have automatic instruments reorganization. System should be CE approved.

System should have a touch screen display for fast and setup, operation and on- screen diagnostics.

System should have a high resolution display with wide viewing angles.

System should have the ability for software updates via UBS memory stick.

System should be a single generator that provides ultrasonic energy and Advanced RF energy technology for soft tissue dissection and vessel sealing.

System should have a potential equalization terminal for compatibility with other medical system requiring such connection.

System should conform to the following international standards EN (IEC) 60601-1 EN (IEC) 60601-1-2, EN(IEC) 60601-2-2, EN (IEC) 60601-1-8

System should provide class 1 protection against electric shock.

System should have a single footswitch for operating ultrasonic energy or advanced RF energy instruments

System should have a ability to select hand hand switch or footswitch activation or both or ultrasonic and advanced RF energy instruments and the ability to change selection during use

System should have 6 international language options with English language as default

System should not have minimal lateral thermal spread more than 1 mm

System should have standby mode to ensure safety'

System should come equipped with system diagnostics and troubleshooting guide to pin point any problems in the systems.

system should have onscreen warning display system for generator overheating generator software upgrade handpiece errors and instrument errors

system should be power ultrasonic energy instruments with 55.5 KHz frequency and have the ability to power ultrasonic energy instruments in the frequency range of 30-80 KHz in future.

The hand piece for the system should come with an inbuilt transducer.

system should be compatible for open surgery and for laparoscopic surgery.

system should be compatible with both 5mm and 10mm instrument.

system should have atleast 5 power setting levels with power level display for ultrasonic energy instruments.

system should be able to power energy instruments with microprocessor controlled bipolar electrosurgical radiofrequency technology with a quasi-sinusoidal forced impedance output.

system should be equipped with smart advanced RF energy technology to measure the tissue impedance and control the power delivery

system should be equipped with advanced RF energy technology that can simultaneously seal and transect vessels up to and including 7mm large tissue pedicles and vascular bundles.

system should be equipped with advanced RF energy technology that provides temperature controlled energy delivery which should maintain tissue temperature approximately at 100 degree Celsius.

system should have advanced RF energy hand instruments with a unique electrode configuration to minimize the lateral thermal spread.

system should have advance RF energy hand instruments with technology to deliver high compression uniformly across seal area.

system should have RF energy hand instruments that provide tissue/vessel seal strength to withstand bursting pressure of 7 times the systolic pressure.

All hand probes for open lap procedures should be able to simultaneously cut and coagulate tissues.

system should be able to power advanced RF energy hand instruments of 5mm shaft diameter for both open & laparoscopic procedures with round tip (5mm tip width)in the following shaft lengths (14cm.25cm 35cm &45cm) and should be both hand &foot activated.

system should be able to power ultrasonic energy hand instrument of 5mm shaft diameter for both open & laparoscopic procedures with the following specifications open surgery instruments .

- a- 9cm shaft curved tapered tip for precise dissection seal 5mm vessels as well as lymphatic with 16mm active blade &240- degree activation triggers support multiple hand positions .
- b. 17cm shaft curved tapered tip for precise dissection seals 5mm vessels as well as lymphatic with 16mm active blade & 240 degree activation triggers support multiple hand positions.

- c 5mm hand activated curved coagulating shears capable of sealing blood vessels upto 5mm in diameter 23cm shaft length ergonomic handle.
- d curved blade having telescoping shaft (10cm-14cm) with integrated hand activation control buttons.
- D Dissecting hook having telescoping (10cm-14cm) with integrated hand activation control buttons .

LAPAROSCOPIC SURGERY INSTRUMENTS

5mm lap hand activated curved coagulating shears capable of sealing blood vessels upto 5mm in diameter 36cm and 45 cm shaft length ergonomic handle .
 5mm lap dissecting hook 32cm long

SYSTEM SHOULD COMPRISE OF THE FOLLOWING HARDWARE

Generator

Footswitch & cable

ACCESSORIES

Handpiece (Transducer

Handpiece (Blue)

Generator Cart

Adaptors for ultrasonic and advanced RF energy instruments RF Energy instruments.

Hand probes (one each of 5mm shaft diameter for both open laparoscopic procedures with round tip (5mm tip width) in the following shaft lengths (14cm 25 cm &35 cm and should be both hand & foot activated both open and lap devices should be able to simultaneously cut and coagulate tissues.

ULTRASONIC ENERGY INSTRUMENTS

* 9 cm shaft & 17cm shaft curved tapered tip for precise dissection seal 5mm vessels as well as lymphatic with 16mm active blade &240 degree activation triggers support Support multiple hand position one pc each

* 5mm hand activated curved coagulating shears capable of sealing blood vessels upto 5mm in diameter with 232 cm, 36cm shaft length ergonomic handle one pc each

* 5mm lap dissecting hook 32 cm long – one pc

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3;- Various accessories required for the surgery i. e. Fistuloscope with its accessories

Group-D --Neuro Surgery;-

Technical Specification of Neuro Surgery;-

SI No.1:- Ultrasonic Aspiration/dissector for Micro- Neurosurgical Operation

Ultrasonic aspirator system should have fragmentation, irrigation, and aspiration facilities continuous with low noise.

Console should be light weight and portable on trolley with two (one extra) foot switch.

Main voltage 230 V (+/- 10%), 50 Hz, class I protection.

Console and hand piece should be capable of working continuously without any cooling system.

Should have inbuilt suction system vacuum up to 0.9 bar.

Irrigation rate up to 50ml/Minute.

Hand piece should be light weight and could be sterilized by steam autoclave or ethylene oxide.

Hand piece should have choice of outside and inside irrigation. Tip of hand piece should be reusable.

Short angled macro hand piece with reusable tip. Total length 250 to 260 mm working length 40 mm.

Tip diameters outside 3.0 mm to 3.3 mm and inside 2.0 to 2.2 mm.

Shot angled macro hand piece with micro tip 25 Hz with reusable tip. Total length 250 to 260 mm. working length 48 to 500 mm. tip diameter outside 2.0 to 2.1 mm and inside 1.6 to 1.7mm.

Short angled micro hand piece 35 kHz with reusable tip. Titanium body. Total length 250 to 260 mm. working length 250 to 260 mm. Working length 34 to 38 mm. Tip diameter outside 2.0 to 2.1 mm. Inside 1.4 mm

Bone knife/ spatula hand piece 35 kHz light weight with reusable tip, light weight with titanium body.

Endoscopic hand piece should have working frequency of 35 kHz and is to be used by Neuro endoscopy system with working channel diameter of 3.0 mm.

Consumable should not be expensive and should be freely available

Should be magneto restrictive or piezoelectric technology based system

Resonance frequency of tip should be in range of 35 to 35 kHz.

Should have container for hand pieces for storage and autoclaving.

Essential accessories must be quoted mentioning quantities. Minimum it should last for two years.

Running cost per patient should be mentioned.

SI NO-2:- Operating Microscope Unit for Micro-Neurosurgical Operation.

1. Description of Function

Surgeons use microscope to magnify minute structures (eg. Nerves, blood vessels, lesions etc.) in operating field.

2. Operational requirements

Operating microscope should be equipped with features that enable the surgeon to concentrate on the surgery rather than on manipulation of microscope, Such as powered focusing and zooming, magnification capabilities as well as eye piece tubes that permit the surgeon to see the field from a vertical perspective, while keeping head erect.

3. Technical specification

(1) Motorized zoom magnification 6.1 ratio

(2) Magnification from 1.6x to 18.5x

(3) Variable working distance from 200mm (+/- 25 mm) to 510 mm (+/- 25mm) through motorized multifocal lens working distance

(4) Pair of wide field eye pieces for spectacle wearer. 12.5x magnification with magnetic locks. Diopter setting from -8D to +5 D.

(5) Ergonomic handles with buttons for motorized controls of focus, zoom, axis movement, video control and still photography with programmable keys.

- (6) Facility for adjusting speed of focusing motor to adapt for different magnifications.
- (7) 300 watt xenon illumination with 300 W xenon backup in same illumination module through fiber optic cable with semiautomatic lamp change over facility.
- (8) Inclinable binocular tube. Inclinable minimum over range of 0-180 degree.
- (9) Facility for auto laser spot focus illumination.
- (10) Floor stands with electromagnetic brakes with freedom of movement in all axes.
- (11) system should be compatible for neuronavigation.
- (12) Complete auto balance with single push of one button. Intra operative auto balance.

3.1 Essential Accessories

- (1) Stereoscopic co observation for second observer with tilt able eye pieces. Minimum 0-180 degree. Remain fixed when tilting main microscope.
- (2) integrated dual beam splitter.
- (3) Integrated 3 chip CCD camera with mount for connecting with microscope.
- (4) Integrated digital video recording with appropriate video editing software.
- (5) Riteloscope face to face attachment
- (6) Full multifunction foot switch.
- (7) Digital still camera for attachment with Microscope.

4. System Configuration Accessories, spares and consumables

Spare xenon lamp 300 W (2 Nos.)

5. Environmental factors:-

The unit shall be capable of being stored continuously in ambient temperature 0-50 degree C and relative humidity of 15 percent.

The unit shall be capable of operating in ambient temperature 20-30 deg C and relative humidity of less than 20 percent.

6. Power Supply

Power input to be 220-240 volts AC, 50 Hz. Fitted with Indian plugs.

Resettable over current breaker shall be fitted for protection.

Voltage corrector stabilizer of appropriate rating meeting ISI specification (Input 180-280 Volts and output 220-240 volts and 50 Hz).

Suitable UPS with maintenance free batteries for minimum two hours backup should be supplied with the system.

7. Standard safety and training:-

Manufacture/ supplier should have ISO certificate to quality standard.

Should be complaint with IEC 61010.1 (or any other international equivalent egg. EN UI61010 covering safety requirements for electrical equipments for measurement control and laboratory use.

Should be FDA, CF or BIS approved product.

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

8. Documentation:-

User technical maintenance manual in English.

Certificate of calibration and inspection.

List of equipment available for providing for calibration and routine maintenance support as per manufacturer documentation in service. Technical manual.

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

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

Compliance report to be submitted in tabulated and point wise manner clearly mentioning the page/para nos. of original catalogue/ data sheet. Any point if not substantiated with authenticated catalogue/ manual will not be considered.

