GLOBAL TENDER ENQUIRY DOCUMENT

ALL INDIA INSTITUTE OF AYURVEDA (AIIA) NEW DELHI

MINISTRY OF HEALTH & FAMILY WELFARE, GOVT. OF INDIA

TENDER

FOR

SUPPLY INSTALLATION TESTING & COMMISSIONING

OF MEDICAL EQUIPMENT

AT ALL INDIA INSTITUTE OF AYURVEDA (AIIA),

SARITA VIHAR, NEW DELHI

HSCC (INDIA) LTD

(A GOVERNMENT OF INDIA ENTERPRISE)
Plot No. 6-A, Block-E,
Sector-1,
NOIDA (U.P.) – 201 301
PHONE: 0120-2540153
FAX: 0120-2542447
URL: www.hsccltd.com

HSCC/PUR/AIIA/ Hospital Equipment/2013

INDEX

SECTION I
NOTICE INVITING TENDERS (NIT)
For Global Tender from
Director (AIIA)
Through
HSCC (INDIA) LTD
(A GOVERNMENT OF INDIA ENTERPRISE)
Plot No. 6-A, Block-E, Sector-1, NOIDA (U.P.) – 201 301
PHONE: 0120-2540153
FAX: 0120-2542447
URL: www.hsccltd.com

FOR
GOVT OF INDIA
MINISTRY OF HEALTH & FAMILY WELFARE

Tender Enquiry No.: HSCC/PUR/AIIA/HOSPITAL EQUIPMENT/2013 Dated 28.11.2013

NOTICE INVITING TENDERS (NIT)

Director, All India Institute of Ayurveda (AIIA), Sarita Vihar, New Delhi under Govt. of India through HSCC (India) Ltd invites sealed tenders, from eligible and qualified tenderers for supply of following Medical Equipments to AIIA, Sarita Vihar, New Delhi.-

Package No.	DESCRIPTION	Qty	EMD
ANESTHESIA			
Package - 1			
1	Ventilator-Portable	1	136,000
2	Pediatric Ventilator	2	
3	ICU Ventilators	2	
Package - 2			
1	Video Laryngoscope	2	160,120
2	Fibre optic Bronchoscope Adult	1	
3	Rigid Laryngoscope	2	
Package - 3			
1	Complete Monitoring System for ICU (6 Bedded)	1	100,000
Package - 4			
1	Blood Gas Analyzer	1	30,000
Package - 5			
1	Patient Warming System	3	12,000
Package - 6			
1	Resuscitation Kit	2	12,000
2	Mobile Air Aseptizer	2	

Package No.	DEPARTMENT	Qty	EMD
	BIOCHEMISTRY		
Package - 7			
1	Fully Automated Bench Top Chemistry Analyzer	1	36,000
Package - 8			
1	Centrifuge Machine	1	1,600
Package - 9			
1	Ion-Selective Electrolyte Analyzer	1	20,000
2	Micro plate Elisa reader	1	
Package - 10			
1	UV – Visible Spectrophotometer	1	20,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
	BLOOD BANK		
Package - 11			
1	Refrigerator Blood Bank 50-70 bags	1	34,000
2	Deep Freezer -40°	1	
3	Deep Freezer -80°	1	
Package - 12			
1	Centrifuge Table Top	1	29,600
2	Micro plate Centrifuge (Table Top)	1	
3	Refrigerator Centrifuge	1	
Package - 13			
1	Blood Mixer & Collector	1	8,800
Package - 14			
1	Blood Donor Couch	1	2,600
Package - 15			
1	Automatic Microplate washer	1	25,600
2	Microplate Shaker	1	
3	Water Bath	1	
4	Plasma Thawing Bath	1	
5	VDRL Shaker	1	
6	Dielectric Tube Sealer	1	
Package - 16			
1	Micropipettes	3	54,000
2	Multi Channel pipettes	3	
Package - 17			
1	Electronic Analytical Balance	1	8,000

Package - 18			
1	Fully Automated Blood grouping & Cross matching equipment based on Agglutination Technology	1	12,600
2	Portable Refrigerated Blood Transport Box	1	
Package - 19			
1	Ultrasonic Washing System for Glassware /plastic ware	1	32,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
CARDIOLOGY			
Package - 20			
1	Portable Color Doppler Echo Cardiography system	1	80,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
DENTAL			
Package - 21			
1	Dental Chair (Regular)	1	23,000
2	Dental Scaler	1	
Package - 22			
1	Dental X-ray	1	70,000
2	Digital Panoramic with Cephalometric X-ray	1	
Package - 23			
1.	Autoclave	1	6,000
Package - 24			
1	Intra Oral Camera	1	3,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
EMERGENCY			
Package - 25			
1	High Pressure Noiseless suction Unit	6	3,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
ENT			
Package - 26			
1	Fiberoptic Otoscope	1	37,600
2	Oesophagoscope with Light source	1	

Package No.	DEPARTMENT	Qty	EMD
	MICROBIOLOGY		
Package - 27			
1	Automated bacterial culture system	1	250,000
2	Automated Mycobacterium Culture and sensitivity system.	1	
3	Fully automatic bacterial identification and sensitivity system.	1	
4	Fully Automated Immuno Analyzer	1	
Package - 28			
1	Lab Refrigerators	3	26,000
2	Deep Freezer (-20° C)	2	
3	Deep freezer(-80 ° C) vertical / horizontal	1	
Package - 29			
1	Binocular Microscope Compound	1	17,000
2	Microscope with photographic attachment / Digital camera.	1	
Package - 30			
1	Autoclaves (Vertical)	1	26,000
2	Autoclave Fully Automatic (Horizontal)	1	
Package - 31			
1	Ultrasonic Cleaning System (Multistage)	1	30,000
Package - 32			
1	CO2 incubator	1	12,000
2	BOD incubator	1	
Package - 33			
1	Biosafety Cabinet	1	4,000
Package - 34			
1	Automatic air sampler	1	19,200
2	Hot air oven	1	
3	Double distillation apparatus	1	
4	Serological water bath	1	
5	Shaking water bath	1	
6	Micro pipettes	1	
Package - 35			
1	Electronic Balance	1	4,000
Package - 36			
1	Table Top Refrigerated Centrifuge	1	4,000

Package No.	DEPARTMENT	Qty	EMD
	OBS & GYN		
Package - 37			
1	Single Puncture Laparascope	1	47,000
2	Operative Gynecological Laparoscope Set	1	
Package - 38			
1	Ante Partum & Intrapartum Foetal Monitor	2	20,000
Package - 39			
1	Portable Ultrasound Machine	1	50,000
2	Ultrasonic cutting & Coagulating Device	1	
Package - 40			
1	Delivery Bed	6	72,000
2	Gynecological Examination Couch	4	
3	Patient Transfer Trolley	2	
4	Emergency Patient Trolley	4	
Package No.	**DEPARTMENT**	**Qty**	**EMD**
	OPHTHALMOSCOPE		
Package - 41			
1	Operating Microscope with coaxial Illumination and foot control	1	30,000
Package - 42			
1	Autorefractometer	1	83,000
2	Slit Lamp Microscope	1	
3	A B Scan	1	
4	Automated Perimeter	1	
5	Non Contact tonometer	1	
Package - 43			
1	Refraction Unit	1	14,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
	PATHOLOGY		
Package - 44			
1	Automated Slide Strainer	1	64,000
2	Automatic Tissue Processor	1	
Package - 45			
1	Auto Loading Urine Strip Analyzer	1	30,000
2	Semi Automated ESR Analyzer	1	
3	Semi Automatic Coagulometer	1	
4	Sperm Quality Analyzer	1	

Package - 46			
1	Microtome	1	22,000
Package - 47			
1	Hemotocrit Centrifuge	1	1,000
Package - 48			
1	Refrigerator cum Deep freezer	1	2,000
Package - 49			
1	Differential Blood Bank Cell Counter	1	10,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
	PEDIATRIC		
Package - 50			
1	Bedside Multifunction Monitors	5	50,000
Package - 51			
1	ECG Machine –Single Channel	1	7,600
2	ECG Machine – 12 Channels	1	
3	12 Channel ECG Machine with Interpretation.	1	
Package - 52			
1	Neonatal Open Care System	5	63,000
2	Neonatal Phototherapy Unit – CFL	2	
3	Phototherapy Unit (Double Surface)	2	
4.	Radiant Warmer with baby bassinet	2	
5	Transport Incubator	1	
Package - 53			
1	Ambu Bags	5	51,500
2	Fiberoptic Phototheraphy Lamp	2	
3	Pulse Oximeter	5	
4	Syringe Infusion Pump	2	
5	Microbilimeter	2	
6	Mobile Air Asepicizer	2	
7	Nebiliser	5	
Package - 54			
1	Weighing Machine with Height Measuring Scale	2	2,400
2	Weighing Scale Infant.	2	
Package No.	**DEPARTMENT**	**Qty**	**EMD**
	PMR		
Package - 55			
1	Exercise Stairs Case	1	6,600
2	Cervical & Lumbar Traction unit with couch	1	

3	Parallel bars	1	
4	Shoulder Wheel	1	
Package - 56			
1	Four Channel Tens	1	500
2	Two Channel Tens	1	
Package - 57			
1	Interferential Theraphy Unit with Mobile Trolley	1	16,520
2	Paraffin Wax Bath (Size – Large & Small0	1	
3	Short Wave Diathermy Unit	1	
4	Ultrasound Theraphy Unit (Two Heads)	1	
5	Whirl Pool Bath (For arm, Foot & Leg)	1	
Package - 58			
1	Treadmill (T. M. T) jogger	1	10,000
Package No.	**DEPARTMENT**	**Qty**	**EMD**
	RADIOLOGY		
Package - 59			
1	Ultrasound Machine	1	130,000
2	Portable Ultrasound With Color Doppler System	1	
Package - 60			
1	Digital Mobile X-Ray Unit	1	300,000
2	500 mA Digital Fluro Radiography System	1	
Package - 61			
1	Whole Body Multi Slice CT Scanner (One Hundred Twenty Eight CT Scanner)	1	1,200,000
Package - 62			
1	Bone Densitometer	1	50,000
	OPD		
Package - 63			
1	BP Apparatus	10	4,710
2	Tuning Fork	10	
3	Stethoscope	10	
4	Hammer Patella	10	
5	Ophthalmoscope	5	
6	Ophthalmoscope	2	

Package - 64			
1	SIMS Speculum set small, Medium & Large	2	1,960
2	CUSCO Speculum Small, Medium, Large	2	
3	SS Trays with cover	10	
4	Kidney Trays	10	
5	Wash Basin on Stand	10	
Package - 65			
1	Wall mounted lights (LED)	12	58,000
2	LED Floor Model Examination light	2	
Package - 66			
1	X-ray View Box Double	10	500
Package No.	**DEPARTMENT**	**Qty**	**EMD**
	OPERATION THEATRE		
Package - 67			
1	OT table (Hydraulic)	3	88,000
2	Mobile Light	2	
Package - 68			
1	Anesthesia Work Station	3	168,000
Package - 69			
1.	Defibrillator with ECG Monitor	2	22,000
Package - 70			
1	Diathermy	3	76,000
2	Hormonic Scalpel	1	
Package - 71			
1	Syringe Infusion Pump	5	155,000
2	Rapid Infusion Pump	5	
Package - 72			
1	Magill Forcep	10	24,160
2	Stillet Endobroncheal Tube	10	
3	Instruments Sets	6	

