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IMPORTANT DATES

Date of Pre-bid Meeting	14 /12/2013 at.12.30 PM in Conference hall IGIMS, Patna
Date of uploading of final tender document in the light of out come of pre- bid meeting	17/12/2013
Last date for submission of Completed Bidding Document	27/12/2013 up to 3:30 P.M. by registered/speed post/ Courier only
Date and time for opening of the Technical Bid only	28/12 /2013 at 11:30 A.M. in conference hall IGIMS, Patna.

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 in
connection 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
initialed.
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 security money
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 <p>(Please attach Notary certified MANUFACTURER'S AUTHORISATION FORM as per FORMAT placed at Annexure – III)</p>		
2.	<p>Power of Attorney as per Annexure - V in favour of person to sign, submit and negotiate the bid.</p>		
3.	<p>Certificate towards market standing of minimum 05 years in the area of supply and maintenance of bio-medical equipments.</p>		
4.	<p>Certificate for sole ownership / partnership</p>		
5.	<p>Statement of financial standing from bankers</p>		
6.	<p>Statements of turnover per year for last three successive years duly certified by the Chartered Accountants.</p> <p>(Minimum Annual Turnover must be Rs. 50 Lakh for Group- A, B, C, D, E, F & I) (Note:- Rs 25 Lakh for other group)</p>		
7.	<p>Bank Solvency of required amounts Rs. 50 Lakh for Group- A,B,C,D,E,F&I) (Note:- Rs. 25 lakhs for other group)</p>		
8.	<p>Notary certified User List (List of Govt. /Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.</p>		
9.	<p>Notary certified Supply order copy (Minimum 3nos. or more) issued by Govt./Semi Govt./Reputed Pvt. Institutions/organization for the quoted items. (same model)</p>		
10.	<p>Notary certified Performance certificate of the same supplied machine (of quoted make and Model) issued by Head of the depts. or Institution after a minimum period of six months of installation</p>		

11.	Prerequisite (if any) for installation of the Machine, if any, to be provided by the Institute.		
12.	Whether rates quoted are inclusive of all taxes or not.		
13.	Whether rates are quoted as per format mentioned in the Bidding Document or not.		
14.	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.		
15.	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.		
16.	Quality Assurance Certificate like ISI, ISO-9002, IP/BP, CE, FDA (US) or any other (please specify)		
17.	Bid Security amount deposited is enclosed or not. If yes, please mention the details.		
18.	Original Technical Catalogue of the quoted model		
19.	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)		
20.	Certificate, to the effect that bidder have quoted their rates 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)		
21.	Acceptance of all terms / conditions towards after sales / services as mentioned in the bidding document. (Clause No. – 13 of “Instruction to Bidder” & Clauses No.: 3, 4 and 5 of “Condition of Contract”)		

22.	Compliance Statement with relation to the technical specification as mentioned in the bidding document duly supported by the original catalogue.		
23.	Compliance Statement with relation to the terms & conditions as mentioned in the document.		
24.	PAN and copies of Income Tax Returns for the last three years.		
25.	Duly attested copy of sales tax registration certificate.		

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

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

Note: If the above-mentioned 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 be prepared with all the required documents to avoid rejection of offer.

(Name of the Bidder with signature & seal)

ELIGIBILITY CRITERIA

ELIGIBILITY CRITERIA

	Manufacturers or their authorized dealers/Indian subsidiaries/direct importers having a place of business in any of the States of India are eligible to participate in this tender.	Mentioned Page no.
02	The bidder and manufacturer of the equipment offered should be in the business of the supply and installation of same / similar equipment for the last five calendar years.	
03	(a) The manufacturer should have completed atleast ten nos. installations of the quoted items in Govt. /Pvt. Institutions /Hospitals in India. The installations mentioned by the manufacturer in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer. (b) The bids quoted as the authorized representative of the manufacturer meeting the above criteria 02 (a) should have also supplied and installed at least five nos. installations of the quoted items in Govt. /Pvt. Institutions/ Hospitals in India in last five years from the last date of submission of tender. The installations mentioned by the authorized representative in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.	
04	The Bidder should be public undertaking /Autonomous Body /Public Ltd./Pvt. Ltd. Company or proprietary firm and should be in medical equipment business since last five years in India. The Bidder having manufacturing facility in their name in India for the majority of the items offered by them shall be given preference.	
05	The Manufacturer or their authorized agent must have bank solvency of Rs. 50 lakh prior to issue of this notice.	
06	The firm should be registered with ESI & EPF from more than one year from the date of issue of this tender notice.	
07	The Bidder (manufacturer or their authorized agent) should have had average annual financial turnover of Rs. 50 Lakh during the last three years ends 31 st march 2013.	
08	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.)	
09	Bidders who 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.	
10	Firm / company who have withdrawn after participating in any of the previous tenders of Indira Gandhi Institute of Medical Sciences – Patna are not eligible to participate in this tender.	

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.
4. The **“Bidding Document”** can be downloaded from **institute website www.igims.org**.
5. In case, downloaded bidding document is used, bidder(s) have to submit the cost of the Tender Document (i.e Rs. Five Thousand Only each Group) along with the completed documents in the form of Demand Draft in favour of Director, I.G.I.M.S. – Patna payable at Patna towards cost of the **“Tender documents”**. Firm is required to attach separate D.D. for the same in a **separate envelope super scribed with “Cost of Bidding Document”**. If the cost of tender document is not submitted by the bidder(s), his offer shall be outright rejected and returned.
6. Last date for purchase of bidding document is ____/ ____/2013 up to 3:30 P.M.

7. i:- Last date for submission of bidding document 27/12/2013 till 3.30PM 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.

ii:- Date of Opening of technical bid:- 28/12/2013 at 11:30 A.M. in conference hall IGIMS, Patna.

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 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 and its validity period be made with technical bids 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. of Kerala are exempted from remittance of EMD subject to submission of valid documents.

h. The EMD shall be in one of the following forms:
A demand draft in favour of Director, I.G.I.M.S. – Patna (payable at Patna);

i. The successful Bidder's EMD will be discharged upon the Bidders signing the contract and furnishing the performance security. The EMD 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 (Minimum five 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 (Manufactured/ 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.

(Any tender offer without submission of above mentioned document (i.e. a to e) shall be rejected during technical scrutiny.)
- g. 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 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 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.
- 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 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 Bidder 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. 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:-
$$1 \text{ Year} = 365_{\text{days}}$$
$$\mathbf{95\% \text{ of } 365 \text{ days} = 347 \text{ Days per annum}}$$
- 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. 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 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 warranty/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:-

$$1 \text{ Year} = 365_{\text{days}}$$
$$95\% \text{ of } 365 \text{ days} = 347 \text{ Days per annum}$$

- 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 make 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 been 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:- 10 % of value of CAMC per year**

- a. 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.

b. **Delivery period and Installation of Machine/Equipments**

Goods should be delivered within two months after receipt of irrevocable and confirmed Letter of Credit. In a special Cases two week extension may be granted by the Competent authority without penalty.

If the delivery is not affected by due date i.e after above extension, 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 warrantee period and thereafter during the life span of the equipment

16. The bidder is required to provide list of persons (along with their permanent and correspondence address) owing more than 1% share ownership in the company/firm (both principle and Indian Agent).
17. The bidder is required to submit compliance sheet, which should reflect details of clause-by-clause compliance of technical specifications as well as general terms & conditions failing which their offer shall be rejected.
18. In order to fully and optimally utilize the equipment, training to paramedical staff and Doctors should be provided. In continuation to this training a separate maintenance training for the machine and the sub system should also be given to the Equipment Maintenance Engineer and Maintenance Technicians of the Institute. All the financial commitment in this regard shall be met by the firm/Principal.

19. Penalties for non-performance:-

The penalties to be imposed, at any stage, under this tender are;

- a. imposition of liquidated damages,
- b. forfeiture of EMD/performance security,
- c. termination of the contract,
- d. Blacklisting/debarring of the bidder.

20. Termination of Contract

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

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

21. **Fall Clause:**

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

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

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

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

CHAPTER:

Schedule of the Requirement.

SCHEDULE OF THE REQUIREMENT

SI No	Name of the Department	Name of the equipment	Qty.
i			

ANNEXURES

Annexure - I (a)

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

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

Total quoted price in Rs.

In Words:

Note:

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

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

To be paid in Indian Currency (Rs) :

Total Tender Price in Foreign Currency:.....

In Words;-.....

Note:-

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warrantee shall be quoted separately as per price scheduled.
3. The Bidder will be fully responsible for the safe arrival of the goods at the named port of entry in goods condition as per terms of CIP as per INCOTERMS, if applicable

Indian Agent;-

Indian agency commission: % of FOB

Name:

Signature of Bidder;-

Business address;-

Signature of Bidder

Seal of the Bidder;-

Place;-

Date

Annexure - II

COMPREHINSIVE ANNUAL MAINTENANCE CONTRACT PRICES SCHEDULE

S. No	Item Description	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/warrantee /Comprehensive Annual Maintenance Contract as agreed by the bidder in the event the bidder is changed as the dealers or the bidder fails to provide satisfactory after sales and service during such period of Comprehensive Warranty / Comprehensive Annual Maintenance Contract and to supply all the spares/ accessories / consumables etc. during the said period.
4. We also hereby declare that we have the capacity to manufacture and supply, install and commission the quantity of the equipments tendered within the stipulated time.

(Name)
for and on behalf of M/s. _____

Date:

(Name of manufacturers)

Place:

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

ANNEXURE – IV
BANK GUARANTEE FORM

To

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

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of contract 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 contract 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 contract;

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 : _____

QUALITY CONTROL REQUIRMENT

(Proforma for equipment and quality control employed by the manufacturer(s))

Tender Reference No.

Date of Opening;- No.

Time;

Name and Address of the Tenderer;-

Note;- All the following details shall relate to the manufacturer(s) for the goods quoted for:-

- a. Name of the Manufacturer.
 - b.. Full address of the premises
 - c. Telegraphic address
 - d. Telex number
 - e. Telephone number
 - f. Fax number
02. Plant and machinery details:-
 03. Manufacturer ring process details:-
 04. Money (single shift) production capacity of goods quoted for
 - a. normal
 - b. maximum
 05. Total annual turn over (value in Rupees):-
 06. Quality control arrangement details:-
 - a. for incoming materials and brought out components.
 - b. for process control
 - c. for final product evaluation.
 07. Test certificate held:-
 - a. type test
 - b. BIS/ISO certificate
 - c. any other.
 08. Details of staff:-
 - a. technical
 - b. skilled.
 - c. unskilled.

SPECIFICATION AND ALLIED TECHNICAL DETAILS

Technical Specifications

Group - A (ENT Department)

Tender SI No- 1

Heavy Duty Micro Motors	Stainless steel, Electric motor, Variable speed foot control, Drill operating speed range, rpm- 600-40,000 (Digital display), compatible – straight / angle hand piece, Forward/Reverse mode. Autoclavable, Separate mode for stepedotomy- Controls speed	Bone drilling in mastoid, facial surgery	Compactable to each other	
Hand straight piece	Compactable to 40,000rpm Micromotor			

Standards, Safety and Training

Should be European CE & US FDA approved product

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

Documentation

1. User/Technical/Maintenance manuals to be supplied in English.
2. 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.
3. Certificate of calibration and inspection.
4. List of Equipments available for providing routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.

Price of individual instruments and full set should be quoted.

Prior Demo if needed.

Instruments should be made from High Quality Surgical Grade Steel.

Instruments should have Laser surface or ebonized or equivalent finish to provide appropriate reflection lowering finish.

CO=/Catalogue number & article number should be mentioned on each and every instrument.

There should be country of origin/Manufacturing engraved on each and every instrument.

Company should have relevant experience in successful execution of similar work at least in five Institutes of national importance and central government Institutes.

Company should be at least in its 5 years of operations at the date of Submission of tender.