SI No-3:- Neuro Endoscope for Cranial and spinal use complete with all accessories.

INSTRUMENTATION SET FOR ENDOSCOPIC THIRD VENTRICULOSTOMY (TREATMENT FOR HYDROCEPHALUS PATIENTS TO AVOID USAGE OF SHUNTS), COLLOID CYST, MARSUPLISATION OF ARCHNOID CYST AND MULTIPLE BIOPSY FROM VENTRICULAR TUMORS AND CYSTIC FENESTRATION.

<u>S.No</u>	<u>Product Description</u>	<u>Qty</u>
1	Ventriculoscope with Wide Angle Straight Forward Telescope 6°, angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6, autoclavable, fiber optic light transmission incorporated.	1
2	Operating sheath for ventriculoscope , outer diameter 6.8 mm, working length 13.3 cm.	1
3	Obturator for Operating sheath for ventriculoscope.	1
4	Obturator for Operating sheath for ventriculoscope. use with optic Telescope.	1
5	Forward Oblique- Telescope 0°, enlarged view, diameter 2 mm, length 26 cm, autoclavable, fiber optic light transmission incorporated.	1
6	Telescope 30°, enlarged view, ø 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated.	1
7	Click Line Scissors, single action jaws, pointed, diameter 2 mm, working length 30 cm, consisting of: Metal Handle, without ratchet & Outer Tube with insert.	1
8	Click Line Biopsy Forceps, both jaw parts movable, ø 2.0 mm, working length 30 cm, consisting of: Metal Handle, without ratchet ,Outer Tube with insert.	1
9	Click Line Ventriculostomy Forceps, diameter 2.0 mm, working length 30 cm, consisting of: Metal Handle, without ratchet & Outer Tube with insert.	1
10	Click Line Grasping Forceps with teeth, 2.0 mm, working length 30 cm, consisting of: Metal Handle, without ratchet & Outer Tube with insert.	1
11	Scissors, pointed, lightly curved jaws, double action jaws, diameter 1,7 mm, length 30 cm.	1
12	Ventriculostomy Forceps, diameter 1.0 mm, flexible, working length 30 cm.	1
13	Biopsy Forceps, double action jaws, flexible, diameter 1 mm, working length 30 cm.	1
14	Click Line Biopsy Forceps, single action jaw part, 2.7 mm ø, working length 30 cm, consisting of: Metal Handle, without ratchet & Outer Tube with insert.	1
15	Adaptor, autoclavable, facilitates changing of telescopes in sterile conditions.	1
16	Injection Needle, flexible, diameter 2.5 mm, working length 45 cm, disposable.	1
17	Puncture Needle.	1
18	Coagulating Electrode, bipolar, 5 Fr.	1

19	Unipolar Coagulating Electrode, semi-rigid, diameter 1.3 mm, working length 30 cm.	1
20	Baloon Catheter, O.D. 1.0 mm, length 40 cm, volume 0.20 ml, sterile, single use, 10 pieces.	1
21	TAKE-APART® Bipolar Forceps, long, flat jaws, outer diameter 2.4 mm, consisting of: Bipolar Ring Handle, Outer Sheath, Bipolar Insert, for single use, package of 5, for use with Ventriculoscope.	1
22	Articulated Stand, reinforced version, only, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, operating range 52 cm, with fastener.	1
Additional instrument for paediatric NEURO ENDOSCOPY		
23	Neuro-Endoscope, with detachable handle, for freehand operating maneuvers, consisting of: Operating sheath, graduated, size 2.6 mm x 4.0 mm, working length 15cm, with three working channels for irrigation/suction and for instruments size 1.3 mm, for use with telescope Handle, for operating sheath Mandrin for operating sheath.	1
24	Scissors, single-action jaws, semi-rigid, diameter 1.3 mm, working length 30 cm.	1
25	Bipolar Coagulating Electrode, semi-rigid, diameter 1.3 mm, working length 30 cm.	1
Instrument for performing Endoscopic Management of CSF Rhinorea Optic Nerve Decompression, Pituitary Macro and Micro Adenomas Transvical Cordomas and for extended approached for all lesions from Cistle Gliae to CVJ Junction using Transclivial, Transplanum , transcribriform and Transphenoidal approach		
27	Straight Forward Telescope 0°, enlarged view, diameter 4 mm, length 18 cm, autoclavable. Fiber optic light transmission incorporated.	1
28	Suction and Irrigation Sheath 0°, for endoscopic diagnosis and surgery of the paranasal sinuses and anterior skull base, oval, O.D. 4,8 mm x 6 mm, with separate channel for suction and irrigation, for use with handles , cleaning accessories and telescope.	1
29	Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 18 cm, autoclavable. Fiber optic light transmission incorporated.	1
30	Suction and Irrigation Sheath 30°, for endoscopic diagnosis and surgery of the par nasal sinuses and skull base, oval, O.D. 4,8 mm x 6 mm, with separate channel for suction and irrigation, for use with handles , cleaning accessories and telescope .	1
31	Cleaning tube long for sheaths.	1
32	Cleaning Adaptor for irrigation channel of suction and irrigation sheath , LUER-Lock, length 3.5 cm	1
33	Cleaning Tube for suction/telescope channel of suction and irrigation sheath. LUER-Lock, length 23 cm	1
34	Suction and Irrigation Handle, with Push-Button Pressure Valve, for use with suction and irrigation sheath and consisting of: Suction and Irrigation Handle, Push-Button Pressure Valve	1
35	Nasal Scissors, medium standard model, working lenght 9.5 cm	1
36	Nasal Forceps, 45°, upturned, working length 11 cm, size 1	1
37	Nasal Forceps straight, size 1, working length 11 cm	1
38	Punch, up biting 60° forward, size 1 mm, working length 17 cm	1
39	Suction Tube, angular, O.D. 2.4 mm, tip curved upwards, ball end, with grip plate and cut-off hole, LUER, working length 13 cm	1

40	Take-apart Bipolar Forceps, width 2 mm distally angled 45°, horizontal closing, outer diameter 3,4 mm, working length 20 cm, consisting of: Handle, Outer Tube , Inner Tube, Bipolar Insert.	1
41	Take-apart Bipolar Grasping Forceps, size 3,5 mm, length 20 cm, for use with trocar size 3,9mm, consisting of: Ring Handle , Outer Tube , Inner Tube, Forceps Insert.	1
42	scalpel, with telescopic blade, consisting of: Handle , outer tube ,Micro-knife, sickle-shaped.	1
43	Antrum Punch, backward cutting, sheath 360° rotatable, with fixing screw, working length 10 cm, take apart sheath, for use with cleaning adaptor	1
44	Punch, circular cutting, for sphenoid, ethmoid and choanal atresia, diameter 3.5 mm, with cleaning connector, working length 18 cm	1
45	Coagulation Ball Electrode, diameter 2 mm, laterally curved, working length 13 cm	1
46	Suction- Curette, with round wire, ID 5 mm, tip angled 45°, LUER, length 25 cm	1
47	Suction, Curette, basket-shape, round wire, size 5 mm, rotating tubing- connector, LUER, length 25 cm,	1
48	Scissors, 45°, delicate, Sheath 360° rotatable, working length 18 cm	1
49	Suction Tube, with cut-off hole, drop-shaped, with distance markings, LUER, conical distal end, 8 Fr., working length 15 cm	1
50	Ring- Curette, horizontal, round wire, ID 5 mm, long curved, with round handle, length 25 cm	1
51	Ring- Curette, round wire, ID 3 mm, tip angled 90°, with round handle, length 25 cm	1
52	Ring- Curette, round wire, ID 5 mm,vertical long curved, with round handle, length 25 cm	1
53	Elevator, double-ended semi-sharp and blunt, length 26 cm	1
54	Elevator,double-ended angulated semi-sharp shovel blade, blunt end slightly curved, length 26 cm.	1
55	Dissector, sharp, round spatula, tip angled 45°, size 2 mm, with round handle, length 25 cm.	1
56	Dissector, sharp, round spatula, tip angled 45°, size 3 mm, with round handle, length 25 cm.	1
57	Dissector, sharp, tip angled 15°, size 2 mm, with round handle, length 25 cm.	1
58	End vision System	
59	1-Chip Camera Control Unit (CCU), with integrated Image Processing Module, Color System: PAL/NTSC, Power Supply: 100-240 VAC, 50/60 Hz consisting of: Camera Control Unit , Mains Cord ,Connecting Cable, length 180 cm Video (Y/C) Connecting Cable, length 180 cm Connecting Cables, for remote control of Video-Printers Cable, length 500 cm, Keyboard w. Us-English character set.	1
60	Camera Head with 2 freely programmable Camera Head buttons, Color System PAL, with integrated Parfocal-Zoom, focal length f = 25 - 50mm (2x).	1
61	Cold Light Fountain with one 175 Watt XENON lamp and one light outlet Power Supply: 100-125/220-240 VAC, 50/60 Hz consisting of: Mains Cord.	1

SI No-4:- High Speed Drill (Pneumatic and Electrical) Complete with all accessories

(1A)- Specifications for High Speed Pneumatic Drill Complete with all accessories.

The pneumatic drill should have a minimum rpm at least 75,000.
Straight and angled attachments of various lengths should be available for Neuro and Spine Surgery.
Should have foot & hand control with variable speed
Sterilizable through Flash or regular steam autoclave
In line automatic lubrication and filtering during the operation through single cartridge. No, intra-operative oiling of motor should be necessary.
Sound level not more than 70dB @ 76000rpm @ 120psi / 8 bar
Attachments should have design for better visibility under microscope.
System should have quick connect but lockable attachments of various sizes.
Main motor unit should be detachable from air supply hose.
Motor should have a safety stop.
Single use and reusable burrs should be available.
Perforator driver with cutter, Straight, Curved and Hooded Telescopic attachments & Bone Mill Attachment and Cutters should be available
Irrigation pump should be available. Irrigation spray nozzle should be supplied with each attachment.
Should be able to use Saw hand piece with same system Should share tools and attachments with similar Electrical system.

