BIDDING DOCUMENT

TENDER NOTICE No.: 23 / 2018- 20198 / Biomedical Equipt./ IGIMS / Store

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

E- TENDER NOTICE No 23/2018 – 2019/ Biomedical Equiptt. / IGIMS / Store
Issued to:

Cost of Document: Rs.

Paid By: Cash: Receipt No.:

Demand Draft: No.:

Issuing Bank:

(Authorized Signatory)

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,

SHEIKHPURA, PATNA - 800014.

INDEX

IMPORTANT DATES

Last date for Purchase of Bidding Document	Can be downloaded from Institute website
Last date for submission of Technical bid.(Hard copy)	17 / 8 /2018 up to 11.00 A.M. by registered/speed post/ Courier only
Date of opening of technical bid	17 / 8 /2018 at 3:00 P.M. in conference hall IGIMS, Patna.
Date of demonstration of equipment	To be informed to the qualified bidders qualifying after opening of technical bids.

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES,

SHEIKHPURA, PATNA -800014 (Bihar, India)

Sl. No. OF TENDER: _____

FILE NO. : Tender No.: _____

Tender form issued in favour of:

_____

_____

Dear Sir,

1. I/We hereby submit our tender for the
   _____
   _____

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

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

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

Yours faithfully,

(Signature of Bidder with full name and address)

CHECK LIST FOR TERMS AND CONDITIONS

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

Sl. No.	Terms & Conditions as per Bidding Document	Page No.	Remarks
1.	**Status of Bidder:** • Manufacturer or Authorized Agent of the Manufacturer • Whether Public Undertaking, Public Ltd., Private Ltd. Company or Proprietary Firm/partnership firm • (Please attach Notary certified **MANUFACTURER'S AUTHORISATION FORM as per FORMAT placed at Annexure – III)**		
2.	**Power of Attorney as per Annexure - V** in favour of person to sign, submit and negotiate the bid.		
3.	Certificate towards market standing of minimum 05 years in the area of supply and or maintenance of bio-medical equipments.		
4.	Certificate for sole ownership / partnership		
5.	Statement of financial standing from bankers		
6.	Statements of turnover per year for last three successive years duly certified by the Chartered Accountants.		
7.	**Notary certified User List** (List of Govt. /Semi Govt., Reputed Pvt. Hospital) where quoted model of the items has been supplied and installed.		
8.	**Notary certified Supply** order copy (Minimum 3nos. or more) issued by Govt./Semi Govt.//Reputed Pvt. Institutions/organization for the quoted items. (same model)		
9.	**Notary certified Performance certificate** of the same supplied machine (of quoted make and Model) issued by **Head of the deptt. or Institution** after a minimum period of six months of installation		
10.	Prerequisite (if any) for installation of the Machine, if any, to be provided by the Institute.		
11.	Whether rates quoted are inclusive of all taxes or not.		
12.	Whether rates are quoted as per format mentioned in the Bidding Document or not.		
13.	Affidavit to the effect that the bidder is not blacklisted by any Govt. agency or have no pending case either Civil or Criminal against them.		

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

	certificate.		

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

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

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

(Name of the Bidder with signature & seal)

ELIGIBILITY CRITERIA

01	Manufacturers or their authorized dealers/Indian subsidiaries/direct importers having a place of business in any of the States of India are eligible to participate in this tender.	Mentioned Page no.
02	The bidder and manufacturer of the equipment offered should be in the business of the supply and installation of same / similar equipment for the last five calendar years.	
03	(a) The manufacturer should have completed at least 05(Five) nos. installations of the quoted items in Govt. /Pvt. Institutions /Hospitals in India. The installations mentioned by the manufacturer in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer. (b) The bids quoted as the authorized representative of the manufacturer meeting the above criteria 02 (a) should have also supplied and installed at least 03(Three) nos. installations of the quoted items in Govt. /Pvt. Institutions/ Hospitals in India in last five years from the last date of submission of tender. The installations mentioned by the authorized representative in their offer must be functional and performance certificate for the same issued by the user concerned also be attached with the offer.	
04	The Bidder should be public undertaking /Autonomous Body /Public Ltd./Pvt. Ltd. Company or proprietary firm /Partnership Firm and should be in medical equipment business since last five years in India. The Bidders having manufacturing facility in their name in India for the majority of the items offered by them shall be given preference.	
05	The Bidder (manufacturer or their authorized agent) should have had average annual financial turnover of Rs. 50 Lakh during the last three years ending s 31st March 2017.	
06	Bidders who have the capability to attend repairs of these equipment within the time mentioned in this bidding document and who are willing to provide stand by equipment or replace the faulty equipment if the repair/down time extends beyond 72 hours from the time of reporting of the fault within the next 48 hours (total down time should not exceed 5 days in one instance). The bidders who have the capability to ensure the uptime mentioned in this document (Documentary proof shall be submitted on the after sales facilities and expertise of the bidder.)	
07	Bidders are not offering the equipment of a firm /company that has been blacklisted by Indira Gandhi Institute of Medical Sciences – Patna or blacklisted/debarred by any other State / Central Government's organization.	

Note:

- Notwithstanding anything stated above, the Institute reserves the right to assess the Bidder's capability and capacity to perform the contract satisfactorily before deciding on award of contract, should circumstances warrant such an assessment in the overall interest of the purchaser.

- The Institute reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser of technical acceptability as per the tender specification, before the opening of the price tender.

INSTRUCTION TO BIDDER

GENERAL INSTRUCTIONS T0 BIDDERS

1. **Tendering System**

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

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

PART - II titled as PRICE BID shall be submitted in the E- tender mode only

2. The tender offers, duly filled, shall be submitted in sealed covers for **technical**. Such covers shall be super scribed as **"Tender No……. (here mention the tender no as specified) TECHNICAL BID for supply of ……..... (here mention the name of the equipment**

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

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

4. As per Sl No.5 below.

5. The " Bidding Document" can be downloaded from institute website www.igims. Org.. In case, downloaded bidding document is used ,Bidder(s) have to submit the cost of the Tender Document alongwith the completed documents in the form of demand draft in favour of Director , IGIMS, Patna, payable at patna towards cost of the " Tender documents" Bidder is required to attach seprate D D for the same in a seprate envelop super scribed with " cost of bidding document" if the cost of tender document is not submitted by the bidder, his offer shall be outright rejected .

6. Last date for purchase of bidding document is (As mentioned above)……..

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

EMD cost of Equipment wise mentioned in the Tender Notice is required to be submitted along with tender by Demand Draft from any scheduled Indian Bank (valid up to one year from the date of technical bid opening.) only along with the tender favoring Director, I.G.I.M.S. – Patna (payable at Patna). No interest is payable on EMD/ Bid security.

b. Bidder may quote more than one/several models. In such a situation EMD will be payable on the basis of highest priced model.

c. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of final bid validity and latest on or before the 30th day after the award of the contract without any interest.

d. EMD must be submitted in separate sealed envelope and endorsement of the same with DD number & date Bank Guarantee No. and its validity period be made with technical bids without amount stating

that the same has been complied with price bid. If same is later found not enclosed tender will be cancelled for the party.

e. Non- submission of sufficient EMD along with the Technical Bid shall be one of the primary reasons for rejection of the offer in the first round**.**

f. Cheque, Cash payment, Money Order, Fixed deposit etc will not be accepted as EMD.

g. Public Sector Units within the State or State micro, small and medium enterprises registered with Govt. are exempted from remittance of EMD subject to submission of valid documents.

h. The EMD shall be in one of the following forms:

i. A demand draft in favour of Director, I.G.I.M.S. – Patna (payable at Patna);

OR

ii A Bank Guarantee issued by a nationalized/ scheduled bank locted in India, in the form prisecrived in the tender document as Annexure- IV (valid up to one year from the date of technical bids opening) Bank Guarantee in any other format will not be acceptable and render the bid non-responsive.

iii. The successful Bidder's EMD will be discharged upon the Bidders signing the contract and furnishing the performance security. The EMD deposited in the form of DD of the successful Bidder can be adjusted towards the security deposit payable.

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. 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.

c. Prerequisite (if any) for installation of the Machine if any to be provided by the Institute.

d. If the manufacturing company and/or its Indian agent (for Foreign manufactured) have authorized some agency for participation in this tender for a limited period than in that case they (Manufacturer / Indian agent) shall have to submit an undertaking duly notarized by Public notary that if their tender is selected they shall be solely responsible for compliance of all the terms and conditions mentioned in the bilateral agreement for purchase and subsequent supply order even if their authorized agent is changed. Any tender offer without such certificate duly certified by public notary shall be rejected in technical scrutiny itself.

e. Bidder must submit a compliance checklist along with the technical bid itself.

f. (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 services terms and conditions will be strictly enforced and those Bidders who are willing to support the Institute in its endeavor to provide trouble free operation/performance of the equipments for the prescribed period need only participate in the tender.

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

c. Guarantee/Warranty Terms:

i. The successful Bidder has to warrant that the Goods supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

ii. The successful Bidder further have to warrant that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Tender Inviting Authority's specifications) or from any act or omission of the successful Bidder, that may develop under normal use of the supplied goods.

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

iv. On expiration of the comprehensive warranty period, the successful Bidder shall be willing to provide after sales support for an additional period prescribed in this document.

v. The prospective Bidder, who are not manufacturers, shall submit an undertaking from the Original Equipment Manufacturers (OEM) that they are willing to provide spare parts for the period of warranty as mentioned and also during the additional CMC/AMC period, if awarded. The OEM shall also assure continuity of service to their product, in the event of change in dealership or the Bidders – their existing dealers - couldn't provide service during the warranty / CAMC period. The undertaking from OEM is an essential document forming part of the Technical Bid, without which the tenders will be rejected summarily in the first round itself.

vi. After sales service centre in Patna (Bihar) preferably or at least in East India should be available as part of the pre-qualification and the Bidder shall provide proof of their capability to undertake such maintenance/repair within the stipulated time.

vii. The successful Bidder shall provide preventive maintenance as per the frequency mentioned in this document during the warranty period. The Bidder shall attend any number of break down/repair calls as and when informed by the institute authority.

viii. Upon receipt of such notice for repair/breakdown from the institute, the successful Bidder shall, within the period as specified in this document, and with all reasonable speed, repair or replace the defective goods or parts thereof, without cost to the Tender Inviting Authority.

ix. If the successful Bidder, having been notified, fails to rectify the defect(s) within the period specified mentioned in this document, the Tender Inviting Authority may proceed to take such remedial action as may be deemed necessary, at the successful Bidder's risk and cost and without prejudice to any other rights which the Tender Inviting Authority may have against the successful Bidder under the contract.

x. Failure to attend the repairs in time or failure to attend the stipulated preventive maintenance visit or failure to replace the defective equipments or to provide stand by equipment if the fault/down time exceeds the stipulated period or to ensure the stipulated up-time in an year shall lead to forfeiture of the performance security and/or may lead to blacklisting/debarring of the defaulting Bidder.

xi. The equipment which requires quality assurance test shall be done at free of cost immediately after installation, during the comprehensive warranty period, during the CMC/AMC period, by the demand of User and also when major spares are replaced.

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

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

xiv. The Bidder shall undertake on-site calibration of the equipment every year as part of the after sales service during the period of comprehensive warranty, CMC/AMC or on demand from the user.

xv. The Bidders shall also have to submit whether periodic replacements of consumable items are required for proper functioning of their quoted machine/Equipment? If yes they should submit the list of such consumables along with price list and frequency of replacement per year, if the same is not replaced free of cost during warranty / guarantee period.

xvi. An undertaking of the principal regarding continuity of after sales and services (CAMC) @ the agreement rate even in case of changes of Indian agent during the life span of the equipment, must be enclosed in the technical bid. Further, it will be the responsibility of the manufacturer Indian agent to get counter signature on the agreement to be executed with them by the principal.

