



DIRECTORATE OF HEALTH & FAMILY WELFARE SERVICES  
**PUDUCHERRY**

Common tender

***Machinery and Equipment***

LAST DATE FOR SUBMISSION OF TENDER : 30.03.2011 (4.00 P.M.)

DATE FOR OPENING OF TENDER (Technical Bid) : 04.04.2011 (10.30 A.M.)

NAME OF THE TENDERER :

**PRICE Rs.675/-**

**GOVERNMENT OF PUDUCHERRY**  
**DIRECTORATE OF HEALTH & FAMILY WELFARE SERVICES**

\*\*\*

Terms and Conditions of tender for the supply of “**Machinery & Equipments**” as detailed in the schedule for use in various Health Institutions in Puducherry, Karaikal, Mahe & Yanam Regions of the Union Territory of Puducherry for a period of one year from the date of acceptance of tender.

1. Notice is hereby given that sealed tenders in duplicate under **two bid system - Part-I Technical bid and Part-II price bid** will be received upto 30.03.2011 **4.00 PM** by the Chairman, Tender Committee, Directorate of Health & Family Welfare Services, Puducherry. Tenders received thereafter will not be accepted. **The cost of the Tender Schedule Rs.675/- (incl. of VAT 12.5%) should be enclosed along-with the Technical Bid.**

2. Telegraphic Tender/Tender through FAX will not be considered

3. Tenders will be opened by the Tender committee on 04.04.2011 **at 10.30 AM in the Conference Hall of Directorate of Health and Family Welfare Services, Puducherry Housing Board Complex, New Saram, Puducherry-13** in the presence of the Tenderers or their authorised representatives.

4. a) The Chairman, Tender Committee (Director of Health & Family Welfare Services) is competent to accept a tender in whole or in part.

b) The Chairman, Tender Committee shall have the right to reject any/all the tenders without assigning any reason thereon.

5. Every tenderer must go through the terms and conditions carefully and understand them before submitting his tender. No excuse that the conditions have not been read or understood will be entertained later.

6. **The tenderer shall be the manufacturer of the item offered. Authorised Dealer of the manufacturer and Direct Importer may also offer. The Authorised Dealer shall enclose to the tender a copy of the letter of appointment as authorised dealer issued by the manufacturer. The Direct Importer shall enclose to the tender a copy of the letter of appointment issued by the manufacturer and also a copy of the import licence issued by the competent authority. The licensee shall be the Direct Importer.**

7. **Company participating in the tender should have 5 years standing in the supply, erection/commissioning of the equipment. Similar equipments should have been supplied to a reputed hospital/medical college having more than 500 beds. List of Colleges/Hospitals where such equipments have been supplied in the last five years should be enclosed along-with performance certificate from such Hospital/College on the satisfactory maintenance of the equipment supplied / commissioned /maintained. In case of imported equipment, third party inspection report must be produced along-with the supply of the equipment.**

**8. Rate quoted should clearly mention two years warranty and five years Comprehensive Maintenance Contract charges, thereafter. The Company offering the quote should undertake the maintenance and supply of spares during the warranty and Comprehensive Annual Maintenance Contract period. The CAMC rates shall also be taken into account while calculating the cost of the equipment.**

**9. Tender should be submitted only for the Equipment and Instrument asked for, Specifications are given in the schedule. When the offer is for an item having different specifications/ features functions, the difference between the item called for and the one offered by the tender shall be **highlighted** in the offer itself. The advantages shall also be mentioned.**

10. The schedule of equipments and instruments attached gives only estimated requirements of various institutions. Notwithstanding the estimate or probable quantity or number, the Chairman, Tender committee/the indenting officers of Directorate of Health & Family Welfare Services has the right to order any quantity or any number of the articles mentioned in the schedule from time to time or not to order any quantity or any number of any such articles at all during the period of contract.

**11. The brochures/leaflets of products, shall also be enclosed with the tender.**

12. Any attempt on the part of the tenderer or their agent to influence the department will disqualify such tender.

**13. The tenderer should produce attested photocopy of the current manufacturing licence issued by the competent authority including its period of validity.**

14. a) Each tender must be accompanied by an Earnest Money Deposit at 2.5% of the total cost of the equipments (Rate per unit X No. of units in the schedule X 2.5/100) subject to a maximum of Rs.1.00 lakh per item. Otherwise, the tender will be rejected without notice. Bank guarantee or payment in any other form will not be accepted for E.M.D. The amount should only be paid either by demand draft/banker's cheque payable to the **Senior Accounts Officer, Directorate of Health and Family Welfare Services, Puducherry** on State Bank of India, Puducherry-1. [CODE NO:0900]. **The Demand Draft / Bankers cheque towards EMD should be furnished along with Technical Bid. Non enclosure of EMD with the Technical Bid will result in rejection of the bid without further scrutiny.**

b) The earnest money will be returned to the unsuccessful tenderers but retained in the case of successful tenderer to be adjusted towards security deposit required to be paid by the successful tenderer for due fulfilment of the contract.

15. The tenderer, whose tender is accepted should remit security deposit within 10 days from the date of receipt of intimation of acceptance of his tender. An amount equal to 5% of the value of estimated quantity of the selected items should be paid as security deposit. The Security Deposit will be rounded off to the next hundred rupee. Non-payment of security deposit by means of **Demand Draft drawn on SBI, Puducherry-1 [CODE NO:0900] in favour of the Senior Accounts Officer, Directorate of Health & Family Welfare Services, Puducherry** within the stipulated period will result in the forfeiture of E.M.D. Interested parties can furnish Bank Guarantee from a Nationalised Bank for the appropriate amount towards Security Deposit valid for a period of **30 months** from the date of issuance

of the Bank Guarantee. In respect of foreign companies 10% Bank guarantee on the basis of L.C covering the warranty period of minimum 3 years should be produced towards Security Deposit. The successful tenderer should convey acceptance of the approved tender within 15 days from the date of receipt of approval intimation from the Department.