System should have Following Attachments and Accessories:-

Various Telescopic, Straight, angled & footed Attachments and their Dissecting Tools should be quoted
Various Dissecting Tools such as Acorn, Cylinder, Match head, Ball should be quoted.
Transversal saw, reciprocating saw & mini sagittal saw should be supplied with this system along with blades for cranial & maxillofacial surgery.
Cranial Perforator should be supplied with reusable perforator.
Spare Cutter should be supplied with Cranial Perforator.
Single and reusable drill bits should be available.
All drill bits & accessories for Cranial & Spinal surgery should be quoted.
Should have acceleration and stopping characteristic adjustable.

High Speed Electrical Drill with all accessories.

Electrical Drill System with Power and High Speed (Variable from 0 to 80,000rpm).
Should have touch screen console to allow visible display and setting of maximum high speed.
Hand & Foot control for varying the speed and for reverse rotation.
System should give audible beeps / alerts while in reverse action.
No Lubrication or seal should be required to run the motor.
Motor should be supplied with irrigation system, Irrigation spray nozzle should be supplied with each attachment.
The Foot control and Motor cables should have identification marks and Cables should be lightweight, flexible and autoclavable.
Should have quick release and lock system for tools and attachments.
The system should have variety of footed attachments, small and large bore Straight and angled attachments.
Attachments should have design for better visibility under microscope.

Should share tools and attachments with similar Pneumatic system.

System should have Following Attachments and Accessories:-

Various Telescopic, Straight ,angled & footed Attachments and their Dissecting Tools should be quoted.

Various Dissecting Tools such as Acorn, Cylinder, Match head, Ball should be quoted.
Transversal saw, reciprocating saw & mini sagittal saw should be supplied with this system along with blades for cranial & maxillofacial surgery.

Cranial Perforator should be supplied with reusable perforator.

Spare Cutter should be supplied with Cranial Perforator.
Single and reusable drill bits should be available.
All drill bits & accessories for Cranial & Spinal surgery should be quoted.
Should have acceleration and stopping characteristic adjustable.

Should have container for hand piece for storage and autoclaving.

Essential accessories must be quoted mentioning quantities .Minimum it should last for two years.
Running cost per patient should be mentioned.
Manufacturer/ supplier should have ISO certificate to quality standard.
Should be complaint with IEC 61010.1 (or any other international. equivalent egg. EN UI610 covering safety requirements for electrical equipment for measurement control and laboratory use.

Should be FDA, CE or BIS approved product.

Comprehensive training for lab. staff and support services till familiarity with the system
User technical maintenance manual in English.
Certificate of calibration and inspection.
List o equipment available for providing for calibration and routine maintenance support as per manufacturer documentation in service technical manual.
List of important spare parts and accessories with their part numbers and their costing.
Log book with instruction to daily, weekly, monthly and qurtly maintenance checklist. The job description of hospital technician and company services engineer should be clearly spelt out.
Compliance report to be submitted in tabulated and point wise manner clearly mentioning the page/para nos. of original catelouge/data sheet .
any point if not substantiated with authenticated catalogue/ manual will not be considered.

Group-E
Reproductive Biology

1;- Hysteroscope with accessories

Technical specification of Machine - Hysteroscope with accessories

1	Telescope diametre 2,7 mm, 30 Deg. angle of view, distortion free, autoclavable, working length 300mm	Ino.
2	Optiflow Single Sheath 5.5mm dia, continious flow operating sheath with channel for 5 fr. instruments for hysteroscope	1
3	Grasping forceps (alligator jaws), consisting of: handle and insert with sheath , 5 Fr., WL 340 mm	1
4	Micro Scissors, consisting of handle and insert with sheath , 5 Fr., WL 340 mm	1
5	Working element passive cutting action, handle open	1
6	Continuous irrigation inner sheath 19Fr.	1
7	Continuous irrigation outer sheath 21Fr.	1
8	Standard obturator	1
9	Cutting Electrode Monopolar	15
10	Roller Electrode Monopolar	10
11	Hook Electrode and Bipolar	5
12	HF Monopolar Connecting Cable, 3 m long,	3
13	Bipolar Electrode 5 Fr. Working Length 360mm	10
14	HF Bipolar Connecting Cable 3m Long	3
15	Bipolar Cable for TUR	2
17	Bipolar Electrode	10
18	Hystomat	1
19	Collins Knief	1

2;- SPECIFICATION OF ENDOVISION SET

Sr.#	PRODUCT DESCRIPTION	Qty.
1	SINGLE CHIP HD CAMERA WITH RECORDING SYTEM IN UNIT	1
2	THREE CHIP HD CAMERA WITH COMPLETE ACCESSORIES AND WITH RECORDING SYSTEM IN THE UNIT	1
	OR	
	ENDOCAM HD CONTROLLER SET	
	ENDOCAM HD CONTROLLER	1
	MANUAL REMOTE CONTROL/	
3	MEDICAL LCD MONITOR 26"	1
	COMPATIBLE WITH THREE CHIP HD CAMERA	
	Widescreen High Definition Active Matrix TFT	
	IPS Panel LED backlight .Resolution: 1920 x 1080 pixel (Full HD), aspect ratio 16:9 , Multi-Modality Image Viewing	
	Incl. external power supply and cable accessories	
	printed instruction	
	manual (EN), manual CD.ROM, power supply: 22,5-24V DC,	

	external AC adaptor 100/240V, 50/60Hz,	
	Should have DESKTOP STAND	
	OR	
	Medical Widescreen LCD MONITOR 21.5" Compatible with single chip HD Camera system	
	Widescreen Format 16:9,	
	LCD Monitor 21.5" High Definition	
	to be used as Video LCD (1
	Features:	
	HDTV capable and compact widescreen LCD in 21.5 screen diagonal	
	Preferead use as second monitor or in combination with ENDOCAM	
	Performance HD	
	Excellent color reproduction. DVI input for high definition	
	video signals. VESA mounting for ergonomic ceiling mount	
	or on an arm. VESA mounting is recommended.	
	supplied without monitor stand	
	Recommended accessories:	
	Monitor Stand	
	Monitor Handle for VESA Mounting	
	Recommended Screws	
	M4x20	
	Handle autoclavable	1
	Computer with Intel processor i 5 ,Hard disc 500 GB or more ,Ram 4GB With printer(Laser)	

3;- **Ultra Sound Machine with color Doppler**

TECHNICAL SPECIFICATION S FOR STATE OF THE ART LATEST GENERATION COLOR DOPPLER SYSTEM

State of the art latest generation Color Doppler system capable of performing Obs & Gynae ,with following specifications:

SN	FEATURE	REMARKS
1	System should be offered with following Broad Band width Transducers- i. Convex Array Transducer(Frequency range of 2-5 MHz) for abdominal, Obs & Gynae applications ii. Linear Array Transducer(Frequency range 2012 MHz) for vascular. iii. Intracavitary Transducer(Frequency range 4-8 MHz) for Transvaginal applications with guided intervention apparatus attached. iv. Volume 4D Convex Transducer(Frequency range 3- 6 MHz) for Real Time 3D Imaging/4D Imaging	Please specify Please specify Please specify Please specify
2.	System should have following modes: a. 2D, 3D with multiplanar reformatting, 4D, M mode, Pulsed wave, Continuous wave, Color flow imaging, Color Power Abgio imaging, Directional Color Power Angio imaging & Tissue Harmonic imaging. b. System should have Color compare mode, Color/Color Power mode and the normal greyscale mode, side by side or equivalent.	Please specify Please specify
3.	Digital processing channels- 1000 or more	Please specify
4.	Grey Scale (min. 256 or more)	Please specify
5.	Broad Band width Beam former technology transducers for extreme high resolution 2D	Should be available

- Imaging.
6. Extended field of view Imaging Should be available
 7. 4D (Real Time-3D) imaging package with capability for foetal Echocardiography. Please specify
 8. Ability to perform MPR (Multiplanar reformatting) with the regular non volume transducers. Please specify
 9. System should have Real Time Compound imaging with Multiple lines of sight for achieving excellent Image quality. Please specify
 10. High Dynamic range of 180 dB or more. Please specify
 11. System should have a very high frame rate of 300 frames/second. Please specify
 12. System should have auto optimization features for ease of use and automatic quantification of Doppler parameters in Real Time and Freeze modes. Please specify
 13. System should have facility for gain adjustments using slide potcontrols in both directions including the lateral direction for excellent image quality or equivalent. Please specify
 14. Should have minimum 3 active ports with direct switching from console. Please specify
 15. System should have a High resolution fully articulating non interlaced flicker free, anti glare, Flat Panel display of 17 inches or more with tilt and swivel facility. Please specify
 16. System should have Image Management facility with facility for direct storage of images and loops in the Hard Disk Drive and also thumbnail review to view and edit images, loops and also reports. Please specify
 17. Image storage: should have inbuilt hard disk for image storage. Specify image storage capacity.
 18. Image Archival: Inbuilt CD writer with facility to transfer images.
 19. DICOM Connectivity: Advanced DICOM ready facility, capable of networking and communicating images through DICOM.
 20. System should have direct connectivity to Color laser printer for printing images and report.
 21. System should have extensive calculation software package for General imaging, Obs & Gynae, Infertility clinical imaging and Vascular Imaging.
 20. Accessories: Should be available
 1. B/W Thermal printer for latest model(with CE or FDA mark)
 2. Color laser printer for direct printing of images from the system with (CE or FDA mark)(Min.dpi of 1200)
 3. Latest generation processor PC with Frame grabber.
 4. Biopsy attachment for the Convex, Linear & the TV/TR probes.
 5. CVT/Servo Voltage stabilizer.
 6. UPS of appropriate rating with 30 mins back up.
 22. Free software upgrade(s) during the period of warranty/CMC.
 23. Training of person To be provided.
 24. **Computer with Intel processor i 5 ,Hard disc 500 GB or more ,Ram 4GB
With printer(Laser)**

Group- F- Gyn. Oncology

Technical Specifications 1: Department: Gyn. Oncology

1. TECHNICAL SPECIFICATION FOR ZOOM COLPOSCOPY SYSTEM

Features:

- It should have Colposcopy System
- It should have facility for Digital Recording of Colposcopic Images
- It should have refined Optical performance like a 220-350 mm variable working distance, 6x non-step continuous zoom, and high eye-point eyepieces which will allow precision colposcopy with reduce fatigue.
- It should have different LED Light Source compatibility
- It should have facility for simultaneous Monitor use and Still Image Capture

Technical Specifications:

Working Distance	: 220 – 350 mm Variable
Magnification Change	: 6x Zoom up to 40x
Magnification	: WD220 : 3.7 – 23.7x WD300 : 3.0 – 18.8x WD350 : 2.7 – 16.9x
Actual field of view	: WD220 : 59.1 – 9.4x WD300 : 73.8 – 11.7x WD350 : 31.8 – 13.0x
Eyepiece	: 10x/Field No. 22/wide field
Focussing range	: 130 mm - 300mm
Inclination angle of Binocular tube	: 45 degree
Max. Radius of rotation	: 590 mm
Light source	LED Light Source 150 W (Option Xenon Light Source – 150W & 300 W)
Imaging System	: Can be attached TV Camera or Monitor/Desktop, Still & Digital Camera
Zooming	: Drive System: Manual drive by knob rotation Zoom Ration: 1:6/up to 40
Focussing	: Focus System: Adjustable focal length Drive System: Manual drive by knob rotation/Fine
Illumination	: System: Light guide Filter: Detachable green filter for Optimum assessment

Floor Stand:

Support System	: Floor Stand
Balancing System	: Pantographic arm balancing using spring
Balance Adjustment Range	: 4.0 – 7.0 kg
Balance Adjustment	: Handle adjusted
Binocular Tube Tilt	: 10 degree upward and 30 degree downward relative to the horizontal observation optical axis.

Verticle Arm : 300 mm
Movement Range
Arm Rotation Range : 270 degree

Reporting Software and Hardware

- ON-LINE UPS – As per requirement.
- Video Attachment
- Software of Colposcopy for reporting/making video
- LED Monitor
- Loop Wire ---10,12,15
- Work Station with Latest version of compatible computer and Printer

Single chip CCD Camera System:

Camera Head:

- A high resolution inter-line CCD Solid State Image Pick-up :Picture elements – 470,000 (PAL)
- High Quality Image by 10 Bit DSP (Digital Signal Processor)
- Resolution (at center) – Horizontal – 470 TV Lines
- CCD Size – Quarter Inch or Less
- Signal Noise – 50 dB
- Weight – Not more than 43 gm excluding cable
- Size – 23 d X 46 l mm
- Brightness – 1.8 (4 Lux)
- It should be Water Proof.
- It should be compatible with fiberoptic endoscope with moire filter.
- Adopter should be detachable and rotatable.

Camera Control Unit:

- Auto Gain Control - + 9 dB
- Electrical Shutter – Always ON (1/50 – 1/100,000)
- Signal output – Y/C – 2 no. and BNC – 1 no.
- Size – Dimensions – 220(w) x 48(h) x 290(d) mm
- White Balance – Automatically adjusted by the Button on the Front Panel
- Brightness Control – It is possible to adjust brightness by using electric shutter on the rear panel

Examination Couch	-	01
Examination Chair	-	01
Suction Machine	-	01
Standard Cautery Machine	-	01
Trolley	-	01

- **System must be US FDA /European CE approved. Certificate must be attached with technical bid.**

2. Technical Specification for Hysteroscopy Set (Diagnostic, Therapeutic & Hystero-Resectoscope set for TCRE)

Features:

- Sheath surfaces have special surface treatment for better lubrication.
- In/Out flow knobs should be maintenance free, no lubrication required
- Therapeutic & Resectoscope sheaths should have a continuous flow system.
- Resectoscope sheaths should have Anti-Block System with micro holes in the Inner Sheath.
- Should have life time guarantee for ceramic tip against thermal damage
- Hystero-Resectoscope should have rotatable system.

Specifications:

- Telescope, 4 mm, 30 Deg (Autoclavable) with sterilization container - 1 no.
- Light Guide Cable (autoclavable) around 3 mt. Length - 1 no.
- 250 Watt Halogen Light Source with Two Spare Lamp - 1 no.
- Diagnostic Sheath, 5 mm with special surface treatment with obturator - 1 no.
- Continuous flow therapeutic System (Outer sheath 6.5 mm with 5fr working channel)
- Forceps for Grasping, Biopsy and Scissors 5 fr (1 no. each) - 1 no.
- HF-Electrode, Button type, for 5 Fr. Channel - 1 no.
- HF-Electrode, Needle type, for 5 Fr. Channel - 1 no.
- Inner Sheath with Micro Holes including obturator - 1 no.
- Outer Sheath with 2 stopcock, rotatable type
- Working Element (Passive Type) - 1 no.
- Resection HF-Electrodes (Loop/Needle/Roller Type) (2 no. each) - 1 set
- HF-Cables - 1 no.
- Fluid Management System/Hysteromat / Hysteropump - 1 no.
- ON-LINE UPS - As per requirement.2KVa
- Video Attachment
- Software of Hysteroscopy for reporting/making video
- LED / LCD Monitor

3. Technical Specification for Laparoscopic Surgery Set

Laparoscopic Surgery Set includes:

- 1) Full HD Video Image Processor
- 2) LED Light Source
- 3) HD LCD Monitor
- 4) Trolley
- 5) Telescopes
- 6) Light Guide Cable
- 7) High Flow Co2 Gas Insufflations Unit with Smoke Evacuation facility

Technical Specifications :

a) Full HD Video Image processor

- A full high definition processor with native resolution of 1920x1080 pixels
- Should have compatibility for selecting Progressive/Interlaced output
- Compact, light weight and ergonomically designed
- Digital to digital recording of both still & moving images
- Memory Image Stick for image recording
- Automatic IRIS control.
- Picture in Picture display possibility
- Optical image enhancement of capillary vessels and fine patterns in the superficial layer of mucosa for early detection of lesions.
- Video Image Processor should be supplied with Keyboard
- Should be supplied with 3CCD HD Autoclavable Camera Head. It has motorized optical zoom ranging from 0.9x to 1.8x and can be varied seamlessly

b) LED Light Source – 300 W with universal light cable socket.

(Optional)

Xenon Light Source

- Built-in special filter for early cancer detection
- Lamp should be 300W
- Automatic switch off function when source is not used for extended period of Time
- Backlit front panel indicators.
- Compact & light weight design.
- Emergency halogen light.

c) HD LCD Monitor

- 24-26 inch full HD LCD monitor with high resolution 1920X1200 (WUXGA)
- Lower Power consumption
- Aspect ratio 16 : 10
- Should have Picture-in-Picture and Picture-out-Picture for viewing side-by-side split screen images.

d) Trolley

- Trolley should accommodate all Imaging Equipment

e) Telescope: Should have following specifications:

- 10 mm, 0 and 30 degree
- Completely distortion free
- HD Optics for better contrast & colour reproduction
- Quick lock for attachment of video adaptors
- Large field of view and depth of focus
- Detachable Eyepiece type

- Autoclavable type
- Should be supplied with autoclavable tray

f) Light Guide Cable

- High resistance protection tube
- Reduced diameter with high fiber density
- Small bending radius for comfortable use
- 3 Meter in Length

g) High Flow Co2 Gas Insufflations Unit with Smoke Evacuation facility

- Should be digital, microprocessor controlled & automatic type
- Large digital display on front panel for status checking
- Powerful 35 - 40L/Min insufflation flow
- Automatic feedback control for any malfunction.
- Smoke evacuation facility

h) Technical Specification for Integrated Bipolar and Ultrasonic Coagulation & Cutting Unit

The Unit should have following features:

- Synergistic of Ultrasonic energy combined with Bipolar HF energy
- Delivery of both ultrasonic and bipolar energy through one instruments simultaneously
- Units should also be able to deliver separately the other energy modality like monopolar, bipolar, advance bipolar and Ultra sonic energy both for open as well as Endoscopic surgery.
- Rapid Dissection and Reliable Hemostasis up to 7mm Vessels in a Single Instrument
- The unit should also be able to deliver bipolar energy under saline for BPH management.
- Dedicated cart for transportation and storage
- Instrument recognition and automatic application of default settings for ease of use.
- Provision for Automatic mist and smoke evacuation to maintain a clear laparoscopic view reducing delays associated with compromised visualization when combined with Co2 Gas Insufflator
- HF Unit should have operational compatibility for all Lap / Gyn / Uro / GI / Open Surgery and should have minimum 16 Monopolar & Bipolar modes to cover all OR requirements, boot time not more than 6 Sec, 4000 times feedback control cycle per second.
- LCD and Touch Screen user Interface
- HF unit should have Fast Spark Monitor ensures smooth and reproducible cutting in varying tissue (e.g., muscle & fat)
- HF unit should have Automatic Saline Detection mode for Urology application
- HF & US device should have CF type Protection against electric shock
- Device should have dedicated Seal and & Seal & Cut mode by hand activation as well as foot switch without exchanging the instruments.
- Device should have best in class versatility, upto and including 7 mm vessel sealing capability, Fast cutting speed, Fine and easy dissection. Hemostatic seal mode, Optimised grasping etc for getting less instrument usage & exchange, Uninterrupted operation flow and reduced OR time.
- The device should be FDA approved and CE certified.
- Device should be supplied with following instrumentations :
 - 1) Ultrasonic Generator with Foot Switch
 - 2) Advanced HF Generator with Foot Switch
 - 3) Transportation Cart
 - 4) Communication Cables
 - 5) Autoclavable Transducer with cable (2 pcs)
 - 6) Hand piece probes for lap (5 pcs)
 - 7) Hand Piece probes for open surgery (5pcs)

i. Hand Instruments:

Item Name	Qty.
Veress Needle, 120 mm	1
Trocar Tube 11 x 110 mm, Stopcock	2
Trocar Spike 11 x 110 mm, Triangular	2
Trocar tube, 5.5 x 110 mm, stopcock	2

Trocar spike, 5.5 x 110 mm, triangular	2
Reduction Tube,13/11mm to 5.5mm	1
Atraumatic Grasping Forceps 5 x 330 mm	1
Claw Forceps, 10 x 330 mm	1
Babcock Forceps 5 x 330 mm	1
Maryland Forceps, 5 x 330 mm	1
Metzenbaum Scissors, 5 x 330 mm	1
Hook HF Electrode, 5 x 330 mm	1
HF-Cable	1
Suction/Irrigation Tube, 5 x 360 mm	1
Handle for Suction/Irrigation	1
Left-Curved Needle Holder 5 x 300 mm	1
Clip Applicator 10 X 330 Mm For Clips Medium/Largea5635	1
Standard knot Pusher	1
Retractor 5x330mm	1
Johan Forceps Bipolar 5x330mm	1
Hirsch Forceps 5x330mm	1
HF -Cable Bipolar	1
Note: Quantity of the hand accessories may increase as per requirement.	