Xvii;- The offered warranty includes:

- Visits to the user institutions at frequencies prescribed as part of preventive maintenance.
- Testing & calibration as per technical/service/operation manual of the manufacturer or as per the period specified or as per the demand of the user.
- Quality Assurance tests (if applicable).
- The cost of labour for all repairs/ and all spares required for replacement during repairs all kinds of accessories, Probes, all types of sensors and transducers, Electrodes, Detectors, battery, battery for UPS, other vaccumatic parts etc wherever applicable and also the accessories and other devices supplied along with the equipments like stabilizer, UPS, AC, Computer, Compressor, Monitor, etc, which forms part of the equipment system, without which it cannot perform satisfactorily.

- The exclusion of warranty of any vital equipment parts will be compared with offers of other Bidders during evaluation of the bids and this may be taken into consideration in deciding the successful Bidder on the basis of expert advice.

- The Bidder shall provide up-time warranty of complete equipment as mentioned in this document, the uptime being calculated on 24 (hrs) X 7 (days) basis failing Warranty period will be extended for every additional day of down time equal to one week.

- All software updates, if any required, should be provided free of cost during Warranty period.

d. <u>Comprehensive Annual Maintenance Contract</u>:

- 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. <u>Time Limits prescribed</u>

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 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).

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

CONDITIONS OF THE CONTRACT

01. **Duty Free Clearance, Transportation, Forwarding & Handling Charges**:

Clearance charges at point of Entry / Air Port and on ward transportation charges with Insurance upto I.G.I.M.S. - Patna will be borne by supplier's Indian Agent for which this Institute will not pay the charges.

02. **Demurrage. Taxes & Octroi:**

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

03. **Warranty Period**:

a. The "**Complete System**" shall remain under warranty period of **three years** from the date of satisfactory installation. The Complete System should include the basic unit and allied supporting components like UPS, Computer System, Printer, De-ionizer, Dehumidifier etc to be supplied by the bidder along with basic unit.

b. During warranty period of three years, bidder shall provide at least **four maintenance visits per year** at regular interval for usual maintenance and supervision. If bidder fails to provide these maintenance visits at regular interval, a proportionate deduction in the form of penalty on pro-rata basis will be recovered from the bidder from the Bank Guarantee amount. In case the Bank Guarantee is not adequate, Institute shall have right to recover the losses / penalty from other sources as well.

c. Bidder shall also attend all breakdown calls within 48 hours of the receipt of the information from institute through fax/e-mail/mobile/sms etc.

d. During warranty period, **bidder** shall maintain and keep **95% uptime** per year of the "**Complete System**" as per calculation given below:-.

1 Year = 365 days
95% of 365 days = 347 Days per annum

e. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.

f. During warranty period, **bidder** will make the "**Complete System**" in satisfactory working condition. In case, any spare parts, accessories, etc. needs replacement due to normal wear and tear, **bidder** will supply and install the same for which no additional payment is to be made with a validity to cover warranty period.

g. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the warranty period will be extended by the period for which the item / accessories could not be operated because of supplier not been able to provide services.

h. During warranty period, in case of any alleged damage due to accident / human error, a committee under the Chairmanship of Director, I.G.I.M.S. – Patna with one member from the bidder and one member from the Institute will decide the authenticity of the claim. The decision of the committee shall be final and biding on both the parties.

04. **After Sales Services**: -

a. After expiry of the warrantee/Guarantee period of the equipment, the Indian agent will have to undertake the Comprehensive Annual Maintenance contract (with spare parts, accessories, 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 to be supplied by the bidder along with basic unit.

c. During Comprehensive Annual Maintenance Contract, bidder shall provide at least **four maintenance visits per year** at regular interval for usual maintenance and supervision. If bidder fails to provide these maintenance visits at regular interval per year, a proportionate deduction in the form of penalty at the rate of 25% of contract amount per year will be deducted.

d. Bidder shall also attend all breakdown calls within 48 hours of the receipt of the information from institute through fax/e-mail/mobile/sms etc.

e. During Comprehensive Annual Maintenance Contract, **bidder** shall maintain and keep **95% uptime** per year of the "**Complete System**" as per calculation given below:-.

1 Year = 365 days

95% of 365 days = 347 Days per annum

f. The bidder shall compensate the uptime less than the specified above for **every additional day** of down time over and above 18 days stipulated above, warranty period will get extended by one week as penalty at no extra cost i.e. the extended penalty period will be equal to one week for every additional day of down time.

g. During Comprehensive Annual Maintenance Contract, **bidder** will keep the "**Complete System**" in satisfactory working condition. In case, any spare parts, accessories etc. needs replacement due to normal wear and tear, **bidder** will supply and install the same for which no additional payment is to be made. .**If any spares / consumables / accessories etc. are not covered under Comprehensive Annual Maintenance Contract charges, it should be clearly mentioned with frequency of replacement and with rate. The validity of rate of such items should also be mentioned clearly. What will be the rate of escalation on the quoted rate after expiry of the validity of rate of such item must be mentioned.**

h. The payment of Comprehensive Annual Maintenance Contract will be made on half yearly basis after submission of satisfactory functioning report of the Complete System by the officials authorized by the Institute.

i. In case, the **bidder** is not able to provide services (and the items / accessories is not functioning as the reason thereof) due to natural calamity (act of God), Political unrest, Riot and fire at the user site, then in such a situation the Comprehensive Annual Maintenance Contract will be extended by the period for which the item / accessories could not be operated because of supplier not being able to provide services.

j. During Comprehensive Annual Maintenance Contract, in case of any alleged damage due to accident / human error, a committee under the Chairmanship of Director, I.G.I.M.S. – Patna with one member from the bidder and one member from the Institute will decide the authenticity of the claim. The decision of the committee shall be final and biding on both the parties.

05. **Performance Security**

a. There will be a performance security deposit amounting to 10 % of the total value of the equipment excluding taxes, which shall be submitted by the successful bidder within 10 days from the date of issuance of "Letter of Intent".

b. The contract duly signed and returned to the Institute shall be accompanied by a demand Draft or Bank Guarantee in the prescribed format.

c. Upon receipt of such contract and the performance security, the Institute shall issue the Supply Orders containing the terms and conditions for the execution of the order.

d. Failure of the successful bidder in providing performance security as mentioned above and / or in returning contract copy duly signed in time shall make the bidder liable for forfeiture of its EMD.

e. The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:

i. It shall be in any one of the forms namely Account Payee Demand Draft or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in this document endorsed in favour of the Institute.

ii. Institute will release the Performance Security without any interest to the successful bidder on completion of the successful bidder's all contractual obligations including the warranty obligations & after receipt of certificates confirming that all the contractual obligations have been successfully complied with.

06. Delivery period/Liquidated Damage: -

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

i. 1st extension for a month or a part thereof @ 2% per month of C.I.F. value.

ii. 2nd extension for an additional month or a part thereof @ 3% per month of C.I.F. value subject to maximum Limit of 20% of the order items. All expenses incurred for extension of L.C. will be borne by supplier/his Indian agent.

iii. Cancellation.- If delivery is not done even after 2nd extension Institute shall have the right of cancellation of Supply order at its discretion..

07. Payment: -

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

a. In case, the equipment is purchased in Indian Currency then the payment will be made as per following scheduled.

b. 90% payment will be released against delivery and successful installation of the equipment & balance 10% will be released on submission of 10 % Bank Guarantee of the total cost of ordered value. This Bank Guarantee will be released after expiry of guarantee period.

c. L. C. will be opened only after receipt of the 20% bank Guarantee of the total cost of equipment (with a minimum validity to cover up the warranty / guarantee period), confirmation letter of all our terms and condition, submission of agency certificate in favour of Indian agent who have submitted and quoted the price, name of the Bankers abroad; intimation about country of origin and 10 copies of Performa invoice of the ordered item. Indian Agency commission will be paid in Indian currency only to Indian agent, if any. No extra charges will be paid for installation/demonstration and training to personnel.

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. <u>Responsibility:-</u>

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

16. The bidder is required to provide list of persons (along with their permanent and correspondence address) owing more than 1% share ownership in the company/firm (both principle and Indian Agent).

17. The bidder is required to submit compliance sheet, which should reflect details of clause-by-clause compliance of technical specifications as well as general terms & conditions failing which their offer shall be rejected.

18. In order to fully and optimally utilize the equipment, training to paramedical staff and Doctors should be provided. In continuation to this training a separate maintenance training for the machine and the sub system should also be given to the Equipment Maintenance Engineer and Maintenance Technicians of the Institute. All the financial commitment in this regard shall be met by the firm/Principal.

19. Penalties for non-performance

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

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

20. **Termination of Contract**

a. Termination for default:- The Institute, without prejudice to any other contractual rights and remedies available to it (the Institute), may, by written notice of default sent to the successful bidder, terminate the contract in whole or in part, if the successful Bidder fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Institute.

b. In the event of the Institute terminates the contract in whole or in part, the Institute may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the successful bidder shall be liable to the Institute for the extra expenditure, if any, incurred by the Institute for arranging such procurement.

c. Unless otherwise instructed by the Institute, the successful bidder shall continue to perform the contract to the extent not terminated.

d. Termination for insolvency: If the successful bidder becomes bankrupt or otherwise insolvent, the Institute reserves the right to terminate the contract at any time, by serving written notice to the successful bidder without any compensation, whatsoever, to the successful Bidder, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Institute.

e. Termination for convenience: - The Institute reserves the right to terminate the contract, in whole or in part for its (Institute) convenience, by serving written notice on the successful bidder at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Institute. The notice shall also indicate interalia, the extent to which the successful bidder's performance under the contract is terminated, and the date with effect from which such termination will become effective.

21. **Fall Clause**:

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

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

a. The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.

b. All disputes arising out of this tender will be subject to the jurisdiction of courts of law in Patna (Bihar, India).

Director,
IGIMS - Patna
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CHAPTER:

Schedule of the Requirement.

SCHEDULE OF THE REQUIREMENT

Sl No	Name of the Department	Name of the equipment
Group	Name of Department	Name of Machine Equipments
A		**As mentioned in the NIT**

ANNEXURES

Annexure - I (a)

PRICE SCHEDULED FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN

LOCATED WITHIN INDIA.

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

Total quoted price in Rs. ……..

In Words: ……

Note:

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

Place: Name:

Date: Business Address;-

Signature of Bidder;-

Seal of the Bidder;-

Annexure: I (b)

PRICE SCHEDULED FOR GOODS TO BE IMPORTED FROM ABROAD

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

To be paid in Indian Currency (Rs) : ……..
Total Tender Price in Foreign Currency:……
In Words;-……

Note:-

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.

2. The charges for Annual CMC after warrantee shall be quoted separately as per price scheduled.

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

Indian Agent;-
Indian agency commission: % of FOB

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

Place;-
Date

Annexure - II

COMPREHINSIVE ANNUAL MAINTENANCE CONTRACT PRICES SCHEDULE

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

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

a) The rate of Comprehensive Annual Maintenance Contract as mentioned above should cover the Complete System. Complete System should include the basic unit and allied supporting components like UPS, Stabilizer, Computer System, Printer, De-ionizer, Dehumidifier etc to be supplied by the bidder along with basic unit.

b) **Preventive maintenance visit:** Four Maintenance visits at regular interval for usual maintenance & supervision failing which 25% of the contract amount per visit would be deducted as penalty.

c) **Break down maintenance visit:** As & when required

d) **Response Time:** within 48 Hours.

e) Uptime Guarantee: 95% of 365 days

f) The above-mentioned charges should includes labour charges for maintenance and breakdown visits per year, spares, accessories and all type of consumables required for the maintenance of the supplied items. If any spares / consumables /accessories etc. are not covered under above-mentioned charges; it should be clearly mentioned with frequency of replacement and with rate. The validity of rate of such items should also be mentioned clearly. What will be the rate of escalation on the quoted rate after expiry of the validity of rate of such item must be mentioned.

g) Payment of Comprehensive Annual Maintenance Contract would be made on half yearly basis after completion of work and satisfactory working report. In no case, advance payment is to be considered.