(2) **Tender No.: HSCC/PUR/AIIA/HOSPITAL EQUIPMENT/2013**

Sl. No.	Description	Schedule
i.	Dates of sale of tender enquiry documents	**28.11.2013 to 06.01.2014, 10.00 hrs to 16.30 hrs IST**
ii.	Place of sale of Tender Enquiry Documents	HSCC (India) Ltd, Plot No. 6-A, Block-E, Sector-1, Noida (U.P)-201301
iii.	Cost of the Tender Enquiry Document	INR 5, 000/-
iv.	Pre Tender Meeting Date & Time	**Package 1-36 On 10.12.2013 at** 11.00 hrs IST **Package 37- 72 On 11.12.2013 at** 11.00 hrs IST
v.	Pre Tender Meeting Venue	Same as 2 (ii)
vi.	Closing date & time for receipt of Tender	**Package 1 – 20 on 07.01.2014 at** 11.00 hrs IST **Package 21 – 40 on 08.01.2014 at** 11.00 hrs IST **Package 41 – 58 on 09.01.2014 at** 11.00 hrs IST **Package 59 – 72 on 10.01.2014 at** 11.00 hrs IST
vii.	Time and date of opening of Techno – Commercial tenders	**Package 1 – 20 on 07.01.2014 at** 11.30 hrs IST **Package 21 – 40 on 08.01.2014 at** 11.30 hrs IST **Package 41 – 58 on 09.01.2014 at** 11.30 hrs IST **Package 59 – 72 on 10.01.2014 at** 11.30 hrs IST
viii	Venue of Opening of Techno Commercial Tender	Same as 2 (ii)

3. Interested tenderers may obtain further information about this requirement from the above office selling the documents. Tender Enquiry Documents may be purchased on payment of non-refundable fee of INR 5,000/- per set in the form of account payee Demand Draft/Pay Order/Cashier's Cheque/Banker's Cheque, drawn on a scheduled Bank in India, in favour of **"HSCC (India) Ltd"** payable at New Delhi/ Noida**.**

4. If requested, the Tender Enquiry Documents will be mailed by Registered Post/Speed Post to the domestic tenderers and by international airmail to the foreign tenderers, for which extra expenditure per set will be INR 100/- for domestic post and INR 500/- for international airmail. The tenderer is to add the applicable postage cost in the non-refundable fee mentioned in Para 3 above.

5. Tenderer may also download the tender enquiry documents from the web site http://eprocure.gov.in/cppp, www.hsccltd.com and www.indianmedicine.nic.in submit its tender by utilizing the downloaded document, along with the required non-refundable fee as mentioned in Para 3 above.

6. All prospective tenderers may attend the Pre Tender meeting. The venue, date and time indicated in the Para 2 above.

7. Tenderers shall ensure that their tenders, complete in all respects, are dropped in the Tender Box located at **HSCC (India) Ltd, Plot No. 6-A, Block-E, Sector-1, NOIDA (U.P.) – 201 301** on or

before the closing date and time indicated in the Para 2 above, failing which the tenders will be treated as late and rejected.

8. In the event of any of the above mentioned dates being declared as a holiday / closed day for the purchase organisation, the tenders will be sold/received/opened on the next working day at the appointed time.

9. The Tender Enquiry Documents are not transferable.

10. **Bidders are requested to submit separate bid for every package & must quote for all the items of the package. Bids will be evaluated on Package wise basis. All bidders must quote accordingly, otherwise bid will be summarily rejected.**

Director (AIIA)

SECTION - II

GENERAL INSTRUCTIONS TO TENDERERS (GIT)
CONTENTS

GENERAL INSTRUCTIONS TO TENDERERS (GIT)

A. PREAMBLE

1. Definitions and Abbreviations

1.1 The following definitions and abbreviations which have been used in these documents shall have the meanings as indicated below:

1.2. Definitions:

(i) "Purchaser" means Director, AIIA, Sarita Vihar, New Delhi
(ii) "Tender" means Bids / Quotation / Tender received from a Firm / Tenderer / Bidder.
(iii) "Tenderer" means Bidder/ the Individual or Firm submitting Bids / Quotation / Tender
(iv) "Supplier" means the individual or the firm supplying the goods and services as incorporated in the contract.
(v) "Goods" means the articles, material, commodities, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, medical equipment, industrial plant etc. which the supplier is required to supply to the purchaser under the contract.
(vi) "Services" means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.
(vii) "Earnest Money Deposit" (EMD) means Bid Security/ monetary or financial guarantee to be furnished by a tenderer along with its tender.
(viii) "Contract" means the written agreement entered into between the purchaser and/or consignee and the supplier, together with all the documents mentioned therein and including all attachments, annexure etc. therein.
(ix) "Performance Security" means monetary or financial guarantee to be furnished by the successful tenderer for due performance of the contract placed on it. Performance Security is also known as Security Deposit.
(x) "Consignee" means the Director, AIIA, Sarita Vihar, New Delhi to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of despatch to another person as provided in the Contract then that "another" person is the consignee, also known as ultimate consignee.
(xi) "Specification" means the document/standard that prescribes the requirement with which goods or service has to conform.
(xii) "Inspection" means activities such as measuring, examining, testing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement to determine conformity.
(xiii) "Day" means calendar day.

1.3 Abbreviations:

(i) "TE Document" means Tender Enquiry Document
(ii) "NIT" means Notice Inviting Tenders.
(iii) "GIT" means General Instructions to Tenderers
(iv) "SIT" means Special Instructions to Tenderers
(v) "GCC" means General Conditions of Contract
(vi) "SCC" means Special Conditions of Contract

(vii) "DGS&D" means Directorate General of Supplies and Disposals
(viii) "NSIC" means National Small Industries Corporation
(ix) "PSU" means Public Sector Undertaking
(x) "CPSU" means Central Public Sector Undertaking
(xi) "LSI" means Large Scale Industry
(xii) "SSI" means Small Scale Industry
(xiii) "LC" means Letter of Credit
(xiv) "DP" means Delivery Period
(xv) "BG" means Bank Guarantee
(xvi) "ED" means Excise Duty
(xvii) "CD" means Custom Duty
(xviii) "VAT" means Value Added Tax
(xix) "CENVAT" means Central Value Added Tax
(xx) "CST" means Central Sales Tax
(xxi) "RR" means Railway Receipt
(xxii) "BL" means Bill of Lading
(xxiii) "FOB" means Free on Board
(xxiv) "FCA" means Free Carrier
(xxv) "FOR" means Free On Rail
(xxvi) "CIF" means Cost, Insurance and Freight
(xxvii) "CIP (Destinations)" means Carriage and Insurance Paid up to Consignee Site. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
(xxviii) "DDP" means Delivery Duty Paid named place of destination (consignee site)
(xxix) "INCOTERMS" means International Commercial Terms as on the date of Tender Opening
(xxx) "MOH&FW" means Ministry of Health & Family Welfare, Government of India
(xxxi) "Dte. GHS" means Directorate General and Health Services, MOH&FW.
(xxxii) "CMC" means Comprehensive maintenance Contract (labour, spare and preventive maintenance)
(xxxiii) "RT" means Re-Tender.

2. Introduction

2.1 The Purchaser has issued these TE documents for purchase of goods and related services as mentioned in Section – VI – "List of Requirements", which also indicates, *interalia,* the required delivery schedule, terms and place of delivery.

2.2 This section (Section II - "General Instruction Tenderers") provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the purchaser for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.

2.3 The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.

2.4 Before formulating the tender and submitting the same to the purchaser, the tenderer should read and examine all the terms, conditions, instructions, checklist etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

3. Availability of Funds

3.1 Expenditure to be incurred for the proposed purchase will be met from the funds available with the purchaser/consignee.

4. Language of Tender

4.1 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, shall be written in the English language, unless otherwise specified in the Tender Enquiry. However, the language of any printed literature furnished by the tenderer in connection with its tender may be written in any other language provided the same is accompanied by an English translation and, for purposes of interpretation of the tender, the English translation shall prevail**.**

4.2 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, may also be written in the Hindi language, provided that the same are accompanied by English translation, in which case, for purpose of interpretation of the tender etc, the English translations shall prevail.

5. Eligible Tenderers

5.1 This invitation for tenders is open to all suppliers who fulfil the eligibility criteria specified in these documents.

6. Eligible Goods and Services

6.1 All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term "origin" used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.

7. Tendering Expense

7.1 The tenderer shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. The purchaser will, in no case be responsible or liable for any such cost, expenditure etc regardless of the conduct or outcome of the tendering process.

B. TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

8.1 In addition to Section I – "Notice inviting Tender" (NIT), the TE documents include:

- Section II – General Instructions to Tenderers (GIT)
- Section III – Special Instructions to Tenderers (SIT)
- Section IV – General Conditions of Contract (GCC)
- Section V – Special Conditions of Contract (SCC)
- Section VI – List of Requirements
- Section VII – Technical Specifications
- Section VIII – Quality Control Requirements
- Section IX – Qualification Criteria
- Section X – Tender Form
- Section XI – Price Schedules
- Section XII – Questionnaire
- Section XIII – Bank Guarantee Form for EMD
- Section XIV – Manufacturer's Authorisation Form
- Section XV – Bank Guarantee Form for Performance Security/CMC Security
- Section XVI – Contract Forms A & B

- Section XVII – Proforma of Consignee Receipt Certificate
- Section XVIII – Proforma of Final Acceptance Certificate by the consignee
- Section XIX – Instructions from Ministry of Shipping/ Surface Transport (Annexure 1 & 2)
- Section XX – Check List for the Tenderers
- Section XXI – Consignee List

8.2 The relevant details of the required goods and services, the terms, conditions and procedure for tendering, tender evaluation, placement of contract, the applicable contract terms and, also, the standard formats to be used for this purpose are incorporated in the above-mentioned documents. The interested tenderers are expected to examine all such details etc to proceed further.

9. Amendments to TE documents

9.1 At any time prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it.

9.2 Such an amendment will be notified in writing by registered/speed post or by fax/telex/e-mail, followed by copy of the same by registered post to all prospective tenderers, which have received the TE documents and will be binding on them.

9.3 In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

10. Clarification of TE documents

10.1 A tenderer requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser in writing. The purchaser will respond in writing to such request provided the same is received by the purchaser not later than fifteen days (unless otherwise specified in the SIT) prior to the prescribed date of submission of tender.