SI No-2 :-Basic Instruments for OPD & Operation theater

SN	Name of Instruments		Specification
Nasal surgery			
1	Hartmann halle forceps		15.5cm, 27mm blade
2	Killian self retaining forceps		13cm with 35mm, 50mm, 75mm, 85mm blade
3	Grunwald nasal forceps		21cm
4	Luc ethmoid bone forceps		18.5cm
5	Freer septum elevator		18.5cm
6	Ballenger swivel knief		3mm.
7	Killian septum gauge		5mm
8	Ballenger septum gouge		4mm
9	Silver rhinoplasty chisel		18cm, 5mm, straight
10	Silver rhinoplasty chisel		18cm, 5mm, right
11	Silver rhinoplasty chisel		18cm, 5mm, left
12	Sheehan Osteotome		14cm,4mm
13	Maltz nasal rasp		34 X 7 drawing cut
14	Button end alar hooklet		
15	Freer mucosal hooklet		15cm sharp
16	Aufricht nasal retractor		
17	Nasal suction tip no- 1,2,3		Nasal suction tip no- 1,2,3
18	Lac' tongue depressor		Lac' tongue depressor
19	Heymann turbinectomy scissor		Tungsten carbide
20	Thudichum nasal speculum		Set of four
For oral cavity and Throat surgery			
1	Davis Boyle mouth gag		
2	Tongue blade for gag		Width X length, 29 X 67mm, 33 X 75mm, 38 X 85mm, 40 X 92mm, 46 X 100mm
3	Tonsil holding forceps		Blohmke type, 205mm
4	Tonsil scissor		195mm
5	Eves tonsil snare		290mm
6	Anterior pillor retractor		240mm,
7	Adenoid curette		For paediatric and adult
8	Tonsil dissector		12mm and 15mm
9	Yankauer suction		290mm
10	Molt mouth gag		13cm and 11cm
11	Tongue holding forceps		Young type, 15cm
12	Draffin bipod stand with plate		
13	Peri Tonsillar (Quinsy) forceps		
14	Luc Tongue depressor		
Tracheotomy set			

1	Tracheal dilator		Trousseau type, 14.5cm	
2	Tracheal hook		Rose type, 13cm	
3	Thymus retractor		Lukens type, 17cm	
4	Adson tissue forceps		14mm	
5	Mosquito artery forceps		Small, fine, curved, titanium	
6	Kilner needle holder		Fine, small, tungsten carbide	
7	Bard Parker		HANDLE No. 3	
8	Metzenbaum scissor		Straight, Tungsten carbide	
Micro laryngeal surgery				
1	Laryngoscope with fibro optic carrier			
2	Anterior commissure laryngoscope with fibro optic carrier			
3	Micro laryngeal forceps serrated jaws		25 cm	
4	Micro laryngeal forceps cupped jaws		25 cm	
5	Patterson biopsy forceps		25 cm & 35 cm	
6	Micro laryngeal scissor		25 cm, straight, right curve, left curve	
7	Jackson grasping forceps		25 cm, 35 cm	
8	Micro laryngeal sickle knife		Sharpe, curve	
9	Jackson alligator forceps		25 cm, 35 cm	
10	Vocal Nodule forceps		25 cm, 35cm	
11	Laryngeal suction tubes		1.5 mm, 2 mm & 2.5 mm	
12	lewy laryngoscope holder			
13	Adapt compactable to laryngoscope		to convert fibro-optic cable	
Esophagoscopy				
1	Rigid esophagoscope Jackson type		Length:50cm, inner diameter: 10.7 X 12.6mm, outer diameter: 12.2mm X 16.2mm	
2	Rigid esophagoscope Jackson type		Length: 30cm, Inner Diameter: 10.7mm X 12.6mm, Outer Diameter: 12.2mm X 16.2mm	
3	Rigid esophagoscope Jackson type		Length: 20cm, Inner Diameter: 8.7mm X 10.6 mm, Outer Diameter:	

			10.2mm X 14.2mm	
4	Foreign body forceps		For metallic, vegetable foreign body and denture	
5	Suction tube		Compactable to esophagoscope	
OPD Instruments				
	Electrical Otoscope		Closed head design particularly suited to pneumatic testing • Features removable 2.5 x magnifying lens, • Range of reusable speculae supplied • Disposable speculae also available, Dry Cell Battery Version, replacement Bulbs & Batteries available	
	Head lamp			
	Bull's eye lamp			
	Head mirror		with wide plastic headband	
	ET Catheters			
	Luc tongue depressor		13mm wide, 22mm wide, 19mm wide	
	Thudicum nasal speculum			
	Cottle nasal speculum			
	Killian's nasal speculum			
	Hartman Aural Forcep		Crocodile action, 4.0mm x0.8mm extra fine serrated jaw	
	Aural Forcep		Serrated jaw, bayonet, 14cm	
	Aural Syringe		Conical metal pipe, with wings	
	Tilley Nasal Dressing Forcep,		Angled, 16.5cm	
	Kaluskar Fishbone Forcep		12.5cm	
	Lister Bandage Scissors		S/S, CE Marked, One probe Ended Blade, Autoclavable, Overall length 18cm	
	Wax Hook		Blunt, 18cm	
	Gardiner Brown Tuning Fork		set of 6, complete with oak box pitch 128Hz, 256Hz, 512Hz, 1024Hz, 2048Hz, 4096Hz	
	Gardiner Brown Tuning Fork		Pitch 512Hz	
	Jobson Horne Probe Double ended		14cm, 18 cm	
	Tilley Lichtwitz Trocar & Cannula		Luer lock, with tubing mount, 6fg,9fg	

	Laryngeal mirror with fixed handle		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		6mm dia, 8mm dia, 10mm dia, 12mm dia, 14mm dia
	Head mirror		Ball & Socket fitting, adjustable webbing headband and 9cm dia mirror
	Gallipot		64mm x 44mm, 110ml (4oz) Stainless steel
	Kidney Dish		254mm x 115mm x 52mm Stainless steel
	Rectangular tray		15" X 12"
	Nasal suction tip		no- 1,2,3
	Ear Suction tips set of three		
	Siegel's speculum		
	Formalin chamber		
	Sterilizer		18" X 8"
	Cidex tray		
	Dressing drum (6")		
	View box		

Standards, Safety and Training

Should be European CE & US FDA approved product or equivalent.

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

Documentation

1. User/Technical/Maintenance manuals to be supplied in English.
 2. 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.
 3. Certificate of calibration and inspection.
 4. List of Equipments available for providing routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.
- Price of individual instruments and full set should be quoted.

Prior Demo if needed.

Instruments should be made from High Quality Surgical Grade Steel.

Instruments should have Laser surface or ebonized or equivalent finish to provide appropriate reflection lowering finish.

CO=/Catalogue number & article number should be mentioned on each and every instrument.

There should be country of origin/Manufacturing engraved on each and every instrument.

Company should have relevant experience in successful execution of similar work at least in five Institutes of national importance and central government Institutes.

Company should be at least in its 5 years of operations at the date of Submission of tender.

SI No-3:- Micro Ear Instruments

House Graft Press forceps			Essential co instruments required for all kinds of micro ear surgery and emergency ear surgery	Two sets of Instruments are required. One set for tympano mastoid surgery and second for stapes surgery.
Ferguson suction tubes		7 FR, 9 FR, 10 FR , 12 FR, 14 FR		
Mc Gee forceps		3.5 X 6mm, serrated, straight		
Micro instrument tray		Forceps and micro point with silicone mat		
Mc Gee forceps		4 X 6mm, serrated, right		
Mc Gee forceps		4 X 6mm, serrated, left		
Micro scissor (Bellucci)		4 X 8mm, straight		
Micro scissor (Bellucci)		4 X 8mm, right		
Micro scissor (Bellucci)		4 X 8mm, left		
Micro cup forceps		1 X.9mm, Straight		
Micro cup forceps		1 X.9mm, bent up		
House-Dieter Malleus Nipper		1.3mm, down cutting		
Fuller Teflon prosthesis introducer		80 mm length		
Sickle knife		14.5 cm		
Flap knife		15 cm		
Rosen circular knife		1.6mm		
Rosen circular knife		2.6mm		
Microear needle		curve		
Microear needle		straight		
Micro ear hook		.3mm, 90 degree		
Micro ear periosteal elevator				
House micro measuring rod		3.5,4,4.5,5mm		
Measuring jig				
House micro curate		1.5,1.8mm		
Farrior ear speculum		3.6cm		
Holmgren self retaining aural speculum				
Ear forceps		14.5cm		
Lampert micro ear periosteal elevator		18cm		
Myringotom		curve		

Weitlanger self retaining mastoid retractor		13.5cm, 3:3mm teeth, blunt			
Plester self retaining mastoid retractor		10.5cm, blunt, 2:flat			
Langenbeck mini retractor		16cm			
Hartment forceps		fine			
Freer periosteal elevator		light			
Tungston carbide cutting burs of all sizes		0.6mm to 7mm			
Dimond burs		0.6mm to 7mm			

Standards, Safety and Training

Should be European CE & US FDA approved product

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

Documentation

1. User/Technical/Maintenance manuals to be supplied in English.
2. 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.
3. Certificate of calibration and inspection.
4. List of Equipments available for providing routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.

Price of individual instruments and full set should be quoted.

Prior Demo if needed.

Instruments should be made from High Quality Surgical Grade Steel.

Instruments should have Laser surface or ebonized or equivalent finish to provide appropriate reflection lowering finish.

CO=/Catalogue number & article number should be mentioned on each and every instrument.

There should be country of origin/Manufacturing engraved on each and every instrument.

Company should have relevant experience in successful execution of similar work at least in five Institutes of national importance and central government Institutes.

Company should be at least in its 5 years of operations at the date of Submission of tender.

SI No-4- Operating Microscope for ENT

SN	Name of Instruments		Specification			
Instruments for Ear Surgery						
	Operating Microscope for ENT		<p>Optics Motorized focus; With working distance 200 – 500 mm, Motorized zoom; 1:6 zoom ratio, 10x magnetic widefield eyepieces with integrated eyecups, Apocromatic Optics.</p> <p>Illumination Superlux 330 light source with 2 x 300 W xenon, Automatic Iris Control for adjusting the illumination to the field of view, Individual light threshold setting, Focus Light Link: working distance controlled light intensity, Display of remaining lamp life time</p> <p>System Operation Multifunctional programmable handgrips, Magnetic clutches for all system axes, Central user interface XY robotic movement in 3 axes (variable speed)</p> <p>System Setup Auto Balance,</p> <p>Video 22" HD video touch screen on extendable arm, Integrated 3-CMOS SD video camera, Integrated video still image capturing on HDD and USB-media</p> <p>Connectivity / Data Management Video-in for external SD video sources, Navigation interface, Interface for micromanipulator, Remote diagnosis via internet/VPN</p>			

			<p>Video Integrated 3-CMOS HD video camera, Integrated SD or HD video recording and editing, Adaptation of consumer (SLR) photo/video camera</p> <p>Intraoperative Fluorescence Accessories 12.5x magnetic wide field eyepieces with integrated eyecups Straight tube, focal length f = 170mm, Stereo co-observation tube, Foldable Tube f170/f260, including the PROMAG function for additional 50% magnification and integrated rotate function, Wired foot control panel, Wireless foot control pan</p>			
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Standards, Safety and Training

Should be European CE & US FDA approved product

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

Documentation

1. User/Technical/Maintenance manuals to be supplied in English.
2. 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.
3. Certificate of calibration and inspection.
4. List of Equipments available for providing routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.

Price of individual instruments and full set should be quoted.

Prior Demo if needed.

Instruments should be made from High Quality Surgical Grade Steel.

Instruments should have Laser surface or ebonized or equivalent finish to provide appropriate reflection lowering finish.

CO=/Catalogue number & article number should be mentioned on each and every instrument.

There should be country of origin/Manufacturing engraved on each and every instrument.

Company should have relevant experience in successful execution of similar work at least in five Institutes of national importance and central government Institutes.