Seal and Signature of the bidder

ANNEXURE – III

MANUFACTURER'S AUTHORISATION FORM

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

No.

Dated:

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

Dear Sir,

Tender No :
Equipment Name :

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

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

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

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

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

Date: (Name of manufacturers)

Place:

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

ANNEXURE – IV

BANK GUARANTEE FORM

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

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of tender no_____ dated _____ (herein after called "the contract") to supply The Director, Indira Gandhi Institute of Medical Sciences, (address) with …… (description of goods and supplies).

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

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

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

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

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

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

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

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

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

(Signature with date of the authorized officer of the Bank) ……
Name and designation of the officer
……
……
Seal, name & address of the Bank and address of the Branch

ANNEXURE - V

POWER OF ATTORNEY

(On a Stamp Paper of relevant value)

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

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

Dated this the ___day of 201_ For_____

(Name, Designation and Address)

Accepted

_____

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

Date : _____

GROUP A(Radiology)

(a) Technical specification for DSA Digital mammography system

Full field digital mammography system with lowest radiation dose.

The machine should be supplied with digital breast Tomosynthesis, stereotactic biopsy and vacuum assisted biopsy. Only manufacturer / or their authorized subsidiaries are allowed to quote the tender.

Technical specifications must be supported with product data sheet.

The detailed specifications that follow shall be understood to be minimum requirement and any additional features of the equipment offered should be specified separately which has to be offered as a slandered without any extra cost. Such additional features if beneficial for department and patient will be given due consideration.

Specification:

1. X-Ray generator:
   - Micro processor controlled High frequency generator
   - Power out put- 5KW or more
   - Tube current- 100 mA or more
   - mAs range- 4-500 mAs or more
   - kV rage – 20+-4kv to 35 kv or more. It should be in 1kv steps or less
   - Displayed parameters kV, mAs, target filter, density selection.
2. X-Ray tube:
   - Single tract with duel focus or duel tract with quadruple focus X-ray tube
   - Focal spot size- smaller-0.1 mm, larger-0.3 mm or less. Please mention anode material
   - Anode heat storage capacity- 200 KHU or more
   - Specify the inherent filtration used in the tube.
3. Gantry assembly:
   - It should be an iso centric system
   - System should have fully motorized rotation and up/down movement
   - The angle of the C-arm movement should be at least +180 to -180 deg +- 30 deg
   - The breast compression device should be motorized, automatic, controlled by foot paddles as well as from gantry. There should be automatic decompression after exposure. There should be facility to release compression in case of power failure.
   - There should be provision for motorized and manual compression with digital display of compression force and compression thickness.
   - SID should be 60 cm or more
   - Mention the grid ratio.
   - Following paddle one each should be supplied as slandered-
     a. Small paddle- 18x24 cm +- 1cm
     b. Large paddle – 24x30 cm +-1cm
     c. 1.8 or 1.5x magnification attachment
     d. spot magnification paddles
     e. Axilla paddle.

f. Alpha numeric window paddle for wire localization
g. Window paddle for stereotactic biopsy
h. Wall mounted OEM hanger for keeping these paddles.

4. Exposure control:
   - Should have manual, semi automatic, automatic mode. The anode track and filters shall be selected automatically
   - Should display the dose after each exposure.
5. Flat panel detector
   - Size at least 24 x 30 +/- 1 cm.
   - Pixel size should be 100 micrometer or less.
   - Detector technology and material used should be mentioned.
6. Digital acquisition system:
   - Image storage capacity should be 8000 images or more
   - Should provide 3 MP 19" medical grade LED/LCD monitor with high luminance.

- It should be possible to receive the demographic patient data directly from HIS. Demographic data may also be entered manually. Retrieval of images from CD, DVD or PACS should be possible.
- Should be DICOM ready
- Dry Laser camera with at least 2 online film tray compatible for sizes 8x10 and 11x14 inches, 500 dpi or more for printing digital images should be supplied.

7. Reporting work station and Archiving
8. The following monitors required are in addition to the acquition workstation including monitor/monitors (depending upon vendor configuration).
   -Two 5MP medical grade (DICOM calibrated) monitor, approved for mammography and tomosynthesis.
   Dedicated mammography workflow key pad with track ball.
   - The following imaging processing should be possible on the work station:
     - Measurements
     - Zoom, Roam, Magnification
     - Brightness, contrast changes
     - Image inversion
     - Contrast enhancement processing
     - Flip rotate inward
     - Annotations, measurements
     - Image evaluation like contrast enhancement histogram display, length measurements before and after compression etc.
     - There should be a DVD ROM drive with quadrant or selected zooming function. RAM should be not less than 4 GB. Hard disc capacity should be 1Tb or more.

- PACKS based archiving.
- There should be highly effective Computer Added Detection (CAD) digital mammography solutions for early detection of cancer. There should be advanced technology for identification of micro calcifications and suspicious lesions.
- Multi modality viewing and reporting software should be provided on workstation for reporting of MRI, CT, X-Ray, USG

- Optional item- vendor neutral US FDA approved Breast density Assessment software should be coated as optional item with price separately mentioned.

9. TOMOSYNTHESIS

- System should have USG , mammography and MRI compatible driver and have dual mode for normal & deuse breast .
- Tomosynthesis scan angle should be 15 degree or more
- Specify scan time
- Number of projection – specify
- Distance between reconstructed images – 1 mm or less
- It should be possible to re construct 2D image with acquired projections.
- 2D plus Tomosynthesis acquisition should be possible in single breast compression

9. Stereotactic Biopsy system

- It should be fully compatible with Full Field Digital Detector
- Should have facility to do stereotactic biopsy automated on all gantry positions.
- Facility for needle core biopsy, fine needle aspiration, vacuum assisted biopsy and wire localization
- Should be based on main imaging detector
- Ergonomically designed hydraulic / motorized high quality Mammography positioning chair for screening and biopsy procedure, capable for lateral biopsy also. It should be possible to fully recline the back rest for supine position of the patient.
- Unit should be supplied with vendor neutral Vacuumed Assisted Biopsy System. System should have USG, Mammography and MRI compatible driver and have duel mode for normal and dense breast.

Provide Make, Model and technical details of offered system. The reusable needle guides for FNAC and needles for core biopsy of 10G and 14 G should be supplied.

- 50 numbers of disposable vacuum biopsy kits of various gauge sizes, including biopsy probe, tubing, canister, tumor site marker clips and needle holder with each kits to be provided. Unit price of such kit should be separately quoted for future requirements.

10. Others-
    - Should be supplied with transparent lead radiation shield, face shield, quality control tool kit, user manual, technical documentations, etc
    - Necessary furniture including tables for work station, wall mounted storage cabinet to keep accessories, ergonomic chairs (3 no) of reputed brand.
    - Dedicated online UPS for complete system including workstation for at least 30 minutes.
    - Should be supplied with ACR phantom for caliberation
    - The offered model should have AERB type approval certificate or NOC from AERB. In case of NOC, AERB approval shall be obtained before installation, by the supplier.
    - The Digital mammography unit with all features as per specification as well as stereotactic system, CAD, reporting work station and Tomosynthesis should be European CE / US FDA approved.
    - Site approval plane from AERB has to be done by the company without any extra cost.
    - Two weeks onsite training to technician and doctor by trained company person.
11. Buyback offer:
    Buyback offer should mention for existing analog mammography machine, NOVA 3000 make Siemens. Price for the machine should be mentioned.

12. 5 years warranty on entire system including X-ray tube, detector, monitors, work station and all accessories supplied with the unit should be provided. Next 5 years comprehensive annual maintenance contract including all items mentioned in warranty should be quoted. Yearly CAMC charges should be quoted in the price bid.
13. Unit to be installed on TURNKEY basis, including mammography and adjacent reporting room. This includes civil, electrical and air-conditioning work. Floor and wall tiles in both room. Air-conditioning as required for the facility should be quoted. Isolated patient changing area with curtains should be provided. Site modification as per AERB requirement will be vendors responsibility. The vendor should visit the site before quoting.

(16 Slice C T Scan Machine)

(b) SPECIFICATION FOR A WHOLE BODY 16 SLICE SPIRAL CT SCANNER

Whole body CT Scanner with Multi Slice Capabilities with 16 slice or more acquisitions per rotations and system should be currently under production. The CT scanner should be latest and equipped with raw data based iterative reconstruction technology. Quoted model should be USFDA & European CE Certified.

The System should have following essential features

1. **X-RAY GENERATOR**:

a. High frequency generator on board gantry fitted with sufficient capacity.

2. **X-RAY TUBE**:

a. Mention X-Ray Tube with anode heat storage capacity.

b. Peak Anode heat dissipation rate of at least 500 KHU/min.

c. Mention focal spot size

d. The mA output should be 200mA or more

e. The kV range of at least 80-140 kVp with minimum 3 or more steps.

f. Iterative reconstruction / scan techniques which improves the system performance should be available.

3. GANTRY AND SCANNING TABLE:

a. Gantry Aperture – 70 cm
b. Gantry tilt of at least -30/+30 degree or equivalent digital tilt with same capability
c. Scan Field of View (FOV) - 40cm or more
d. 360-degree rotation should be possible in Sub Second
e. Scanning Table load of at least 180kg with position accuracy of 0.25mm
f. Metal free Scannable range of at least 120cm or more
g. Dedicated Pediatric Scan FOV should be available
h. Dedicated Pediatric Scan FOV should be available
i. 2 sets of all patient positioning accessories should be supplied with system.

4. OPERATOR CONSOLE:

a. The operators console should have architecture to allow simultaneous scan, reconstruct, and archive with a RAM of at least 8 GB or more and a hard disk capacity to store at least 250000 images in 512 matrix. The console should allow simultaneous scan, reconstruct, and archive. The total hard disk capacity should be more than 500 GB for image storage, raw data storage and application software.

Custom designed Key board that includes all of the controls necessary to control scan, display and archive including emergency stop and patient intercom.

b. Multi format filming with flexible filming format should be possible

c. CT Perfusion, CT Colonoscopy, Dental CT, Brain DSA Studies, Auto Bolus Tracking should be possible on Main Console as well as on both the Workstations

5. Detector

a. Latest detector technology capable of acquiring 16 slices or more per rotation

b. It should be free from repeated Calibrations.

c. Minimum Slice Thickness should be 0.8mm or lower.

d. Min 16 rows of detector should be available.

6. Image Quality:

a. High Contrast Spatial Resolution

It should be at least 17lp/cm at 0% MTF using clinical algorithm

b. Low Contrast Detectability

5mm or less @0.3% using 20cm CATPHAN on 10mm slice thickness. Mention the dose to achieve this IQ.

7. SCAN TIME:

Mention all scan times possible with the system in Axial and Spiral mode

8. SLICE THICKNESS:

The system should provide multiple selections of slice thicknesses. Minimum slice thickness should be 0.8mm or lower.

9. SPIRAL MODE SPECIFICATIONS:

a. Continuous data acquisition with overlapping slices.

b. Maximum helical for single continuous spiral of at least 90 Seconds.

c. There should be algorithmic correction for cone beam artefact for high pitch spiral. Mention the maximum table speed/s with cone beam correction.

d. Dedicated paediatric protocols must be available

10. IMAGE PROCESSING SYSTEM:

a. Main CPU unit with at least 8GB RAM and 2.33 GHz dual or quad processors

b. Image reconstruction speed must be more than 12 images/sec

c. Image Reconstruction matrix at least 512 x 512.

d. Display matrix at least 1024x1024.

e. High resolution color LCD Monitor 20" or more

f. Image archiving on DVD/CD/MOD should be available. In case of MOD -10MODs rewritable may be supplied. In case of CD-1000 CDs maybe supplied along with.

g. Image storage Capacity of at least 250,000 images in 512 matrix.