C. PREPARATION OF TENDERS

11. Documents Comprising the Tender

11.1 The **Two Tender System**, i.e. "Techno – Commercial Tender" and "Price Tender" prepared by the tenderer shall comprise the following:

A) <u>Techno – Commercial Tender (Un priced Tender)</u>

i) Earnest money furnished in accordance with GIT clause 19.1 alternatively, documentary evidence as per GIT clause 19.2 for claiming exemption from payment of earnest money.
ii) Tender Form as per Section X (without indicating any prices).
iii) Documentary evidence, as necessary in terms of clauses 5 and 17 establishing that the tenderer is eligible to submit the tender and, also, qualified to perform the contract if its tender is accepted.
iv) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form.
v) Power of Attorney in favour of signatory of TE documents and signatory of Manufacturer's Authorisation Form.
vi) Documents and relevant details to establish in accordance with GIT clause 18 that the goods and the allied services to be supplied by the tenderer conform to the requirement of the TE documents.
vii) Performance Statement as per section IX along with relevant copies of orders and end users' satisfaction certificate.

viii) Price Schedule(s) as per Section XI filled up with all the details including Make, Model etc. of the goods offered with prices blank (without indicating any prices).
ix) Certificate of Incorporation in the country of origin.
x) Checklist as per Section XX.

B) Price Tender:

The information given at clause no. 11.1 A) ii) & viii) above should be reproduced with the prices indicated.

NOTE:

1. All pages of the Tender should be page numbered and indexed.
2. It is the responsibility of tenderer to go through the TE document to ensure furnishing all required documents in addition to above, if any.

11.2 The authorized signatory of the tenderer must sign the tender duly stamped at appropriate places and initial all the remaining pages of the tender. Individuals signing the tender or other documents connected with a contract must specify whether he signs as:

i. A 'Sole Proprietor' of the firm or constituted attorney of such Sole Proprietor.
ii. A partner of the firm, if it be a partnership, in which case he must have authority to quote & to refer to arbitration dispute concerning the business of the partnership either by virtue of the partnership agreement or a power of attorney;
iii. Constituted attorney of the firm if it is a company.

NOTE:

1. In case of (ii) above, a copy of the partnership agreement or general power of attorney, in either, case, attested by a Notary Public should be furnished, or affidavit on stamped paper of all the partners admitting execution of the partnership agreement or the general power of attorney should be furnished.
2. In case of the Partnership firms, where no authority to refer disputes concerning the business of the partnership has been conferred on any partner, the tender and all other related documents must be signed by every partner of the firm.
3. A person signing the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.

11.3 A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.

11.4 Tender sent by fax/telex/cable/electronically shall be ignored.

12. Tender currencies

12.1 The tenderer supplying indigenous goods or already imported goods shall quote only in Indian Rupees.

12.2 For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Yen. As regards price(s) for allied services, if any required with the goods, the same shall be quoted in Indian Rupees only if such services are to be performed /undertaken in India. Commission for Indian Agent, if any and if payable shall be indicated in the space provided for in the price schedule and will be payable in Indian Rupees only.

12.3 Tenders, where prices are quoted in any other way shall be treated as non -responsive and rejected.

13 Tender Prices

13.1 The Tenderer shall indicate on the Price Schedule provided under Section XI all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price schedule should be filled up as required. If any column does not apply to a tenderer, same should be clarified as "NA" by the tenderer.

13.2 If there is more than one schedule in the List of Requirements, the tenderer has the option to submit its quotation for any one or more schedules and, also, to offer special discount for combined schedules. However, while quoting for a schedule, the tenderer shall quote for the complete requirement of goods and services as specified in that particular schedule.

13.3 The quoted prices for goods offered from within India and that for goods offered from abroad are to be indicated separately in the applicable Price Schedules attached under Section XI.

13.4 While filling up the columns of the Price Schedule, the following aspects should be noted for compliance:

13.4.1 For domestic goods or goods of foreign origin located within India, the prices in the corresponding price schedule shall be entered separately in the following manner:

a) the price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, CST VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc;
b) any sales or other taxes and any duties including excise duty, which will be payable on the goods in India if the contract is awarded;
c) charges towards Packing & Forwarding, Inland Transportation, Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;
d) the price of Incidental Services, as mentioned in List of Requirements and Price Schedule;
e) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
f) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.4.2 For goods offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:

a) The price of goods quoted FOB/FCA port of shipment, as indicated in the List of Requirements and Price Schedule;
b) The amount of freight and insurance.
c) the price of goods quoted CIP (at Consignee Site) Basis in India as indicated in the List of Requirements, Price Schedule and Consignee List;
d) Wherever applicable, the amount of custom duty with CDED applicable on CIP value on the goods to be imported; AIIA will issue Custom Duty Exemption Certificate (CDEC) where applicable.
e) the charges for Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;
f) the charges for Incidental Services including Custom Clearance, inland transport to Consignee's site, installation & commissioning, supervision, Demonstratioon & tranining, as in the List of Requirements and Price Schedule;
g) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and

h) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.5 Additional information and instruction on Duties and Taxes:

13.5.1 If the Tenderer desires to ask for excise duty, sales tax/ VAT, Service Tax, Works Contract Tax etc. to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

13.5.2 Excise Duty:

a) If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of excise duty will be entertained after the opening of tenders.
b) If a Tenderer chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the tenderer must clearly mention the same and also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.
c) Subject to sub clauses 13.5.2 (a) & (b) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract terms shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the purchaser by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

13.5.3 Sales Tax:

If a tenderer asks for sales tax/ VAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The sales tax / VAT, Service Tax and Works Contract Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax / VAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract. If any refund of Tax is received at a later date, the Supplier must return the amount forth-with to the purchaser.

13.5.4 Octroi Duty and Local Duties & Taxes:

Normally, goods to be supplied to government departments against government contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, on some occasions, the local bodies (like town body, municipal body etc.) as per their regulations allow such exemptions only on production of certificate to this effect from the concerned government department. Keeping this in view, the supplier shall ensure that the stores to be supplied by the supplier against the contract placed by the purchaser are exempted from levy of any such duty or tax and, wherever necessary, obtain the exemption certificate from the purchaser.

However, if a local body still insists upon payment of such local duties and taxes, the same should be paid by the supplier to the local body to avoid delay in supplies and possible demurrage charges and obtain a receipt for the same. The supplier should forward the receipt obtained for such payment to the purchaser to enable the purchaser reimburse the supplier and take other necessary action in the matter.

13.5.5 Customs Duty:

The Purchaser will pay the Customs duty wherever applicable.

13.6 For transportation of imported goods offered from abroad, relevant instructions as incorporated under GCC Clause 10 shall be followed.

13.7 For insurance of goods to be supplied, relevant instructions as provided under GCC Clause 11 shall be followed.

13.8 Unless otherwise specifically indicated in this TE document, the terms FCA, FOB, FAS, CIF, CIP, DDP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris

13.9 The need for indication of all such price components by the tenderers, as required in this clause (viz., GIT clause 13) is for the purpose of comparison of the tenders by the purchaser and will no way restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

14. Indian Agent

14.1 If a foreign tenderer has engaged an agent in India in connection with its tender, the foreign tenderer, in addition to indicating Indian agent's commission, if any, in a manner described under GIT sub clause 12.2 above, shall also furnish the following information:

a) The complete name and address of the Indian Agent and its permanent income tax account number as allotted by the Indian Income Tax authority.
b) The details of the services to be rendered by the agent for the subject requirement.
c) Details of Service outlets in India, nearest to the consignee(s), to render services during Warranty and CMC period.
d) A copy of agreement between the Agent & their principal detailing the terms & conditions as well as services and after sales services as above to be retendered by thr agent and the precise relationship between them and their mutual interest in the business.
e) Principal / manufacturer's original proforma invoice with the price bid.

15. Firm Price

15.1 Unless otherwise specified in the SIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

15.2 However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated in GIT clause 13 will apply.

16. Alternative Tenders

16.1 Alternative Tenders are not permitted.

16.2 However the Tenderers can quote alternate models meeting the tender specifications of same manufacturer with single EMD.

16.3 Only one tenderer is permitted to quote for the same manufacturer irrespective of models.

17 Documents Establishing Tenderer's Eligibility and Qualifications

17.1 Pursuant to GIT clause 11, the tenderer shall furnish, as part of its tender, relevant details and documents establishing its eligibility to quote and its qualifications to perform the contract if its tender is accepted.

17.2 The documentary evidence needed to establish the tenderer's qualifications shall fulfil the following requirements:

a) in case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The tenderer shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIV in this document.
b) the tenderer has the required financial, technical and production capability necessary to perform the contract and, further, it meets the qualification criteria incorporated in the Section IX in these documents.
c) in case the tenderer is not doing business in India, it is duly represented by an agent stationed in India fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.

18. Documents establishing Good's Conformity to TE document.

18.1 The tenderer shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully conform to the goods and services specified by the purchaser in the TE documents. For this purpose the tenderer shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the purchaser in the TE documents to establish technical responsiveness of the goods and services offered in its tender.

18.2 In case there is any variation and/or deviation between the goods & services prescribed by the purchaser and that offered by the tenderer, the tenderer shall list out the same in a chart form without ambiguity and provide the same along with its tender.

18.3 If a tenderer furnishes wrong and/or misguiding data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition to other remedies available to the purchaser in this regard.

19. Earnest Money Deposit (EMD)

19.1 Pursuant to GIT clauses 8.1 and 11.1(d) the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 19.7 below.

19.2 The tenderers who are currently registered and, also, will continue to remain registered during the tender validity period with Directorate General of Supplies & Disposals or with National Small Industries Corporation, New Delhi for the specific goods as per tender enquiry specification shall be eligible for exemption from EMD. Vague stipulations in the Registration Certificate such as "to customers' specification" etc. will not be acceptable for exemption from furnishing of earnest money. In case the tenderer falls in these categories, it should furnish copy of its valid registration details (with DGS&D or NSIC, as the case may be).

19.3 The earnest money shall be denominated in Indian Rupees or equivalent currencies as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:

i) Account Payee Demand Draft
ii) Banker's cheque and
iii) Bank Guarantee

19.4 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the tenderer, in favour of the **"HSCC (India) Ltd"** payable at New Delhi/Noida. In case of bank guarantee, the same is to be provided from any commercial bank in India or country of the tenderer as per the format specified under Section XIII in these documents

19.5 The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 20 of GIT is 120 days, the EMD shall be valid for 165 days from Techno – Commercial Tender opening date.

19.6 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.

19.7 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.

19.8 In the case of Bank Guarantee furnished from banks outside India (i.e. foreign Banks), it should be authenticated and countersigned by any nationalised bank in India by way of back-to-back counter guarantee and the same should be submitted along with the bid.

20. Tender Validity

20.1 If not mentioned otherwise in the SIT, the tenders shall remain valid for acceptance for a period of 120 days (One hundred and twenty days) after the date of tender opening prescribed in the TE document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.

20.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/ telex/cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, however, may not agree to extend its tender validity without forfeiting its EMD.

20.3 In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

21. Signing and Sealing of Tender

21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11.

21.2 Unless otherwise mentioned in the SIT, a tenderer shall submit three copies of its tender marking them as "Original", "Duplicate" and "Triplicate". Duplicate & Triplicate tenders may contain all pages including Technical Literature/Catalogues as per in Original tenders.

21.3 The original and other copies of the tender shall either be typed or written in indelible ink and the same shall be signed by the tenderer or by a person(s) who has been duly authorized to bind the tenderer to the contract. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the tender.

21.4 Both the copies of the tender shall be duly signed at the appropriate places as indicated in the TE documents and all other pages of the tender including printed literature, if any shall be

initialled by the same person(s) signing the tender. The tender shall not contain any erasure or overwriting, except as necessary to correct any error made by the tenderer and, if there is any such correction; the same shall be initialled by the person(s) signing the tender.