Company should be at least in its 5 years of operations at the date of Submission of tender.

Group-B- Neuro Surgery

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

1. Ultrasonic aspirator system should have fragmentation, irrigation, and aspiration facilities continuous with low noise.
2. Console should be light weight and portable on trolley with two (one extra) foot switch.
3. Main voltage 230 V (+/- 10%), 50 Hz, class I protection.
4. Console and hand piece should be capable of working continuously without any cooling system.
5. Should have inbuilt suction system vacuum up to 0.9 bar.
6. Irrigation rate up to 50ml/Minute.
7. Hand piece should be light weight and could be sterilized by steam autoclave or ethylene oxide.
8. Hand piece should have choice of outside and inside irrigation. Tip of hand piece should be reusable.
9. 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.
10. 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.
11. 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
12. Bone knife/ spatula hand piece 35 kHz light weight with reusable tip, light weight with titanium body.
13. 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.
14. Consumable should not be expensive and should be freely available
15. Should be magneto restrictive or piezoelectric technology based system
16. Resonance frequency of tip should be in range of 35 to 35 kHz.
17. Should have container for hand pieces for storage and autoclaving.
18. 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:-

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

1. Power input to be 220-240 volts AC, 50 Hz. Fitted with Indian plugs.
2. Resettable over current breaker shall be fitted for protection.
3. Voltage corrector stabilizer of appropriate rating meeting ISI specification (Input 180-280 Volts and output 220-240 volts and 50 Hz).
4. Suitable UPS with maintenance free batteries for minimum two hours backup should be supplied with the system.

7. Standard safety and training:-

- (1) Manufacture/ supplier should have ISO certificate to quality standard.
- (2) 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.
- (3) Should be FDA, CF or BIS approved product.
- (4) Comprehensive training for lab staff and support services till familiarity with the system.

8. Documentation:-

- (1) User technical maintenance manual in English.
- (2) Certificate of calibration and inspection.
- (3) List of equipment available for providing for calibration and routine maintenance support as per manufacturer documentation in service. Technical manual.
- (4) List of important spare parts and accessories with their part numbers and their costing.
- (5) 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.
- (6) 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 pediatric 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 scull base, oval, O.D. 4,8 mm x 6 mm, with separate channel for suction and irrigation, for use with handels , 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 paranasal sinuses and skull base, oval, O.D. 4,8 mm x 6 mm, with separate channel for suction and irrigation, for use with handels , 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 length 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, upbiting 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	Endovision 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 saggital 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 catelouge/ manual will not be considered.

GROUP - C-- Reproductive Biology

SI No-1:- Hysteroscope set with accessories

Technical specification of Machine-- Hysteroscope set with accessories

1 .Hysteroscope wide angled ,Direction 30 ° ,dia 4mm area of view 90°
2 .Operative Hysteroscopy Sheath with one instrument channel
3 .Diagnostic sheath for hysteroscopy
4 .Continuous flow outer Sheath
5 .Working element with passive cutting action
6 .Biopsy forceps with semi flexible shaft
7 .Loop electrode
8 .Ball Electrode
9 .HF Cord
10 .Hysteroscopy irrigation pump with accessories
11.Collins Knife for working element
12.Ball electrode for working element
13.Cutting loop for working element
14.Flexible Biopsy forceps for Hysteroscopy
15.Flexible Scissors for Hysteroscopy
16.HystoscopyCatheter for Cannulation of Fallopion Tube,
17 .Needle Electrode
18.Bug Bee Electrode
19.Hystromat, Indian

Specification of hysteroscope and TCRE set

1. Hysteroscope should be wide angled.
2. Should be 30° with a diameter of 4mm and area of view 90°, Standard working length
3. Should be autoclavable
4. Should be with diagnostic hysteroscopic sheath

5. Operative Hysteroscope should be with one instrument channel and two rotatable stopcock
6. Continuous flow outer sheath should be flat ,rotatable ,stopcock consisting of inner sheath of smaller diameter with one stop cock including standard obturator
7. Should be with working element passive cutting action assisted by spring electrode in resting position . Can be used with all resectoscope sheaths .
8. Should be with biopsy forceps with semi flexible shaft .
9. Should be with Loop Electrode .
10. Should be with Ball Electrode.
11. Should be with HF cord .

SPECIFICATION OF HYSTEROSCOPY IRRIGATION PUMP

12. Should be fully automatic, electronic, digital pump.
13. Should have irrigation capacity of approximately 0-500 ml/min
14. Pressure range should be between 10-200 mmHg
15. Should have digital displays of actual pressure, preset pressure, preset flow
16. Should be with accessories as Silicon tube ,power supply cord etc.

: i:- **Centrifuge Machine with temperature control**

- Unit should have swing at rotor head for processing semen by swim Up or density gradient technique
- Unit should have G Force indication, rpm indication, and timer indication
- Unit should have 37^o C temperature to maintain sperms and the same temperature throughout.
- Unit should have different programmes
- Unit should have Time, G Force and or RPM
- Unit should have brushless AC Motor.
- Unit should have programmed acceleration and deceleration UPS with 30 minutes backup

ii:- **Sperm Counting Chamber**

- Should be 10 microns deep.
- 1/10th of the depth of ordinary hemocytometers

Should be constructed from two pieces of optically flat glass

iii:- **Binocular Medical Microscope**

- For routine IUI work designed specially to enhance operational convenience by combining innovative design and high performance optics

iv:-Laminar flow hood

Technical specification of Machine

- Should have proper light arrangement
- Should have Class 100 HEPA Filter of 0.3 Microns Porosity.
- Should have balanced motor
- Should have blower assembly
- Should have Acrylic Side Partition.
- Table Size L D H

a)4'x2'x2'

b)2'x2'x2'

c)any other standard size,

v:- Test Tube Warmer

Technical specification of Machine

- Should be Made of fully S.S.304
- Should have Digital Temperature Controller cum Indicator,
- Should have Temp. Accuracy $\pm 0.2^{\circ}\text{C}$,
- Should be supplied with 3 Anodized Aluminium Blocks.

vi:- **Cryocans**

Technical specification of Machine

- Should have expertise in Vacuum and Cryogenic .S

- Should be made up of High Vacuum Cryogenic container of Aluminum
- Should have canister.
- Capacity approximately 25 Liters,
Capacity approximately 10 Liters,

vii- IUI Laboratory equipment with accessories

1. Should include monitor
2. Should include Software
3. Should have Camera - High Resolution Color Camera.
4. UPS with 30 minutes back up.

SI No-3:- **SPECIFICATION OF ENDOVISION SYSTEM**

Latest Digital Camera- Three Chip:-

- Should have Microprism Technology
 - Should have Digital signal processor for high quality color reproduction
 - Should have 3x ¼" High sensitivity CCD.
 - Should have Resolution \geq 750 CCD Lines
 - Should have sensitivity - .5 lux.
 - Should have two buttons on camera head for white balance, printer.
 - Should have sterilization by gas, completely soakable.
 - Should have Multilens endo focus objective.
 - Should have Focussable camera coupler.
 - Should have Adaptable to all rigid endoscopes(Eye piece).
 - Should have programmable keys for all settings in CCU.
 - Should have automatic white balance.
 - Should have up to 10 users profile in memory.
 - Should have Automatic Electronic high speed shutter.
 - Should have PC Interface for service.
 - Should be on Screen display.
 - Should have recording fascility .
4. **Fibre Optic Cable:**
- Should be 2-3 m in length & Dia, 4-5 mm
 - Should be highly flexible, autoclavable.
5. **Xenon Light Source: 300 Watts double lamp.**
- Color temperature should be approximately 6000K
 - Life of the lamp should be approximately 500 hours.

6. Computer with Intel processor i 5 ,Hard disc 500 GB or more ,Ram 4GB

TV Monitor:

LCD Medical Grade Monitor:

- Resolution should be 1024x 768 (XGA)
- Viewing area(Diagonal) should be \geq 15" TFT active matrix.
- Viewing should be 170°.

- Should have 0.297mm pixels pitch.
- Should have contrast ratio Of 500:1
- Aspect ratio should be 4:3
- Should have 16.8 millions of colors.
- Should have video inputs-S-Video, RGBS, Composite.
- Should have Video outputs: S-Video, RGBS, Composite.

SPECIFICATION OF ENDOVISION SET

1.Latest Digital Camera- Three Chip:

- Should have Microprism Technology
- Should have Digital signal processor for high quality color reproduction
- Should have 3x ¼" High sensitivity CCD.
- Should have Resolution \geq 750 CCD Lines
- Should have sensitivity - .5 lux.
- Should have two buttons on camera head for white balance, printer.
- Should have sterilization by gas, completely soakable.
- Should have Multilens endo focus objective.
- Should have Focussable camera coupler.
- Should have Adaptable to all rigid endoscopes(Eye piece).
- Should have programmable keys for all settings in CCU.
- Should have automatic white balance.
- Should have up to 10 users profile in memory.
- Should have Automatic Electronic high speed shutter.
- Should have PC Interface for service.
- Should be on Screen display.
- Should have recording fascility .

4. Fibre Optic Cable:

- Should be 2-3 m in length & Dia, 4-5 mm

- Should be highly flexible, autoclavable.

5. Xenon Light Source: 300 Watts double lamp.

- Color temperature should be approximately 6000K
- Life of the lamp should be approximately 500 hours.

6. Computer with Intel processor i 5 ,Hard disc 500 GB or more ,Ram 4GB with printer

TV Monitor:

LCD Medical Grade Monitor:

- Resolution should be 1024x 768 (XGA) or more
- Viewing area(Diagonal) should be ≥ 15” TFT active matrix.
- Viewing should be approximately 170°
- Should have minimum 0.297mm pixels pitch.
- Should have contrast ratio Of 500:1 or more
- Aspect ratio should be 4:3
- Should have minimum 16.8 millions of colors.
- Should have video inputs-S-Video, RGBS, Composite.
- Should have Video outputs: S-Video, RGBS, Composite.

No-4:- USG Machine with color Doppler

STATE OF THE ART LATEST GENERATION COLOR DOPPLER SYSTEM

TECHNICAL SPECIFICATION S

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- <ul style="list-style-type: none"> • Convex Array Transducer(Frequency range of 2-5 MHz) for abdominal, Obs & Gynae applications • Linear Array Transducer(Frequency range 2012 MHz) for vascular. • Intracavitary Transducer(Frequency range 4-8 MHz) for Transvaginal applications with guided intervention apparatus attached. • 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: <ul style="list-style-type: none"> • 2D, 3D with multiplanar reformatting, 4D, M mode, Pulsed wave, Continuous wave, Color flow imaging, Color Power 	Please specify

	<p>Abgio imaging, Directional Color Power Angio imaging & Tissue Harmonic imaging.</p> <ul style="list-style-type: none"> System should have Color compare mode, Color/Color Power mode and the normal greyscale mode, side by side or equivalent. 	
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 Imaging.	Should be available
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 Freez 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	<p>Accessories:</p> <ul style="list-style-type: none"> • B/W Thermal printer for latest model(with CE or FDA mark) • Color laser printer for direct printing of images from the system with (CE or FDA mark)(Min.dpi of 1200) • Latest generation processor PC with Frame grabber. • Biopsy attachment for the Convex, Linear & the TV/TR probes. • CVT/Servo Voltage stabilizer. • UPS of appropriate rating with 30 mins back up. 	Should be available
22.	Free software upgrade(s) during the period of warranty/CMC.	
23.	Training of personnel- at a Reputed Institute	To be provided.