11. FILMING:

Laser Camera DICOM Compatible, with latest model camera should be able to take all standard make of films.

12. Independent WORKSTATION: Total Quantity: 2 Sets; 1 Set should be of Multimodal capacity to connect and process the MR/DR/Mammography Images also.

a. The workstation should be of at latest version with LED/LCD Monitors and with at least 12 GB RAM & Hard disc capacity of 1 TB. Also, must have fastest reconstruction time available and should have DICOM-3.0 compatibility. It should have parallel processing capabilities. Direct filming facility from the main console and workstation must be provided.

b. 3D rendering methods - Following 3D rendering methods should be possible - Surface, MiP, MinIP, RaySum, Integral

c. Multi object merging, Joint disarticulation should be possible

d. Simultaneous processing of multiphasic data with multi object merge between these phases should be possible

e. Segmentation tools - Scalpel, Paint brush, Auto click select or remove bone, vessel, structure should be standard.

f. CT colonoscopy with CAD capability, vertical dissection view and polyp analysis capability

g. Virtual Endoscopy with auto navigation should be possible without prescribing multiple points

h. Dental CT with capability for life size images on film should be possible
i. CT Angiography processing with - automatic bone removal and vascular analysis for all region including head and neck
j. All clinical application of the system console should be possible with both the Independent Workstations.

13. IMAGE TRANSFORMER/NETWORKING:

The unit should have DICOM Interface for transmitting images and information in DICOM standard and to permit communication between devices of various manufactures. The unit should have provision for connectivity of the Hospital Information System/Radiology Information System.

14. STANDARD SOFTWARES:

a. Routine software for image evaluation and display with minimum three region of interest (ROI), Angles and distance measurements. Histogram display profile, symmetry comparison, variable, multiple image display with independent window image, annotation and labelling, image addition and subtraction and volume artefact reduction capability, reversal of gray scale value and image filter functions reference scales topogram evaluation etc.
b. The CT console should have 3D and 2D processing capabilities such as - 3D surface, Volume rendering, multi object merge, CT Angio. MPR, MPVR, Virtual Scopy etc.
c. Direct Multi Planar Reconstruction should be standard feature - should be able to create MPR images in atleast in 3 orthogonal planes directly during scan.
d. Dynamic CT Scanning, oblique MPR, MIP capabilities to be provided as standard software. Real time reforming of secondary views with reconstruction facilities in sagittal, coronal, paraxial, oblique and irregular (curvilinear). Outline should be determined in the topogram or in sagittal images.
e. Zooming by reconstruction of the raw data. Image planning and zooming should be possible. Real time monitoring of contrast bolus injection. All these software's are to be available on the main console.
f. Should have Virtual endoscopy software for visualization of vessels and air-filled structures and Colonography software for virtual endoscopic, colon study.

15. ESSENTIALS TO BE SUPPLIED WITH THE UNIT:

a. UPS - Full System on line UPS with MF batteries for the main computer system, digital imaging process and provision of light in console room and gantry room with backup time of 30 mins.
b. Lead Glass: 60cm X 120 cm or more with lead equivalent as per the safety norms.
c. Pressure Injector: Single Barrel Pressure Injector - Medrad or equivalent make latest model with inter phase software along with 200 disposable syringes with connectors.
d. The offer should be accompanied by original product datasheet, brochure of the quoted model along with AERB Type Approval, US FDA 510K and CE certificates.
e. A set of System Operation and Service Manual should be supplied with system.
f. 4 numbers of Ultra Lightweight Zero Lead Apron along with an Apron Stand should be supplied with System.
g. 2 numbers of Table, 4 numbers of Chairs, 1 Instrument/Medicine Trolley, 1 number of Collapsible Wheel Chair and 1 Patient Trolley and 3 no. of LED View Box of 3/4 film size.
h. Calibration Phantom
i. On-site training to the Doctors and Technologists for 30 days in two schedules of 15 days each
j. Facility for non-invasive monitoring of Oxygen Saturation, BP, Respiratory Rate and Skin Temp for both paediatric and adult patients.
k. HIS/RIS and MWM with Q/R for PACS interface

16. Dry Imager:

a. A dry imager with Digital Interface and control integrated with main console
b. Camera should have 16 bits and 500 dpi of resolution and capable of printing multiple film size including 14x17 cm with at least 3 active ports.

17. Warranty :

a. System be quoted with 5 years of warranty from the date of installation.

b. Warranty should cover all the spares parts including X-Ray tube, UPS Batteries, Turnkey and all accessories supplied with unit. This will be followed by 5 years comprehensive AMC with same terms as warranty. Yearly break-up AMC charges should be quoted in price bid.
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18. Turnkey: The vendor should visit the site before quoting
a. As per AERB norms
b. Site registration with AERB should be vendor's responsibility
c. Civil & Electrical Work
d. Vinyl Flooring, Furniture, Air Conditioning, Wall Painting, Lead Door, Lightening & Electrical wiring etc should be vendor's responsibility.

Group-B(Urology)(O T Table)

(a) Technical Specification for Electro Hydraulic Operation Table:

Operation theatre table :

1. Product should be of international quality and US FDA & CE approved certified ISO 13485:2003 certified.
2. The five section table top should X-Ray translucent for fluoroscopy with c-arm with radiolucent mattress and facility to load X-Ray cassettes to the table. There should be no metal frame across especially between back and seat section.
3. With remote control the following positions should be possible.
    a. Table up and down
    b. Table top longitudinal sliding both cranially and caudially. The total sliding should be atleast 350 mm or better
    c. Side tilt / lateral left and right.
    d. Trendlenburg and Reverse Trendlenburg.
    e. Back section up and down.
    f. Flex / Reflex positioning should be pre-programmed and therefore should be achievable by press of a single button.
    g. Powered Floors lock and unlock with manual emergency release.
    h. Auto levelling
4. Radiolucent five section table top in head section, back section, seat section with perineal cut and split leg section.
5. Should have Inbuilt Battery backup as standard and about 80-100 operations should be possible during power failure.
6. Should have Inbuilt override control at the base fixed in the centre column for all movements in case of remote failure.
7. All metal components of the table should make of aluminium or stainless steel SUS304 with atleast two antistatic heavy duty castors.
8. Should have accessory rails on both sides to hold various accessories.
9. Should be suitable for patient load proof at least 450 kgs in Up and Down position
10. Self compensating floor locking device.
11. Table should be interchangable both leg and head section
12. The mattress should be a pressure management pad mattress with at least80 mm thicknesses.

13. Safety
    a. IEC 60601-1:- Medical electrical equipment-Part 1: General requirement for basic safety and essential. Perforation-Edition 3.1;
    b. IEC 60601-2-46:- Medical electrical equipment-Part 2-46: Particular requirements for the basic safety and Essential Performance-Collateral Standard: Usability-Edition 2.0 IEC 60601-1-6: Medical Electrical Equipment-Part 1-6: General Requirements for Basic Safety and Essential Performance-Collateral Standard Usability-Edition 2.0

Technical data :

- Height adjustment minimum should be 690 mm or lesser.
- Side Tilt 20 deg or more
- Back section adjustment 80deg up and 40 deg down or more.
- Leg section adjustment 15 deg up and 90 deg down or more.
- Trendlenburg adjustment atleast 30 deg.
- Extendable head rest 60 deg up and 90 deg down.
- Tabletop Width (w/o Side Rails) should be more than 500mm.
- The table length (With Extendable head Plate) should be atleast 2000mm
- Powered longitudinal sliding – 350mm or more, should be possible both head side & leg side. Total long sliding should be more than 110 mm towards leg side and more than 230 mm on head side.

Listed standard accessories should be given

- Aneasthesia screen frame
- Body Strap
- Lateral support
- Leg crutches
- Raised arm rest with clamps-1 pair
- Foot rest with side rail clamp-1 pair.
- Urology Drain Dray Set
- Contamination bucket
- Gel pad for urology application and to protect pressure points

Tender Specification for Specialised Leg Stirrups with lift assist technology.

- Product should be of International quality with **CE and ISO** certified.
- Allen Yellofin stirrups with **lift assist** for lithotomy & abduction with weight carrying capacity of 155 Kg or above.
- The abduction range should be between + 25^{o} to -9^{o}.
- Lithotomy positioning range should be possible between + 84^{o} to - 33^{o}.
- Extending the boots to the lateral side (left & right) should be possible by squeezing grip handles.
- Leg holder should be movable in all angled direction by squeezing the grip handle.
- Indicators' / scale markings should be available for precise positioning.
- Raise and abduction by single hand for ease of operation.
- The length of the pad lining the boot should be in such a way that it should cover the peroneal nerve, besides covering the head of the fibula.
- Boots should be self adjusting type to minimize pressure on the calf.
- Should be supported with required reusable pads, clamps
- Ideal for Use with GYN, UROLOGICAL, LAPROSCOPIC, ROBOTIC & COLORECTAL PROCEDURES.

(b)Technical Specification for Saline TURP with Electro-Cautry

Transurethral resection is the endoscopic removal of prostate glands or bladder lesions. Transurethral resections are usually applied for relief of prostatic obstructions or curative treatment of bladder tumors. Saline TURP is the same procedure but isotonic irrigation fluid (NaCl 0.9%) be used. In this system risk of TUR-Syndrom is reduced, current flow through the patient is minimized and a patient plate is not necessary any more.

This system should be compatible with following procedures :

- Saline TURP - Conventional TURP -TUVP(Trans urethral vaporization of prostate) -TUEB(Transurethral Enucleation with Bipolar) -TURBT (Transurethral resection of the bladder tumour) - Open Monopolar - Open Bipolar - Laparo-Monopolar - Laparo-Bipolar

System Should have following features :

Output mode :Monopolar, Bipolar and Saline Monopolar cutting : PURE, BLEND, URO Monopolar Coagulation : COAG.1, COAG.2, SPRAY Bipolar Cutting : PURE

Bipolar Coagulation : SOFT1, SOFT2, HARD Saline cutting : PURE, BLEND Saline coagulation : COAG.1, COAG.2 Base Frequency : 350kHz

Protection against electric shock : Class I Type CF Weight should not be more than 12 Kg. Automatic Smoke Evacuation facility Outter Sheath Should have Manitenenace free stop cocks Electrosurgery unit should be upgradeable to Vessel sealer for Lap-Uro procedures like:Prostatectomy, Nepherectomy etc.

The Energy System Should Have The following features:

Large Illuminated Touch Screen Pannel

Simple preset functions for upto39 Memory Spaces

Automated saline detection to ensure safe procedure

Leakage protection Sensor to permanently ensure the highest degree of safety for the user and patient

High Power Cut Support for optimizing resection in saline

Fast Spark Monitor for constant cutting quality

Three Effect Option to control the coagulation zone

System should includes following :

- Electrosurgical Unit(QTY-1) - Footswitch(QTY-1) - Telescope, 30 Degree, 4 mm, Autoclavable(QTY-2) - Bipolar Active Working Element(QTY-1) - Bipolar Passive Working Element(QTY-1) - Bipolar HF-Cable(QTY-2) - Rotatable Outer Sheath, 26 Fr., 2 stopcock(QTY-1) - Resection Inner Sheath, 24 Fr.(QTY-1) - Small Loop Electrode (12 Pcs) -Medium Loop Electrode(12 Pcs) -Large Loop Electrode(12 Pcs) - Roller Electrode (12 Pcs) - Needle Electrode (12 Pcs) - Button Electrode for TUVP and TURBT (12 Pcs) - Enucleation Electrode for TUEB (12 Pcs) - Light Guide Cable, 3.5 mm, 3 Meter(QTY-2) - Cystoscope Sheath, 22.5 Fr.(QTY-2) - Cystoscope Bridge, 2 Way(QTY-2) - Rotatable Irrigation Port, 2 Stopcocks(QTY-2) - Ellik Evacuator(QTY-2)
- Telescope 12.5 degree ,4 mm,autoclavable (QTY-2)

Group-C(ENT)

Rate contract for supply of Implantable Hearing `Device(ENT)

(a) Rate Contract for supply of Implantable Hearing Device" for a period of one year.