16. a) In the case of firms which are registered with the DGS&D, attested photostat copy of the certificate issued by the DGS&D should be furnished along with the tender for exempting them from payment of security deposit/E.M.D. **Exemption will be admissible only for those items which are approved by the DGS&D. It may be noted that as registered firm, the tenderer is expected to abide by the general conditions of the contract governing the DGS&D rate contract as well as this Department's terms and conditions, as amended from time to time. Failure on the part of tenderer to abide by the terms and conditions may result in the cancellation of the contract.**

**NOTE : Exemption from payment of E.M.D./S.D. is not admissible to Direct Importer irrespective of registration with the DGS&D.**

b) In the case of small industrial units registered with National Small Industries Corporation/Industries Department, Puducherry, attested Photostat copy of the certificate issued by NSIC/Industries Department, Puducherry should be furnished along with the tender. If not, the tenderer/firm will be considered as a firm not registered with NSIC/Industries Department, Puducherry.

**NOTE : (i) No exemption from payment of E.M.D./S.D will be allowed to the small scale units which are not Permanently registered with NSIC or Director of Industries, Puducherry**

(ii) Exemption from payment of EMD/Security Deposit is admissible only for the item to which the manufacturing licence has been issued by the NSIC/Industries Department, Puducherry.

17. No interest will be allowed on E.M.D./Security Deposit. The Security Deposit will be returned only after the expiry of the warranty period. If the contractor fails to supply (including installation and commissioning wherever necessary) the equipments within the delivery period prescribed or comply with all or any of the terms and conditions of the agreement it shall be lawful for the Chairman, Tender Committee, or any person authorised by him on his behalf to purchase the equipment elsewhere and from person or persons other than the contractor and to collect from the contractor the difference of cost between the price of equipment purchased and the price or prices payable under the contract for such equipments.

**18. Permanent Account Number (PAN) of Income Tax should be furnished.**

19. The tenderer is at liberty to quote for one or more or all the items. **The rates of these items will be considered separately and individually.**

20. **In the case of imported item, the price quoted should be inclusive of Freight and Insurance charges.** The Indian customs tariff number under which the customs duty or excise duty has been assessed should also be indicated. The Customs Duty Exemption Certificate will be issued by the competent authority of the Union Territory of Puducherry towards the exemption from the payment of Customs Duty in respect of Medical Equipments to be supplied to the Health Institutions in the U.T. of Puducherry. Basic Customs Duty and

Special Additional duties if any to be payable shall be mentioned clearly in the Price Bid. The tenderer should note that the Government do not undertake to provide import licence and the acceptance of any tender shall not imply such an undertaking on the part of the Government.

**21 (i) In case of imported items, the supplier should arrange for Customs Clearance at his/their expense.**

**(ii) Demurrage charges and incidental charges if any shall be borne by the supplier.**

**(iii) The consignment shall be transported to the place of installation/commissioning at the risk and expense of the supplier.**

22. The firms should quote the basic price of the items separately and the other taxes and duties in seriatim in the ascending order only as mentioned in the Tender Schedule.

23. The rate should be quoted both in figure and in words. Special care should be taken to write the rate in figure as well as in words in such a way that interpolation is not possible.

24. No insurance charges are payable. The supply should be made at the supplier's own risk for damages and breakages occurring in transit, the articles thereof should be replaced.

25. The equipment shall be installed and commissioned by the trained engineers of supplier-firm, free of cost. The date of supply, installation and commissioning of the machinery and equipments, should be specified.

26. Inter-State sales tax or VAT at the rate admissible in Puducherry, may be levied.

27. The rate quoted should be valid for acceptance for a period of 180 days from the date of opening of the tender and once accepted should be firm and unaltered during the contract period.

- a) **THE FIRMS ARE REQUIRED TO QUOTE THEIR LOWEST RATES COMPARABLE TO THE RATE QUOTED FOR OTHER INSTITUTIONS ELSEWHERE. THE QUOTED RATE, IF FOUND AT A LATER DATE TO BE HIGHER COMPARED TO THE RATES OFFERED TO ANY OTHER INSTITUTION, THE DIFFERENCE IN COST WILL BE LIABLE TO BE RECOVERED/ADJUSTED FROM THE SUBSEQUENT PAYMENTS INCLUDING SECURITY DEPOSIT ETC., TO THE SUPPLIER FIRM.**

28. No contractor shall be allowed at any time and on any ground whatsoever, any claim for revision or modification of the rate quoted by him during the currency of the contract period. Clerical error, typographical error etc., committed by the tenderer in the tender form shall not ordinarily be considered after the opening of the tender. Conditions such as 'SUBJECT TO AVAILABILITY OF STORES' 'SUPPLIES WILL BE MADE AS AND WHEN SUPPLIES ARE RECEIVED ETC.,' will not be considered under any circumstance and the tender containing such conditions shall be summarily rejected without any further correspondence.

29. Tender not stipulating period of delivery and tender with price variation clause/subject to prior sale conditions shall be rejected.

30. **Exact amount in Indian currency should be quoted by the firms and no change at a subsequent date is allowed due to the change in the convertibility of Indian rupees.**

31. Every correction in the tender should invariably be authenticated by the tenderer, failing which the tender will be rejected. Tender should be submitted in duplicate duly authenticated on each page of tender.