Group-D:- Gynecology Oncology

(1) Latest Version Colposcope with full accessories and cautery

TECHNICAL SPECIFICATION FOR ZOOM COLPOSCOPY SYSTEM

Features :

- 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 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
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
Focussing range	: 130 mm
Inclination angle of Binocular tube	: 45 degree
Max. radius of rotation	: 590 mm
Light source	: Halogen lamp 150 W (Option Xenon Light Source)
Imaging System	: Can be attached TV Camera, Still & Digital Camera
Size	: Dimensions : 600 mm dia. (Pedestal Base) x 1400 mm (Overall Height)
Zooming	: Drive System : Manual drive by knob rotation Zoom Ration : 1:6
Focussing	: Focus System : Adjustable focal length Drive System : Manual drive by knob rotation
Illumination	: System : Light guide Filter : Detachable green filter

Floorstand :

Support System : Floorstand
 Balancing System : Pantographic arm balancing using spring
 Balance Adjustment : 4.0 – 7.0 kg
 Range
 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

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
 Weight – 2 to 2.5 kg.
 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

(2) Hysteroscope with Camera & Monitor

HYSTEROSCOPE SET

Sl. No.	Description	Qty
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1	Forward-Oblique Tele- scope 30°, ø 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: red	1
2	Examination Sheath, ø 5.2 mm, with 1 Luer-lock adaptor, for use with CF-Examination sheath	1
3	Continuous-Flow Examination Sheath, ø 6.2 mm, with 1 LUER-lock adaptor, for use with Examination sheath	1
4	Continuous- Flow Operating Sheath, size 6 mm, with 1 stopcock and 1 LUER-Lock adaptor, for use with operating sheath	1
5	Operating Sheath, size 5.4 mm, with channel for semirigid 5 Fr. operating instruments, with 1 stopcock and 1 LUER-Lock adaptor, for use with CF operating sheath	1
6	Scissors, blunt, single action jaws, semirigid, 5 Fr., length 34 cm	1
7	Biopsy and Grasping Forceps, double action jaws, semirigid, 5 Fr., length 34 cm	1
8	Punch, through-cutting, single action jaws, semirigid, 5 Fr., length 34 cm	1
9	Ball Electrode, unipolar, 5 Fr., length 53 cm	1
10	Needle Electrode, unipolar 5 Fr., length 34 cm	1
11	Polypectomy Loop, unipolar, 5 Fr., length 34 cm	1
12	Monopolar High Frequency Cord with 4 mm plug for HF-unit, length 300 cm	1
13	Working Element Set consisting of: 1 Working element, 1 Cutting Loop, angled, 1 Coagulating-Electrode, ball end, ø 3 mm, 1 Coagulating-Electrode, ball end, ø 5 mm, 1 Coagulating Needle Electrode, angled, 2 High Frequency cords, protection tube	1
14	Resectoscope Sheath including connecting tubes for in- and outflow, for continuous irrigation and suction, ø 8 mm, oblique beak, rotatable inner sheath with ceramic insulation, for use with working elements,	1
15	Standard Obturator, for use with resectoscope sheaths	1
16	Forward-Oblique Tele- scope 0°, ø 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated	1
17	Forward-Oblique Tele- scope 30°, ø 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: red	1
18	Examination and contact Hysteroscope, Forward-Oblique Telescope 30°, magnification 1x, 60x, ø 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: red	1
19	Operating Sheath, size 4.3mm, with channel for semirigid 5 Fr. operating instruments, with 1 stopcock and 1 LUER-Lock adaptor, for use with CF operating sheath	1
20	Continuous-Flow Operating Sheath, size 5.mm, with 1 stopcock and 1 LUER-Lock adaptor, for use with operating sheath	1
21	Scissors, blunt, single action jaws, semirigid, 5 Fr., length 34 cm	1
22	Scissors, pointed, single action jaws, semirigid, 5 Fr., 34 cm	1
23	Biopsy and Grasping Forceps, double action jaws, semirigid, 5 Fr., length 34 cm	1
24	Punch, through-cutting, single action jaws, semirigid, 5 Fr., length 34 cm	1
25	Biopsy Spoon Forceps, double action jaws, semirigid, 5 Fr., length 34 cm	1
26	Fixation Instrument, semirigid, 5 Fr., length 34 cm	1

27	Polypectomy Loop, unipolar, 5 Fr., length 34 cm	1
28	Needle Electrode, unipolar 5 Fr., length 34 cm	1
29	Bipolar vaporization electrode, semirigid, 5 Fr. length 36 cm	1
30	Telescope 12°, ø 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: black	1
31	Resectoscope Sheath, including connecting tube for in- and outflow, for continuous irrigation and suction, ø 7 mm, oblique beak, rotatable sheath tube, with ceramic insulation, for use with working element	1
32	Resectoscope Sheath, including connecting tube for in- and outflow, for continuous irrigation and suction, ø 7 mm, oblique beak, fixed inner sheath, with ceramic insulation, for use with working element, color code: white	1
33	Standard Obturator, for use with resectoscope sheaths	1
34	Telescope Bridge, with channel for semirigid 5 Fr. operating instruments, for use with resectoscope sheaths	1
35	Working Element Set, consisting of: Working Element Cutting Loop, angled Coagulating Electrode, pointed Coagulating Electrode, ball end, ø 3 mm Cutting by means of a spring. The thumb support is movable. In rest position the electrode tip is inside the sheath. High Frequency Cord Protecting Tube	1
36	<p>SUCTION IRRIGATION SYSTEM COMPLETE UNIT ALONGWITH ACCESSORIES operating voltage: 100 -240 VAC, 50/60 Hz consisting of: Suction & Irrigation Set, with integrated System Integration Module, Power Cord, Connecting Cable, 3 Tubing Sets irrigation HYS, for single use, sterile 3 Tubing Sets irrigation LAP, for single use, sterile VACUsafe Pack Suction</p> <ul style="list-style-type: none"> • Suction and irrigation system for use in laparoscopy and gynecology • Irrigation function is performed by reel pump • Maximum parameters for Laparoscopy and Hysteroscopy mode are automatically fixed by the choice of the tubing set • Precise presetting of suction and irrigation parameters via touch keys • Adjacent display scales for set values and actual value ensure safe monitoring of suction and irrigation levels • <u>Technical specifications :</u> • Irrigation :- • With pressure control 0-200 mmHg (for Hysteroscopy) • with flow control 0-500 mmHg (for Hysteroscopy) • Suction :- • Regulated Hysteroscopy mode 0- (-)0.5 (50 kPa) • Laparoscopy mode • 0 – 0.8 (80kPa) • Power supply 100-240 VAC (50/60Hz) • Dimensions 305 x 164 x 263 mm (w x h x d) • Weight 6 kg • Certified to IEC 601 –1 CE label according to MDD <p><u>Should be compatible to the Communicating Computer System, so as to function as an integral part of the digitally controlled Operating Room under the command of the operating Surgeon.</u></p>	1

37	Bipolar Cord to , length 300 cm	1
38	Should be supplied with 50 bottles of Paracetic Acid 810gm Pack for sterilisation of instruments with sterilization Tray	1
39	Should be supplied for 20 Jars of Potassium Monopersulphate 5 kg Pack	1
40	Compatible online UPS with Battery required to run complete system to give backup of 90 to 120 minutes	1
41	<p><u>XENON LIGHT SOURCE AND LIGHT CABLE</u></p> <p><u>SPECIFICATIONS:</u> High intensity Xenon light source with spare Xenon lamp</p> <p><u>SPECIAL FEATURES:</u></p> <ul style="list-style-type: none"> • High light intensity with 300watt Xenon Lamp. • High colour temperature – more than 6000 K corresponds to brightness of sunlight resulting in high visual and photographic clarity for colour rendition. • Monitoring of lamp function. <p><u>UNIT SHOULD BE COMPATIBLE WITH COMMUNICATION COMPUTER SYSTEM FOR REMOTE CONTROLLED OPERATION OF THE VARIOUS FEATURES ALONG WITH OTHER EQUIPMENT.</u></p> <p><u>SO AS TO FUNCTION AS AN INTEGRAL PART OF THE DIGITALLY CONTROLLED OPERATING ROOM UNDER THE COMMAND OF THE OPERATING SURGEON.</u></p> <p><u>TECHNICAL SPECIFICATIONS:</u></p> <ul style="list-style-type: none"> • Lamp type Xenon lamp, 300 watt • Colour temperature approx. 6000 K • Light outlets 1 • Light intensity adjustment continuously adjustable from 0 to 100% either manually or Automatically by the camera video-output signal. • Certified to IEC 601– 1, CE label according to MDD, protection class 1/BF <p><u>FIBER OPTIC LIGHT CABLE</u></p> <p><u>SPECIFICATIONS:</u> Size 4.8 mm, length 250 cm</p>	1
42	<p><u>FULL HIGH DEFINITION CAMERA SYSTEM WITH VIDEO STORAGE &PRINT FUNCTION ALONG WITH CAMERA CONTROL UNIT & COMPATIBLE HDTV 26" FLAT SCREEN TFT MONITOR</u></p> <ul style="list-style-type: none"> • Should have Superior Quality High Definition Vision and inbuilt VIDEO,STILL storage, and direct PRINTOUT facility • The system should be through & Through digital with Image capturing in 16:9 format in the camera head only for true Full HD image reproduction. • Camera function controllable in STERILE/UNSTERILE Area • USB Printer connection (plug & play) • Max resolution of 20lac pixels, Progressive Scanning and should support 16:9 format 	1

- Should have the option of controlling all the compatible endoscopic units in hands of surgeon/Touch Screen
- Optical Zoom
- Should be compatible with 23"/24"/26" 16:9/10 Monitor
- FUTURE READY AND BACKWARD COMPATIABILITY
- Color System PAL / NTSC, Power supply: 100 - 240 VAC, 50 / 60 Hz. Consisting of:

CAMERA CONTROL UNIT

- Mains Cord
- 2 x BNC Connecting Cables, length 180 cm, 1 x S - Video (Y/C) connecting Cable, length 180 cm,
- 1 x Special RGB - Connecting Cable, length 180 cm,
- SCB - Connecting cable 100 cm, 1 x DVI - Connecting cable, 180 cm, 1 x DV - Connecting Cable, 500 cm
- USB interface 2nos.
- Keyboard set. For Patient Information editing and camera controls functions
- FULL HD Camera Head
- Max resolution 1920 x 1080 pixel, Progressive Scan, 50 Hz with 2 freely programmable camera head buttons with integrated Parfocal-Zoom
- Focal Length $f = 14 - 30\text{mm}$ (2x).
- Universal Coupler
- Inbuilt Electronic Fiberoptic Filters
- Image Sensor: $3 \times \frac{1}{3}$ "
- Signal to- Noise-ratio: 60dB
- Min. Sensitivity: 1.3lux

COMPATIBLE HDTV 26" FLAT SCREEN TFT MONITOR

- Aspect Ratio = 16:10, Desktop/ Mountable
- Color System: PAL / NTSC. Resolution Max: 1920 x 1200, SDI, Composite, S - Video, RGB, DVI & VGA Inputs
- Vertical/Horizontal Viewing Angle: 178

PICTURE IN PICTURE MODE

- Brightness: 300 to 500cd / m². Contrast: 700 to 800:1
- Power Supply: 100 - 240 VAC, 50 / 60 Hz

Consisting of 23"/or 24"/or /26 HDTV TFT Flat Screen. Power Supply, Monitor Stand & Mains Cord.