Group- G- Nephrology deptt.

TECHNICAL SPECIFICATION OF HAEMODIALYSIS MACHINE

HAEMODIALYSIS MACHINE	The HEMODIALYSIS UNIT SHOULD BE MICROPROCESSOR CONTROLLED AND CAPABLE OF PROVIDING THE FEATURES;-
1.1	ACETATE & BICARBONATE DIALYSIS
1.2	VOLUMETRIC ULTRA FILTRATION (UF)
1.3	VARIABLE SODIUM & BICARBONATE
1.4	SINGLE AND DOUBLE NEEDLE TREATMENT
1.5	ADJUSTMENT DIALYSATE FLOW
1.6	PROFILLING OF SODIUM BICARBONATE AND UF
1.7	ISOLATED UF
1.8	HAEMODIA FILTRATION
	<u>TECHNICAL SPECIFICATION</u>
1	BLOOD CIRCUIT
1.1	VASCULAR ACCESS
1.1.1	SINGLE NEEDLE,SINGLE PUMP/SINGLE NEEDLE, DOUBLE PUMP
1.1.2	DOUBLE NEEDLE
1.2	BLOOD PUMP
1.2.1	RANGE SHOULD BE BETWEEN 0 AND 20 TO 500ML/MIN. WITH ACCURACY OF +/- 15
1.2.2	THE PUMP SHOULD BE EASY AND SAFE TO THREAD THE BLOOD TUBING
1.2.3	AN EMERGENCY HAND CRANK SHOULD BE PROVIDED TO TURN THE BLOOD PUMP AND THE PATIENT WHEN ELECTRICAL POWER IS LOST. THE DIRECTION OF ROTATION IS LIMITED VISUALLY INDICATED TO PREVENT INCORRECT MANUAL ROTATION .
1.2.4	ACCUMULATED BLOOD VOLUME SHOULD FVE APPROX 0 . 327 LITRS(+/-15%)
1.3	HEPARIN PUMP
1.3.2	INFUSION RATE SHOULD VE APPROX .0/0 5-10ML/H WITH A ACCURACY OF (0.1ML.)
1.3.2	POSITIVE AND NEGATIVE EXTRACORPORIAL CIRCUIT PRESSURE SHOULD NOT AFFECT INFUSION
1.3.3	STOP TIME; HEPARINIZATION STOP TIME (BEFORE END OF TREATMENT) 0.00-9.59HR
1.3.4	ACCUMULATED HEPARIN VOLUME SHOULD VE PROGRAMMABLE.
1.4	PRESSURE ,MONITORING AND ALARMS
1.4.1	VENOUS PRESSURE MONITORING MONITORING RANGE SHOULD BE APPROX . 700 TO 750 MM HG
	ACCURACY+5 MM HG OR +- 10% WHICHEVER IS GREATER
1.4.2	VENOUS PRESSURE ALARM
	HIGH AND LOW VENOUS PRESSURE ALARMS
	ALARM SETTING SHALL BE NON OVERLAPPING AND WITHIN RANGE OF THE PRESSURE MORE.
1.4.3	ARTERIAL PRESSURE MONITORING
	IT SHOULD VE APPROX. 700 TO 750 MM HG
1.4.4	THE ALARM LIMITS AROUND VENOUS PRESSURE AND TMP SHOULD BE AUTOMATICALLY CALIBERATED.
	ADJUST TO PRESET LIMIT AT A TOUCH OF BUTTONS.
1.5	AIR DETECTION
1.5.1	SENSITIVITY; AN ALARM SHOULD VE HIVEN FOR>0.5ML AIR PER MINUTE AT AFLOW 300ML/MIN
1.5.2	ON DETECTION OF EXCESSIVE AIR THE BLOOD PUMP SHALL BE STOPPED AND AN

	AUDI ALARM ACTIVATED ON THE VENOUS BLOOD RETURN LINE SHALL BE CLAIMED AT APPROX THE AIR DETECTOR.
2	DIALYSATE CIRCUIT
2.1	TREATMENT FACILITIES
2.1.1	IT SHOULD BE CAPABLE TO PROVIDE ACETATE AND BICARBONATE DIALYSIS
2.1.2	IT SHOULD HAVE THE FACILITY OF ADJUSTABLE VARIABLE BICARBONATE CONCENTRATION
2.1.3	IT SHOULD HAVE THE FACILITY OF ADJUSTABLE VARIABLE SODIUM CONCENTRATION
2.1.4	IT SHOULD HAVE VOLUME METRIC ULTRA FILTRATION CONTROL
2.1.5	IT SHOULD HAVE THE FACILITY OF USER PRESET ABLE INDEPENDENT ISOLATED ULTRA FILTER
2.2	CONDUCTIVITY CONTROL AND ALARMS
2.2.1	THE DIALYSIS CONDUCTIVITY SHOULD BE ADJUSTED BY SETTING THE SODIUM FOR ACUTE DIALYSIS MODE, AND SODIUM WITH BICARBONATE FOR BICARBONATE DIALYSIS MODE
2.2.2	THE SET CONDUCTIVITY SHOULD BE AUTOMATICALLY REGULATED BY VARIATION THE CONC.
2.2.3	IN ACETATE DIALYSIS, SODIUM CONDUCTIVITY/ CONCENTRATION SHOULD BE ADJUSTABLE.
2.2.4	IN THE BICARBONATE DIALYSIS, SODIUM /BICARBONATE CONCENTRATION SHOULD BE ADJUSTABLE.
2.3	ADVANCED BICARBONATE DIALYSIS THE MACHINE SHOULD BE CAPABLE OF ON-LINE PREPARATION OF BICARBONATE DIALYSIS FILTER. A CARTRIDGE OF DRY POWDER BY USING R.O WATER
2.4	DIALYSIS FLOW RATE.
	IT SHOULD BE APPROX. 300 TO 700 ML/MIN. ACCURATE TO WITHIN +/- 10ML/MIN.
	TEMPERATURE CONTROL AND ALARMS.
	CONTROL RANGE SHOULD BE BETWEEN APPROX. +30.0 TO +40.0
	BLOOD LEAK DETECTION
	DETECTION METHOD SHOULD BE
	INFRARED LIGHT DETECTOR; MICROPROCESSOR CONTROLLED REPEATED FUNCTION CHECK
2.7	ULTRA FILTRATION (UF) CONTROL
2.7.1	VOLUMETRIC CONTROL
2.7.2	CONTROL RANGE SHOULD BE BETWEEN APPROX. 0.00-4 LITRES PER HOUR GIVEN BY TREATMENT TIME UF VOLUME SHOULD BE ADJUSTABLE ACCURACY SHOULD BE BETWEEN + 50ML /H OR +1%
2.7.3	PRESET ABLE ISOLATED ULTRA FILTRATION THE ACQUIRED UF VOLUME AND THE TIME FOR ISOLATED ULTRA FILTRATION TREATMENT PRESET ABLE SO THAT THE DESIRABLE UF RATE AND UF VOLUME CAN BE AUTOMATICALLY CONTROLLED, MONITORED AND ACHIEVED DURING THE ISOLATED ULTRA FILTRATION MODE.
3.	TABLE FOR THE PARAMETER RECORDS
3.1	THE HAEMODIALYSIS MACHINE SHOULD PROVIDE A GRAPHIC INFORMATION DISPLAY AND / OR INSTANTANEOUSLY . THE FOLLOWING PARAMETERS IN FORMS OF BAR-GRAPH, NO. AND TEXT
3.1.1	BAR-GRAPH.
3.1.1.1	VENOUS PRESSURE
3.1.1.2	HIGH & LOW LIMITS FOR VENOUS PRESSURE
3.1.1.3	PRESENT BLOOD FLOW