32. Test Certificate of the manufacturer should be furnished along with the supply.

33. Supply should be made within the delivery period mentioned in the tender or 2 months from the date of issue of the supply order whichever is earlier. **In case of delayed delivery, penalty at the rate of 1% per week, of cost of the items not supplied will be levied. If the delay exceeds 4 weeks the order will be treated as withdrawn; unless otherwise the delivery time is extended by the indenting officer.**

34. **Demonstration shall be arranged free of cost after installation /supply.**

35. **Training of personnel shall be arranged at the place(s) where such equipment functions, at the expense of the supplier.**

36. **Selection of tenders would very much depend upon the efficacy/quality of the products offered. Sample/Demonstration if required, should be produced/arranged before the Chairman at the expense of the tenderer/contractor. The contractor shall be bound to deliver all the articles in such quantity or numbers and within such time as the Chairman, Tender Committee/Indenting Officer shall from time to time direct during the currency of the contract. All articles shall be subject to inspection and acceptance or rejection by the Chairman, Tender Committee/Indenting Officer.**

37. **The price to be quoted shall be "Firm" in all respects and for delivery F.O.R. destination Puducherry, Karaikal, Mahe and Yanam. Rate quoted should be without SPECIFYING ANY VALUE AND SHOULD COVER EXCISE DUTY, PACKING, FORWARDING. Transportation, all incidental charges and insurance etc. No advance payment will be made except, for import items for which L.C. has to be opened.**

#### 38. PAYMENT TERMS

Payment shall be made on receipt of the equipment as follows

	In ordinary case -----	If installation made within two weeks -----
a) On installation and in good working condition	80%	85%
b) After one/two months of installation on successful commissioning	20%	15%

39. All items should be supplied strictly in accordance with the approved specifications. The article supplied by the contractor which in the opinion of the Chairman, Tender committee/Indenting Officer is found faulty or unfit for use shall be rejected. The opinion of Chairman thereon in all respects will be final and conclusive and altogether operative and binding on the contractor and shall not be open or subject to question or dispute by the contractor on any ground whatsoever. If the equipments are not satisfactory and do not

meet the specification offered by the firm the same will have to be removed from the institution immediately after receipt of intimation at the firm's own expenses. If not the equipment will be sent to the firms by this Directorate and the charges towards transport and other incidental charges will be recovered from Security Deposit amount paid by the firm.

40. The equipment/article supplied in lieu of or in substitution of rejected equipment shall in like manner be subject to inspection or rejection and removal as often as the Chairman, Tender Committee, shall consider necessary.

41. No article bearing logo gram of any other state/UT other than that of the manufacturer will be accepted.

42. The loss to Government, if any, incurred on account of purchase elsewhere rendered necessary by failure or neglect or refusal on the part of the contractor to supply according to the terms of the agreement will be recovered from him. If the equipment supplied by the contractor has been partially or wholly used in the offices and subsequently found to be inferior in quality or description or are not in accordance with the specification or otherwise faulty or unfit for or unwholesome, then the contract price or prices of the equipment will be recovered from the contractor, if payment had already been made to him. Otherwise contractor will not be entitled to any payment whatsoever. For infringement of the stipulations of the contract or for other justifiable reasons, the contract may be terminated by the Chairman, Tender committee and the contractor shall be liable for all losses sustained by the Government in consequence of the termination which may be recovered from the Security Deposit by the Contractor or other money due or to become due to him. In the event of such amount being insufficient, the balance may be recovered personally from the contractor or from his properties as per the provision of the Puducherry Revenue Recovery Act, 1970 in addition to other modes of effecting recovery permissible under the law.

**43. The tenderer should also quote in the quotation itself the rate for CAMC for 5 years after expiry of the warranty period. The CAMC charges shall be released on annual basis only.**

The tenderer should be prepared to accept orders subject to the penalty clause for forfeiture of security deposit in the event of default or failure to supply within the stipulated period.

44. The firm (supplier) shall submit bill (in duplicate) along with an advance stamped receipt immediately after execution of the supply order in full for arranging payment. The payment will be made on receipt of said items at site in good condition/commissioning of the equipment and inspection of the Technical Advisory Committee subject to fulfilment of all other terms and conditions of agreement to be entered into subsequently.

45. The tenderer shall invariably furnish the following certificates with their bills for payment : (i) Certified that the goods on which sales Tax have been exempted from the Central Sales Tax Act and or the rules made thereunder and that the amount of charges on account of Sales Tax on those goods are covered under the provision of the relevant act or the rules made thereunder (ii) certified that the firm is registered under Central Sales Tax Registration \_\_\_\_\_.

46. The contract should not be sublet without the permission of the Chairman, Tender Committee. **The equipment will be kept under warranty for a minimum period of two / three years from the date of installation/commissioning.** Further the supplier should extend the technical support during the contract period. Undertaking to this effect will also be a condition for evaluating the tender.

47. **The details of after sales service facilities available shall be specified with the rates for each CAMC for the first five years at fixed rate after expiry of warranty period and this should cover all third party items also supplied by the Company. CAMC quoted will be taken to cover the third party item even if it is not mentioned so in the quote. On completion of warranty period, the Department may enter into Comprehensive Annual Maintenance Contract with the supplier. In case, the indenter opts to maintain the equipment through third party, the supplier shall make available all necessary spares, without affecting the functioning of the equipments for a period of 5 years after the warranty period.**

48. In case of any difference or dispute arising in connection with this contract, all legal proceedings relating to the matter shall be instituted only in the court within the jurisdiction of the Union Territory of Puducherry.

49. **The tenderers should not impose their own condition. They should abide by the terms and conditions of tender call. No tender with their own condition will be considered at all under any circumstances. All documents catalogue description about the equipment etc. should be furnished along with the technical bid.**

50. The tender should accompany the questionnaire with the undertaking enclosed duly filled and signed. Failure to do so, will lead to non-consideration of the tender.