(3) LAPROSCOPIC -GYNAE Complete Set as per Following Specification

Rod Lens Telescope 30 degree 10mm = 01.
Pneumoperitoneum Needle 10cm = 01
Trocar Cannula set Pyramidal tip Multifunctional valve 11mm size = 02
Trocar Cannula set Pyramidal tip Multifunctional Valve 6mm size = 02
Irrigation / suction cannula with lateral holes, two-way stop-cock for single hand control, 5mm, 36cm = 01
Reducer 11mm to 6mm size clip-on type = 01
Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman = 01
Rotating, dismantling in three parts (handle, outer tube & working insert) Maryland Type Dissecting forceps, insulated with handle having Unipolar pin connector, Non-ratcheted, jaws with fine grip, 5mm, 36cm = 01
Rotating, dismantling in three parts (handle, outer tube & working insert) grasping forceps, insulated with handle having Unipolar pin connector & swing-away ratchet, heavy double action jaws, 5mm, 36cm = 01
Rotating, dismantling in three parts (handle, outer tube & working insert) METZENBAUM Scissors, curved 12mm long blades, single action jaws, insulated with non-ratcheted handle having Unipolar coagulation pin connector, 5mm, 36cm = 01
Coagulating and Dissecting Electrode, L-shaped, with connector pin for unipolar coagulation, size 5 mm, working length 36 cm = 01
Coagulating and Dissecting Electrode, spatula-shaped, blunt with connector pin for unipolar coagulation, size 5 mm, working length 36 cm = 01
Rotating, dismantling in three parts (handle, outer tube & working insert) grasping forceps, insulated with handle having Unipolar pin connector & swing-away ratchet, long tapering jaws, atraumatic, fenestrated, jaw curvature of 30 degrees, single action, specially designed for grasping & removal of hollow organs, 5mm, 36 cm - 01
Rotating, dismantling in three parts (handle, outer tube & working insert) Claw Forceps, 2 x 3 teeth with metallic handle non-insulated, swing-away ratchet, 10mm, 36cm = 01
Rotating, dismantling in three parts (handle, outer tube & working insert) grasping forceps, insulated with handle having Unipolar pin connector & swing-away ratchet, jaws with multiple teeth, width of Jaws 4.8mm for Atraumatic & accurate grasping, 5mm, 36 cm - 01
Laparoscopic High-Frequency Needle for splitting & coagulation, puncture in PCOD, insulated with connector pin for Unipolar coagulation, 5mm, 31cm = 01
Injection Needle, LUER-lock, diameter 1.2 mm, size 5 mm, length 36 cm.= 01
Laparoscopic Myoma Fixation Instrument, screw-shaped, 5mm = 01
Rotating, dismantling in three parts (handle, outer tube & working insert) Rotating Bipolar Dissecting forceps, with ring handle having attachment for Bipolar HF-Cable, 5mm, 36cm. =01
Bipolar High Frequency Cord with 2 x 4 mm banana-plug , length 300 cm = 01
Uterine Manipulator, complete, consisting of: Manipulator Handle, Manipulator rod, Sealing cylinder, Silicone seals, package of 3 pieces (3 sizes), Manipulator tube, Manipulator insert, conical, with thread, medium, Manipulator insert, cylindrical, without thread, Anatomical blade, short optional accessories (not contained in the set): Manipulator insert, conical, with thread, short, Manipulator insert, conical, with thread, long, Anatomical blade, medium, Anatomical blade, long = 01

SUCTION IRRIGATION SYSTEM COMPLETE UNIT ALONGWITH ACCESSORIES

operating voltage: 100 -240 VAC, 50/60 Hz consisting of: Suction & Irrigation Set, with integrated System Integration Module, Power Cord, Connecting Cable, 3 Tubing Sets irrigation HYS, for single use, sterile 3 Tubing Sets irrigation LAP, for single use, sterile VACUsafe Pack Suctio

- Suction and irrigation system for use in laparoscopy and gynecology
 - Irrigation function is performed by reel pump
 - Maximum parameters for Laparoscopy and Hysteroscopy mode are automatically fixed by the choice of the tubing set
 - Precise presetting of suction and irrigation parameters via touch keys
 - Adjacent display scales for set values and actual value ensure safe monitoring of suction and irrigation levels
 - **Technical specifications :**
 - **Irrigation :-**
 - With pressure control 0-200 mmHg (for Hysteroscopy)
 - 0-400 mmHg (for Laparoscopy)
 - with flow control 0-500 mmHg (for Hysteroscopy)
 - 0-1000 mmHg (for Laparoscopy)
 - **Suction :-**
 - RegulatedHysteroscopy mode
1- (-)0.5 (50 kPa)
 - Laparoscopy mode
0 – 0.8 (80kPa)
 - Power supply 100-240 VAC (50/60Hz)
 - Dimensions 305 x 164 x 263 mm (w x h x d)
 - Weight 6 kg
 - Certified to IEC 601 –1 CE label according to MDD
- Should be compatible to the Communicating Computer System, so as to function as an integral part of the digitally controlled Operating Room under the command of the operating Surgeon.----- 01 Set

36

37 Bipolar Cord to , length 300 cm

- **INSUFFLATION UNIT**
- **Specifications : ELECTRONIC INSUFFLATOR**
- **Special features :**
- High degree of patient safety
- Easy to use
- Clear, adjacent displays for set value and actual value allow easy monitoring of insufflation process
- Touch keys for precise preselection of set values
- Optical and acoustic warning signals in the event of patient overpressure
- Fully automatic, electronically controlled gas refill (e.g. in case of gas loss when changing instruments)
- Safety – constant monitoring of intra-abdominal pressure; any overpressure is reduced immediately
- **Technical specifications:**
- Gas flow/min 0-20 ltrs
- Pressure (mmHg)0-30
- Intra-abdominal pressure guage 0-50 (mmHg)
- Power supply 100-240 VAC (50/60 Hz)
- Dimension 305 x 164 x 233 mm (w x h x d)
- Weight 6 kg
- Certified to IEC 601 – 1, CE label according to MDD

38

	<u>Should be compatible to the Communicating Computer System, so as to function as an integral part of the digitally controlled Operating Room under the command of the operating Surgeon.----</u> <u>----- 01 Set</u>
39	Should be supplied with 50 bottles of Paracetic Acid 810gm Pack for sterilisation of instruments with sterilization Tray
40	Should be supplied for 20 Jars of Potassium Monopersulphate 5 kg Pack
41	Compatible online UPS with Battery required to run complete system to give backup of 90 to 120 minutes----- 01 set
	<u>ELECTRONIC SURGICAL UNIT WITH INTEGRATED VESSEL SEALING SYSTEM</u> <u>The unit should have the following features:</u> <ul style="list-style-type: none"> ▪ The unit should have a large LCD display to show the various settings. ▪ The unit should have an optical support quickstep control knob to achieve and make the settings of the unit quickly. ▪ It should have a memory of minimal 99 individual programmes for various types of surgeries and with preference for various surgeons. ▪ It should have a possibility to give names (procedures/surgeons name) to the individual programmes. ▪ Should have a special output for vessel sealing upto 7mm of vessel in both open surgery mode and endoscopic surgery mode. ▪ The vessel sealing clamp forceps should be 100 % reusable both for open and laparoscopy. It should be autoclavable. ▪ Should have both monopolar and bipolar cut and coagulation outputs. ▪ The unit should have four individual outputs 2 for monopolar and 2 for bipolar. ▪ The unit should have 11 different monopolar cutting currents with different cutting qualities and capabilities. ▪ The Monopolar coagulation should be with Auto-Start and Auto-Stop. ▪ The Bipolar should have a special cutting current with simultaneous coagulation during the use of bipolar scissors. ▪ The following different current modes should be available: <ul style="list-style-type: none"> • MONOPOLAR CUT MODES (Minimum 8 types) • CARE CUT (FOR PRECISE CUTTING IN MICRO SURGERY) • ARGON CUT MODE (SPECIAL CUTTING MODE FOR USE WITH ARGON BEAM GAS) • MONOPOLAR COAGULATION MODES (Minimum 15 types) • BIPOLAR CUTTING MODE (Minimum 3 types) • BIPOLAR COAGULATION (Minimum 6 types) • SEAL SAFE MODE • ENDO SEAL MODE <u>The following accessories should be supplied with the unit:</u> <ul style="list-style-type: none"> • FOOTSWITCH DOUBLE PEDAL • TWIN PATIENT PLATE • CLAMPS FOR OPEN SURGERY SEAL SAFE TECHNIQUE • BIPOLAR SCISSORS FOR OPEN SURGERY • BIPOLAR FORCEPS FOR OPEN SURGERY • BIPOLAR ACCORIES <ul style="list-style-type: none"> ○ Footswitch with Reed Contact ○ Bipolar Cable • MONOPOLAR DIATHERMY ACCESSORIES FOR OPEN SURGERY
42	<u>LAPAROSCOPIC VESSEL SEALING FORCEP WITH INTEGRATED BLADE FOR CUTTING-----01 set</u>
	<u>XENON LIGHT SOURCE AND LIGHT CABLE</u> <u>SPECIFICATIONS:</u> High intensity Xenon light source with spare Xenon lamp <u>SPECIAL FEATURES:</u> <ul style="list-style-type: none"> • High light intensity with 300watt Xenon Lamp. • High colour temperature – more than 6000 K corresponds to brightness of sunlight resulting in high visual and photographic clarity for colour rendition. • Monitoring of lamp function.
43	

UNIT SHOULD BE COMPATIBLE WITH COMMUNICATION COMPUTER SYSTEM FOR REMOTE CONTROLLED OPERATION OF THE VARIOUS FEATURES ALONG WITH OTHER EQUIPMENT. SO AS TO FUNCTION AS AN INTEGRAL PART OF THE DIGITALLY CONTROLLED OPERATING ROOM UNDER THE COMMAND OF THE OPERATING SURGEON.

TECHNICAL SPECIFICATIONS:

- Lamp type Xenon lamp, 300 watt
- Colour temperature approx. 6000 K
- Light outlets 1
- Light intensity adjustment continuously adjustable from 0 to 100% either manually or Automatically by the camera video-output signal.
- Certified to IEC 601- 1, CE label according to MDD, protection class 1/BF

FIBER OPTIC LIGHT CABLE

SPECIFICATIONS:

Size 4.8 mm, length 250 cm

01 Set

FULL HIGH DEFINITION CAMERA SYSTEM WITH VIDEO STORAGE &PRINT FUNCTION ALONG WITH CAMERA CONTROL UNIT & COMPATIBLE HDTV 26" FLAT SCREEN TFT MONITOR

- Should have Superior Quality High Definition Vision and inbuilt VIDEO,STILL storage, and direct PRINTOUT facility
- The system should be through & Through digital with Image capturing in 16:9 format in the camera head only for true Full HD image reproduction.
- Camera function controllable in STERILE/UNSTERILE Area
- USB Printer connection (plug & play)
- Max resolution of 20lac pixels, Progressive Scanning and should support 16:9 format
- Should have the option of controlling all the compatible endoscopic units in hands of surgeon/Touch Screen
- Optical Zoom
- Should be compatible with 23"/24"/26" 16:9/10 Monitor
- FUTURE READY AND BACKWARD COMPATIABILITY
- Color System PAL / NTSC, Power supply: 100 - 240 VAC, 50 / 60 Hz. Consisting of:

CAMERA CONTROL UNIT

- Mains Cord
- 2 x BNC Connecting Cables, length 180 cm, 1 x S - Video (Y/C) connecting Cable, length 180 cm,
- 1 x Special RGB - Connecting Cable, length 180 cm,
- SCB - Connecting cable 100 cm, 1 x DVI - Connecting cable, 180 cm, 1 x DV - Connecting Cable, 500 cm
- USB interface 2nos.
- Keyboard set. For Patient Information editing and camera controls functions
- FULL HD Camera Head
- Max resolution 1920 x 1080 pixel, Progressive Scan, 50 Hz with 2 freely programmable camera head buttons with

integrated Parfocal-Zoom

- Focal Length $f = 14 - 30\text{mm}$ (2x).
- Universal Coupler
- Inbuilt Electronic Fiberoptic Filters
- Image Sensor: $3 \times 1/3''$
- Signal to- Noise-ratio: 60dB
- Min. Sensitivity: 1.3lux

COMPATIBLE HDTV 26" FLAT SCREEN TFT MONITOR

- Aspect Ratio = 16:10, Desktop/ Mountable
- Color System: PAL / NTSC. Resolution Max: 1920 x 1200, SDI, Composite, S - Video, RGB, DVI & VGA Inputs
- Vertical/Horizontal Viewing Angle: 178

PICTURE IN PICTURE MODE

- Brightness: 300 to 500cd / m². Contrast: 700 to 800:1
- Power Supply: 100 - 240 VAC, 50 / 60 Hz
- Consisting of 23"/or 24"/or /26 HDTV TFT Flat Screen. Power Supply, Monitor Stand & Mains Cord.—01 Set

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

Group- E (G.I. Surgery)

SI NO- 1. FIBEROTIC CHOLEDOCHOSCOPE WITH LIGHT SOURCES

SPECIFICATION

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.