3.1.1.4	ACTUAL BLOOD FLOW
3.1.1.5	BLOOD FLOW GUARD
3.1.1.6	PRESET DIALYSATE TEMPERATUE
3.1.1.7	ACTUAL DIALYSATE TEMPRATUE
3.1.1.8	HIGH & LOW LIMIT OF DIALYSIS TEMPRATURE
3.1.1.9	PRESET DIALYSIS CONDUCTIVITY
3.1.1.10	ACTUAL DIALYSIS CONDUCTIVITY
3.1.1.11	HIGH & LOW LIMITS OF DIALYSIS CONDUCTIVITY
3.11.12	MEASURED TMP.
3.1..113	HIGH& LOW LIMIT OF TMP.
3.11.14	PRESET PATIENT WEIGHT LOSS
3.1.1.15	REMOVED OF VOLUME
3.1.1.16	CALCULATED OF RATE
3.1.1.17	ACTUAL UF RATE
3.1.1.18	REMAINING TREATMENT TIME
3.1.2	<u>NUMBER AND /OR TEXTINFORMATION</u>
3.1.2.1	VENOUS PRESSURE
3.1.2.2	HIGH AND LOW LIMIT OF VENOUS PRESSURE
3.1.2.3	PRESET BLOOD FLOW
3.1.2.4	ACTUAL BLOOD FLOW
3.1.2.5	BLOOD FLOW GUARD.
3.1.2.6	PRESET DIALYSATE TEMPERATURE
3.1.2.7	ACTUAL DIALYSATE TEMPERATURE
3.1.2.8	HIGH AND LOW LIMIT FOR TEMPRATURE
3.1.2.9	PRESENT DIALYSATE CONDUCTINITY
3.1.2.10	ACTUAL; DIALYSATE CONDUCTIVITY
3.1.2.11	HIGH AND LOW LIMIT OF DIALYSATE CONDUCTIVITY
3.1.2.12	MEASURED TMP
3.1.2.13	HIGH AND LOW LIMITS OF TMP
3.1.2.14	PRESET WEIHT LOSE
3.1.2.15	REMOVED UF VOLUME
3.1.2.16	CALCULATED UF RATE
3.1.2.17	ACTUAL UF RTAE
3.1.2.18	SINGLE NEEDLE DATA
3.1.2.19	REMAINING TREATMENT TIME
3.1.2.20	HEPARIN INFUSION RATE, STEPPED TIME AND ACCUMULATED VOLUME.
3.1.2.21	ATTENTION ALARM IN INFORMATION IN TEXT FORMAT
3.1.2.22	TECHNICAL ALARM INFORMATION IN TEXT FORMAT (THE ABOVE MENTIONED DATA S ON LCD/ CRT MONITOR MAY ALSO BE ACCEPTIC)
4.	SAFETY
4.1	THE MACHINE SHOULD AUTOMATICALLY PERFORM A COMPLETE FUNCTIONAL AND SAFETY TEST AT EACH START UP
4.2	THE MACHINE SHOULD COMPLIES WITH THE FOLLOWING INTERNATIONAL STANDARD
4.2.1	IEC 601-1 AND IS PROTECTED AGAINST ELECTRICAL SHOCK ACCORDING TO CLASSIFICATION
4.2.2	ICE 601-2-16 PARTICULAR REQUIREMENT FOR HEAMODIALYSIS EQUIPMENT
	DISINFECTION AND CLEANING
5.1	FACILITY OF CHEMICAL AMD HEAT DISINFECT ION MUST BE AVAILABLE
5.2	SODIUM HYPOCHLORITE FORMALDEHYDE OXALIC ACID2% AND PARACETIC ACID SHOULD BE AVAILABLE IN THE CHEMICAL DISINFECTIONS PROGRAMME.
5.3	AUTO- HEATING DISINFECTIONSAS WELL AS WITH CITRIC ACID (20%) AND AUTO-RINSING & DRAIN SHOULD BE PRESET AUTOMATIC START OF MACHIN FOR HEAT

TECHNICAL SPECIFICATION OF HAEMODIALYSIS MACHINE**“B”OPTIONAL**

HAEMODIALYSIS MACHINE	The HEMODIALYSIS UNIT SHOULD BE MICROPROCESSOR CONTROLLED AND CAPABLE OF PROVIDING THE FEATURES;-
1.1	ACETATE & BICARBONATE DIALYSIS
1.2	VOLUMETRIC ULTRA FILTRATION (UF)
1.3	VARIABLE SODIUM & BICARBONATE
1.4	SINGLE AND DOUBLE NEEDLE TREATMENT
1.5	ADJUSTMENT DIALYSATE FLOW
1.6	PROFILLING OF SODIUM BICARBONATE AND UF
1.7	ISOLATED UF
1.8	HAEMODIA FILTRATION
	TECHNICAL SPECIFICATION
1	BLOOD CIRCUIT
1.1	VASCULAR ACCESS
1.1.1	SINGLE NEEDLE,SINGLE PUMP/SINGLE NEEDLE, DOUBLE PUMP
1.1.2	DOUBLE NEEDLE
1.2	BLOOD PUMP
1.2.1	RANGE SHOULD BE BETWEEN 0 AND 20 TO 500ML/MIN. WITH ACCURACY OF +/- 15
1.2.2	THE PUMP SHOULD BE EASY AND SAFE TO THREAD THE BLOOD TUBING
1.2.3	AN EMERGENCY HAND CRANK SHOULD BE PROVIDED TO TURN THE BLOOD PUMP AND THE PATIENT WHEN ELECTRICAL POWER IS LOST. THE DIRECTION OF ROTATION IS LIMITED VISUALLY INDICATED TO PREVENT INCORRECT MANUAL ROTATION .
1.2.4	ACCUMULATED BLOOD VOLUME SHOULD FVE APPROX 0 . 327 LITRS(+/-15%)
1.3	HEPARIN PUMP
1.3.2	INFUSION RATE SHOULD VE APPROX .0/0 5-10ML/H WITH A ACCURACY OF 1MAL.
1.3.2	POSITIVE AND NEGATIVE EXTRACORPORIAL CIRCUIT PRESSURE SHOULD NT AFFECT INFUS
1.3.3	STOP TIME; HEPARINIZATION STOP TIME (BEFORE END OF TREATMENT) 0.00-4.00
1.3.4	ACCUMULATED HEPARIN VOLUME SHOULD VE PROGRAMMABLE
1.4	PRESSURE ,MONITORING AND ALARMS
1.4.1	VENOUS PRESSURE MONITORING MONITORIONG RANGE SHOULD BE APPROX .-700 TO +750 MM HG
	ACCURACY+5 MM HG OR +- 10% WHICHEVER IS GREATER
1.4.2	VENOUS PRESSURE ALARM
	HIGH AND LOW VENOUS PRESSURE ALARMS
	ALARM SETTING SHALL BE NON OVERLAPPING AND WITHIN RANGE OF THE PRESSURE MORE.
1.4.3	ARTERIAL PRESSURE MONITORING
	IT SHOULD VE APPROX. 700 TO 750 MM HG
1.4.4	THE ALARM LIMITS AROUND VENOUS PRESSURE AND TMP SHOULD BE AUTOMATICLY
	ADJUSTED TO BE PRESENT LIMIT AT A TOUCH OF BUTTONS.
1.5	AIR DETECTION
1.5.1	SENSITIVITY; AN ALARM SHOULD VE HIVEN FOR>0.5ML AIR PER MINUTE AT AFLOW 300ML/MIN
1.5.2	ON DETECTION OF EXCESSIVE AIR THE BLOOD PUMP SHALL BE STOPPED AND AN

	AUDI ALAFRM ACTIVATED AN THE VENOUS BLOOD RETURN LINE SALL BE CLAMED AT APPOL THE AIR DETECTOR.
2	DIALYSTATE CIRCUIT
2.1	TREATMNTS FACILITIES
2.1.1	IT SHOULD BE CAPABLE TO PROVIDE ACETATE AND BICARBONATE DIALYSIS
2.1.2	IT SHOULD HAVE THE FACILITY OF ADJUSTABLE VARIABLE BICARBONATE CONCENTRATION
2.1.3	IT SHOULD HAVE THE FACILITY OF ADJUSTABLE VARIABLE SODIUM CONCENTRATION
2.1.4	IT SHOULD HAVE VOLUME METRIC ULTRA FILTRATION CONTROL
2.1.5	IT SHOULD HAVE THE FACILITY OF USER PRESETABLE INDEPENDENT ISOIATED ULTRA FILTER
2.2	CONDUCTIVITY CONTROLAND ALARMS
2.2.1	THE DIALYSIS CONDUCTIVITY SHOULD BE ADJUSTED BY SETTING THE SODIUM FOR ACUTE DIALYSIS MODE, AND SODIUM WITH BICARBONATE FOR BICARBONATE DIALYSIS MODE
2.2.2	THE SET CONDUCTIVITY SHOULD BE AUTOMATICLLY REGULATED BY VARIATION THE CONC.
2.2.3	IN ACETATE DIALYSIS, SODIUM CONDUCTIVITY/ CONCENTRATION SHOULD BE ADJUSTABLE.
2.2.4	IN THE BICARBONATE DIALYSIS, SODIUM /BICARD CONCENTRATION SHOULD BE ADJUSTABLE.
2.3	ADVANCED BICARBONATE DIALYSIS THE MACHINE SHOULD BE CAPABLE OF ON-LINE PREPARATION OF BICARBONATE DIALYSIS FILTER. A CARTRIDGE OF DRY POWER BY USING R.O WATER
2.4	DIALYSIS FLOW RATE.
2.5	IT SHOULD BE APPROX. 100TO 500- 700 ML/MIN. ACCURATE TO WITHIN+-10ML/MIN.
2.5	TEMPRATURE CONTROLAND ALARMS.
	CONTROL RANGE SHOULD BE BETWEEN APPROX.+30.0CTO +-40.0
2.6	BLOOD LEAK DETECTION
2.6.1	DETECTION METHOD SHOULD BE
2.6.2	INFRARED LIGHT DETECTOR; MICROPROCESSOR CONTROLLED REPEATED FUNCTION CHEKE
2.7	ULTRA FILTRATION (UF) CONTROL
2.7.1	VOUMETRIC CONTROL
2.7.2	CONTROL RANGE SHOULD BE BETWEEN APPROX. 0.00-4 LITRES PER HOUR GIVEN BY TREATMENT TIME UF VOLUME SHOULD BE ADJUSTABLE ACCURACY SHOULD BE BETWEEN +- 50ML /H OR+-1%
2.7.3	PRESETABLE ISOLATED ULTRA FILTRATION THE ACQUIRED UF VOLUME AND THE TIME FOR ISOLATED ULTRA FILTRATION TREATMENT PRESET ABLE SO THAT THE DESIRABLE UF RATE AND UF VOLUME CAN BE AUTOMATIC A CONTROLLED, MONITORED AND ACHIEVED DURING THE ISOLATED ULTRA FILTRATON MODE.
3.	TABLE FOR THE PARAMETER RECORDES
3.1	THE HAEMODIALYSIS MACHINE SHOULD PROVIDE A GRAPHIC INFORMATION DISPLAY AND / OR INSTANTANEOUSLY . THE FOLLOWING PARAMETERS IN FORMS OF BAR-GRAPH, NO. AND TEXT
3.1.1	BAR-GRAPH.
3.1.1.1	VENOUS PRESSURE
3.1.1.2	HIGH & LOW LIMITS FOR VENOUS PRESSURE
3.1.1.3	PRESENT BLOOD FLOW
3.1.1.4	ACTUAL BLOOD FLOW
3.1.1.5	BLOOD FLOW GUARD