51. **Tender in separate sealed covers for Technical Bid and Commercial bid should be submitted in one single cover superscribing the TENDER FOR SUPPLY OF MACHINERY AND EQUIPMENTS (specify the item(s) clearly) should reach Chairman, Tender Committee, Directorate of Health and Family Welfare Services, Puducherry Housing Board Complex, New Saram, Puducherry-13 before 30.03.2011 at 4.00 PM**

**Dr. DILIPKUMAR BALIGA  
(CHAIRMAN, TENDER COMMITTEE)**



**QUESTIONNAIRE**

**(To be submitted duly filled in and signed along with Technical Bid)**

\*\*\*

1. Name and Address of the Tenderer/Firm :
  
2. a. Name & Address of the manufacturer :  
(in case the Tenderer is the manufacturer)
  
- b. If the Tenderer is not the :  
manufacturer, whether he is the  
authorised dealer/authorised  
stockist (If answer to (b) is yes.  
Copy of letter of authorisation/  
dealership to be enclosed)
  
3. Whether copy of the Manufacturing :  
licence issued to the Manufacture  
by the competent Authority is  
enclosed along with the list of  
items
  
4. If the Tenderer is the Direct Importer, :  
copy of the Import Licence with list  
of items imported to be enclosed
  
5. Please enlist quality control facility :  
available with the firm
  
6. Are the instruments/equipments :  
manufactured available in the local  
market? If so give the name of the  
retail outlet
  
7. How many people are employed in :  
your firm
  
8. Name of your bankers and address :  
of the persons on whose name the account  
is opened

9. a) Whether registered with DGS&D ? :  
(Enlistment certificate to be enclosed)

b) Whether **permanently** registered with :

(i) NSIC :

or

(ii) SSIC/Industries Department, :  
Puducherry ?

(Permanent registration to be enclosed)

10. a) Whether EMD is enclosed ? :

b) If so, details :

11. Are you in the approved list of :  
suppliers to the other Government  
organisations? If so, give details  
(Copies of the letters received  
from those Departments, in which  
your name has been included)

12. Any other documents to confirm :  
reliability of the tenderer firm

13. Have you attached the Income Tax :  
Clearance Certificate for the period  
2005-06 to 2009-2010/Non-Assessee  
Certificate

(a) PAN number of Income Tax :

14. No. of items quoted :

I/we, the \_\_\_\_\_  
do hereby declare that we have carefully, read all the conditions of the Tender Schedule of Directorate of Health and Family Welfare Services, Puducherry for the Tender floated for the supply of Machinery and Equipments to the Govt. Health Institutions in Union Territory of Puducherry and agreed to abide by the terms and conditions prescribed in the tender schedule.

SIGNATURE:  
SEAL OF THE FIRM:

CHECK LIST FOR PAYMENT OF E.M.D.  
(TO BE ENCLOSED ALONG WITH THE TENDER)

NAME OF THE TENDER : -----

NAME AND ADDRESS  
OF THE TENDERER : -----  
(FIRM) -----

-----

-----

PHONE NO : -----

SL NO. ITEM QUOTED AMOUNT OF EMD PAID DD NO. & DATE

-----  
TOTAL Rs.  
-----

LIST OF MACHINERY AND EQUIPMENTS

Sl. No	Name of the item
1.	C Arm Image Intensifier for orthopaedics
2.	Infant Intensive Care Ventilator
3.	Advanced Colour Doppler Ultrasound Scanner
4.	Fiberoptic Bronchoscope-Paediatric
5.	G I Video Endoscope System
6.	ECG Machine – 12 Channels

## 1. Equipment Specifications for C-Arm Image Intensifier for orthopaedics

### 1 Description of Function

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	This equipment is used in orthopaedic fractures for imaging of bone pathology or fractures on display monitor during operation/ reduction of fractures.		

### 2 Operational Requirements

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
	None		

### 3 Technical Specifications

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	<p>A Versatile, Compact C-arm unit should allow unobstructed positioning and enhanced ease of operation in OT for Surgical interventions. C-arm to have following or better mechanics for 9" 1. Image Intensifier.</p> <p>a) Motorized Vertical travel: MINIMUM 500 mm or more  b) Pivotal rotation: =/- 12.5 deg. Or more  c) Orbital rotation: = 90 deg. – minimum 30 deg. Or better  d) Depth/Radius of C-arm: 660 mm or better  e) SID: 950 mm or more  f) Horizontal travel: 220 mm or better  g) Free space between II &amp; X-ray tube: MINIMUM 740 mm or more  h) Rotation of C-arm: +/- 270 deg. Or more  i) Total WIDTH of C-arm: MAXIMUM 800 mm or less</p> <p>Remote controlled collimator with rotatable parallel shutter, The C-arm should have facility of locking the C-arm movements with easy to turn handle on control unit. Rear wheels must be freely movable for easy to turn handle on control unit. Rear wheels must be freely movable for easy positioning of the complete C-arm around the OT table.</p> <p>Image Intensifier</p> <p>At least triple field 9"/6"/4" input diameter offering resolution (Minimum 64lp/cm or better for 4" input) &amp; contrast ratio (25:1 or better)</p> <p>2. TV Camera</p> <p>Ultra Compact CCD camera with high No of pixels (&gt; 450000) and video band width (at least 20 MHz or better) along with 2 Nos. 17" 625 lines 100 Hz flicker free TV monitors with facility to rotate the image continuously.</p>		

### 3.Direct Radiography

Radiography should be possible on a cassette to be fitted in a holder for 10X 12 inches cassette. The unit should be complete with one such holder and 1 No. cassettes including high speed intensifying screens.

### 4. X- ray generator

High frequency ( 25- 40 KHz or more) 3.5 to 5.0 KW or even better X-ray generator with high capacity rotating anode X-ray tube of dual foci of 0.3 and 0.6 mm ( 200 KHU) or better.