Technical Specification of Implantable Hearing Devices

1. BASIC COCHLEAR IMPLANT SYSTEM

(1) Implant Casing - Hermetically Sealed Titanium Casing of Non-reactive Material.

(2) Intra- Cochlear Electrode Array-

A. Multiple Electrode channels (=/>12), smooth outer surface for atraumatic insertion

B. Availability of various options for active electrodes, when needed for use in cases of different cochlear anomalies, at the same price. (Kindly provide details in brochure and compliance sheet)

C. Even the basic implantable unit should have compatibility & upgradeability with latest advanced available speech processorsand should be based on latest technical platform from the company.

D. Simultaneous multiple independent current sources

E. Specify Stimulation rate, spectral bands and number of independent current sources in compliance sheet.

(3) Speech Processor-

A. Options of Behind the Ear (BTE) Speech Processor with the ability to store Multiple Programmes

B. Microphone at head/ear level.

C. Should have Wide Input Dynamic Range of 75DB or more with Automatic Sound Management to adapt automatically to different challenging environments. The sound management should be fully automatic with no manual switches to change the program.

D. Should have minimum frequency range of up to 8000 Hz

E. To include all standard Accessories (List of standard accessories to be provided by the manufacturer). It should also include User Remote Control and Electronic Dehumidifier.

(4) Power Source- Powered by rechargeable cells/Rechargeable battery pack. Recharging equipment & Rechargeable Zinc air cells (at least three or more)/battery pack to be supplied by the manufacturer.Commitment for their free replacement, if they malfunction, within warranty period.

(5) External Components -

A. Robust and Long Lasting, Resistance against Non-condensing Moisture.

B. Two sets of all spares and cables and commitment towards free replacement of external components not covered by warranty to be provided for a minimum period of 3 years from date of implantation.

C. Provision of loaners to the center for immediate replacement to the user.

(6) Speech Coding Strategy –Proven & internationally accepted latest speech coding strategy.

(7) Implant Integrity Testing Ability- Ability to test implant and electrode integrity and function both inter-operatively and post-operatively.

(8) MRI Compatibility- MRI Compatibility at 1.5 Tesla or more without removal of the magnet.

(9) FM Compatibility- Compatibility with standard FM based group therapy system and FM transmitters and other battery operated Assistive Listening Devices (ALDs)

(10) Telecoil/Telephone Compatibility- Telephone Compatibility with inbuilt/snap-ontelecoil/telephone adapter.

(11) FDA Approval- US FDA approval for complete implant system(BOTH Speech Processor and Implant) for implantation in pediatric and adult patients.

(12) Product Support- For the Life of the product including implanted and external components, software and hardware. Free upgrade of hardware/software support for product in case existing implant system is discontinued by manufacturer.

(13) Infrastructure Support –

a. All necessary hardware and software required for pre-operative, intra-operative and post-operative testing and programming for the implanted should be provided free of cost to the center.

b. Implant specific surgical kit should be provided free of cost to the center.

c. Upgrade to be provided free of cost as and when necessary.

(14) Technical Support- Onsite Technical Support for hardware/software/programming related problem should be provided as and when required within 48 hours.

(15) Service Support- Provision of spares/loaners for equipment defects/ malfunctions within 48 hours in case the equipment requires to be returned to company/manufacturer for a period exceeding 24 hours including equipment not covered under warranty.

(16) Warranty-Comprehensive replacement and repair warranty is to be provided as follows:

A. Cochlear Implant: 10 years from the date of surgery.

B. External Components, including Speech Processor & battery packs, cables & coils: 3years from the date of switch on.

C. Consumable such as batteries chargers, rechargeable batteries - 2 years from the date of switch on.

(17) Training-

A. Training of medical and paramedical personal and continuing education to be provided by the manufacturer as and when required.

B. Training should include surgical procedures/techniques/advances; implant audiology, rehabilitation, support and hardware/software troubleshooting.

(18) At least one year of speech and rehabilitative therapy,which would include mapping etc.

(19) The manufacturer/Distributors/Authorised Dealer/Agent can be quote.

2. ADVANCED COCHLEAR IMPLANT SYSTEMS

(1) Implant Casing - Hermetically Sealed Titanium Casing of Non-reactive Material.

(2) Intra- Cochlear Electrode Array-

A. Multiple Electrode channels (=/>12), smooth outer surface for atraumatic insertion

B. Availability of various options for active electrodes, when needed for use in cases of different cochlear anomalies, at the same price. (Kindly provide details in brochure and compliance sheet)

C.Even the basic implantable unit should have compatibility & upgradeability with latest advanced available speech processorsand should be based on latest technical platform from the company.

D. Simultaneous multiple independent current sources

E. Specify Stimulation rate, spectral bands and number of independent current sources in compliance sheet.

(3) Speech Processor-

A. Advanced BTE audio processor with option of multiple speech coding strategies; should have control of microphone sensitivity, volume, alarm and auto features; wide input dynamic range with automatic sound management to adapt automatically to different challenging environments; protection against on-condensing moisture; lesser battery consumption; sleek design

B. Microphone at head/ear level.

C.Should have Wide Input Dynamic Range of 75DB or more with Automatic Sound Management to adapt automatically to different challenging environments. The sound management should be fully automatic with no manual switches to change the program.

D.Should have minimum frequency range of up to 8000 Hz

E.To include all standard Accessories (List of standard accessories to be provided by the manufacturer). It should also include User Remote Control and Electronic Dehumidifier.

(4) Power Source- Powered by rechargeable cells/Rechargeable battery pack. Recharging equipment & Rechargeable Zinc air cells (at least three or more)/battery pack to be supplied by the manufacturer.Commitment for their free replacement, if they malfunction, within warranty period.

(5) External Components -

A.Robust and Long Lasting, Resistance against Non-condensing Moisture.

B.Two sets of all spares and cables and commitment towards free replacement of external components not covered by warranty to be provided for a minimum period of 3 years from date of implantation.

C. Provision of loaners to the center for immediate replacement to the user.

(6) Speech Coding Strategy –Proven & internationally accepted latest speech coding strategy.

(7) Implant Integrity Testing Ability- Ability to test implant and electrode integrity and function both inter-operatively and post-operatively.

(8) MRI Compatibility- MRI Compatibility at 1.5 Tesla or more without removal of the magnet.

(9) FM Compatibility- Compatibility with standard FM based group therapy system and FM transmitters and other battery operated Assistive Listening Devices (ALDs)

(10) Telecoil/Telephone Compatibility- Telephone Compatibility with inbuilt/snap-ontelecoil/telephone adapter.

(11) FDA Approval- US FDA approval for complete implant system(BOTH Speech Processor and Implant) for implantation in pediatric and adult patients.

(12) Product Support- For the Life of the product including implanted and external components, software and hardware. Free upgrade of hardware/software support for product in case existing implant system is discontinued by manufacturer.

(13) Infrastructure Support –

a. All necessary hardware and software required for pre-operative, intra-operative and post-operative testing and programming for the implanted should be provided free of cost to the center.

b. Implant specific surgical kit should be provided free of cost to the center.

c. Upgrade to be provided free of cost as and when necessary.

(14) Technical Support- Onsite Technical Support for hardware/software/programming related problem should be provided as and when required within 48 hours.

(15) Service Support- Provision of spares/loaners for equipment defects/ malfunctions within 48 hours in case the equipment requires to be returned to company/manufacturer for a period exceeding 24 hours including equipment not covered under warranty.

(16) Warranty-Comprehensive replacement and repair warranty is to be provided as follows:

A.Cochlear Implant: 10 years from the date of surgery.

B. External Components, including Speech Processor & battery packs, cables & coils: 3years from the date of switch on.

C.Consumable such as batteries chargers, rechargeable batteries - 2 years from the date of switch on.

(17) Training-

A. Training of medical and paramedical personal and continuing education to be provided by the manufacturer as and when required.

B. Training should include surgical procedures/techniques/advances; implant audiology, rehabilitation, support and hardware/software troubleshooting.

(18) At least one year of speech and rehabilitative therapy,which would include mapping etc.

(19) The manufacturer/Distributors/Authorised Dealer/Agent can be quote.

3. AUDITORY BRAIN STEM IMPLANTS

(1) **Implant Casing -** Hermetically Sealed Titanium Casing of Non-reactive material.

(2)**Electrode Array**-

A. Multiple Electrode channels (=/>12).

(**3**) **Speech Processor**- Advanced BTE audio processor with option of multiple speech coding strategies; should have control of microphone sensitivity, volume, alarm and auto features; wide input dynamic range with automatic sound management to adapt automatically to different challenging environments; protection against non-condensing moisture; lesser battery consumption; sleek design.

(4) Power Source- Powered by rechargeable cells/Rechargeable battery pack. Recharging equipment & Rechargeable Zinc air cells (at least three or more)/battery pack to be supplied by the manufacturer.Commitment for their free replacement, if they malfunction, within warranty period.

(5) External Components -

A.Robust and Long Lasting, Resistance against Non-condensing Moisture.

B.Two sets of all spares and cables and commitment towards free replacement of external components not covered by warranty to be provided for a minimum period of 3 years from date of implantation.

C. Provision of loaners to the center for immediate replacement to the user.

(6)Speech Coding Strategy –Proven & internationally accepted latest speech coding strategy.

(7)Implant Integrity Testing Ability- Ability to test implant and electrode integrity and function both inter-operatively and post-operatively.

(8)MRI Compatibility- MRI Compatibility at 1.5 Tesla or more without removal of the magnet.

(9)FM Compatibility- Compatibility with standard FM based group therapy system and FM transmitters and other battery operated Assistive Listening Devices (ALDs)

(10)Telecoil/Telephone Compatibility- Telephone Compatibility with inbuilt/snap-ontelecoil/telephone adapter.

(11)FDA Approval- US FDA approval for complete implant system(BOTH Speech Processor and Implant) for implantation in pediatric and adult patients.

(12)Product Support- For the Life of the product including implanted and external components, software and hardware. Free upgrade of hardware/software support for product in case existing implant system is discontinued by manufacturer.

(13)Infrastructure Support –

a. All necessary hardware and software required for pre-operative, intra-operative and post-operative testing and programming for the implanted should be provided free of cost to the center.

b. Implant specific surgical kit should be provided free of cost to the center.

c. Upgrade to be provided free of cost as and when necessary.

(14)Technical Support- Onsite Technical Support for hardware/software/programming related problem should be provided as and when required within 48 hours.

(15)Service Support- Provision of spares/loaners for equipment defects/ malfunctions within 48 hours in case the equipment requires to be returned to company/manufacturer for a period exceeding 24 hours including equipment not covered under warranty.

(16)Warranty-Comprehensive replacement and repair warranty is to be provided as follows:

A.Cochlear Implant: 10 years from the date of surgery.

B. External Components, including Speech Processor & battery packs, cables & coils: 3years from the date of switch on.

C.Consumable such as batteries chargers, rechargeable batteries - 2 years from the date of switch on.

(17) Training-

A. Training of medical and paramedical personal and continuing education to be provided by the manufacturer as and when required.

B. Training should include surgical procedures/techniques/advances; implant audiology, rehabilitation, support and hardware/software troubleshooting.

(18) At least one year of speech and rehabilitative therapy,which would include mapping etc.

(19) The manufacturer/Distributors/Authorised Dealer/Agent can be quote.