3.1.1.6	PRESENT DIALYSATER TEMPRATUE
3.1.1.7	ACTUAL DIALYSATE TEMPRATUE
3.1.1.8	HIGH & LOW LIMIT OF DIALYSIS TEMPRATURE
3.1.1.9	PRESENT DIALYSIS CONDUCTIVITY
3.1.1.10	ACTUAL DIALYSIS CONDUCTIVITY
3.1.1.11	HIGH & LOW LIMITS OF DIALYSIS CONDUCTIVITY
3.1.1.12	MEASURED TMP
3.1.1.13	HIGH& LOW LIMIT OF TMP
3.1.1.14	PRESENT PATIENT WEIGHT LOSS
3.1.1.15	REMOVED UF VOLUME
3.1.1.16	CALCULATED UF RATE
3.1.1.17	ACTUAL UF RATE
3.1.1.18	REMAINING TREATMENT TIME
3.1.2	<u>NUMBER AND /OR TEXT INFORMATION</u>
3.1.2.1	VENOUS PRESSURE
3.1.2.2	HIGH AND LOW LIMIT OF VENOUS PRESSURE
3.1.2.3	PRESET BLOOD FLOW
3.1.2.4	ACTUAL BLOOD FLOW
3.1.2.5	BLOOD FLOW GUARD.
3.1.2.6	PRESET DIALYSATE TEMPERATURE
3.1.2.7	ACTUAL DIALYSATE TEMPERATURE
3.1.2.8	HIGH AND LOW LIMIT FOR TEMPRATURE
3.1.2.9	PRESET DIALYSATE CONDUCTINITY
3.1.2.10	ACTUAL; DIALYSAT CONDUCTIVITY
3.1.2.11	HIGH AND LOW LIMIT OF DIALYSAT CONDUCTIVITY
3.1.2.12	MEASURED TMP
3.1.2.13	HIGH AND LOW LIMITS OF TMP
3.1.2.14	PRESET WEIHT LOSE
3.1.2.15	REMOVED UF VOLUME
3.1.2.16	CALCULATED OF RATE
3.1.2.17	ACTUAL OF RTAE
3.1.2.18	SINGLE NEEDLE DATA
3.1.2.19	REMAINING TREATMENT TIME
3.1.2.20	HEPARIN INFUSION RATE, STOPPED TIME AND ACCUMULATED VOLUME.
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5.2	SODIUM HYPOCHLORITE FORMALDEHYDE OXALIC ACID 2% AND PARACETIC ACID SHOULD BE AVAILABLE IN THE CHEMICAL DISINFECTIONS PROGRAMME.
5.3	AUTO- HEATING DISINFECTIONS AS WELL AS WITH CITIC ACID (20%)AND AUTO-RINSING & DRAIN SHOULD BE PRESET AUTOMATIC START OF MACHIN FOR HEAT DISINFNFECTION AND RINSING IN PRESET TIME.

TERMS AND CONDITIONS FOR DIALYSIS MACHINE

INTENDING BIDDERS ARE FREE TO QUOTE EITHER FOR BOTH (A) AND (B) OR EXCLUSIVELY FOR (A) OR (B)

COMPARISON OF RECEIVED TENDER SHALL BE AS FOLLOW;-

WITH (A)

(B) WITH (B)

02 :- R O System

Equipment Technical Specifications for Water Treatment System (R O System)
for **Haemodialysis Machines:**

1 Description of Function

1.1 Water Treatment system is required to produce pure water for dialysis.

2 Operational Requirements

2.1 The system should be sufficient for online operation of 15-20 machines with pure water capacity of 1000-1200 litres per hour.

3 Technical Specifications

3.1 The system should comprise of pre treatment modules such as sand filter, activated carbon filter, water softener, 5-micron particulate filter and deionizer before the reverse osmosis unit and post R.O Bacterial Filters (1 micron) and UV light Disinfection for yielding high purity water.

3.2 All pre treatment modules should have programmable back wash and regeneration facility. These stages should be designed to handle water flow of **1500-2000 litres/hour**.

3.3 R.O. Unit should be compact in sleek cabinet, housing two R.O. membranes of equal output connected in parallel for being used alternately every two- three hours by automated valves, a high pressure pump and bypass mechanism. The control unit should be microprocessor/ microcontroller controlled. A 5-micron filter should protect the membrane.

3.4 The entire unit should have adequate monitoring of input and output water conductivity, feed water pressure and rejection flow rate.

3.5 The system should have protection alarm against low feed water, high output conductivity and high temperature of pump motor.

3.6 The system should include online water distribution to 10-to 12 machines in loop so that the unused water may be fed back to treatment unit, thus saving on water rejection.

3.7 The unit should have programmable and automatic rinsing/flushing facility, at regular intervals, when system is not in use, to prevent drying of filter media and R.O. Membrane.

3.8 The system should have programmable disinfection /de-calcification facility using commonly available disinfection / decalcification chemicals.

3.9 The system should accept feed water with TDS upto 1500 mg/litre and hardness up to 1 dH with 0.5% rejection of TDS & hardness and 99% rejection of bacteria and endotoxins.

- 3.10 The unit should be designed for maximum saving of raw water, with efficiency of 60-70%.
- 3.11 The water distribution loop, booster pump and storage water tank should be made up of PVC(High quality). Storage water tank should have capacity of at least 2000 litres with water level controller, outlet valves and easy cleaning provisions.
- 4 System Configuration Accessories, spares and consumables**
- 4.1 System as specified-
- 4.2 The vendor should provide a system on a turnkey basis including all civil and electrical works including two booster pumps in parallel for providing water delivery. The vendor should inspect the site for this purpose.
- 4.3 The vendor should supply adequate filter cartridges, media or resins to last for at least 3 years. The vendor may visit the site and check the water quality.
- 4.4 The vendor should provide preventive maintenance which includes chemical checks, bacterial and pyrogen checks periodically during the warranty period.
- 4.5 The hospital will provide vacant space, water outlets and electrical points as specified by the vendor. Other plumbing works and civil works will have to be undertaken by the bidder. Vendor should ensure that there is no environmental damage of any kind takes place.
- 4.6 **Power Supply**
Power input :220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate Indian plugs and sockets.
- 4.7 Output water quality should match AAMI (Association for the advancement of Medical Instrumentation) standards for Haemodialysis Water(Al < 0.01 mg/L; Ca < 2 mg/L; BACTERIA< 200 CFU/ml)

Should be FDA / CE / UL or BIS approved product.

The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

User/Technical/Maintenance manuals to be supplied in English.

Certificate of calibration and inspection.

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

User list to be provided with performance certificate.

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

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

Group-H- Pediatric Surgery

01:- Technical Specifications of Paediatric Laproscopic set with Accessories

Camera

Digital image processing including dynamic aperture and automatic shutter regulation Output format 16:9 according to camera sensor, Full HD output 1920X1080 pixel 4 profiles adapted for special indications Digital electronic zoom (2X) in excellent quality, 2 remote ports 3.5 mm BF isolation of applied part on control unit Automatic request for white balance after each start up sequence core integration for central control via touch screen or voice commands Camera head .

Monitor

24" High Definition (HD) Medical imaging system for Minimally Invasive Surgical (MIS) and interventional procedures . It consists of Multi Modality Image viewing .

Inputs:- Syn No Green Optional fibre optic (for PACS, MRI, CT imaging)

Telescopes

*PANOVIEW PLUS TELESCOPE diam 5.3 mm deg distortion free autoclavable working length 300 mm.

*PANOVIEW PLUS telescope diam . 5.3 mm , 30 degr distortion free autoclavable working length 300 mm

*PANOVIEW – Telescope 0 Diameter 10 mm, distortion free

*PANOVIEW Telescope 0 Diameter 5mm Distortion Free.

*PANOVIEW – Telescope 30 Diameter 10mm, distortion free

*PANOVIEW – Telescope 30 mm Diameter 5mm distortion free

Hand instruments

*Veres cannula 120mm working length including

*Trocar sleeve with magnetic –ball valve plastic with retaining thread straight distal tip, capacity 305 mm working length 60mm.

*Trocar pyramidal tip capacity 3.5 mm working length 60mm

* Trocar sleeve with magnetic ball valve metal sleeve standard straight distal tip working length 100 mm capacity 3.5mm

*Trocar pyramidal tip capacity 3.5 mm working length 100 mm.

*Trocar sleeve with magnetic –ball- valve without insufflation tap metal sleeve standard straight tip capacity 5.5 mm. working length 60 mm.

*Trocar pyramidal tip 60mm working length .

* Trocar sleeve without insufflation tap capacity 5.5 mm Metal sleeve standard straight distal tip WL 100mm.

*Trocar with pyramidal tip capacity 10 mm working length 100mm

*Tricar pyramidal tip for RIWO – ART trocar sleeves diam 10mm working length 100mm

*Trocar pyramidal tip for RIWO- ART trocar sleeves diam . 10 mm working length 100mm

* Instrument sleeve and extractor 12,5/10f.0 mm working length 170 mm.

*Insulated reducing sleeve 5,5/3,5 mm working length 160 mm.

*Scissors “ Metzenbaum” modular curved left both jaws opening insulated 3,5 mm WL 310 mm : consisting of jaw insert with insulated sheath tube and irrigation tab comfort handle without locking mechanism rotatable.

*Scissors modular 5mm curved left both blades opening “ Metzenbaum” WL 310 mm comprising jaw sheath tube isolated handle without locking mechanism swiveling .

Micro scissors Metzenbaum curved left double jaw action monopolar Diameter 5 mm WL 310 mm cpl consisting of Handle sheath tube insert .

*Hook scissors modular single jaw action insulated 3,5 mm WL 310 mm consisting of jaw insert with insulated sheath tube and irrigation tab comfort handle without locking mechanism .

*Dissector cpl consisting of insert with sheath tube diameter 3,5 mm WL 240mm.

*Grasp & dissect forceps “Mixer “ angled fine pyramidal shaped teeth double jaw action monopolar Diameter 5mm WL 310 mm cpl consisting of Handle sheath tube insert.

*Grasping coag forceps Dolphin both jaws opening monopolar comprising: comfort handle sheath tubing inner path .

*Grasping / dissecting forceps modular curved left both jaws opening “ Maryland Dissector “ 3,5mm WL 240 mm

*Atraumatic grasp forceps for fine structures double jaw action monopolar diameter 5mm WL 310 mm cpl consisting of : Handle sheath tube insert .

*Grasping and Dissecting forceps modular , 5mm single jaw action WL 310 mm comprising jaw insert sheath tube isolated handle with locking mechanism swiveling.