5.Fluoroscopy output: 40-120 KV in 1KV steps  
mA output : MINIMUM Up to 8. mA or better  
Snapshot : MINIMUM Up to 12.0 mA or better

Pulse fluoroscopy rate selectable:- 1 image per second to 1 image per 5 second or better

Automatic dose rate regulation with KV & mV control  
Time totalizer for fluoroscopy with facility to alarm after every 5 minutes of fluoroscopy

Radiography output : 40-120 KV in 1 KV steps  
-mA range : Up to 250 mAs or better  
-mA max : Up to 90 mA or better

### 6.Image Memory

At least 1 (LIH) + minimum 20,000 frames dynamic digital memory on Hard Disk with 576 X 576 matrix or better,. There should be facility to insert patient name through alphanumeric key board. The system must be upgradable to functions of performing REAL TIME digital subtraction angiography with acquisition up to 6 frames/sec. or better and Road -mapping functions etc. at any later date for peripheral angiography.

## 4 System Configuration Accessories, spares and consumables

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Essential Accessories  The complete functional system must be quoted with DUAL CHANNEL Laser LIGHT SOURCE ON, X-RAY TUBE UNIT for making a cross to reduce the X-ray dose, Built in DODE AREA PRODUCT meter for display of X-ray dose, light weight lead aprons, thyroid guards, radioprotective goggles and gloves. ( 6nos.) required CVT and thermal imaging film printer with 12 film rolls. CD/DVD Writer.		
4.2	OTHER REQUIREMENTS: 1.Equipment should be fully DICOM compatible. 2.PC with TFT Monitor with table and laser printer 01. 3.View Boxes - 02 4.TFT Monitor-02 5.Inbuilt digital archiving of images on DVD/CD burner.		

**5 Environmental factors**

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%		

**6 Power Supply**

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power supply for radiology equipments: 1.Power input to be 220-240VAC, 50Hz fitted with Indian plug 2.Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system. 3.Resettable overcurrent breaker shall be fitted for protection		

**7 Standards, Safety and Training**

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Standards and safety for X-Ray based equipments: 1.Manufactures/Supplier should have ISO certificate to Quality Standard. 2.Should be compliant with IEC -60601/IS 13450 Electrical Safety General requirements for Medical equipments. 3.Should be FDA, CE, UL or BIS approved product 4.Comprehensive training for lab staff and support services till familiarity with the system. 5.Comprehensive warranty for 2 years and AMC of 5 years. 6. Certificate that spare parts and service will be available for atleast 10yrs from date and at place of installation. 7.The equipment should be type approved by AERB		

**8 Documentation**

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	1. User/Technical/Maintenance manuals to be supplied in English. 2. Certificate of calibration and inspection. 3. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer service/ maintenance manual. 4. List of important spare parts and accessories with their part number and costing. 5. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of hospital technician and company technician clearly spelt out. 6. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number with authenticated catalogue/manual, without which it will not be considered.		

## **2. Equipment Specification for INFANT Intensive Care Ventilator:**

1. Advanced technology ventilator capable of ventilating from premature to paediatric patients < 50 kgs. Principle working should be Pressure limited, time cycled, continuous flow system.
2. Multi microprocessor controlled system with individual selection of various ventilation parameters & PEEP, Rapid trigger response time for minimum work of breathing
3. The ventilator should have a display screen brightness and contrast adjustable clearly displaying the mode of ventilation, alarm settings, measured rate display, set rate, inspiratory time, indicator of set mode, Pressure bar graph, sensitivity, breath type display, I:E ratio, digital display of peak inspiratory pressure, Peep alarm etc.
4. It should have a pressure sensing device to synchronize the patient's natural breathing cycle with the ventilator with a maximum sensitivity of 0.10 cmH<sub>2</sub>O and a response time of 5 to 40 milliseconds depending on the sensitive setting.
5. It should have a variable triggering facility which should be displayed as a graphical display on the screen.
6. The system should be such that the Patient pressure delivered should be based on a reference pressure (Patient Circuit Pressure)
7. Should have the following modes of ventilation:  
AC, SIMV/IMV, CPAP, CPAP with backup ventilation, Standby.
8. The system should the following parameters:  
FLOW: Adjustable 2 TO 32 LPM  
I:E RATIO 4:1 TO 1:10  
WAVEFORM: Adjustable TAPERED OR SWUARE  
EXP PRESSURE : 0 TO 20 CmH<sub>2</sub>O  
INS PRESSURE : 5 to 70 CmH<sub>2</sub>O  
RATE: 2 to 150 bpm  
INSP. TIME: 0.1 TO 3 SEC
9. Should have the following audio – visual alarms:  
High Inspiratory Pressure  
Low/Prolonged Inspiratory Pressure  
Low PEEP/Baseline Pressure  
Apnea  
High Respiratory Rate  
Loss/Low Electrical Power  
System Error/Vent Inop  
Loss of Inlet Gas
10. Safety pressure relief valve adjustable from 15 to 85 cmH<sub>2</sub>O
11. Should be capable of delivering oxygen from 21% to 100%
12. Alarms: 3 – 15 seconds adjustable delay with 30 seconds mute.
13. Electronically controlled manual breath to be based on the inspiratory pressure, time and waveform settings.
14. Display of breath type should be seen on the display
15. The peak pressure set should be displayed both in graphic and digital display
16. Two sets of patient tubes should be supplied with the system
17. Should have facility for ventilation data transfer
18. Should be user-friendly & have sturdy design
19. SHOULD BE CE, ISO AND US FDA APPROVED system.
20. The complete system should be supplied on a single trolley capable of holding the ventilator, compressor, humidifier, hose hanger and the electrical output should have single output.



**OPTIONAL ITEMS:**

1. **HUMIDIFIER:** Fisher & Paykel Humidification system with reusable Infant / Paediatric Chamber
  
2. **COMPRESSOR:** Medical Grade air compressor which can produce 100% dry air

**3.EQUIPMENT SPECIFICATIONS OF ADVANCED COLOUR DOPPLER****ULTRASOUND SCANNER**

<b>S.N.</b>	<b>Description of function</b>	<b>Reply</b>	<b>Comments</b>
1.1	For whole body Ultrasound Anatomical studies, Blood Flow Studies and 3D studies.		