4. MIDDLE EAR IMPLANTS

(1) Implant Casing: Titanium

(2) Placement device in middle ear: Single point attachment

(3) Indications: For conductive hearing loss, mixed hearing loss, SNHL

(4) Audio processor: Single unit processor can be worn discreetly

(5) Microphone: Directional and omni-directional microphone

(**6)** Signal processing: 8 AGC channels, 16 frequency bands

(7) Frequency range: 250-8000 Hz

(8) Gain: 36-54 Db

(9) Power source: Powered by 675 zinc air cells

(10) External components: Robust and long lasting; should be sweat/splash resistant

(11) Speech coding strategy: Proven and internationally accepted speech coding strategy

(12) Enhanced features: Three different programs; directional microphone; wind noise reduction; sound smoothing; speech and noise management

(**13**) European CE or US FDA Approval: European CE or US FDA Approval for implantation in both adults and children.

(**14**) Warranty: 5 year on implant and 2 years on audio processor.

(15) The manufacturer/Distributors/Authorised Dealer/Agent can be quote.

5. BONE CONDUCTION IMPLANT SYSTEMS

(1) Implant: Titanium Housing

(2) Placement of Device: Transcutaneously placed on the mastoid.

(3) Indications: Indicated for Conductive and mixed hearing losses and Single Sided Deafness.

(4) Audio Processor: Single unit processor- can be worn discreetly

(5) Microphone: Directional and Omni-directional microphone

(6) Signal Processing: 8 AGC Channels; 16 Frequency Bands

(7) Frequency Range: 250-8000Hz

(8) Gain: 45dB

(9) Power Source: Powered by 675 Zinc air cells

(10) External Components: Robust and Long Lasting, Resistance against Non-condensing Moisture.

(11) Enhanced Features: Three Different Programs; Directional Microphone; Wind Noise Reduction; Sound Smoothing; Speech and Noise Management

(12) MRI Compatibility: MRI Compatible up to 1.5 T or more, without the need to remove the implant.

(13) European CE or US FDA Approval: European CE or US FDA Approval for implantation in both adults and children.

(14) Warranty: 5 years on implant and 2 years on audio processor.

(15) The manufacturer/Distributors/Authorized Dealer/Agent can be quote.

(b) CO_2 LASER FREE BEAM AND FIBER WTH SCANNER AND ACCESSORIES FOR ENT SURGERIES

It should be a carbon dioxide laser with a wave length in between10-12 micro meters, infrared.

It should have in between **50-60 watts power.**

It should have 5-6mw red diode aiming beam, 630-640 nm, adjustable intensity it should be microprocessor based.

It should have a sealed CO2 laser tube.

It should have continuous, single pulse and repeat pulse tissue exposure modes.

It should have an average continuous power of 01 – 40 watts.

It should have a super pulse power of 1 – 20 watts.

The reach of the arm should be at least 100-120 cm with 360 deg rotation.

It should have spring balanced arm.

It should have a timed exposure of following durations; On time (single pulse) – 0.05 – 2.0 sec. At 1 to 5 watts.

- 0.01 – 2.0 sec at 5-50 watts.

On time (repeat pulse) – 0.05 – 2.0 sec at 1-5 watts.

- 0.01 – 2.0 sec at 5-50 watts.

It should have a repeat delay, off time, 0.01 to 2.0 sec.

It should have at least 100 user defined memory settings.

It should have a 0.2-.5mm focused hand piece.

It should have at least two bacterial filters.

It should have five laser safety glasses.

It should have an inbuilt scanner with preset recommendations.

For parameters and delivery devices for different applications.

It should have a multi – colour touch screen panel.

It should have a user friendly graphic display to provide step by step operating instructions.

It should have a self contained closed loop cooling system.

It should be compatible with 230-250v, 50 Hz power supply.

It should have an optical design to assure perfect co-incidence of the diode and Co2 beams even at highest microsurgical magnifications.

It should be easily adjustable and should have variable working distance from 200 mm to 500 mm.

It should have continuously variable defocus with a user adjustable defocus limiter.

Its joystick handle should be tension adjustable and autoclavable.

It should be user selectable for left or right hand controls.

It should be lightweight to maintain balance of the surgical microscope it should have a minimum spot size of 150-170 microns.

It should have a focus range of 0.15 mm – 0.30 mm.

It should have maximum defocus range of 2.5 mm – 5.00 mm

It should have a power transmission of greater than 90%, with unlimited power input.

It should have a robotic laser microsurgery system with following requirement :

It should have beam scan shape : linear & curved incision : 0.25mm to 5.0 mm in length (user defined), 0.5 mm to 3 mm for papillomatosis.

It should have a penetration depth of 0.2 mm to 2 mm.

It should have oral, pharyngeal and nasal handpiece set for oral, pharyngeal and nasal application, which should include:

In between - 200mm to – 250 handpiece unit (cvd optical unit, ports holder, conical main extender, Contamination collector)

Extra conical main extender, backstop extender – 3 Nos or more,

Tip extender – 3 Nos, or more

Straight tip, Kamami Nasal tip – 3 Nos or more,

Kamami tonsil tip – 3 Nos, or more

90 degree angled mirror tip extender, cleaning brush, tygon tube (8-10mm id, 1.5-2m long) w/reducer

Smoke evaculator

Compatible with the laser machine, imported quality – includes

- Smoke evacuation unit with pneumatic footswitch, vi 5-7

Filter – more than 6 hour double port three tubing with wand

And tip – more than 2 Nos, 5-7ml of 50-60-laser mask 0.1-.3 mm filtration media (flat mask).

Laser mask 0.1-.3mm filtration media (flat mask)

Fiber Accessories :

Rigid hand piece kit at least 8 rigid hand pieces with hand piece cleaning kit

60-70mm, straight , straight tip, 180-190mm, straight, straight tip, 60-70mm, straight, curved tip, 140-150 mm, straight, curved tip 180-190 mm, straight, curved tip, 240-250 mm, bent, curved tip, 140-150 mm, bent, straight tip, 240-250mm, bent, straight Tip,

Endoscope Protection Sheath more than – 2 Nos.

Length : 640-650 mm, od : 1.5-1.8mm.

Handpiece bending tool

Handpiece cleaning kit : includes more than 3 cleaning

Brushes and more than 20 extra silicon tubes for hand pieces.

CO2 fibre should be 2-3 metres long, Sterile / multiple use, 2.0 – 3m long preferably glass hallow fibre. Spot size : 290 – 300 micro metre at fibre output. Up to 40-50 watt.

Bending and cutting tools to reuse fiber

Sterilization tray for fibers.

Terms :

(1) Manufacturer should have their direct presence in India.
(2) Training of two doctors by the principal company
(3) Regional service support
(4) FDA USA/ European CE Certificate
(5) Regional Service support by Principle Company.
(6) UPS Compatible to LASER to be supplied with the equipment.
(7) **Prices of consumable to be fixed for 10 Yrs.**

(c) Video Nystagmography systems with HIT (video head Impulse test)

- 4 chanel VNG
- Real time analysis of the eye movement in examining dizzy patients.
- Automatic eye centering & lock onto pupil requiring no manual adjustment of the goggle and /or camera.
- HIT (video head Impulse test) in the same software / goggles.
- Complete tests protocol should include:-
- Ocular Motor Testing: Saccade, Smooth, Pursuit & Optokinetic.
- Vestibular testing: Positional and Spontaneous Nystagmus, Gaze, Dix – Hall Pike, Caloric recording.
- Should have camera, High resolution.
- Hot mirror adjustable in 3 steps foot switch.
- Binocularly analyst at least 100 frames/s.
- Oculography module with vision mask / video goggles with external adjustment.
- Air (hot and cold) caloric irrigator with controls for temperature and time.
- Air flow of more than 5 litre / Minute.
- Video recording facility and replay capability.
- Laptop (Intel i5 processor, 8 GB RAM, 1 TB Hard disk, Windows 7).
- Video Projector.
- More than 15 “TFT Monitor.
- **Rotating Chair with below specification:-**

Power Supply AC	240-250V
Power Supply Fuse	More than 6A
Power Consumption of Unit	Less than 90W
Load Lifting Capacity for Up-Down Movements	200-300 Kgs
Vertical Traveling Range of Chair	150-200 mm

- **Rotating Chair Dimensional Specifications**

Dimension	Mm	Inches
Total Length of Recline	1540-1550	60-65”
Total Length Normal Position	650-670	25-30”
Total Width Between Arm Rests	600-625	23-25”
Total Height	1250-1300	50-60”

- VNG with HIT should be FDA USA/ European CE Certificate.

Group- D -(RIO)

SPECIFICATION OF INSTRUMENTS FOR RIO, IGIMS

(a) SPECULAR MICROSOPE

PHOTOGRAPHIC COVERAGE: 0.25* 0.5 MM
CAPTURING MAGNIFICTION, APPROX 15X
PACHIMETER; 0.01MMSTEP
WORKING DISTANCE: UPTO 25MM
FIXATION TARGET: ONE CENTRAL/ FOUR PERIPHERAL
PHOTO MODE: AUTO/SEMI AUTO/MANUAL
MEMORY; 5 IMGE/EUE
MONITOR; COLOUR LCD
WITH ADJUSTABLE INSTRUMENT TABLE

(b1)OPTICAL BIOMETER

MEASUREMENT RANGE
CCT: 300-800 µM
AXIAL LENGTH 14-38 MM
CORNEAL RIDII 5-10 MM
ANTERIOR CHAMBER DEPTH 1.5-6.5 MM
WHITE-TO-WHITE 8 -16 MM
IOL CALCULATION FORMULAS: HOLLADAY 1 AND 2, HOFFER Q,
HAIGIS, SRK II, SRK / T/FORMULAE FOR LASIK, PRK PT
PUPILLOMENTRY: 2.-13 MM
LINE VOLTAGE: 100-240 ± 10 % (SELF SENSING)
LINE FREQUENCY: 50-60 HZ
PERFORMANCE CONSUMPTION: MAX. 75 VA
LASER CLASS 1

(b2)C 3 R(Collagen Cross Linking Machine)

- **Adjustable illumination.**
- **Movable Floor Stand.**
- **Rotatable Arm.**
- **Homogenized UV Radiation System.**
- **Aiming beam: red**
- **Auto calibaration should be present**
- **WaveLength: 360-380 nm.**
- **Adjustable illumination Intensity 0.5m W/cm^2 to 30m W/cm^2**
- **Working Distance- upto 100mm.**
- **Digital Timer 1 second to 60 minutes.**
- **Power Requirements: 90-240 vac, 50/60 hz110/230 AC, 60/50Hz**
- **Fast linking protocols**
- **Operating interface: touch screen**
- **Integrated power meter**
- **FDA/CE certification**

©NON CONTACT TONOMETER

DIMENSION 260W X 490L X 500H MM
WEIGHT 15KG (APPROX)
DISPLAY TILTING 5.7 VGA COLOUR TFT LCD SCREEN
PRINTER: THERMAL LINE PRINTER WITH AUTO CUTTER
CHINREST MOTORIZED
INTERFACE USB HOST/RS232C/LAN
POWER . 0.8A-0.4A POWER
SAVING MODE : YES
OPTIONAL ACCESSORIES: CHIN REST PAPER;
PRINTING PAPER FIXATIO LIGHT
INTERNAL OR EXTERNAL WARNING INDICATOR WHEN LOP EXCEEDS PREDETERMINED VALUE INPUT ID OPTIONS AUTOMATIC SERIAL NUMBER ASSIGNMENT OF=R PATIENTT ID INPUT VIA SCREEN, NUMERIC KAYBOARD, BARCODE READER (OPTINAL).
MEASUREMENT MODE: FULLY AUTOMATIC / AUTOMATIC /MANUAL

(d)Eye Bank Specular Microscope- 01 No.