SI No-2:- Harmonic with ACE, with Complete set

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

- 3 **Ultrasonic generator** with 55.5 KHz frequency functional for both Laparoscopic and Open surgery & compatible with 5mm and 10mm blades.
- 4 **5mm ACE** Lap and open shear for cutting and haemostasis.
- 5 **Wave** technology shear for open colorectal surgery & abdominal hysterectomy etc.
- 6 **Focus technology shear with Blue hand piece** for open procedures like Breast, Thyroid & head & neck surgery etc.
- 7 **Hand piece** with in- built transducer & silicon cable for all shears & blades of Harmonic.
- 8 CF isolated generator confirming to safety standard IEC601.1 class, electromagnetic compatibility, UL 2601-1 & defibrillator protection.
- 9 **Footswitch & cable** with max & min pedals.
- 10 **Cart** to House the equipment.
- 10.1 Frequency – 50/60Hz. Current Consumption -: 3 Amp & relative humidity 10-90% non-condensing.
- 11 System should have a universal connector to connect ultrasonic energy and advanced RF energy instruments.
- 12 System should have automatic instruments reorganization.
- 13 System should be CE approved.
- 14 System should have a touch screen display for fast and setup, operation and on-screen diagnostics.
- 15 System should have a high resolution display with wide viewing angles.
- 16 System should have the ability for software updates via UBS memory stick.

- 17 System should be a single generator that provides ultrasonic energy and Advanced RF energy technology for soft tissue dissection and vessel sealing.
- 18 System should have a potential equalization terminal for compatibility with other medical system requiring such connection.
- 19 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
- 20 System should provide class I protection against electric shock.
- 21 system should have a single footswitch for operating ultrasonic energy or advanced RF energy instruments
- 22 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
- 23 system should have 6 international language options with English language as default
- 24 system should not have minimal lateral thermal spread more than 1 mm
- 25 system should have standby mode to ensure safety'
- 26 system should come equipped with system diagnostics and troubleshooting guide to pin point any problems in the systems.
- 27 system should have onscreen warning display system for generator overheating generator software upgrade handpiece errors and instrument errors
- 28 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.
- 29 The hand piece for the system should come with an inbuilt transducer.
- 30 system should be compatible for open surgery and for laparoscopic surgery.
- 31 system should be compatible with both 5mm and 10mm instrument.
- 32 system should have atleast 5 power setting levels with power level display for ultrasonic energy instruments.
- 33 system should be able to power energy instruments with microprocessor controlled bipolar electrosurgical radiofrequency technology with a quasi-sinusoidal forced impedance output.
- 34 system should be equipped with smart advanced RF energy technology to measure the tissue impedance and control the power delivery
- 35 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.
- 36 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.
- 37 system should have advanced RF energy hand instruments with a unique electrode configuration to minimize the lateral thermal spread.
- 38 system should have advance RF energy hand instruments with technology to deliver high compression uniformly across seal area.
- 39 system should have RF energy hand instruments that provide tissue/vessel seal strength to withstand bursting pressure of 7 times the systolic pressure.

- 40 All hand probes for open lap procedures should be able to simultaneously cut and coagulate tissues.
- 41 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.
- 42 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 multiple hand position one pc each
- * 5mm hand activated curved coagulating shears capable of sealing blood vessels upto 5mm in diameter with 23 cm, 36cm shaft length ergonomic handle one pc each
- * 5mm lap dissecting hook 32 cm long – one pc

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Group-F (Urology)

Technical Specification of Adult Resectoscope/Cystoscope/ Urethrotome

CYSTOSCOPE ---

-Adult cystoscope should have both sheath of 17F and 22 F with obturator. It should have both examination and working insert with albaran bridge(One way/two way suitable for the use of upto 10F catheters/forceps). All accessories must be quoted with the instrument. The examination lense should be foreoblique (30 degree Hopkins-2)

RESECTOSCOPE

Continues flow 24 F resectoscope with visual obturator Iglesias type working element. The resectoscope should be Quoted with all standard accessories including telescope

URETHROTOME

20 F urethrotome sheath with dedicated working element

TECHNICAL SPECIFICATION OF

PEDIATRIC RESECTOSCOPE/CYSTOSCOPE/URETHROTOME

PEDIATRIC RESECTOSCOPE/CYSTOSCOPE AND URETHROTOME SHOULD QUOTED WITH ALL STANDARD AND OPTIONAL ACCESSORIES.

SI No. :- Ureteroscope-7 to 9f:- / Nephroscope 24 f& 19 f

Group- G:- Nephrology:- 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 stainless steel. Storage water tank should have capacity of at least 5000 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)

1. Should be FDA / CE / UL or BIS approved product.
2. 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.
3. User/Technical/Maintenance manuals to be supplied in English.
4. Certificate of calibration and inspection.
5. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
6. User list to be provided with performance certificate.

7. The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%.
8. The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%

Group- Pathology Deptt.

Microscope

a:-(Trinocular)

Trinocular microscope with digital camera . Software included for image acquisition with computer 18 inch monitor with printer and suitable UPS under annual maintenance contract the instrument should have the following properties .

Optical system	CF 160 infinity optical system par focal distance 60mm
Illumination	High luminescent white LED illuminator (Eco-illumination 6v20w/6v30v halogen lamp compliant multi-voltage (100v-240v
Eyepieces (F.O.V.)	CFIE 10x(20mm) CFIE 15 x (12mm)
Focusing	Coaxial coarse/fine focusing Right fine, Left coarse/fine, Focusing stroke26.5mm, Coarse 30.7 mm/ rotation Fine 0.2 mm/ rotation Coarse motion torque adjustable Refocusing function
Eyepiece Tube	E2 TB Binocular tube * E2-TF Trinocular tube Eyepiece / port 100/0, o/100 360 Rota table C-TE2 Ergonomic Binocular tube inclination 10-3G degree Extension up to 40
Nosepiece	Quadruple nosepiece (within main body
Stages	Rectangular stage (within main body) with specimen holder cross travel 78(x) x 54 (Y) mm
Objectives (NA)/W,D. mm	CFIE plan achromat 4x(0.10/30) CFIE plan achromat 10x(.0.25/0.7)CFIE plan achromat 40x(o.65/0.65)CFIE plan achromat 100xoil (1.25/0.23) CFI achromat DL and other higher grade CFI60 objective can be used
Condensers	E2 Abbe condenser N.A 1.25 aperture diaphragm with position guide makings for respective CFIE plan objectives E2 phase condenser N.A 1.25 aperture diaphragm with position guide marking for repective CFIE achromat DL objectives for the model without field diaphragm C-C achromat condenser achromat swing out condenser 2 -100x Dark field condenser (dry) C-C phase contrast condenser
Observation Methods	Bright field Epi-fluorescence dark field phase contrast simple polar zing
Intermediate	E2 FM Epi – fluorescence attachment 2 filter cubes mountable
Attachment	Y -THS Teaching Unit B (side –by- side) Y- THF Teaching unit (face-to-face) Y-IDT Drawing tube Y-IER Eye level Riser
Power consumption (max)	Normal value 3 w (LED model) 41 w (halogen model)

(b) Microscope (Binocular)

Maintenance free minimum two warranty focusing mechanism by ball bearing movement by uniaxial focusing control for both coarse and fine adjustment (single uniform speed for precision focusing movement having the following properties in details.

Optical system	CFI optical system
Illumination	High luminescent white LED illuminator 6v 20w halogen lamp compliant multi voltage (100 v 240 v) minimum 50,000 hrs of lamp life
Focusing	Coaxial coarse / fine focusing cross roller focusing stroke 22mm coarse 37.7mm rotation fine 0.2 mm / rotation coarse motion torque adjustable
Tubes	Binocular tube
Nosepieces	Quadruple nosepiece (within main body) revolving mechanism with multiple ball bearings elastic nosepiece grip ring
Stages	Rectangular mechanical stage (within main body with specimen holder with vernier calibrations cross travel 75(X) x (Y)40mm
Objection	Precise centered anti-fungal eye piece with multi layer anti-reflection hard coating & having – precise entered antifungal plan Achromat ultra high resolution plan Achromatic objective 4x,10x, 20x, 40x, & 100x (spring loaded
Condensers	YS-CA Abbe condenser N.A 1.25 aperture diaphragm with position guide marking for respective objectives 33 mm filter attachable phase condenser
Observation Methods	Bright field Dark field phase contrast
Optional accessories	Phase contrast attachment object marker brickfield ring unit mirror unit cord hanger storage case
	Variable intensity control for the bulb detachable AC power cord and three pin sockets Absolute cool & white illumination Dust cover & clearing kit No heat during usage of equipment

SI NO.

Block cabinet capacities 20000 Blocks ;-

- 1; Block cabinet capacity 20000 block made of Mild steel duly powder coated
- 2; The internal drawers should made of MS duly powder coated channel drawer having 4 to 8 compartment with capacity of approx. 125 blocks with embedding ring.
- 3:- Index card holder and handle provided on each drawer.
- 4: Handle provided on front panel
- 5:- With door & provided with lock & key

Semi Automatic Rotary Microtome

- Motorized feeding system with manual sectioning
- coarse feed also be motorized
- horizontal specimen feed 26-27mm vertical specimen stroke upto 52mm
- Horizontal specimen orientation +/-25mm vertical specimen orientation +/-20mm
- Max specimen size 50x66x30mm (WxHxD)
- Specimen orientation Horizontal 8 and vertical 8
- With blade holder for disposable blades
- With universal fast Release cassette clam suitable for jet cassettes
- with large section waste tray
- comply with international quality control certification like ISO CE etc
- Accessories

with suitable voltage stabilizer (ISI certified)

disposable blades 200 blades & others

SI NO.-

AUTOMATIC TISSUE PROCESSOR

It should be a semi – enclosed tissue processor with the perfect combination of proven technology and a modern, functionally enhanced design. Gentle specimen processing and maximum safety at all stages of processing are the result of robust engineering design based on proven and precise mechanics' in conjunction with a modern user interface. It should have following properties;-

Carousel type with 12 stations.

Configuration; Basic instrument Vacuum function fume control system vacuum function with fume control system.

Option two basket loading

Tissue basket made of metal with varying capacities of up to more than 80 cassettes

Ergonomic control panel with foil protected keyboard and LCD

Infiltration time separately programmable for each station.

Delayed start function up to 9 days

Possibility of interrupting an automatic process for reloading or removing cassettes for special applications before the end of a run

Easy editing and changing of programs even during a processing run

Audible alarms error messages and warning codes

Advances safety concept

Wide range of accessories.

Cabinet Slide:- 50,000 capacity

SLIDE CABINET CAPACITY 50000 SLIDES: VERTICAL MANNER

- For keeping 75x75 mm slide in vertical position one after other of steel attractive spray finish.
- Cabinet having 480 x 75 mm drawer and teasing slides in vertical position.
- Drawer should move smoothly in a lost and completely removal for easy lifting.
- Cabinet should accommodate maximum number of slides for optimum space utilization compete with lock and key.