21.5 The tenderer is to seal the original and each copy of the tender in separate envelopes, duly marking the same as "Original", "Duplicate", "Triplicate" and so on and writing the address of the purchaser and the tender reference number on the envelopes. The sentence "NOT TO BE OPENED" before _____ (The tenderer is to put the date & time of tender opening) are to be written on these envelopes. The inner envelopes are then to be put in a bigger outer envelope, which will also be duly sealed, marked etc. as above. If the outer envelope is not sealed and marked properly as above, the purchaser will not assume any responsibility for its misplacement, premature opening, late opening etc.

21.6 TE document seeks quotation following **two Tender System**, in two parts. First part will be known as **'Techno - Commercial Tender'**, and the second part **'Price Tender'** as specified in clause 11 of GIT. Tenderer shall seal **'Techno - Commercial Tender'** and **'Price Tender'** separately and covers will be suitably super scribed. Both these sealed covers shall be put in a bigger cover and sealed and procedure prescribed in Paras 21.1 to 21.5 followed.

D. SUBMISSION OF TENDERS

22. Submission of Tenders

22.1 Unless otherwise specified, the tenderers are to deposit the tenders in the tender box kept for this purpose at **HSCC (India) Ltd, Plot E-6 (A), Sector – 1, Noida**. In case of bulky tender, which can not be put into tender box, the same shall be submitted by the tenderer by hand to **CGM (F&A – Proc.)** or his nominee, **HSCC (India) Ltd, Plot E-6(A) Sector-1, Noida-201301, Uttar Pradesh**. The officer receiving the tender will give the tenderer an official receipt duly signed with date and time.

22.2 The tenderers must ensure that they deposit their tenders not later than the closing time and date specified for submission of tenders. It is the responsibility of the tenderer to ensure that their Tenders whether sent by post or by courier or by person, are dropped in the Tender Box by the specified clearing date and time. In the event of the specified date for submission of tender falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be received up to the appointed time on the next working day.

23. Late Tender

23.1 A tender, which is received after the specified date and time for receipt of tenders will be treated as "late" tender and will be ignored.

24. Alteration and Withdrawal of Tender

24.1 The tenderer, after submitting its tender, is permitted to alter / modify its tender so long as such alterations / modifications are received duly signed, sealed and marked like the original tender, within the deadline for submission of tenders. Alterations / modifications to tenders received after the prescribed deadline will not be considered.

24.2 No tender should be withdrawn after the deadline for submission of tender and before expiry of the tender validity period. If a tenderer withdraws the tender during this period, it will result in forfeiture of the earnest money furnished by the tenderer in its tender.

E. TENDER OPENING

25. Opening of Tenders

25.1 The purchaser will open the tenders at the specified date and time and at the specified place as indicated in the NIT.

In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day.

25.2 Authorized representatives of the tenderers, who have submitted tenders on time may attend the tender opening provided they bring with them letters of authority from the corresponding tenderers.

The tender opening official(s) will prepare a list of the representatives attending the tender opening. The list will contain the representatives' names & signatures and corresponding tenderers' names and addresses.

25.3 Two - Tender system as mentioned in Para 21.6 above will be as follows. The **Techno - Commercial Tenders** are to be opened in the first instance, at the prescribed time and date as indicated in NIT. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document. During the Techno - Commercial Tender opening, the tender opening official(s) will read the salient features of the tenders like brief description of the goods offered, delivery period, Earnest Money Deposit and any other special features of the tenders, as deemed fit by the tender opening official(s). Thereafter, in the second stage, the Price Tenders of only the Techno - Commercially acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation on a date notified after the evaluation of the Techno – Commercial tender. The prices, special discount if any of the goods offered etc., as deemed fit by tender opening official(s) will be read out.

F. SCRUTINY AND EVALUATION OF TENDERS

26. Basic Principle

26.1 Tenders will be evaluated on the basis of the terms & conditions already incorporated in the TE document, based on which tenders have been received and the terms, conditions etc. mentioned by the tenderers in their tenders. No new condition will be brought in while scrutinizing and evaluating the tenders.

27. Scrutiny of Tenders

27.1 The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed stamped and whether the Tenders are generally in order.

27.2 The Purchaser's determination of a tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

27.3 The tenders will be scrutinized to determine whether they are complete and meet the essential and important requiremens, conditions etc. As prescribed in the TE document. The tenders, which do not meet the basic requirements, are liable to be treated as non – responsive and will be rejected.

27.4 The following are some of the important aspects, for which a tender shall be declared non – responsive and will be summarily ignored;

(i) Tender form as per Section X (Signed and stamped) not enclosed.
(ii) Tender is unsigned.
(iii) Tender validity is shorter than the required period.
(iv) Required EMD (Amount, validity etc.)/ exemption documents have not been provided.
(v) Tenderer has quoted for goods manufactured by other manufacturer(s) without the required Manufacturer's Authorisation Form as per Section XIV.

(vi) Tenderer has not agreed to give the required performance security of required amont in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section – V – " Special Conditions of Contract", for due performance of the contract.
(vii) Goods offered are not meeting the tender enquiry specification.
(viii) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry like terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism applicable law.
(ix) Poor/ unsatisfactory past performance.
(x) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
(xi) Tenderer is not eligible as per GIT Clauses 5.1 & 17.1.
(xii) Tenderer has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.
(Xiii) Tenderer has not agreed for the delivery terms & delivery schedule.

28. Minor Infirmity/Irregularity/Non-Conformity

28.1 If during the evaluation, the purchaser find any any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser will convey its observation on such 'minor' issues to the tenderer by registered/speed post etc. asking the tenderer to respond by a specified date. If the tenderer does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

29 Discrepancies in Prices

29.1 If, in the price structure quoted by a tenderer, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the purchaser feels that the tenderer has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.
29.2 If there is an error in a total price, which has been worked out through addition and/or subtraction of subtotals, the subtotals shall prevail and the total corrected; and
29.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 29.1 and 29.2 above.
29.4 If, as per the judgement of the purchaser, there is any such arithmetical discrepancy in a tender, the same will be suitably conveyed to the tenderer by registered / speed post. If the tenderer does not agree to the observation of the purchaser, the tender is liable to be ignored.

30. Discrepancy between original and copies of Tender

30.1 In case any discrepancy is observed between the text etc. of the original copy and that in the other copies of the same tender set, the text etc. of the original copy shall prevail. Here also, the purchaser will convey its observation suitably to the tenderer by register / speed post and, if the tenderer does not accept the purchaser's observation, that tender will be liable to be ignored.

31. Qualification Criteria

31.1 Tenders of the tenderers, who do not meet the required Qualification Criteria prescribed in Section IX, will be treated as non - responsive and will not be considered further.

32. Conversion of tender currencies to Indian Rupees

32.1 In case the TE document permits the tenderers to quote their prices in different currencies, all such quoted prices of the responsive tenderers will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the exchange

rates established by the Reserve Bank of India for similar transactions, as on the date of 'Price Tender' opening.

33. Schedule-wise Evaluation

33.1 In case the List of Requirements contains more than one schedule, the responsive tenders will be evaluated and compared separately for each schedule. The tender for a schedule will not be considered if the complete requirements prescribed in that schedule are not included in the tender. However, as already mentioned in GIT sub clause 13.2, the tenderers have the option to quote for any one or more schedules and offer discounts for combined schedules. Such discounts wherever applicable will be taken into account to determine the lowest evaluated cost for the purchaser in deciding the successful tenderer for each schedule, subject to tenderer(s) being responsive.

34. Comparison of Tenders

34.1 Unless mentioned otherwise in Section – III – Special Instructions to Tenderers and Section – VI – List of Requirements, the comparison of the responsive tenders shall be carried out on Delivery Duty Paid (DDP) consignee site basis. The quoted turnkey prices and CMC prices will also be added for comparison/ranking purpose for evaluation. **Net Present value (NPV) of the Comprehensive Annual Maintenance charges (CMC) quoted for 3 years after the warranty period shall be added to the bid price for evaluation and will be calculated at a discounted rate of 10% per year.**

35. Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders

35.1 Further to GIT Clause 34 above, the purchaser's evaluation of a tender will include and take into account the following:

i) In the case of goods manufactured in India or goods of foreign origin already located in India, sales tax & other similar taxes and excise duty & other similar duties, Customs Duties, Service Tax, Works Contract Tax etc which will be contractually payable (to the tenderer), on the goods if a contract is awarded on the tenderer; and

ii) in the case of goods of foreign origin offered from abroad, customs duty and other similar import duties/taxes, which will be contractually payable (to the tenderer) on the goods if the contract is awarded on the tenderer.

35.2 The purchaser's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.

35.3 i. In exercise of powers conferred in section 11 of the Micro, Small and Medium Enterprises Development (MSMED) Act 2006, the Government has notified a new Public Procurement Policy for Micro & Small enterprises effective from 1st April 2012. The policy mandates that 20% of procurement of annual requirement of goods and services by all Central Ministries/Public Sector Undertakings will be from the micro and small enterprises. The Government has also earmarked a sub-target of 4% procurement of goods & services from MSEs owned by SC/ST entrepreneurs out of above said 20% quantity.

ii. In accordance with the above said notification, the participating Micro and Small Enterprises (MSEs) in a tender, quoting price within the band of L 1+15% would also be allowed to supply a portion of the requirement by bringing down their price to the L1 price, in a situation where L1 price is from someone other than on MSE. Such MSEs would be allowed to supply up to 20% of the total tendered value. In case there are more than one such eligible MSE, the 20% supply will be shared equally. Out of 20% of the quantity earmarked for supply from MSEs, 4%

quantity is earmarked for procurement from MSEs owned by SC/ST entrepreneurs. However, in the event of failure of such MSEs to participate in the tender process or meet the tender requirements and the L1 price, the 4% quantity earmarked for MSEs owned by SC/ST entrepreneurs will be met from other participating MSEs.

iii. The MSEs fulfilling the prescribed eligibility criteria and participating in the tender shall enclose with their tender a copy of their valid registration certificate with District Industries Centres or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir board or national Small Industries Corporation or any other body specified by Ministry of Micro and Small enterprises in support of their being on MSE, failing which their tender will be liable to be ignored.

36. Tenderer's capability to perform the contract

36.1 The purchaser, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.

36.2 The above-mentioned determination will, interalia, take into account the tenderer's financial, technical and production capabilities for satisfying all the requirements of the purchaser as incorporated in the TE document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by the purchaser.

37. Contacting the Purchaser

37.1 From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact the purchaser for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.

37.2 In case a tenderer attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by the purchaser.

G. AWARD OF CONTRACT

38. Purchaser's Right to accept any tender and to reject any or all tenders

38.1 The purchaser reserves the right to accept in part or in full any tender or reject any or more tender(s) without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract, without incurring any liability, whatsoever to the affected tenderer or tenderers.

39. Award Criteria

39.1 Subject to GIT clause 38 above, the contract will be awarded to the lowest evaluated responsive tenderer decided by the purchaser in terms of GIT Clause 36.