1. The equipment should have following features:
2. Viewing Field: 0.48 x 0.60 mm
3. Analysis Area: 0.20 x 0.28 mm
4. Chamber Compatibility Life 4C ®, Alcon ®, Bausch + Lomb® Krolman ® and MK Medium Vials
5. Vial Dimensions : up to 35 mm diameter
6. Thermometer 0° to 45° C
7. Stage Ranges Translation: X & Y = 16 mm, Z = 20mm Tilt : 5°
8. Illumination LED: primary wavelength 525 nm
9. Cameras Dual CMOS : Finder and Cornea
10. Display LCD: Temperature and pachymetry
11. Electrical 100-240 VAC, 50/60Hz, 50 VA
12. Size 200 (W) x 255 (H) x220 (D) mm
13. Data Interface USB 2.0
14. Weight 6.1 kg (without computer)
15. Operating Conditions:
Ambient temp: 10° to 40°C
Relative humidity : 30 to 85 %
Atmospheric Pressure: 70 to 106kpa
Note: The firm has to provide one color Laserjet Printer and one UPS
Quality assurance certificate like ISI,ISO-90002, IP/BP or any other, please specify

Group-E(Gastroenterology)

Electrosurgical Unit

Technical Specification for Electrosurgery unit for G I Endoscopy procedures

1. The unit should have 350-430 KHz output, up to 120-300 Watts Electorsurgery unit with Simple TFT Touch screen display.
2. The unit should have fixed socket for Bipolar, monopolar and neutral output only for GI endoscopic procedures.
3. Automatic control of out put power according to all currently available electrosurgical regulative technologies to prevent the tissue damage and charring. (The output voltage should be regulated in various levels)
4. Should gave facility to program several numbers of settings and procedure.
5. Electro cautery machine should support spray coagulation mode for Advanced Procedure of GI
6. Possibility for Upgrading to Argon Plasma Coagulation system as per the different procedure of GI endoscopic procedures
7. Argon Plasma Coagulation should support 3 modefor advanced APC procedure.
8. Unit should be CE or USFDA approved.
9. Should have continuous patient monitoring with return electrode (neutral electrode)
10. The unit should be supplied with all standard accessories to make the system to work full functional includes (All accessories should be from same manufacturer):
    a. One Foot Switch for Cautery
    b. Active Cord – 2 in no
    c. Reusable Patient Plate with cable- 5 No.
    d. Disposable Patient Plate with cable – 25 pcs

Group- F (TB& Chest)

Purchase of flexible Video Thoracoscope-

1. The tip of Thoracoscope should be flexible, having capacity of upward movement of 160 degree and downward movement of at least 130 degree
2. The field of the view should be 120 degree or more
3. The outer diameter should be 6 to 7 mm and depth of the field should be 3 to 100 mm.
4. The equipment should be compatible with elector surgical unit and lase4r therapy equipment NDYG lase, 810 mm diode.
5. The scope should be autoclavable
6. The inner diameter of the working channel should be 2.8 mm or more.
7. The working length should be 270 mm or more
8. It should be provided with insertion tube and universal cord.
9. The equipment should be co partible with the video monitor
10. Custom made trolley should be provided with the scope.
11. The equipment should be supplied with at least three biopsy forceps and three channel cleaning brushes.
12. It should be conveniently moveable from one place to another place.
13. It should have good number of installation in India at least three and good service backup preferably within NCR.
14. The equipment should be US FDA/ European CE certified

Group- G-RCC

Medical Physicist accessories& MOULD ROOM ACCESSORIES

1. Specification for Secondary Standard Dosimeter (Reference Grade)

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

Should have the minimum Technical features:

Programmable Reference grade Electrometer

Chamber Library for 32 chambers with Auto/TP corrections

Display: 4 line x 20 character

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

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

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

Timing feature: 0-3,540 second

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

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

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

Leakage: <10 fA

Power Supply: 220V, inbuilt rechargeable battery

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

2. DOSIMETRIC AND QUALITY ASSURANCE TOOLS

1. Absolute Dose Calibration : A compact digital water phantom for routine absolute dosimetry (30X30X30cm3) with water drains system. Phantom shall have provision to hold 0.6 cc Farmer type Chamber. Required chamber adopter shall be supplied.

2. 0.6/0.65 cc Farmer type cylindrical chamber (2 nos) with water proof sleeve shall be supplied with valid calibration certificate.

3. Portable, single channel, high precision reference class electrometer (2 nos.) for measurements of absorbed dose shall be supplied. Electrometer has provision to measure dose, dose rate, average dose rate, charge, current and dose per monitor unit. Detectors details should be stored in electrometer.

4. A solid water equivalent phantom made up of slabs of different thickness shall be provided for Linear Accelerator and cobalt-60 for Absolute dosimetry. It should be possible to use this phantom for both electrons and photons dosimetry. The phantom must be free of contaminants and air buffers. Guarantees must be provided for electron density and homogeneity and shall be certified to be within 0.5% of water at photon energies. The slabs shall be of 40 cmx40 cm, Size totaling thickness of 40 cm. Different slabs of 2 cm thickness with appropriate cavities to accommodate NE 2571, NE 2581 type Farmer chambers, the pin-point ion- chamber, markus type and roos type parallel plate chambers must be provided in addition to the 40 cm thick slabs. The phantom should be rigid type and should not show any kind of charge build up effects. It shall not be affected by any change in ambient temperature and humidity. Film cassettes made of the same material should also be quoted. Effective atomic number of slap should be provided.

3.MOULD ROOM ACCESSORIES

QUALITY ASSURANCE TOOLS:

a) One most precise and reliable Iso-alignment device with provision for holding ready pack film for radiation field congruence test and digital lebeling system shall be supplied.
b) A reliable and precise D20/D10 phantom for Quality Index verification.
c) A digital barometer with valid calibration certificate shall be supplied.
d) A digital thermometer with valid calibration certificate shall be supplied.

e) One latest, most precise and reliable Ionisation Chamber based survey meter shall be supplied. The survey meter should have following features:

• It shall be sensitive to gamma and X-ray of energy from 20keV to 20MeV
• It shall have micro resolution.
• Operating range shall be at least 0.0 µR/hr to 5R/hr.
• It shall have digital readout and indication for Low Battery, Mode and peak hold.
• It shall be capable to measure dose rate and dose simultaneously with capability to record peak dose rate. • It shall have provision for auto ranging and auto zeroing.
• Case shall be light weight and made up of high strength material and shall be sealed against moisture.

IMMOBILIZATION DEVICES

Standard supine base plate of carbon fiber material (head & neck) - 2 sets Lateral base plate 2 sets Head and neck prone base plate of carbon fiber Material (adjustable) - 2 sets Head & neck supports of low radiation attenuation A ,B,C,D, & E.- 3 sets Knee crutch and arm position with hand grip - 2 sets Overhead arm positioner – 3 numbers Shoulder retractor – 4 sets Universal tissue equivalent bolus 30X30 cm2 of appropriate thickness –10 numbers Breast Board, Pituitary Board, pelvic base plate (all in carbon fiber), One large digital water bath system.

Group- H (Liver Transplant Unit)

(a)Specification of Warming Cabinet

1. It should have optimal capacity up to 16 cubic feet.

2. Preferably equipped with dual chambers, separate for fluids and linen.

3. Should have adjustable shelves for flexible organization and storage.

4. The temperature adjustment range must be up to 44 degree centigrade.

5. Temperature adjustment knobs/ panel must be outside with clear LED/ digital readout.

6. Must have temperature lockout for consistency and control.

7. Reliable heating with uniform and efficient heat transfer.

8. Temperature must read in Celsius and Fahrenheit for convenience.

9. Made up of stainless steel.

10. Doors should also provide the visual access for inventory.

11. Mobile base should be provided with castor wheels.

12. Doors must have locking facility.

(b)Cardiac output monitor

1. It should monitor cardiac output based on Pulse Contour
2. It should provide stroke volume
3. It should provide Global End Distolic Volume
4. It should be able to provide intrathoracic blood volume
5. It should be able to provide stroke volume variation
6. It should be able to provide pulse pressure variation
7. It should provide global ejection fraction
8. It should provide cardiac function index
9. It should provide index of left ventricular contractility
10. It should provide systemic vascular resistance
11. It should provide extravascular lung water
12. It should provide pulmonary vascular Permeability Index
13. Working voltage 95-240 V
14. Main Frequency 50-6-Hz
15. Power consumption 50 VA max

16. Internal Battery 12 V 2.5 Ah
17. Functional Temperature range 10-40 C
18. Functional Relative humidity 30-75% (non condensing)
19. Operating atmospheric pressure range 700-1060 hPa

(c) **Non Invasive Cerebral Oximeter Monitor**

1. Cerebral/ Somatic Oximeter Monitor

i. The monitor should measure noninvasively changes in regional blood oxygen saturation in the brain and skeletal muscle tissue of the body.

ii. It may be used for cerebral oximetry, somatic oximetry or both simultaneously.

iii. It can be used for adult, pediatric and neonatal patients in any clinical setting where the brain and body are at risk of reducedflow or no-flow ischemic states.

iv. It is either four or six data channels.

v. User-friendly System with pre-calibration and ready to use in 30 seconds.

2. Weight Not more than 6kg

3. Preamplifier Cable's Length must be 4.5 -5m & Soma Sensor Cable Length must be 1.5 -2 .00 m

4. Operationally it must have following:

i. Range of rSO2 14 – 96(updated every 4 – 8 seconds)

ii. Alarm Limit Range High: 19 – 97; Low: 14 – 92

iii. Trend Memory 24 hours at 2 samples per minute 28 cases saved in memory

iv. Diagnostics Automatic self-test Safety Class Continuous Operation

v. Type BF Class I electrical certification.

vi. Power External AC mains or battery backup 20 minutes

5. Operational Electrical details must be as following:

i. Digital Output RS-232 communications

ii. USB Por;t USB 2.0 Flash Memory

6. Regulatory Standards

i. The System must comply with the following U.S. and international regulatory standards for medical equipment: UL 60601-1 CSA C22.2.601.1 EN 60601

ii. Must have US FDA Certificate for all the patient Categories

7. The Cerebral / Somatic Oximeter System Must include

i. Cerebral Oximeter Preamplifier with Cable, Channel 1 & 2

ii. Reusable Sensor Cable, Channel 1

iii. Reusable Sensor Cable, Channel 2

iv. 09USB Flash Drive

v. Power Corde

8. Rate of Disposable items/ Sensors quoted separately

9. Consumable must be supplied with each monitor

(d)Plasma Pheresis

Technical Specification of Plasma pherasis:-

Specification :-

The versatile applications for the therapeutic plasma or red cell exchange, stem cell as well as platelet collections and cell depletions with only one device , a multi- procedural platform.

Offers reliable technology of camera controlled interface management for highly efficient procedures.

The easy to operate device is focused on donor, patient and operator safety.