-GROUP - D(Gastroenterology)

Video Endoscope set-A Consisting of :-

1;-

TECHNICAL SPECIFICATION OF VIDEO – PROCESSOR

- 01 Based on colour CCD chip technology should have facility for automatic gain control, selective iris setting and variable contrast setting .
- 02 Should be compatible with light source monitor and video-endoscope - to be purchased with the set .
- 03 Durable high efficiency key board
- 04 .Power supply – 220 to240 volt , frequency 50-60 HZ

TECHNICAL SPECIFICATION OF LIGHT SOURCE

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

MONITOR

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

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

1. DIRECTION OF VIEW: FORWARD VIEWING
2. FIELD OF VIEW:- 140 DEGREE OR MORE
- 3: DEPTH OF FIELD: 3- 100 mm
- 4; DISTAL .END OUTER DIAMETER;- < 9.5mm
- 5:- RANGE OF TIP DEFLECTION;- UP -216 DEGREE ;DOWN -90 DEGREE
LEFT-100 DEGREE; RIGHT 100 DEGREE

6. INSTRUMENT CHANNEL DIAMETER : 2.8 MM OR MORE
5. WORKING LENGTH: APPROX. 1030MM

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

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

3:- SPECIFICATION FOR VIDEO- DUODNOSCOPE

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

d ;- SPECIFICATION FOR VIDEO- COLONOSCOPE

1. DIRECTION OF VIEW:- FORWARD VIEW
2. FIELD OF VIEW:- 120 DEGREE(Approx.)
3. DEPTH OF VIEW:- 5-100mm.(APPROX)
4. OUTERR DIAMETER:- 12mm-14 mm. Or less.
5. INSTRUMENT CHANNEL: 2.8mm or More
6. TOTAL WORKING LENGTH- 1300/1700 CM
7. COMPATIBLE WITH VIDEO- PROCESSOR AND LIGHT SOURCE TO BE PURCHASED IN THE SET.
8. SPECIFY THE LIST OF ACCESSORIES TO BE SUPPLIED WITH VIDWO-CLONO-SCOPE.
9. VARIABLE STIFFNESS OF INSERTION TUBE WILL BE CONSIDERED AS ON EXTRA ADVANTAGE.
10. RANGE OF TIP DEFLECTION – UP AND DOWN – 180⁰ OR MORE
right and left - 160⁰ or more

Tender SI No.

Video Endoscope set-B Consisting of:-

a:-

VIDEOENEDOSCOPY SYSTEM

Video Processor Module:-Should have following technical specifications

- (1) Portable and light weight.
- (2) Capable of storage up to 35 to 45 patient's data.
- (4) Capable of registering & recalling scope information
- (5) Zoom capability for images (Medium & Full Height for difficult procedures) & sharpness control.
- Edge and Structure enhancement facility.
Preferably should have separate unit for light source.
- Should be equipped with HD TV imaging capability for observing of Capillaries, mucosal structures and other patterns.
- (6) Should have Narrow Band Imaging/ FICE capability to enhance the visibility of capillaries and other structures on the mucosal surface and it should be compatible with FICE/N.B.I.video-endoscopy supplied with the set.
- (7) Digital signal processing for signal received from colour CCD Chip .
equipped with high resolution , high definition T.V imagining capacity .
- (8) Should have convenient digital-to- digital recording facility for both still and Moving images.
- (9) Should have PIP (picture in-picture) display for any combination of endoscopic images, fluoroscopic images , ultrasound images etc.

Light Source:

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

VideoMonitor : Should have following technical specifications

- (16) 19-20 inches or more in size
- (17) Flat panel LED/LCD High definition colour monitor

- (18) Anti – Glare coating for less reflection
- (19) Should be fully digital HD TV compatibility
- (20) Should have progressive scanning facility
- (21) Should have PIP facility(Endoscopic view as well as fluoroscopic view in single screen.)
- (22) Power supply -220-240 Volt .

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

(b)

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

- (23) Should have following technical specification /features:
 - (24) Autoclavable Air – Water & Suction valves for hassle free maintenance
 - (25) Maximum Scope Switch in order to permit user with instant Decision.
 - (26) Minimum biopsy forceps visible distance 3mm or less to 100 mm or more
 - (27) Dedicated Flushing Adapter for ensuring Optimum Scope cleaning /disinfection.
 - (28) Should have Narrow Band Imaging /FICE/equivalent capability with high-resolution HD TV imaging.
 - (29) Should have close focus observation without electronic magnification .
 - (30) Facility to inform and keep track of Maintenance schedule to be inbuilt within endoscope.
 - Field of view : Not less than 140 degree
 - Distal end & Insertion tube dia : 9-10 mm
 - Distal end bending at least : Up > 210deg. Down> 90 deg.
 - : Right & left > 100 deg.
 - Working length : 1000 mm and more
 - Instrument channel diameter : 2.8mm
 - Direction of view- : Forward viewing
- Mention all the accessories supplied with endoscope and endoscope should be compatible with video processor and monitor being purchased with set.

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

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

- (31) Maximum scope Switch in order to permit and user with Instant decision,
- (32) Minimum biopsy forceps visible distance 3mm of less to 100 mm or more
- (33) Facility to inform and keep track of maintenance schedule to be inbuilt within endoscope.
- (34) Dedicated Flushing Adepter for ensuring Optimum scope cleaning / disinfection .
- (35) Should have Narrow Band/ Imaging/FICE/ equivalent capability with high-resolution HD TV imaging
- (36) Should have close observation without electronic magnification HDTV imaging

- (37) Scope guide facility to provide real time 3D visualisation of scope position and configuration –it will be considered extra advantage.
- (38) Variable stiffness compatibility
- (39) Mention all accessories supplied with the
- (40) Endoscope should be compatible with video monitor and processor to be purchased with the set.
- (41) Field of view : Not less than 160 degree
- (42) Distal end & Insertion tube dia. : 12-14 mm
- (43) Distal end bending at best : Up & Down 180 deg
: Right and left 160 deg
- Working length : 1600mm or more
- Instrument channel diameter :- 3-4mm

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

- (44) Maximum scope Switch in order to permit user with Instant decision.
- (45) Should be possible to effectively clean and remove blood/ tissue particles behind the elevator, by way of removal of distal- cap.
- (46) Dedicated Flushing Adapter for ensuring optimum scope cleaning/ disinfection for all the channels.
- (47) Minimum biopsy forceps visible distance 10mm or less .
- (48) Facility to inform and keep track of maintenance Schedule to be inbuilt within endoscope .
- (49) Autoclavable Air – Water & Suction valves for hassle free maintenance.
- (50) Should have locking mechanism at the forceps elevator to lock the Guidewire in position .
- Field of view : Not less than 100 degree
- Direction of view : 5 to 6 deg Backward oblique
- Depth of field : 5 mm to 60 mm
- Distal end outer diameter : 11 mm to 13mm
- Distal and bending : Up > = 120 deg . Down > 90 deg.
Right >110 deg . Left> 90dg
- Working length : 1200 mm to 1300mm
- Instrument channel diameter : 4.2mm

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

Ultra Sound Machine

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

1	Description or Function High resolution Grey scale ultrasound with color Doppler for trans-abdominal examination
2	Operational Requirements 2.1 latest generation electronic phased array system with 4000 electronic channel system should be DICOM ready and capable to being interfaced with HIS/RIS/PACS 2.2 should be field up gradable to next generation system on site all new software sttaled be upgraded free of cost for at least 3 years

	2.3 Frequency compounding or better technology for better resolution and penetration
3	<p>Technical Specification</p> <ol style="list-style-type: none"> a. phased array probe system with 4000 electronic independent channels b. 256 gray shades for sharp contrast resolution c. Probe to be supplied which should be latest generation wide band transducer d. Harmonic imaging –system should have harmonics on all the probes following modes in harmonic with separate setting for e. Trapezoidal image f. Automated gain control for additional level of flexibility to image quality control g. Real time high frequency 2D for higher resolution h. Monitor should be 15” or more high-resolution colour monitor Tilt and swivel monitor should be able to view in all angles and all light condition i. Various maps for pre and post processing j. User defined system and application presets for multi-user department k. Minimum 4.8 GB optical disc drive /80 GB hard drive for image storage and retrieval (standard with system) l. Cine loop memory-more than 100 frames <p>a.High frame rate review for better clarity of play back images study in slow motion b.Quad loop with memory for pre and post images comparison of an procedure . c.Memory-256 frames or more in QUAD loop d. Frame grabber facility for post analysis 3.13 Facility for high definition digital acquisition review and editing of complete patient studies 3.14 Frame rate should be 1000 FPS or more.</p>
4	<p>System configuration Accessories spares and consumable</p> <ol style="list-style-type: none"> 4.1 convex probe 2 -5 MHz and linear HR probe (more than 7.5Hz) 4.2 B/W thermal printer of latest model 4.3 DVD / CD recorder with DICOM media transfer
5	<p>Environmental factors</p> <ol style="list-style-type: none"> 5.1 The unit shall capable of operating continuously in ambient temperature of 30 deg c and relative humidity of 80% 5.2 pre requisites should be clearly spelt out in terms of room requirements
6	<p>Power supply</p> <ol style="list-style-type: none"> 6.1 power input to be 220-240v Ac , 50Hz fitted with Indian plug 6.2 Reset table over current breaker shall be fitted for protection 6.3 suitable servo controlled stabilizer /CVT 6.4 Online UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up.
7	<p>Standards safety and training</p> <ol style="list-style-type: none"> 7.1 should be FDA or CE approved product 7.2 electrical safety conforms to standards for electrical safety IEC-60601/IS - 134540 product should comply to IEC 60601-2-37 ed1 medical equipments part -2-37 particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment 7.4 type of protection against electric shocks class 1 degree of protection against electric shocks for ultrasound d probes type “BF” for ECG electrodes type CF 7.5 manufacturer / supplier should have ISO certification for quality standards
8	Documentation

	8.1 user manual in English 8.2 service manual in English 8.3 list of important spare parts and accessories with their part number and costing available in stock with the supplier
9	Maintenance and serviceability 9.1 Remote service network connectivity 9.2 optional service agreement 9.3 online phone support 9.4 clinical application support

CAPSULE ENDOSCOPY SET

A COMPLETE SET INCLUDING THE FOLLOWING

- DATA RECORDER
- WORK STATION
- CAPSULES .

WORKSTATION

- 03 WORK STATION WITH HIGH QUALITY COLOR INK JET PRINTER AND CUSTOMISED UP TO DATE SOFTWARE.
- 04 SHOULD BE ABLE TO EXPORT DATA THROUGH JPEG IMAGE AVI MOVIES, HTML REPORTS.
- 05 DISPLAY SHOULD CONSIST OF IMAGE, LOCATION TRACK AND TIME BAR LATEST SOFTWARE .

DATA RECORDER

RECORDING LENGTH APPROX 10 HOURS OR MORE.

CAPSULE

(51) At least 10 capsules should be supplied with the set.

(52) Dimension should not be more than 26 mm x 11mm

Argon Plasma Coagulation System

ARGON BE MERSYSTEM.

SHOULD CONSIST OF:

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

ARGON BEAMER SYSTEM.

1. SYSTEM SHOULD BE SUITABLE FOR USE DURING VARIOUS G.I ENDOSCOPIC PROCEDURES.
2. ALL DISPLAY AND SIGNAL SETTING CAN BE SELECTED INDIVIDUALLY .
3. FACILITY FOR PROGRAMME STORAGE POSITION FOR CUSTOMISED SETTINGS
4. ADEQUATE SAFETY FEATURE.
5. SHOULD CLEARLY MENTION ABOUT THE AVAILABILITY SUPPLY AND APPROX. PRICE OF ARGON GAS) .

ELECTRO SURGICAL UNIT.

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

FLEXIBLE G.I T PROBES.

- 01 GIT flexible APC probe 2.3 mm dia and working length about 2.2 meters.
- 02 G.I.T flexible A.P.C Probe 3.2mm dia meter and working length about 2.2 meters .
- (1) G.I.T Flexible A.P.C Probe Dia 1.6 mm and 1.5meter long
- (2) Appropriate connection cable.

Electro Surgical Unit

Unit Should Have	
1	Monopolar cutting Coagulation & Blended current facility and bipolar and Coagulation mode.
2	Have time control cutting mode and special mode of under water application (ENDOCUT)
3	Equipped with Micro- Processor based continuous feedback system which continuously take feedback system of the impedance of tissue and delivered constant power
4	Capacity to auto start last set values on the front panel, if unit is shutoff.
5	Should have adequate high quality safety measures including safety alarm for leakage of current, patient plate, disconnection and continuous activation of unit
6	Foot switch, patient plate and required cable connection
7	Suitable for the various GI procedure including gastro- intestinal endoscopic procedure like endoscopic papilotomy and polypectomy etc.