40. Variation of Quantities at the Time of Award/ Currency of Contract

40.1 At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to twenty five (25) per cent, the quantity of goods and services mentioned in the schedule (s) in the "List of Requirements" (rounded of to next whole number) without any change in the unit price and other terms & conditions quoted by the tenderer.

40.2 If the quantity has not been increased at the time of the awarding the contract, the purchaser reserves the right to increase by up to twenty five (25) per cent, the quantity of goods and services mentioned in the contract (rounded of to next whole number) without any change in the unit price and other terms & conditions mentioned in the contract, during the currency of the contract after one year from the Date of Notification of Award.

41. Notification of Award

41.1 Before expiry of the tender validity period, the purchaser will notify the successful tenderer(s) in writing, by registered / speed post or by fax/ telex/cable (to be confirmed by registered / speed post) that its tender for goods & services, which have been selected by the purchaser, has been accepted, also briefly indicating therein the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful tenderer must furnish to the purchaser the required performance security within thirty days from the date of dispatch of this notification, failing which the EMD will forfeited and the award will be cancelled. Relevant details about the performance security have been provided under GCC Clause 5 under Section IV.

41.2 The Notification of Award shall constitute the conclusion of the Contract.

42. Issue of Contract

42.1 Promptly after notification of award, the Purchaser/Consignee will mail the contract form (as per Section XVI) duly completed and signed, in duplicate, to the successful tenderer by registered / speed post.

42.2 Within twenty one days from the date of the contract, the successful tenderer shall return the original copy of the contract, duly signed and dated, to the Purchaser/Consignee by registered / speed post.

42.3 The Purchaser/Consignee reserves the right to issue the Notification of Award consignee wise.

43. Non-receipt of Performance Security and Contract by the Purchaser/Consignee

43.1 Failure of the successful tenderer in providing performance security and / or returning contract copy duly signed in terms of GIT clauses 41 and 42 above shall make the tenderer liable for forfeiture of its EMD and, also, for further actions by the Purchaser/Consignee against it as per the clause 24 of GCC – Termination of default.

44. Return of E M D

44.1 The earnest money of the successful tenderer and the unsuccessful tenderers will be returned to them without any interest, whatsoever, in terms of GIT Clause 19.6.

45. Publication of Tender Result

45.1 The name and address of the successful tenderer(s) receiving the contract(s) will be mentioned in the notice board/bulletin/web site of the purchaser.

46. Corrupt or Fraudulent Practices

46.1 It is required by all concerned namely the Consignee/Tenderers/Suppliers etc to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser: -

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

(ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition

(b) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by the purchaser if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

SECTION - III
SPECIAL INSTRUCTIONS TO TENDERERS
(SIT)

Sl. No.	GIT Clause No.	Topic	SIT Provision	Page No.
A	1 to 7	Preamble	No Change	33
B	8 to 10	TE documents	No Change	33
C	11 to 21	Preparation of Tenders	No Change	33
D	22 to24	Submission of Tenders	No Change	33
E	25	Tender Opening	No Change	33
F	26 to 37	Scrutiny and Evaluation of Tenders	No Change	33
G	38 to 45	Award of Contract	No Change	33

SPECIAL INSTRUCTIONS TO TENDERERS (SIT)

The following Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/substitute/supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below:

In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

A Preamble

No Change

B TE documents

No Change

C Preparation of Tenders

No Change

D Submission of Tenders

No Change

E Tender Opening

No Change

F Scrutiny and Evaluation of Tenders

No Change

G Award of Contract

No Change

SECTION - IV
GENERAL CONDITIONS OF CONTRACT (GCC)
TABLE OF CLAUSES

GENERAL CONDITIONS OF CONTRACT (GCC)

1. Application

1.1 The General Conditions of Contract incorporated in this section shall be applicable for this purchase to the extent the same are not superseded by the Special Conditions of Contract prescribed under Section V, List of requirements under Section VI and Technical Specification under Section VII of this document.

2. Use of contract documents and information

2.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the purchaser in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this TE document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.

2.2 Further, the supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC sub-clause 2.1 above except for the sole purpose of performing this contract.

2.3 Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 2.1 above shall remain the property of the purchaser and, if advised by the purchaser, all copies of all such documents shall be returned to the purchaser on completion of the supplier's performance and obligations under this contract.

3. Patent Rights

3.1 The supplier shall, at all times, indemnify and keep indemnified the purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trade marks etc. being made against the purchaser, the purchaser shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to the purchaser.

4. Country of Origin

4.1 All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of India has trade relations.

4.2 The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.

4.3 The country of origin may be specified in the Price Schedule

5. Performance Security

5.1 Within thirty (30) days from date of the issue of notification of award by the Purchaser/Consignee, the supplier, shall furnish performance security to the Purchaser/Consignee for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the

supplier, including the warranty obligations, initially valid for a period of minimum 30 months from the date of Notification of Award.

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

a) It shall be in any one of the forms namely Account Payee Demand Draft or Fixed Deposit Receipt drawn from any Scheduled bank in India or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in section XV of this document in favour of the Purchaser/Consignee. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to sixty (60) days beyond Warranty Period.

5.3 In the event of any failure /default of the supplier with or with out any quantifiable loss to the government including furnishing of consignee wise Bank Guarantee for CMC security as per Proforma in Section XV, the amount of the performance security is liable to be forfeited. The Administration Department may do the needful to cover any failure/default of the supplier with or without any quantifiable loss to the Government.

5.4 In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.

5.5 The supplier shall enter into Annual Comprehensive Maintenance Contract as per the 'Contract Form – B' in Section XVI with respective consignees, 3 (three) months prior to the completion of Warranty Period. The CMC will commence from the date of expiry of the Warranty Period.

5.6 Subject to GCC sub – clause 5.3 above, the Purchaser/Consignee will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CMC security in favour of Head of the Hospital/ Institute/ Medical College of the consignee as per the format in Section XV.

6. Technical Specifications and Standards

6.1 The Goods & Services to be provided by the supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in 'Technical Specification' and 'Quality Control Requirements' under Sections VII and VIII of this document.

7. Packing and Marking

7.1 The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transhipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

7.2 The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications and Quality Control Requirements under Sections VII and VIII and in SCC under Section V. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the supplier accordingly.

7.3 Packing instructions:

Unless otherwise mentioned in the Technical Specification and Quality Control Requirements under Sections VII and VIII and in SCC under Section V, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following with indelible paint of proper quality:

a. contract number and date
b. brief description of goods including quantity
c. packing list reference number
d. country of origin of goods
e. consignee's name and full address and
f. supplier's name and address

8. Inspection, Testing and Quality Control

8.1 The purchaser and/or its nominated representative(s) will, without any extra cost to the purchaser, inspect and/or test the ordered goods and the related services to confirm their conformity to the contract specifications and other quality control details incorporated in the contract. The purchaser shall inform the supplier in advance, in writing, the purchaser's programme for such inspection and, also the identity of the officials to be deputed for this purpose. The cost towards the transportation, boarding & lodging will be borne by the purchaser and/or its nominated representative(s).

8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.

8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser's inspector for conducting the inspections and tests again.

8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.

8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.

8.6 The purchaser's/consignee's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-despatch inspection mentioned above.

8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.

8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognised/ reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to despatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

9. Terms of Delivery

9.1 Goods shall be delivered by the supplier in accordance with the terms of delivery and as per the delivery period specified in the schedule of requirement. Please note that the time shall be the essence of the contract.

10. Transportation of Goods

10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments and/or transhipment without the express/prior written consent of the purchaser. The supplier is required under the contract to deliver the goods under CIP (at Consignee site) basis terms; the shipment shall be made by Indian flag vessel or by vessels belonging to the conference lines in which India is a member country through India's forwarding agents/coordinators. In case the forwarding agent/coordinators are unable to provide timely adequate space in Indian flag vessel or by vessels belonging to the conference lines, the supplier shall arrange shipment through any available vessel to adhere to the delivery schedule given in the contract.
In case of airlifting of imported goods offered from abroad, the same will be done only through the National Carrier i.e. Air India wherever applicable. In case the National Carrier is not available, any other airlines available for early delivery may be arranged.

10.2 Instructions for transportation of domestic goods including goods already imported by the supplier under its own arrangement:

In case no instruction is provided in this regard in the SCC, the supplier will arrange transportation of the ordered goods as per its own procedure.

11. Insurance:

11.1 Unless otherwise instructed in the SCC, the supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner:

i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured. The insurance cover shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.

ii) in case of supply of the imported goods on CIP (at Consignee site) Basis, the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 3 months beyond date of delivery.

If the equipment is not commissioned and handed over to the consignee within 3 months, the insurance will be got extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actuals will be reimbursed.

12. Spare parts

12.1 If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:

a) The spare parts as selected by the Purchaser/Consignee to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and

b) In case the production of the spare parts is discontinued:

i) Sufficient advance notice to the Purchaser/Consignee before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and

ii) Immediately following such discontinuation, providing the Purchaser/Consignee, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by the Purchaser/Consignee.

12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the goods so that the same are used during warranty and CMC period.

.

13. Incidental services

13.1 Subject to the stipulation, if any, in the SCC (Section – V), List of Requirements (Section – VI) and the Technical Specification (Section – VII), the supplier shall be required to perform the following services.

i) Installation & commissioning, Supervision and Demonstration of the goods
ii) Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
iii) Training of Consignee's Doctors, Staff, operators etc. for operating and maintaining the goods
iv) Supplying required number of operation & maintenance manual for the goods

14. Distribution of Dispatch Documents for Clearance/Receipt of Goods

The supplier shall send all the relevant despatch documents well in time to the Purchaser/Consignee to enable the Purchaser/Consignee clear or receive (as the case may be) the goods in terms of the contract.
Unless otherwise specified in the SCC, the usual documents involved and the drill to be followed in general for this purpose are as follows.

A) For Domestic Goods, including goods already imported by the supplier under its own arrangement

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract):

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Consignee Receipt Certificate as per Section XVII in original issued by the authorized representative of the consignee;
(iii) Two copies of packing list identifying contents of each package;
(iv) Inspection certificate issued by the nominated Inspection agency, if any.
(v) Certificate of origin;

(vi) Insurance Certificate as per GCC Clause 11.
(vii) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

B) For goods imported from abroad

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract). Any delay or demurrage occurred during the customs clearance on account of the non-availability of technical support/ clarifications /documents from the supplier shall be borne by the supplier:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Original and four copies of the negotiable clean, on-board Bill of Lading/Airway bill, marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
(iii) Four Copies of packing list identifying contents of each package;
(iv) Insurance Certificate as per GCC Clause 11.
(v) Manufacturer's/Supplier's warranty certificate;
(vi) Inspection Certificate for the despatched equipments issued by recognized/ reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to despatch
(vii) Manufacturer's own factory inspection report;
(viii) Certificate of origin
(ix) Port of Loading;
(x) Port of Discharge and
(xi) Expected date of arrival.

15. Warranty

15.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (*except when the design adopted and / or the material used are as per the Purchaser's/Consignee's specifications*) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.

15.2 The **warranty** shall remain valid for the period as mentioned in the list of requirement/ General Technical specification, after the goods or any portion thereof as the case may be, have been delivered, installed and commissioned at the final destination and accepted by the purchaser / consignee (s) in terms of the contract, unless specified otherwise in the SCC

a. No conditional warranty like mishandling, manufacturing defects etc. will be acceptable.
b. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work
c. Replacement and repair will be under taken for the defective goods.
d. Proper marking has to be made for all spares for identification like printing of installation and repair dates.