Product specification:-

- Continuous Flow Technology with single and double needle.
- Following protocols should be available
- Leucodepleted Platelets + Plasma
- Therapeutic Plasma Exchange
- Peripheral Blood Stem cell collection
- Red cell phereis, plasma pheresis
- Inbuilt process Leucoreduction
- Facility for fluid replacement during procedure with sensor
- Citrate control and monitoring facility
- Platelet should be collected with plasma, no manual mixing needed
- Programmable hematocrit and Plasma Volume
- Should have inbuilt battery backup and also provide on-line UPS of suitable capacity with 3 hours backup
- System should recover from exact point whenever paused
- 500m ACD should be provided with plasma exchange/ platelet pharesis kits
- ACD drip monitoring with minimum ACD use
- Input voltage 230 VAC #10%
- Simple kit installation

- Inbuilt Automatic cuff and pressure monitoring
- Onsite training for the departments concerned
- 20 nos. of platelet aphaeresis Kits/ plasma exchange kitsshall be decided in consultation with the user institution before supply. The kits supplied should have atlest 24 months shelf life. In case if the kits are not used and nearing expiry, the kits shall be replaced with in the new kits with sufficient shelf life.
- Platelet collection Dual and Needle using plasma recirculation technique.
- Plasma exchange with optional Hematocrit adjustment
- Plasma Treatment protocol with pressure monitor for plasma line downstream pump.
- Peripheral Blood stem cell Collection protocols
- Leukocyte depletion protocols
- Automated, menu controlled Red Blood Cell Exchange/ Depletion Protocol
- In – Vitro processing, automatically controlled multiple-pass protocol for Bone marrow Stem Cells.
- Product features
- Yield of 3.3X100000000000 at pre-counts of 265.000PLT/μl in less than 45 minutes
- WBC Contamination below 1X 1000000 for at least 95% procedures (manually counted)
- Safety features
- Air detector
- Centrifuge leak detector (automatically tested prior to priming)
- Inlet and return pressure monitor with bar graph display
- ACD-A drip monitoring Third pressure monitor for plasma treatment
- Third pressure monitor for plasma treatment
- Centrifuge compartment temperature monitoring
- Hemolysis monitoring for plasma line
- Replacement fluid line sensor
- Pulse pressure reduced roller pumps
- Fail-safe hardware based safety system
- Extracorporeal volume < 250ml, RBC equivalent < 180ml
- Quality assurance
- Accessory printer for procedure documentation
- Option of accessory for data exchange with blood bank mainframe
- User guide for all necessary handling procedures
- Help functions in case of alarms
- Drawer –type separation chamber installation
- Color softkey display
- **Consumables:-**
  Platelet Kit
  Plasma Exchange
  RBC Kit
  Stem cell collection

(e)Transjugular Liver Biopsy Set (TJLB)

Technical Specification:-

- **Needle gagel length = 18/60mm**
- **Needle throw length = 20mm**
- **Used for Transjugular Liver Biopsy Procedure**

(f) UV – visible Spectro Photometer

Microplate Spectrophotometer ;

Read methods; Endpoint, kinetic, Spectral scanning, well area scanning

Micro plate types 6,12, 24, 48, 96 to 384well plates optional 1 cm cuvette adopter .

Software - Data Analysis Software with suitable PC.

Absorbance ;

Light source ; Xenon flash

Detector ; PMT

Wavelength selection ; Monochromator

Wavelength range ; 200 to 999 nm, in 1 nm increments Monochromator

Bandwidth: 5 nm

Dynamic range: 0 - 4.0OD

Resolution : 0.0001 OD

Path length correction ; yes

Read -96 wells: 15 seconds

Read 384 wells: 31 seconds

Physical Characteristics

Power 100 240

Volts AC. 50/60 Hz.

Dimensions 12" W x 12.5" D x 7.7" H

(30.5 cm x 31.8 cm x 19.6 cm)

Weight <15 lbs (6.8 kg)

Regulatory

Regulatory CE and TUV marked. ROHS compliant. In Vitro Diagnostic use models are available.

(g)UV-Transilluminator

UV- Mini Transilluminator and 6x Loading Dye

UView Mini Transilluminator	
Illumination type	UV lamp (UVA, T5 6 W)
Wavelength	365 nm
Dimensions (W x L x H)	13.2 x 24.7 x 4.9 cm
Viewing surface	15.0 x 8 cm
Compatible gel sizes	5 x 6 cm, 10.5 x 6 cm, 12.5 x 6 cm
Weight	1.4 kg
AC power input	115–240 V, 4 different country adapters included
Output	1.5 A at 12 V DC
UView 6x Loading Dye	
Storage at +4°C	4 years protected from light
Concentration	6x
Detection method	Fluorescent
Excitation/emission wavelengths	364 nm/454 nm

(h)Patient Control Anaesthesia Pump(PCA Pump)

• Should have continuous, demand dose and clinician bolus modes.
• Should have subcutaneous, intra-arterial, epidural, intrathecal, intravenous and intraperitoneal delivery routes.
• Sould be able to deliver drug concentration 0.1-100mg/ml, 1-500µg/ml
• Should be able to deliver continuous rate 0-50ml/hr, 0-500mg/hr, 0-25000 µg/hr
• Should deliver dose volume: demand dose 0-9.9 ml, 0.990 mg, 4950 µg, clinicians bolus 0-20ml, 0-200mg, 0.10000µg.
• Should have dose demand lockout 5 min- 24 hrs, demand dose 1-12 per hour,
• Should have carrying pouch 50 ml, 250 ml
• Should have remote cord.
• System should be supported by 5 years comprehensive all inclusive warranty

(1) Blood and Fluid Warmer

1. Should be used for both adult and pediatric patients
2. Should be compatible with standard I.V. Sets.
3. Should have disposable tubing set for blood and fluid
4. Should be capable of transfusing blood and fluids at flow rate of 75-5000 ml/hr at 35-40°C temperature.
5. Should have digital temperature display
6. Should have alarms for over-temperature, disconnection and water level.

Should be operational between 170-260 V AC, 50 Hz and not require stabilizer.

Group-I-Dentistry

1. **Dental Chair with Compressor, Qty.- 2Nos.**

Specification-

- Should be computerized & electrically operated chair
- Should have independent up/down & backrest movement
- Should have seven working programmes including four programmable working positions with one switch for each and rest three for spitting, last working position and zero return.
- Should have anticrushing& movement locking system
- Should have double articulated head rest
- Should have automatic right arm rotatable with zero degree return
- Should have two Doctor's stool with adjustable back rest, tilt & height adjustment and suitable foot ring for attaining correct posture
- Should have three axis movement of shadow less cold & white 5 LED touch less sensor lights with variable intensity & of 35000 LUX
- Should have removable and autoclavable handles for dental light head
- Should have emergency RED switch to lock chair during emergency
- Should have multifunctional electrically operated foot control with joysticks for all 7 programmes
- Should have water heating system with three way syringe
- Should have two(02) three way syringe (one for operator and one for assistant) , and points for low volume and high volume suction
- Should have auto sensor water activation for spittoon & cup filler
- Should have stainless steel autoclavable delivery tray with minimum size of 18*20 inches
- Should have 18*20 size dash board with computerized switches for all 7 programmes and 2 points for air rotor(1 airotor cable should be optic light cable & 1 without optic light cable)
- Should have Contra (Fibre Optic) and Straight Hand pieces (02 each) with inbuilt Scaler with 3 Tips and Light Cure Unit
- Should have 1point for micro motor and 2 point for three way syringe attachment, with inbuilt LED IOPA viewer
- Should have Removable ceramic water spittoon with 180 degree movable water unit
- Should have 3 KV Voltage stabilizer attached with the chair
- Should have dental unit water supply with RO system
- Should be imported Chairs excluding Chinese make
- Chairs with recent advances preferred
- 3 years warranty with 7 years CAMC is must.
- Equipment should be European CE/US FDA approved

It should include an air compressor which:-

- Should be Oil free & have low noise level
- Should have all proper safety features
- Should have Medical grade air
- Should have Epoxy coated tank of 50 L capacity
- Should have Moisture drain facility
- Should have Air filter with outlet
- Should have Wheels for easy displacement
- Should have Minimum power 1.5HP/ 750 W
- Should have Imported Compressor excluding Chinese make
- Should have compressor with recent advances preferred
- 3 years warranty with 7 years CAMC is must.

2. <u>Front Loading Autoclave with Capacity of 20 Liters or more, Qty.- 2Nos.</u>

Specification-

- Table top class B autoclave for hollow & porous products
- 3 times prevacuum autoclave
    - Should have MOTOROLA sensor
- Should have 20 L or more tank capacity
- Should have temperature range of 121-134 C
- Should have microprocessor controlled with wide LCD screen display
- Should have electromechanical system with double protection lock
- Should have push button control system to operate
- Should have high penetration fractioned vacuum system to ensure the complete removal of air
- Should have customized vacuum drying facility
- Should go on standby mode after completion of cycle
- Should have automatic shutdown facility
- Must have integrated safety features and process evaluation system
- Should have B universal 134/B prion 134 & B universal 121 all types of cycles
- Should be supported with tray holder, 3 trays, tray remover, integrated water filling and draining tank & one pen drive USB point
- Equipment should be European CE/US FDA approved.
- Imported autoclave preferred excluding Chinese make
- Front loading autoclave with recent advances preferred
- 3 years warranty with 7 years CAMC is must

3. <u>Dental Operating Microscope (For Endodontic Use) with 5 step Magnification, Qty.- 1 Nos.</u>

Specification-

- Should have 5 step magnichanger with 0.4x, 0.6x, 1.0x, 1.6x, 2.5x magnification Viewing Body should have ergonomic binocular tubes 0 - 210° tiltable, IPD range should be 55- 75mm, f=170mm.
- Objective lens should have f=250mm with manual fine focus knob and sterilizable cap
- Should have wide field with adjustable eyepieces 10x/18mm with dioptre lock mechanism and retractable eye guard
- All optics should be coated with MaxLiteTM coatings.
- It should have Swivel (525mm) and suspension arm (600mm) on roller bearing mount, locking and tension control knobs. Swivel arm rotation should have 360°, suspension arm should have rotation 320°. LED power cutoff in park position.
- It should have carrier arm and 120 coupling, tension adjustment locks and counter balance adjustment to ensure optimal accessory weight offset.
- It should have ergonomic handgrips with grip position adjustment.
- Should have H-shape base, 100mm anti-static castor wheels with brakes Illumination
- Should have Fiber optic cable (1300mm), 50W LED illumination, up to 60,000 hours Input
- Should have universal input 100V-240V AC, 50/60Hz Filters: Yellow and Green, slider control
- Should have quick acting fuse 2.5Amp Standard Accessories:
- Dust cover for microscope head and illumination box, set of sterilizable caps for all knobs Packed with power cord, instruction manual and installation kit
- Should have Labomedroto plate

- Should have labomed camera mount adaptor for DSLR Canon
- Should include 1 DSLR Canon Camera
- Equipment should be European CE/US FDA approved

4. <u>Cone Beam Computed Tomography Machine (CBCT) with 2 Consoles (1for image acquisition and 1 for image construction), DYCOM Printer and UPS and 1 Colored Inkjet Printer, Qty.- 1 Nos.</u>

Should have High Resolution Computed Tomography Technology
Should have 3-IN-1 SOLUTION, User should be able to Easily Switch Between 3D And Pano And Ceph For Best Result
Should have Full Arch Field Of View140x140 MM
Should have Compact Design
Should have Intuitive Navigation In The 3D Volume

- Should have Cross Sectional Views For Accurate Diagnosis

Should have Voxel Size of 75 -400 Micron.
Should have 7.7 Sec Fast Scan For 3D Image
Should have Dedicated Sensor For Each Mode
Should have Safety, Stability And Durability
Should have Automated Sensor Switching For Each Scanning Mode.
Should have all Axis Motorized Unit.
Should have Multi-Fov Selection
Fov 40x50 Mm.
Fov 70x70 Mm.
Fov 80x80 Mm.
Fov 140x80 Mm.
Fov 140x140 Mm.
Should have dimension of 1,832x1,130x2,383mm.
The machine mode must be type approved by AERB(Atomic Energy Regulatory Board)
Should br corrosion free
Should have laser beam/ bright beam for accurate alignments of reference anatomical landmarks
X-ray exposure switch with extensible cable
Lead apron, thyroid collar and Gonadal shield and dosimetry badges must be provided with complete unit
Must comply with rules and regulations of national and international radiation safety
Cost of entire unit should include the cost of transportation, installation, approval from AERB and required size lead screen fixation (inclusive of all taxes).
The equipment should be US FDA/ European CE approved and AERB compliant

The system should include

- 2 console units (1 for image acquisition and 1 for image reconstruction)
- DYCOM printer and UPS
- 1 Coloured inkjet printer

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