<b>S.N.</b>	<b>Operational requirements</b>	<b>Reply</b>	<b>Comments</b>
2.1	Digital Ultrasound system platform for excellent 2D , Colour & Power Doppler and 3D Imaging capability.		

<b>S.N.</b>	<b>Technical Specification</b>	<b>Reply</b>	<b>Comments</b>
3.1	Must have minimum 1000 digital channels*		
3.2	Should have 15" or more high resolution monitor with tilt and swivel.		
3.3	Line density 512 lines		
3.4	Dynamic range>160dB		
3.5	Penetration upto 30 cms		
3.6	Upto 4 selectable frequencies in each probe		
3.7	Tissue harmonic imaging with phase inversion, pulse inversion, or wide-bandwidth imaging technology.		
3.8	Inbuilt 3D imaging with hand acquisition and auto sweep.		
3.9	Must have minimum of 4 rendering modes with measurements.		
3.10	Panaromic imaging upto 240 cms or 180 deg with colour and cine facility.		
3.11	Should automatically equalize gain and brightness with touch of one button.		
3.12	Ability to enhance 2D and tissue harmonic penetration and colour sensitivity momentarily to improve visualization in difficult patients.		
3.13	Imaging with multiple line of sight combined to a single line of sight to improve resolution**		

3.14	Should provide for vascular imaging enhancing by using power Doppler to enhance B Mode image.		
3.15	Appropriate technology to provide uniform and thick slice thickness.		
3.16	Software for various applications including Vascular, Abdomen, Foetal echo, Transcranial and cardiac studies should be available.		

S.N.	Accessories, spares and consumables	Reply	Comments
4.1	1-4 MHz Convex Array probe.		
4.2	5-13 MHz Linear Array Probe		
4.3	4-10 MHz Endocavity probe		
4.4	1-4MHz Phased array probe		
4.5	7-10MHz Phased Array probe		
4.6	Volume probe		
4.7	PC Based Image management system		
4.8	Color dry view imaging printer (film based)		
4.9	Black and white thermal video printer		
4.10	Black and white laserjet printer for reporting		

S.N.	Environmental factors	Reply	Comments
5.1	The unit shall be capable of operating continuously in ambient temperature of 30 <sup>0</sup> C and relative humidity of 80%		

S.N.	Power supply	Reply	Comments
6.1	Power input to be 220-240VAC, 50Hz, fitted with Indian plug		
6.2	Resettable overcurrent breaker shall be fitted for protection		
6.3	Spike protector of appropriate rating should be provided		
6.4	UPS of suitable rating conforming to IS-302 shall be supplied		

<b>S.N.</b>	<b>Standards and safety</b>	<b>Reply</b>	<b>Comments</b>
7.1	Should be FDA or CE approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Comprehensive guarantee for 5 years of complete system including all transducers and all other parts for which order will be placed with uptime warranty of 98%. Comprehensive Guarantee period will be extended by double the downtime if it exceeds more than 2% in a year.		
7.4	Rates of comprehensive AMC for complete system and all parts for which order will be placed with an undertaking of 98% uptime and extension of AMC period by double the downtime if it exceeds more than 2%.		

<b>S.N.</b>	<b>Documentation</b>	<b>Reply</b>	<b>Comments</b>
8.1	User manual in English		
8.2	Service manual in English		
8.3	List of important spare parts and accessories with their part number and costing.		
8.4	Certificate of calibration and inspection from factory.		
8.5	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		

\* Channel per signal architecture nomenclature is unique to SIEMENS and hence others may quote specifying the difference.

\*\* Compound imaging is unique to Philips and hence others may quote specifying the difference.

#### 4. Equipment Specifications for Fiberoptic Bronchoscope-Paediatric

##### 1 Description of Function

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	The flexible fiberoptic bronchoscope is used for diagnostic and therapeutic procedures in critically ill patients for difficult intubation.		

##### 2 Operational Requirements

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The Paediatric fiberoptic bronchoscope should be lightweight, high resolution and flexible to be used with paediatric patients.		
2.2	Demonstration of the system is a must		

##### 3 Technical Specifications

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Operating Suction should be submersible		
3.2	Bending mechanism without lock		
3.3	Leak testing facility with automatic air feeding system preferable		
3.4	Video adaptor eyepiece to be provided		
3.5	Field of view 100° approx.		
3.6	Distal end diameter 3.5± 0.2mm with channel diameter 1.2 mm or more		
3.7	Depth of field 2 to 50 mm or better		
3.8	Bending range Up 180° approx., Down 120° approx		
3.9	Working length – 600mm or more		
3.10	Total length – 800mm or more		
3.11	Halogen light with 150 watt. Bulb with white light output with standby lamp option. Extra bulbs 4 in no.		
3.12	Autoclavable suction valve to avoid risk of cross contamination		
3.13	Telescopic eyepiece for direct compatibility to CCTV System		
3.14	Fully immersible in disinfectant solution		
3.15	DELETED		
3.16	Standard set should include reusable and autoclavable biopsy forceps ( 1no.)		
3.17	Cleaning/maintenance kit including container for disinfectant solution		

3.18	Should be supplied with 3 shelf plastic cart having base with scope holder and power strip		
------	--	--	--

#### 4 System Configuration Accessories, spares and consumables

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Flexible Fiberoptic Bronchoscope-Paediatric-01		
4.2	Brush biopsy (protected) – 50 pcs		
4.3	Foreign body forceps basket type-02.		
4.4	Trolley -01		
4.5	Standard accessories-01 set		
4.6	Light Source, Halogen -01		
4.7	Spare Halogen Bulbs- 04		

#### 5 Environmental factors

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -500 C and relative humidity of 15-90%		
5.3	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		

#### 6 Power Supply

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz as appropriate fitted with Indian plug		
6.2	Suitable Servo controlled Stabilizer/CVT		
6.3	Type of Protection Against Electric Shock Class I (3-core cord)to be supplied for the Light Source		

#### 7 Standards, Safety and Training

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Electrical safety conforms to standards for electrical safety IEC 60601-1 (OR EQUIVALENT international/national standard)General requirement for Electrical safety of Medical Equipment.		