15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.

15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after

providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non rectification will be applicable as per tender conditions

15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended to a further period of twenty four (24) months from the date such rectified / replaced goods starts functioning to the satisfaction of the purchaser.

15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.

15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods

15.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.

15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years from the date of installation and handing over.

15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipments/machines/goods etc. and shall always give the most competitive price for its machines/equipments supplied to the Purchaser/Consignee.

16. Assignment

16.1 The Supplier shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Purchaser's prior written permission.

17. Sub Contracts

17.1 The Supplier shall notify the Purchaser in writing of all sub contracts awarded under the contract if not already specified in its tender. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.

17.2 Sub contract shall be only for bought out items and sub-assemblies.

17.3 Sub contracts shall also comply with the provisions of GCC Clause 4 ("Country of Origin").

18. Modification of contract

18.1 If necessary, the purchaser may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:

a) Specifications, drawings, designs etc. where goods to be supplied under the contract are to be specially manufactured for the purchaser,
b) Mode of packing,
c) Incidental services to be provided by the supplier
d) Mode of despatch,
e) Place of delivery, and
f) Any other area(s) of the contract, as felt necessary by the purchaser depending on the merits of the case.

18.2 In the event of any such modification/alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any

obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by the Purchaser/Consignee, the supplier shall convey its views to the Purchaser/Consignee within twenty-one days from the date of the supplier's receipt of the Purchaser's/Consignee's amendment / modification of the contract.

19. Prices

19.1 Prices to be charged by the supplier for supply of goods and provision of services in terms of the contract shall not vary from the corresponding prices quoted by the supplier in its tender and incorporated in the contract except for any price adjustment authorised in the SCC.

20. Taxes and Duties

20.1 Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until delivery of the contracted goods to the purchaser.

20.2 Further instruction, if any, shall be as provided in the SCC.

21. Terms and Mode of Payment

21.1 Payment Terms

Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner.

A) Payment for Domestic Goods Or Foreign Origin Located Within India.

Payment shall be made in Indian Rupees as specified in the contract in the following manner:

a) On delivery:

75 % payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Consignee Receipt Certificate as per Section XVII in original issued by the authorized representative of the consignee;
(iii) Two copies of packing list identifying contents of each package;
(iv) Inspection certificate issued by the nominated Inspection agency, if any.
(v) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
(vi) Certificate of origin.

.

b) On Acceptance:

Balance 25 % payment would be made against 'Final Acceptance Certificate' as per Section XVIII of goods to be issued by the consignees subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise. In case where the installation & commissioning or final inspection and test at site is delayed for any reasons for which consignee is responsible, 25% of the contract price shall become payable, after the expiry of six months from the date of arrival of the last consignment at site subject to submission of a Bank Guarantee by the supplier for the said amount valid initially for the period of six months. The supplier shall get the validity of the Bank Guarantee extended for the further period as and when asked for the purchaser.

B) Payment for Imported Goods:

Payment for foreign currency portion shall be made in the currency as specified in the contract in the following manner:

a) On Shipment:

Seventy Five (75) % of the net CIP price (CIP price less Indian Agency commission) of the goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of documents specified hereunder:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Original and four copies of the negotiable clean, on-board Bill of Lading/ Airway bill , marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
(iii) Four Copies of packing list identifying contents of each package;
(iv) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
(v) Manufacturer's/Supplier's warranty certificate;
(vi) Inspection certificate issued by the nominated inspection agency, if applicable as per contract;
(vii) Manufacturer's own factory inspection report and
(viii) Certificate of origin by the chamber of commerce of the concerned country;
(ix) Inspection Certificate for the despatched equipments issued by recognized/ reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to despatch.
(x) Certificate of origin

b) On Acceptance:

Balance payment of 25 % of net CIP price of goods would be made against 'Final Acceptance Certificate' as per Section XVIII to be issued by the consignees to the supplier. The supplier shall submit the original final acceptance certificate to the Purchaser (HSCC India Ltd) who shall issue no objection certificate to the banker for payment through irrevocable Letter of Credit (LC) opened in favour of the Foreign Principal in a bank in his country, subject to recoveries, if any.

In case where the installation and commissioning or final inspection and test at site is delayed for any reason for which consignee is responsible, 25% of the contract price shall become payable, after the expiry of six months from the date of arrival of the last consignment at site subject to submission of a bank guarantee by the supplier for the said amount valid initially for the period of six months. The supplier shall get the validity of the bank Guarantee extended for the further period as and when asked for by the purchaser.

c) Payment of Incidental Costs till consignee site & Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) will be paid in Indian Rupees to the Indian Agent on proof of final installation, commission and acceptance of equipment by the consignee.

d) Payment of Indian Agency Commission:

Indian Agency commission will be paid to the manufacturer's agent in the local currency for an amount in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of

exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation.

C) Payment of Turnkey, if any:

Turnkey payment will be made as indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation.

D) Payment for Annual Comprehensive Maintenance Contract Charges:

The consignee will enter into CMC with the supplier at the rates as stipulated in the contract. The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by the consignee on receipt of bank guarantee for an amount equivalent to 2.5 % of the cost of the equipment as per contract in the prescribed format given in Section XV valid till 2 months after expiry of entire CMC period.

21.2 The supplier shall not claim any interest on payments under the contract.

21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.

21.4 Irrevocable & non – transferable LC shall be opened by the respective consignees. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser/consignee, the charges thereof shall be borne by the supplier.

21.5 The payment shall be made in the currency / currencies authorised in the contract.

21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.

21.7 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.

21.8 While claiming reimbursement of duties, taxes etc. (like sales tax, excise duty, custom duty) from the Purchaser/Consignee, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the supplier) shall refund to the Purchaser/Consignee forthwith.

21.9 In case where the supplier is not in a position to submit its bill for the balance payment for want of receipted copies of Inspection Note from the consignee and the consignee has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the paying authority without consignee's receipt certificate after three months from the date of the preceding part payment for the goods in question, subject to the following conditions:

(a) The supplier will make good any defect or deficiency that the consignee (s) may report within six months from the date of despatch of goods.
(b) Delay in supplies, if any, has been regularized.
(c) The contract price where it is subject to variation has been finalized.
(d) The supplier furnishes the following undertakings:

"I/We, _____ certify that I/We have not received back the Inspection Note duly receipted by the consignee or any communication from the purchaser or the consignee about non-receipt, shortage or defects in the goods supplied. I/We _____ agree to make good any defect or deficiency that the consignee may report within three months from the date of receipt of this balance payment.

22. Delivery

22.1 The supplier shall deliver of the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as

incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the contarct.

22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:

(i) imposition of liquidated damages,
(ii) forfeiture of its performance security and
(iii) termination of the contract for default.

22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

22.4 When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, interalia contain the following conditions:

(a) The Purchaser/Consignee shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.

(b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and, also including statutory increase in or fresh imposition of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or on account of any other tax or duty which may be levied in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.

(c) But nevertheless, the Purchaser/Consignee shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or any other duty or tax or levy or on account of any other grounds, which takes place after the expiry of the date of delivery stipulated in the contract.

22.5 The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the Purchaser/Consignee for extension of delivery period and obtain the same before despatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the purchaser.

22.6 Passing of Property

22.6.1 The Property in the goods shall not pass to the purchaser unless and until the goods have been delivered to the consignee in accordance with the conditions of the contract.

22.6.2 Where there is a contract for sale of specific goods and the supplier is bound to do something to the goods for the purpose of putting them into a deliverable state the

property does not pass until such thing is done.

22.6.3 Unless otherwise agreed, the goods remain at the supplier's risk until the property therein is transferred to the purchaser.

23. Liquidated damages

23.1 Subject to GCC clause 26, if the supplier fails to deliver any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the Purchaser/Consignee shall, without prejudice to other rights and remedies available to the Purchaser/Consignee under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser/Consignee may consider termination of the contract as per GCC 24.

During the above-mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 22.4 above shall also apply.

24. Termination for default

24.1 The Purchaser/Consignee , without prejudice to any other contractual rights and remedies available to it (the Purchaser/Consignee), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier 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 Purchaser/Consignee pursuant to GCC sub-clauses 22.3 and 22.4.

24.2 In the event of the Purchaser/Consignee terminates the contract in whole or in part, pursuant to GCC sub-clause 24.1 above, the Purchaser/Consignee 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 supplier shall be liable to the Purchaser/Consignee for the extra expenditure, if any, incurred by the Purchaser/Consignee for arranging such procurement.

24.3 Unless otherwise instructed by the Purchaser/Consignee, the supplier shall continue to perform the contract to the extent not terminated.

25. Termination for insolvency

25.1 If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, 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 Purchaser/Consignee.

26. Force Majeure

26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.

26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of , the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, acts of the Purchaser/Consignee either in its sovereign or contractual capacity, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, and freight embargoes.

26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.

26.5 In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for convenience

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

27.2 The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by the Purchaser/Consignee following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser/Consignee may decide:

a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or

b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing language

28.1 The contract shall be written in English language following the provision as contained in GIT clause 4. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written accordingly in that language.

29. Notices

29.1 Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by cable or telex or facsimile and confirmed in writing. The procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.

29.2 The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

30. Resolution of disputes

30.1 If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.

30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per

the Arbitration and Conciliation Act, 1996 of India. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitration of an officer in the Ministry of Law and Justice, appointed to be the arbitrator by the Director General (Health Services). The award of the arbitrator shall be final and binding on the parties to the contract subject to the provision that the Arbitrator shall give reasoned award in case the value of claim in reference exceeds Rupees One lakhs (Rs. 1,00,000/-)

30.3 Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e., New Delhi, India.

30.4 Jurisdiction of the court will be form the place where the tender enquiry document has been issued, i.e., New Delhi, India.

31. Applicable Law

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

32. Withholding and Lien in respect of sums claimed

Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other contact made by the supplier with the purchaser, pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred to above, by the purchaser, will be kept withheld or retained till the claim arising about of or under the contract is determined by the Arbitrator or by the competent court as the case may be, and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

32. General/ Miscellaneous Clauses

32.1 Nothing contained in this Contract shall be constructed as establishing or creating between the parties, i.e. the Supplier/its Indian Agent/CMC Provider on the one side and the Purchaser on the other side, a relationship of master and servant or principal and agent.

32.2 Any failure on the part of any Party to exercise right or power under this Contract shall not operate as waiver thereof.

32.3 The Supplier shall notify the Purchaser/Consignee /the Government of India of any material change would impact on performance of its obligations under this Contract.

32.4 Each member/constituent of the Supplier/its Indian Agent/CMC Provider, in case of consortium shall be **jointly and severally liable** to and responsible for all obligations towards the Purchaser/Consignee/Government for performance of contract/services including that of its Associates/Sub Contractors under the Contract.

32.5 The Supplier/its Indian Agent/CMC Provider shall at all times, indemnify and keep indemnified the Purchaser/Government of India against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while providing its services under CMC or the Contract.