Group- J:- Cardiology

1:- BiPAP machine

BiPAP machine stands for Bilevel positive airway pressure. It is used in patients with respiratory distress to push more air into their lungs.

Technical specifications;

The system should match all the numerical values given in technical specifications with +/- 10 %

IPAP 4 – 40 cm H₂O

EPAP 4 – 25 cm H₂O

Breath rate 0-40 with spontaneous for time mode.

Inspiratory time 0.5 – 3 sec.

Rise time 100- 600 ms

Machine should be based on solenoid valve technology and should have autotrack sensitivity and adjustable rise time

Machine should have C PAP facility.

System should be supplied with all the reusable accessories.

Environmental factors

System should have CE approval.

System should be capable of operating continuously in ambient temperature of 20-30 deg Celsius with relative humidity of 15-90%

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

Power supply

Power input to be 220-240 V AC,50 Hz with Indian plug.

UPS of suitable rating for voltage regulation, spike protections and automatic back up of 60 minutes.

Standard ,safety and Training

Should be FDA/CE approved.

Manufacturer should have ISO certification.

Comprehensive training to the lab staff be given till familiarity with the device.

Comprehensive warranty for 3 years and AMC for 5 years after warranty period.

Documentation

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

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

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

Certificate of calibration and inspection.

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

Compliance Report to be submitted in a tabulated and point wise

(2) Portable ECHO machine

TECHNICAL SPECIFICATIONS FOR PORTABLE 2D ECHO

- The Unit must be fully digital and enable use at point of care should have battery, The Unit must have following facilities.
- Black and white mode for displaying anatomy in real-time
- Color-coded overlay for real-time blood flow imaging.
- Weight of the unit should be less than 8 kg.
- Field-of-view for black and white imaging :upto 75 degrees with maximum depth of 25cm
- The colour flow sector for blood flow with angle of 30 degrees
- Broad -bandwidth phased array probe transducer technology for 2D, colour & Doppler imaging.
- Auto optimize adjusts gain for all depths automatically
- Autocycle automatically detects full heart cycle for easy and fast review or storage.
- Built in memory card storage of not less than 40 GB
- Presets for optimized settings for imaging cardiac, general imaging
- 2D, colour Doppler imaging
- US FDA approved.
- Probe Adult & paediatric
- Full dicom connectivity
- Automatic tissue optimization
- High frame rates & enhanced colour flow

- ☒ Screen > 15 inches LCD
- ☒ Anatomical M mode.
- ☒ Quote one & latest model only

Machine to be supplied with the following.

- ☒ One rechargeable battery
- ☒ AC adaptor with interchangeable plugs to charge the scanner
- ☒ Carrying Bag
- ☒ Micro memory card/ external Hard disk should be provided.
- ☒ Docking station/ trolley
- ☒ Thermal printer

(3) E T O Machine.

TECHNICAL SPECIFICATIONS FOR ((III) STERILIZATION MACHINE

1. ETHYLENE-OXIDE STERILIZER/AERATOR COMBINATION

- It should have fully automatic function for sterilization & aeration.
- The accessories should be usable immediately after the sterilization process.
- It should use Gas Cartridges
- It should preferably have touch screen function.
- Its capacity should be 8 cubic feet.
- There should be a mechanism for indicating completeness of sterilization process
- 5 rolls of packing material, each 200 meters
- 1 sealing machine
- 1000 gas cartridges

(4) 12 Channel ECG Machine

- . Simultaneous acquisition of up to 12 leads.
- . Real time continuous recording of 3, 6 and 12 channel.
- . Recording speeds of 5, 10, 25 or 50 mm/sec
- . Extensive ECG quality control by AC Noise Filtering and Baseline.
- . A4 size reports for convenient reading and filing.
- . Colour coded keys for ease of operation.
- . Convenient battery operation for greater mobility.
- . Versatile report formats and speed options to provide auto reports or rhythm reports.
- . User configurable filters.
- . Preview signal quality prior to printing. Saving time and paper.
- . Keyboard entry for patient ID information.
- . Capability to generate any number of ECG copies possible for filing and distribution.
- . Adult and paediatric analysis programs std.
- . Automatic interpretations of ECG data.
- . Availability of adult, paediatric and neonatal accessories.
- . Accessories e.g., stand, cables, electrodes etc. Should be quoted separately.
- . Consumables for one year, (a list should be attached)
- . Service and operation manual complete

(5) Syringe Infusion Pump

It should be Light weight , Compact & should be able to adopt syringes from 5 to 60ml horizontal

Programming : Should be ml/hr, ml/hr x volume limit & time x volume limit

Flow rate should be 450 ml/hr with 0.1ml/hr increment

Volume Limit should be 999.9 ml

Must have Occlusion Pressure at least 3 levels

KVO should be 1ml/hr or less

Bolus rate should be 450 ml/hr

Time limit from 1min to 99hrs & 59 minutes.

Special Functions Like : Clear Volume

Should have pre alarms such as End of Battery, End of Infusion, & visual & sound alarms like

Syringe positioning error, occlusion, infusion completed, syringe error, programming error,

Block error, clamp error , low battery etc

Flow rate deviation should not be more than +/- 1% of the programmed flow rate.

Battery Rechargeable with battery life 3hrs , Should be able to work on 230 Volts

Weight not exceeding 2.1 kg

The product should have CE & ISO 13485 certifications

(6) Flow Reserve (FFR) system

Fractional Flow Reserve (FFR) system is required during coronary angiography to determine physiological significance of any coronary lesion. It is particularly important in deciding management of intermediate coronary lesions.

FFR (Fractional Flow Reserve) measurement system specification for Console

- 1) Console to determine FFR with sensor based wire able to assess arterial intraluminal pressure difference across a narrowing with the help of existing cath lab transducer system.
- 2) Should assess FFR, IMR and CFR with the same equipment.
- 3) Should communicate with PC and compatible with printer.
- 4) Should be able to assess distal pressure through device.
- 5) Display of both real time pressure and mean pressure values.
- 6) Should give graphical presentation of pressure values.
- 7) Screen window should display real time FFR in both numerical and graphical form.
- 8) Should have upgraded software to calculate in real time both FFR and CFR.
- 9) Display real time IMR (Index of Micro-circulatory Resistance) values through software.
- 10) Should be capable of reading temperature readings in the range of 15 to 42 degree centigrade.
- 11) Should have thermodilution method enabled to calculate CFR and IMR.
- 12) Should be able to measure pressure in the range of -30 to 300 mm Hg.
- 13) Should be operator friendly, guide steps to follow for procedure.
- 14) Should display calibration steps.
- 15) Should have a frequency response of 0-25 Hz.
- 16) Allows different beat settings in accordance with the cath lab system.
- 17) Should have memory to save and record the data.
- 18) Shaved/recorded data should be transferable to CD/DVD/USB device.
- 19) Allows analysis of recorded data through software.
- 20) Should supply ten FFR wires.
- 21) System should be CE marked or US FDA approved.
- 22) The same machine must have been installed in India earlier and its satisfactory working certificate has to be attached.
- 23) The machine should be compatible with the standard Indian electrical sockets.
- 24) It should have standard electrical safety norms.
- 25) The machine should carry 5 years of warranty and 5 years of AMC.
- 26) The spare parts including FFR wires should be easily available and the technical staff should be available in Delhi.
- 27) Training of the departmental staff at the site will be required.
- 28) The machine should have essential log book and user manual in English.
- 29) Demonstration of the machine is must when required.
- 30) The same machine must have been installed in India earlier and its satisfactory working certificate has to be attached.
- 31) Manufacturing company has to give undertaking regarding maintenance of the system and availability of accessories and spare parts for next ten years.

(7) Electrophysiology system with RF ablator and programmed stimulator

- 11.1 State of the art EP recording system to be quoted as stand-alone system and not combined with the hemodynamic recorder
- 11.2 The following features should be available in the recorder :
 - 12 Lead ECG Amplifier with floating recorder, At least 4 pressures with floating input, Time and amplitude measurement with electronic calipers , Very high sampling rate 1 KHz or higher High resolution A/D converter
- 11.3 The patient connection box should be easy to install at the patient table in the examination room
- 11.4 19" color wave form monitor with programmable layout and digital monitoring readout – Two Nos
- 11.4 A 19" remote color wave form monitor, to be mounted in the examination room.
- 11.5 The system should have minimum of bipolar 64 channels IEKG for EP studies and interfaces for RF ablator and stimulator should be
- 11.7 One Stimulator and one ablator of reputed make should be quoted along with EP system.
- 11.8 The captured clinical information should be able to store in JPEG and AVI formats.
- 11.9 The should have DICOM work list interface for PACS integration.
- 11.10 Decapolar catheter – 10 no's , Quadripolar catheter -10 no's, RFA ablation catheter -5 no's

(8) TECHNICAL SPECIFICATIONS FOR TEMPORARY PACEMAKER GENERATOR (SINGLE CHAMBER)

Modes ; VVI,VVO,
Pacing Rate;40-180 ppm continuously adjustable
Output Amplitude : 0.1- 20 mA continuously adjustable
Pulse Width ; .9 ms
Sensitivity : 0.5 – 20mV continuously adjustable ASYNC
Refractory : 225- 250 ms
Battery Type : Standard 9V Alkaline/Lithium
Should be CE/FDA Approved product

(9) Portable ventilator

Equipment Specifications for Ventilator-Portable

1 Description of Function

1.1 The portable ventilator is used to transport a patient with artificial respiration support or home care of a patient after discharge from a hospital.

2 Operational Requirements

- 2.1 The portable ventilator should be light weight (< 10 kg)
- 2.2 Should be microprocessor controlled, portable, light weight.
Should operate with main electric supply as well as with battery.
Should be able to work both with cylinders and pipeline & room air.
Connectors and high-pressure tubing of appropriate length to be supplied.
- 2.3 Demonstration of the equipment is a must.

3 Technical Specifications

- 3.1 Should have turbine/venturi/jet mixing- technology for supplying airoxygen mixture
- 3.2 Should have following modes of ventilation:

CMV, Assist-control, SIMV, PS-PEEP

3.3 Audio-visual alarms for

- a. Low supply pressure
- b. High/low airway pressure
- c. Leakage/disconnection
- d. Power failure
- e. Apnea
- f. Low battery

3.4 Should have following settings

- a. TV 50 – 1500ml
- b. PEEP/CPAP & PS
- c. RR up to 40bpm
- d. I: E ratio 1:2 to 2:1
- e. FiO₂ 20 – 100%

3.5 Battery back up for minimum 1 hour, Additional port for recharging from ambulance

3.6 Should fix, on rails of transport trolley and on stand with wheels.

4 System Configuration Accessories, spares and consumables

4.1 Portable Ventilator-01

4.2 Adult Reusable /Auto clavable Silicon Patient Circuit-02

4.3 Paediatric Reusable/Auto clavable Silicone Patient Circuit-02

4.4 Oxygen Hose-01

4.5 Air Hose-01

4.6 Rechargeable Batteries- 01 set

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 - 50°

C and relative humidity of 15-90%

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

5.3 Shall meet IEC-60601-1-2: 200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz

7 Standards, Safety and Training

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

7.2 Product should be FDA/CE or ISI approved

7.3 Manufacturer should have ISO certification for quality standards.

7.4 Deleted

8 Documentation

8.1 User Manual in English

8.2 Service manual in English

8.3 Certificate of calibration and inspection from factory.

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

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

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

(9) Cardiac Biomarker Analyzer (Multi Parameter)

Latest point of care machine for various Cardiac Biomarkers (Troponin – I/T, D – Dinner BNP, CKMB, myoglobin). Any additional features should be mentioned.