*Atraumatic grasp forceps modular 5 mm both jaws opening WL 310 mm comprising jaw insert .

*Sheath tube isolated handle with locking mechanism swiveling .

*Modular atraumatic grasping forceps insulated both jaws opening diam 3,5mm working 240 mm consisting of jaw insert with insulated sheath tube and cleaning channel axially aligned handle with locking mechanism rotatable.

*Atrium grasping forceps “ Babcock” large distal grasping surface with fine horizontal serrations double jaw action monopolar diameter 5mm WL 310 mm cpl consisting of Handle sheath tube insert

*Grasping forceps “Babcock” modular both jaws opening 3,5 WL 240 mm WL 240 insulated consisting of jaw insert with insulated sheath tube and irrigation tap comfort handle with locking mechanism rotatable .

*Grasping forceps atraumatic clamp “Debakey “ axial grooves with fine horizontal serrations double jaw action (without HF) diameter 5mm , WL 310 mm springy branches cpl consisting of Handle sheath tube insert .

HOOK ELECTRODE

-Hook electrode diameter 5mm working length 340 mm

-Spatula electrode diam 5mm WL 340 mm

-Modular needle holder straight with carbide insert .

-Needle holder straight 300 mm NL d =5 mm

-Suction tube graduated with Luer connector 3 mm , 330 mm WL , d= 5mm

-Suction irrigation tube with central opening 290 mm WL, d=5 mm

-Coagulation suction tube with Luer connector capacity 3mm , 315 mm WL d =5mm

-Clip applicator 340 mm NL, d=10mm

-Bipolar forceps 5 mm WL 300 mm with fenestrated parallel paddle and spring handle sliding sleeve and outer tube .

-Bipolar coag forceps diameter 5 mm with spring handle comprising 8393.726,8393.923, 8393.925.

LED Light sources with universal light cable socket inclusive 180W xenon short arc lamp and power cable , colour temperature approx 6000K continuous manual light control form 2-100% classification CF power supply 100- 240V-, 50/.60 Hz dimensions wxhxd, 330X100X380 mm.

-Fibre light cable 3mm long fibre bundle diam 4,5 mm

-Lapro-Co2 Insufflations up 20L/Min including Insufflations tube , diameter 5mm 2.5m long hygienic filter , strle pack Of 10 power cable 3m long.

-Suction irrigation tube with central and lateral opening, 290 mm WL,d =5mm

Digital Recording System

-**Mobile video trolley** including at least 4 shelves 4 anti – static castor wheels, camera

-Head holder, infusion bottle holder ,Co2 cylinder holder, integrated cable ducts, Indian.

-Formalin chamber (Indigenous) ; - Bidder should also quote separately for the supply of F. C with cidex tray (Indigenous)

-Cidex tray tray

-Bidder is required to quote rate of each accessories separately.

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

-The unit shall be capable of all type of laparoscope procedure.

-All accessories should be from parent company.

-Such accessories should be quoted separately.

-The instruments must be USFDA approved.

2;- PADIATRIC /NEONATEL RIGID BRONCHOSCOPE

1. Digital three chip Endovision Camera : One (Compatible with Telescopes of Bronchoscope, Oesophagoscope and Cystoscope)

Color system PAL/NTSC, power supply : 100-240VAC, 50/60 Hz compatible with Pal. NTSC, automatic white balance with control or base unit and also on camera.

Integrated zoom lens for manual and automatic control for exposure of fog. Compatible with VHS and comp and DVI. Minimum sensitivity 3 lux. Instrument coupling for all rigid endoscope. Long camera cable 300cm. Two pre set function keys on camera for control of camera function, Printer, computer, VCR and other Peripherals.

Consisting of:

Main cord, with per focal zoom lens, camera head, camera control unit (CCU), BNC/S Video connecting cable, length 180cms, 2 connecting cables for connecting video printer or recorder, DV cable, lenth 500cm 6 to 4 pin, keyboard.

Xenon/ Halogen Light source with fibreoptic cable

2. **Medical Grade Color Monitor 19" (Fully flat screen)** : one special 19" monitor (TFT) medical grade, PAL/NTSC & SECAM color system. For Bronchoscope, Oesophagoscopy and cystoscopy.

3. **TELESCOPE**

A. Straight forward telescope 0 degree, diameter 2.9 mm, length 36cm, autoclavable, fiber optic light transmission incorporate (One)

B. Straight forward telescope 0 degree, diameter 2.9mm, length 30cm, autoclavable fiber optic light transmission incorporated (one)

C. Straight forward telescope 0 degree, diameter 2.7mm, length 18cm autoclavable fiber optic light transmission incorporated (one)

4. **BRONCHOSCOPE SHEATH**

Should have attachment (Channels) for anaesthesia (Ventilation) and instruments and optical prism light.

A. Bronchoscope sheath, size 6, outer diameter 8.2mm, inner diameter 7.5mm, length : 30cm (one)

B. Bronchoscope sheath, size 5, outer diameter 7.8mm, inner diameter 7.1mm, length : 30cm (one)

C. Bronchoscope sheath, size 4.5, outer diameter 7.3mm, inner diameter 6.6mm, length : 30cm (one)

D. Bronchoscope sheath, size 4, outer diameter 6.7mm, inner diameter 6mm, length : 30cm (one)

E. Bronchoscope sheath, size 3.7 outer diameter 6.4mm, inner diameter 5.7mm, length : 30cm (one)

F. Bronchoscope sheath, size 3.5 outer diameter 6.4mm, inner diameter 5.7mm, length : 30cm (one)

G. Bronchoscope sheath, size 4.0 outer diameter 6.7mm, inner diameter 6.4mm, length : 26cm (one)

H. Bronchoscope sheath, size 3.7 outer diameter 6.4mm, inner diameter 6.4mm, length : 26cm (one)

I. Bronchoscope sheath, size 3.5 outer diameter 5.7mm, inner diameter 5.0mm, length : 26cm (one)

J. Bronchoscope sheath, size 3.0 outer diameter 5.0mm, inner diameter 4.3mm, length : 26cm (one)

K. Bronchoscope sheath, size 3.5 outer diameter 5.7mm, inner diameter 5.0mm, length : 18.5cm (one)

L. Bronchoscope sheath, size 3.0 outer diameter 5.0mm, inner diameter 4.3mm, length : 18.5cm (one)

M. Bronchoscope sheath, size 2.5 outer diameter 4.2mm, inner diameter 3.5mm, length : 18.5cm (one)

5. **Optical forceps (compatible with above mentioned telescopes and bronchoscope sheaths)**

- A. Optical alligator forceps, 2x2 teeth, with spring action handle for controlled removal of flat foreign bodies (such as coins) : (two)
- B. Optical forceps, with spring action handle for controlled removal of soft foreign bodies (such as peanuts): (two)
- C. Optical alligator forceps, with forced controlled handle, for removal of hard foreign bodies (two)

6. **Forceps (one each)**

- A. Forceps alligator, grasping, double action jaw, sheath diameter 1.5mm, working length : 35 cm
- B. Forceps alligator, grasping, double action jaw, sheath diameter 1.5mm, working length : 35 cm, pointed serrated for coins and foreign bodies.
- C. Forceps alligator, grasping, double action jaw, sheath diameter 1.5mm, working length : 35 cm, pointed of peanuts and soft foreign bodies.
- D. Biopsy Forceps 35cm.

7. **Sponge Holder:-** (Spring handle working length 35cm (one))

8. **Right Suction tube with Rubber Tip** (one each)

- A. Rigid Suction tubs, straight length 35cm, diameter : 3mm
- B. Rigid Suction tubs, straight length 25cm, diameter : 3mm

- 9. Foreign body basket with right handle, working length 35cm.
- 10. Telescope bridge for fixed position between telescope and bronchoscope. Compatible with above mentioned telescopes and bronchoscope sheaths (three)
- 11. Prismatic light deflection with connection for fiber optic light cable autoclave (Two)
- 12. Glass Window Plug (Two)
- 13. Rubber Telescope Guide for use with telescopes or optical forceps (Two)
- 14. FLUVOG Adaptor with sliding glass window plug, sealing cap, notched lens and keyhole opening, moveable (two)
- 15. Injection canula only. Leur lock outer diameter – 3.5mm, for use bronchoscope tubes (for positive pressure assisted ventilation (Two)
Injection canula only Leur lock outer diameter – 2.7mm, for use with bronchoscope tubes

(for

- positivepressure assisted ventilation (Two)
(a) Bridge to attach 36 cm telescope to 30 cm Bronchoscope.
 - 16. Instrument guide for suction catheter (Two)
 - 17. Adaptor from bronchoscope to any type of pediatric respiration equipment (Two)
 - 18. Sealing plig for ventilation attachment of bronchoscope (Two)
 - 19. Adjustable magnifier, swing – away type autoclave (one)
 - 20. Fiber optic light cable size 3.5mm, length 180cm (Two)
 - 21. Cold light source with twin bulb Halogen Technology 150 watt working on 220V AC.
 - 22. Cold light source with twin bulb 2 ENON Technology working on 220V AC.
 - 23 each accessories should be from parent company & price should be quoted separately.
- The Instruments must be US FDA approved

.3;- Pediatric RIGID OESOPHAGOSCOPE

Part -A.

- 1. Oesophagoscope Sheath: Should have side channel for instruments
- A. Oesophagoscope sheath, size6, outer diameter 8.2mm, inner diameter 7.5mm, length 30cm (one)
- B. Oesophagoscope sheath, size5, outer diameter 7.7mm, inner diameter 7.2mm, length 30cm (one)

- C. Oesophagoscope sheath, size4, outer diameter 6.72mm, inner diameter 6.2mm, length 30cm (one)
- D. Oesophagoscope sheath, size 3.5 outer diameter 5.6mm, inner diameter 5.2mm, length 18.5cm (one)
- E. Oesophagoscope sheath, size 3, outer diameter 4.8mm, inner diameter 4.3mm, length 18.5cm (one)
- F. Optical forceps.
- G. Non Optical forceps.
- H. Optical prisu.

Part-B

Paediatric flexiable esophago gastroduodenoscope with light source with suction attachment
- Both part A and part B accessories should be from parent company & price should be quoted separately.

- The instruments must be Us FDA approved.

- E N D -