32.6 The Supplier/its Agent/CMC Provider shall, at all times, indemnify and keep indemnified the Purchaser/Consignee/Government of India against any claims in respect of any damages or compensation payable in consequences of any accident or injury sustained or suffered by its employees or agents or by any other third party resulting from or by any action, omission or operation conducted by or on behalf of the supplier/its associate/affiliate etc.

32.7 All claims regarding indemnity shall survive the termination or expiry of the contract.

SECTION – V

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below.

These Special Conditions will modify/substitute/supplement the corresponding (GCC) clauses.
Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

SECTION - VI

LIST OF REQUIREMENTS

Part I

Sl. No.	Equipment Name	Consignee	Department	Quantity	Total Quantity	EMD Details
2						
3						
4						
5						
6						

Legend:
AIIA –All India Institute of Ayurveda, New Delhi

Part II: Required Delivery Schedule:

a) For Indigenous goods or for imported goods if supplied from India:

90 days from date of Notification of Award to delivery at consignee site. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period). For equipment like CT, MRI, LINAC, 800mA/ 1000 mA X ray (DR), Cath Lab**,** the delivery period will be 180 days, to delivery at consignee site.

Installation and commissioning shall be done within two weeks of receipt of the stores/ goods at site or within two weeks of handing over the site for installation, whichever is later. For equipment like CT, MRI, LINAC, 800mA/ 1000 mA X ray (DR), Cath Lab installation and turnkey work may be completed within 45 days from delivery at site or within 45 days of handing over the site for installation, whichever is later.

b) For Imported goods directly from foreign:

90 days from the date of opening of L/C.The date of delivery will be the date of Bill of Lading/Airway bill. (Tenderers may quote the earliest delivery period). For equipment like CT, MRI, LINAC, 800mA/ 1000 mA X ray (DR), Cath Lab**,** the delivery period will be 180 days from the date of Opening of LC.

Installation and commissioning shall be done within two weeks of receipt of the stores/ goods at site or within two weeks of handing over the site for installation, whichever is later. For equipment like CT, MRI, LINAC, 800mA/ 1000 mA X ray (DR), Cath Lab installation and turnkey work may be completed within 45 days from delivery at site or within 45 days of handing over the site for installation, whichever is later.

For delayed delivery and/ or installation and commissioning liquidated damages will get applied as per GCC clause 23.

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in

GCC Clause 13

Part IV:

Turnkey (if any) as per details in Technical Specification.

Part V:

Warranty period as per details in general technical specifications

Comprehensive Maintenance Contract (CMC) as per details in Technical Specification and also specified in part I above.

Part VI:

Required Terms of Delivery and Destination.

a) For Indigenous goods or for imported goods if supplied from India:

At Consignee Site(S)

b) For Imported goods directly from abroad:

The foreign tenderers are required to quote their rates on CIP (at Consignee Site) Basis giving break up of the price as per the Proforma prescribed in the Price Schedule.

The shipping arrangements shall be made in accordance with the instruction of Ministry of Shipping & Transport, New Delhi, India as detailed in Annexure 1 at Section XIX.

Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.

Destination/Consignee details are given in Section XXI.

Section – VII
TECHNICAL SPECIFICATIONS

ANESTHESIA

VENTILATOR-PORTABLE

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	The portable ventilator is used to transport a patient with artificial respiration support or home care of a patient after discharge from a hospital.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The portable ventilator should be light weight(< 10 kg)		
2.2	Should be microprocessor controlled, portable, light weight. Should operate with main electric supply as well as with battery. Should be able to work both with cylinders and pipeline, connectors and high-pressure tubing of appropriate length to be supplied.		
2.3	Demostration of the equipment is a must.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Should have turbine/venturi/jet mixing- technology for supplying air- oxygen mixture		
3.2	Should have following modes of ventilation: CMV, Assist-contol,SIMV, PS-PEEP		
3.3	Audio-visual alarms for a. Low supply pressure b. High/low airway pressure c. Leakage/disconnection d. Power failure e. Apnea f. Low battery		

3.4	Should have following settings a. TV 50 – 1500ml b. PEEP/CPAP & PS c. RR up to 40bpm d. I: E ratio 1:3 to 2:1 e. FiO2 : 20 – 100%		
3.5	Battery back up for minimum 1 hour		
3.6	Should fix, on rails of transport trolley and on stand with wheels.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Portable Ventilator-01		
4.2	Adult Reusable /Autoclavable Silicon Patient Circuit-02		
4.3	Paediatric Reusable/Autoclavable Silicone Patient Circuit-02		
4.4	Oxygen Hose-01		
4.5	Air Hose-01		
4.6	Rechargeable Batteries- 01 set		

5 Environmental factors

Sl	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 -500 C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.2	Product should be US FDA/CE or ISI approved		
7.3	Manufacturer should have ISO certification for quality standards.		
7.4	Comprehensive warranty as per bid.		
7.5	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 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User Manual in English		
8.2	Service manual in English		
8.3	Certificate of calibration and inspection from factory.		
8.4	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.5	List of important spare parts and accessories with their part number and costing		
8.6	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		
8.7	Must submit user list and performance report as per bid.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

PAEDIATRIC VENTILATOR

1. Microprocessor Controlled integrated suitable for neonate and child ventilation.
2. Should have not less than 10 inch colored TFT screen capable for the monitoring of the ventilation parameters, curves and loops .
3. Should have the automatic compliance, leakage compensation.
4. Should have the facilities for following setting for neonate to child
    a) Tidal Volume(2-250 ml)
    b) Flow Pattern
    c) Inspiration Plateau
    d) Pressure ramp
    e) SIMV Rate
    f) CPAP/PEEP
    g) Pressure Support
    h) FiO2
    i) Pause Time
    j) Inspiration trigger sensitivity to flow & pressure
    k) Base Flow
    l) Sensitivity for cycling to expiration
5. Should have the capability of monitoring of the following parameters,
    a) Airway Pressure
    b) Expired tidal Volume
    c) Minute Volume
    d) Spontaneous Minute Volume
    e) Total Frequency
    f) Fio2
    g) Auto PEEP
    h) Rapid Shallow Breathing Index
    i) Plateau Pressure
    j) Inspiratory & Expiratory Resistance
    k) Static Compliance
    l) Imposed Work of Breathing
    m) Peak, Plateau and mean airway pressure
    n) Plateau Pressure
6. Should have the Alarms (User Selector) for all the measured and monitored parameters.
7. Should have the following Modes of ventilations,
    a) Volume controlled
    b) Pressure Controlled
    c) Pressure Support
    d) SIMV (Pressure Control and volume control) with pressure support.
    e) CPAP/PEEP (0 – 50 CM H20)
    f) Auto mode /Auto flow preferable
    g) PRVC
    h) Biphasic preferable
    i) High frequency ventilation (Optional)
8. Sensors should be automatically calibrated every time it is switched on.
9. Should have the ability to calculate

a) Intrinsic Peep

b) Occlusion Pressure
c) Negative Inspiratory force

10. Other Features
    a) Should have Nebuliser
    b) Should have the servo controlled Humidifier with digital monitoring of inspired gas temperature.
    c) Should have an imported stand-alone air compressor integrated with the Ventilator to provide an oil free Medical air.
    d) CVT as appropriate
    e) Should have silicone autoclave-able two sets of Pediatric hoses.
    f) Should be supplied with imported non-corrosive trolley and hinged arms.
    g) Demonstration is a must.
    h) Comprehensive guarantee as per bid.

Standards, Safety and Training

7.1 Certified to be compliant with ANS/IEC60601.2.12-01 Medical Electrical Equipment—Part 2-12; Particular Requirements for the Safety of Lung Ventilators—Critical Care Ventilators
7.2 Should be US FDA or CE approved product
7.3 Certified to be compliant with ISO-7767 for Oxygen monitoring.
7.4 Should meet IEC 529 Level 3 (IP3X)(spraying water) for enclosure protection, water ingress.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

ICU VENTILATORS

1. Microprocessor Controlled ventilator with integrated facility for Ventilation monitoring suitable for New born to adult ventilation.
2. Imported hinged arm holder for holding the circuit
3. Colored TFT screen, 12 Inch or more
4. Facility to measure and display
   a) End tidal CO2 with capnography.
   b) 3 waves- Pressure and Time, Volume and Time and Flow and Time.
   c) 3 loops- P-V, F-V, P-F with facility of saving of 3 Loops for reference.
   d) Graphic display to have automatic scaling facility for waves
   e) Status indicator for Ventilator mode, Battery life, patient data, alarm settings, clock etc.
5. Trending facility for 72 hours with minimum 5 minutes resolution for recent 24 hours
6. Automatic compliance & Leakage compensation for circuit and ET tube
7. Following settings for all age groups.

   a) Tidal Volume
   b) Pressure (insp)
   c) Pressure Ramp
   d) Respiratory Rate
   e) SIMV Respiratory Rate
   f) CPAP/PEEP
   g) Pressure support
   h) FIO2
   i) Pause Time
   j) Pressure & Flow Trigger

9. Monitoring of the following parameters
   a) Airway Pressure (Peak & Mean)
   b) Tidal volume (Inspired & Expired)
   c) Minute volume (Inspired and Expired)
   d) Spontaneous Minute Volume
   e) Total Frequency
   f) FIO2 dynamic
   g) Intrinsic PEEP and PEEPi Volume
   h) Plateau Pressure
   i) Resistance & Compliance
   j) Use selector Alarms for all measured &

monitored parameters

1

10 Modes of ventilation
a) Volume controlled
b) Pressure Controlled
c) Pressure Support
d) SIMV (Pressure Control and volume control) with pressure support
e) CPAP/PEEP
f) Inverse Ratio Ventilation
g) Advanced mode like pressure controlled volume guaranteed
h) Non Invasive ventilation
i) APRV

11. Apnea /backup ventilation

12. Expiratory block should be autoclavable and no routine calibration required.

13. Should have the ability to calculate / Procedure
a. Intrinsic Peep & Intrinsic PEEP Volume
b. Occlusion Pressure
c. Spontaneous Breathing trial

d. Facility to calculate lower and upper inflection point

14. Nebuliser with capability to deliver particle size of < 3 micron & to be used in both Off and On line

15. Automatic Patient Detection facility preferable

16. Reusable silicone autoclavable sets of each Pediatric and adult hoses-2 sets of each with each ventilator.

17. Medical Air Compressor (Optional)

a) Imported stand alone Medical Air compressor

b) Snap fit with the Ventilator module to provide an oil free Medical air .

c) Peak output flow should be minimum 160 LPM.

d) Air quality should comply with ISO compressed air purity class.

e) Medical Air Compressor should automatically activate in the event of wall air supply loss.

f) Replacement of internal filters should be performed without removing the compressor

g) Should have washable air filter.

1. Technical Specifications for reusable face mask & nasal mask.

Reusable face & nasal mask with textured dual flap silicone cushion flap for easy fit.

Removable forehead support and pad to match the angle of patient's forehead

Stability Selector for easy fit and angle.

Ball & Socket headgear attachments.

Should be autoclavable.

2 sets of all sizes (Small, Medium, Large) with each machine.