7.2	Certified to meet the current leakage requirement of IEC 60601-2-18 or equivalent standard for Medical Equipment particular requirement for safety of endoscopy equipments.		
7.3	Certification to meeting Biocompatibility as per ISO 10993-1, "Biological evaluation of medical devices-Part 1: Guidance on selection of tests"		
7.4	Manufacturer should have ISO certification for quality standards.		
7.5	Product should be FDA/CE or ISI approved		
7.6	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.7	Degree of Protection Against Electric Shock Type BF -Should incorporate insulated patient attachment for light source.		
7.8	Comprehensive warranty for 5 years and provision of AMC for next 5 years.		

## 8 Documentation

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	Certificate of calibration and inspection from factory.		
8.2	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.3	User Manual in English		
8.4	List of important spare parts and accessories with their part number and costing.		
8.5	Service manual in English		
8.6	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		
8.7	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.8	Must submit user list and performance report within last 5 years from major hospitals.		

## 5. Equipment Specifications for G I Video Endoscope system

### 1 Description of Function

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Gastrosopes are used to view and administer therapy to the interior of the esophagus and the stomach for diagnosing and managing upper-GI disorders (e.g., ulcers and other lesions). Therapeutic GI procedures performed through the scope's working channels typically include biopsies, electrosurgery, and laser surgery.gastrosopes, duodenoscopes, and choledochoscopes—also called upper-gastrointestinal (GI) endoscopes—		

### 2 Operational Requirements

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	G E Video Endoscope system should comprise of the following: 1.Videoprocessor with light source -- 1 no. 2.Gastro intestinal videoscope -- 2nos. 3.Videocolonoscope -- 1 no. 4.Duodenovideoscope -- 1 No. 5.Endoscope washer -- 1 No. 6.Accessories 7.Hardware for recording & archiving		

### 3 Technical Specifications

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	<p>Technical Specification for complete GI Endoscopy System:</p> <p>A. Video processor with light source &amp; Monitor</p> <ol style="list-style-type: none"> <li>1. Power supply 200-240 V A/C</li> <li>2. PAL type video signal.</li> <li>3.Controls for color adjustment, to enhancement and balance settings.</li> <li>4.Controls to freeze images, enhance a portion of frozen image (zoom &amp; post-processing).</li> <li>5. Patient and physician data input key board..</li> <li>6.Operates on Halogen lamp / xenon lamp.(Xenon would be better)</li> <li>7. Emergency lamp.</li> <li>8. Compatibility with the gastro scope and colonoscope and duodenoscope.</li> <li>9. 15" LCD colour monitor with XGA resolution.</li> </ol> <p>B. FORWARD VIEWING GASTRO DUODENOSCOPE</p> <ol style="list-style-type: none"> <li>1. Direction of view should be zero degree.</li> <li>2. Field of view 120 deg-140 deg or more.</li> <li>3. Range of observation atleast from 5 mm to 90 mm.</li> <li>4. Angulations of tip up and down of at least :Up(190 deg); Down(90 deg), Right(100 deg); Left( 100 deg)</li> <li>5. Insertion tube diameter of less than 10 mm .</li> <li>6. Distal end diameter of not more than 10.5 mm</li> <li>7. Instrument channel of more than 2.5 mm</li> <li>8. Working length of not less than 1000mm</li> <li>9. Should be compatible with the video system specified.</li> </ol>		



## C. VIDEO COLONOSCOPE:

1. Direction of view should be zero degree.
2. Minimum of 140 degree of field of view.
3. Range of observation from 5 mm to 90 mm.
4. Angulations of tip not less than : 160 deg for Right/Left; 180 deg for Up/Down.
5. Insertion tube diameter of 13 mm or less ,with a working length of not less than 1600 mms.
6. Distal end of 14 mm or less .
7. Instrument channel of more than 3.0 mm
8. Compatible with the video system specified.

## D. DUODENO VIDEOSCOPE (Side viewing for ERCP)

1. Field of vision: 100-140 deg or more.
2. Direction of view (backward / oblique): 5-7 deg or more
- 3, Depth of view 4-60 mm or better.
4. Distal end outer diameter not exceeding 13.5
5. Insertion tube outer diameter not exceeding 13 mm
6. Bending angulation should be at least up 120 degree, down 90 degree , Right 105 degree Left 90 degree
7. Working length not below 1200 mm
8. Instrumental channel not less than 4 mm
9. Compatible with video system specified.

## E. ENDOSCOPE WASHER :

Fully automated, programmable washer and sterilizer compatible with the above mentioned scopes.  
Allows thorough cleaning and drying of inside and outside of scopes.  
Easy installation connected to standard sink  
Back up battery to maintain continuous power supply

## F. HARDWARE FOR RECORDING AND ARCHIVING:

Intel CORE 2 DUO Processor with 2.7 GHz or better  
512 MB RAM (DDR)  
120 GB HDD  
1.44 MB FDD  
COMBO DVD/ CD RW drive (DVD writer), 10 MBPS Ethernet card + connectivity  
2 serial , one parallel port  
Multimedia keyboard  
Optical scroll mouse  
Multimedia speakers  
Mini Tower Cabinet  
6 x USB port (2.0)  
Software for direct recording /archiving of images/video to computer and for CD conversion.  
Software for editing the video movies  
High resolution colour printer with 4 spare cartridges.  
Spare 100 CDs & 20 video cassettes,

#### 4 System Configuration Accessories, spares and consumables

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	<p>ACCESSORIES FOR GASTROSCOPE, DUODENOSCOPE &amp; COLONOSCOPE (Quote Separately)</p> <ol style="list-style-type: none"> <li>1. Biopsy forceps :3 each</li> <li>2. Foreign body grasper (basket type) :2</li> <li>3. Polypectomy snare:2 each</li> <li>4. Standard tip canula: 2 types – 10 in number</li> </ol>		

	<p>5. Sphincterotome for side viewing duodenoscope only (wire guided, triple lumen) – 10 in number.</p> <p>6. Mechanical lithotripter :1 complete set.</p> <p>7. Polypectomy cautery system :1 No.</p> <p>8. Guide wires 2 types ( 0.025 "F, 0.035 " in diameterF); length 450 cm, non-kinkable with stripes to detect movement – 5 each in number</p> <p>9. Basket for retrieving stones with memory filaments – 5 in number.</p> <p>10. Balloons 15 mm diameter and wire guided – 5 in number</p> <p>11. Double pigtail stents – 7 F 10 cm &amp; 10 F 10 cm – each 10 in number</p> <p>12. Straight flap Stents – 7 F 10cm &amp; 10F 10 cm long – each 10 in number</p>		
4.2	<p><b>FURNITURES</b></p> <p>1. Mobile cart with suitable compartments to house all the above equipments fully lockable with inbuilt plugs, switches, fuse &amp; UPS – cum-stabilizer.</p> <p>2. Table for Computer</p>		
4.3	All consumables required for installation and standardization of system to be given free of cost.		

### 5 Environmental factors

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of operating continuously in ambient temperature of 10-40 deg C and relative humidity of 15-90%		

### 6 Power Supply

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240 VAC, 50Hz fitted with Indian plug		

### 7 Standards, Safety and Training

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA , CE,UL or BIS approved product		
7.2	Comprehensive warranty for 2 years and 5 years CMC after warranty including UPS.		
7.3	Shall be certified to be meeting safety standard IEC 60601-2-18 part 2 Particular requirements for the safety of endoscopic equipment.		
7.4	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.5	Manufacturer should be ISO certified for quality standards.		

7.6	Comprehensive training for lab staff and support services till familiarity with the system.		
<b>8 Documentation</b>			
<b>SI</b>	<b>Name</b>	<b>Technical Specs quoted by bidder</b>	<b>Bidders Deviation if any</b>
8.1	<p>DOCUMENTATION Should include the following:</p> <ol style="list-style-type: none"> <li>1. User/Technical/Maintenance manuals to be supplied in English.</li> <li>2. Certificate of calibration and inspection.</li> <li>3. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacture.</li> <li>4. List of important spare parts and accessories with their part number and costing.</li> <li>5. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of company service engineer should be clearly spelt out.</li> <li>6. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number with authenticated catalogue/manual, any point, if not substantiated with authenticated catalogue/manual will not be considered.</li> </ol>		

## 6. Equipment Specifications for ECG Machine- 12 Channels

### 1 Description of Function

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	ECG Machine is primary equipment to record ECG Signal in various configuration. 12 channels with interpretation is required for recording and analyzing the waveforms with a special software.		

### 2 Operational Requirements

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The ECG Machine should be able to acquire all 12 Leads simultaneously and interpret them		

### 3 Technical Specifications

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Should acquire simultaneous 12 lead ECG for both adult and pediatric patients		
3.2	Should have Real time Colour display of ECG waveforms with signal quality indication for each lead		
3.3	Should have Artifact, AC, and low and high pass frequency filters.		
3.4	Should have a storage memory of at least 100 ECGs with easy transfer by optional modem and data card.		
3.5	Should have full screen preview of ECG report for quality assessment checks prior to print.		
3.6	Should have interpretation facility of the amplitudes, durations and morphologies of ECG waveforms and associated rhythm for adult and pediatric patients		
3.7	Should have alphanumeric Keyboard for patient data Entry. (virtual or hard keys)		
3.8	Should have High resolution (200 dpix500dpi on 25 mm/sec speed) digital array A4 size printer		
3.9	Should have report formats of 3 x4; 6 x2, Rhythm for up to 12 selected leads; 12 Lead Extended measurements, 1 minute of continuous waveform data for 1 selected lead.		
3.10	Should have battery capacity of at least 30 ECGs or 30 minutes of continuous rhythm recording on single charge		
3.11	Should be able to be connected to HIS /LAN/Wireless LAN(OPTIONAL)		
3.12	Should display ECG on LCD/TFT Display of 640x480 pixel resolution.		
3.13	USB Support (optional) for Storage on external portable memories.		

3.14	Multimode of ECG Storage capability on Floppy( min 2), 150 ECG on Internal Flash Memory		
------	---	--	--

#### 4 System Configuration Accessories, spares and consumables

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	ECG Machine 12 Leads with Interpretation - 01		
4.2	Patient Cable -02		
4.3	Chest Electrodes Adult-(set of six) -02 sets.		
4.4	Chest Electrodes Paediatric-(set of six) -02 sets each of Adult and Pediatrics-Total 4 sets		
4.5	Limb Electrodes(set of 4)- 02 sets of Adult and 02 sets of Paediatrics		
4.6	Thermal Paper A4 Size for 500 patients		

#### 5 Environmental factors

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		

#### 6 Power Supply

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		

#### 7 Standards, Safety and Training

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA , CE,UL or BIS approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms . (OR EQUIVALENT BIS Standard)		

#### 8 Documentation

SI	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User Manual in English		
8.2	Service manual in English		

8.3	List of important spare parts and accessories with their part number and costing		
8.4	Certificate of calibration and inspection.		
8.5	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		
8.6	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		