19. General conditions

a) Demonstration of quoted model is a must
b) Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/ literature
c) Should have local service facility
d) Battery back up for minimum 60 min
e) Must submit user list & performance report within last 5 years from major Hospital.
f) Back to back warranty to be taken by the supplier from the principal to supply spares for minimum 10 years
g) Comprehensive warranty as per bid
h) Annual Maintenance contract (AMC) as per bid

Standards, Safety and Training

7.1 Certified to be compliant with ANS/IEC60601.2.12-01 Medical Electrical Equipment—Part 2-12; Particular Requirements for the Safety of Lung Ventilators—Critical Care Ventilators

7.2 Should be US FDA or CE approved product

7.3 Certified to be compliant with ISO-7767 for Oxygen monitoring.

7.4 Should meet IEC 529 Level 3 (IP3X)(spraying water) for enclosure protection, water ingress.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

SPECIFICATIONS OF VIDEO LARYNGOSCOPE

Video Laryngoscope for intubation of difficult airways during anesthesia. The system should allow clear view of laryngeal inlet during intubation under video guidance. The Clear visualization of glottis opening without manipulation of neck. The visualization through fluids and blood should be possible

- The system should have Integrated High resolution miniature camera at patented blade position to provide real time view of tube placement with LED technology.
- Anti-fogging mechanism (to resist lens contamination)
- The visualization through fluid and blood should be possible
- The compact non glare color monitor in a hard shell with the provision to mount a Stand or keep it on table top.
- The system should have Portable Video Monitor of at least 7" size for the real time clear view

  Color Video 320*240 pixel 7" LCD TFT Panel OR MORE

  Height: 167 mm (6.5") OR MORE

  Width: 207 mm (8") OR MORE

  Depth: 83 mm (3.25") OR LESS

  Weight: 1.45 kg (3.22lbs) OR LESS
- The video laryngoscope should have Mecintosh type blades for adult and pediatric use. It should have 'D' blade for difficult intubation.
- It should have facility of inbuilt for video recording.
- The following features in Monitor to include for the manipulation of :-

  BRIGHTNESS

  CONTRAST

  COLOR

  MIRROR

  RESET

- The system should run independently on inbuilt Battery Backup in case of electricity cut minimum battery backup should be 1.5 Hrs.
- A comprehensive warranty as per bid.

- 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.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

- **LARYNGOSOCPE ADULT**

- Stainless steel handles with serrations, Battery operated
- Blade SS curved Size 2, 3, 4 (Small, Adult & Extra Large blade.
- Should engage and disengage easily.
- Spare bulbs (10 each)

- **LARYNGOSOCPE – PAEDIATRIC**

- Stainless steel handles with serrations.
- Blade SS straight Size 0, 1, 2
- Should engage and disengage easily.
- Spare Bulbs (10 each)

EQUIPMENT SPECIFICATIONS FOR FIBEROPTIC BRONCHOSCOPE ADULT

1 Description of Function

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

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The flexible Fiberoptic Bronchoscope should be supplied complete with light source and trolley.		
2.2	Demonstration of the system is essential.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Light weight, high resolution bronchoscope with light cable		
3.2	Field of view 120 degrees or more		
3.3	Depth of field 3mm to 50 mm or better.		
3.4	Distal end diameter 5 mm appox.(Should allow 6.5mm endotracheal tube to be mounted easily)		
3.5	Bending range UP 180 degree or DOWN 130 degree.		
3.6	Working length 600 mm or more.		
3.7	Total length 900 mm or more.		
3.8	Channel dia 2.2 mm or more.		
3.9	Autoclavable suction valve to avoid risk of cross contamination.		
3.10	Telescopic eyepiece for direct compatibility to CCTV system		
3.11	Bending mechanism knob without lock.		

3.12	Fully immersible in disinfectant solution		
3.13	Leak testing facility with automatic & pressure regulated air feeding (non-pressure gauge system preferable)		
3.14	Halogen Light Source/LED light source 1.It should be compact and light weight around 5-6 kg or less for easier transportability. 2.Should have 150 Watts halogen lamp with standby lamp option. Additional 4 nos bulbs to be included. 3.Should be compatible with flexible endoscope.		
3.15	Video Processing System(OPTIONAL) 1.Fully immersible camera head and cable assembly 2.Video processing camera. 3.1/4 inches CCD(Closed sircuit display) with 10 bit digital signal processing. 4.In built filter for compatibility with fiberoptic endoscoipes. 5.Resolution: 470 horizontal lines approx. 6.Signal to Noise Ratio > 50 dB. 7.Rotatable and detachable coupler(adaptor) with focussing facility. 8. Video output Y/C and composite.		
3.16	Software and hardware for recording Live and Still images(optional)		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Flexible Fiberoptic Bronchoscope- 01		
4.2	Light Source, Halogen -01		
4.3	Mobile Plastic Operating cart- 01		
4.4	Spare Halogen Bulbs- 04		
4.5	Reusable and autoclavable biopsy forceps- 2 nos		
4.6	Cleaning/maintenance kit including container for diinfectant solution- 1set		
4.7	Brush Biopsy (Protected)- 50 pieces.		
4.8	Foreign body forceps basket type- 2 nos.		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature of -20 -50deg C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Type of Protection Against Electric Shock Class I (3-core cord)to be supplied for the Light Source		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Product should be US FDA/CE or ISI approved		
7.2	Manufacturer should be ISO certfied for quality standards.		
7.3	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements		
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	Degree of Protection Against Electric Shock Type BF -Should incorporate insulated patient attachment for light source.		

7.6	Certification to meeting Biocompatibility as per ISO 10993-1, “Biological evaluation of medical devices-Part 1: Guidance on selection of tests”		
7.7	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.		
7.8	Comprehensive warranty as per bid.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User Manual in English		
8.2	Maintenance Manual in English		
8.3	Certificate of Calibration and inspection from the factory		
8.4	List of important spares and accessories with their part number and costing.		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.7	User list to be provided with performance certificate as per bid.		
8.8	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.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

COMPLETE MONITORING SYSTEM FOR ICU

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	It should provide complete monitoring solution to meet the requirement of wide spectrum monitoring needs of critically ill patient		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Complete Monitoring System should comprised of monitors at the bedside and with central station.		
2.2	Capability of storage of patient data and printing of patient reports.		
2.3	Demonstration of the equipment is a must.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Minimum 15 inches multicoloured TFT display screen.		
3.2	Separate CPU/Module rack.		
3.3	Eight digital and waveforms/traces display		
3.4	Combination of single, dual and multiparameter modules.		
3.5	Parameter modules freely exchangeable between all the monitors.		
3.6	Multichannel (upto 12 leads) ST segment anlysis.		
3.7	Facility to monitor and display - ECG, Respiration, NIBP, SpO2, CO2 with capnography, Temp, Cardiac output(optional), NMT(Optional), BIS/Entropy(optional), EEG (optional)& IBP.		
3.8	Automatic arrhythmia detection & alarm for standard and lethal arrhythmia.		

3.9	EtCO2 -Main stream/ side stream. Display both inspired and expired values, showing capnography.		
3.10	NMT Module/monitor: For measurement and display of TOF count, TOF %, ST, DBS, Tetanic and Trend for continuous usage. Automatic measurement facility in selected time interval. Automatic selection of supramaximal current. Include standard accessories		
3.11	EEG Module with all accessories.		
3.12	Central station for bedside monitors with independently controlled . 17" multi colour TFT Monitor, complete with Ethernet LAN cabling , alarm management, 72 hours trending, bed to bed viewing of waveforms and remote alarm management like silencing of alarms etc.(OPTIONAL)		
3.13	Should provide hemodynamic , oxygenation, Ventilation calculation package.		
3.14	Should have drug calculation package.		
3.15	Trend of at least 48 hours.		
3.16	200 nos. event recall/snapshot facility both manually and automatically triggered by alarm.		
3.17	Automatic Zoom In Facility in the monitor dispaly.		
3.18	The monitors should have monitor to monitor overview facility and data transfer over the network.		
3.19	Web browsing facility to review each networked monitors data through hospital LAN via office PC in Hospital LAN Networkand/or through dial up facility from remote location(OPTIONAL)		
3.20 a.	Slave monitors- 21 inches in ICU - one per central station		
b.	Battery back up of upto 3 hours, when fully charged		
3.21	Communications with Information Management Systems: A..To provide HL-7 compatible server for sending and receiving information to and from the monitoring network to and from Hospital Information System, Laboratory information etc for integration of various informations (OPTIONAL B.To provide suitable facility for sending and receiving DICOM Compatible Radiological Images like Ultrasound , X-Ray etc to and from the monitoring network to and from Hospital Information System, Radiology Information System etc for integration of various informations (OPTIONAL).		
3.22	Include Laser Printer and dual channel strip chart recorder.		
3.23	Specifications for Transport Monitor:		

	1.Portable and light weight preferably< 10 kg. 2.Modular with 12 inches multi colour TFT Display. 3.Monitoring Parameters.- ECG,Respiration,NIBP,SaO2 and temperature. 4.Digital and six waves/traces display. 5.Trends upto 24 hours. 6.60 minutes or more battery backup. 7.Convenient handle for carrying the same. 8. Able to fix with bed/ trolley.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	ECG/Resp :5 Lead ECG Cable with clip- 2 sets per monitor and 10 Lead ECG Cable with clip- 1 set per monitor.		
4.2	NIBP:Adult cuff- 2nos. per monitor and two sizes of pediatric cuffs- one per monitor(complete sets)		
4.3	SpO2:Adult SpO2 sensor with cable- two nos per monitor and Pediatric SpO2 sensors- one no. per monitor.		
4.4	IBP: Include four nos. per monitor of reusable pressure transducer with bracket, holder and 100 nos disposble domes per monitor.		
4.5	Temperature: Rectal temperature probe- two per monitor and skin temperature probe- one per monitor.		
4.6	EtCO2 module with all accessories. In case of sidestream EtCO2-10 sets of sampling tubes for each module to be included.		
4.7	Cardiac Output: Should be by thermodilution method with all accessories		
4.8	EEG Modules- with all accessories. Should display at least two channels.		
4.9	BIS/Entropy Module: Adult Sensors-200 numbers. Spectral analysis modules by compressed spectral array.		
4.10	Necessary cabling for networking the monitors on turnkey basis.		
4.11	Necessary mounting solution/ mounting on any pendant for monitors		

5 Environmental factors

5.1	The unit shall be capable of operating continuously in ambient temperature of 0 -40deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature		

	of -20 -60 deg 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.
5.4	The supplier shall provide environment friendly furnitures and wall fittings for the entire system. Cabling has to be provided by the supplier.

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)
6.3	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.

7 Standards, Safety and Training

7.1	Should be US FDA , CE,UL or BIS approved product
7.2	Shall meet the safety requirements as per IEC 60601-2-27:1994—Medical electrical equipment—Part 2: Particular requirements for the safety of electrocardiographic monitoring equipment.
7.3	Manufacturer/Supplier should have ISO certification for quality standards.
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	Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.
7.6	Comprehensive warranty as per bid.

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User Manual in English		
8.2	Service manual in English		
8.3	Must submit user list and performance report as per bid.		

8.4	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.
8.5	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
8.6	List of important spare parts and accessories with their part number and costing.
8.7	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

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

SPECIFICATIONS OF BLOOD GAS ANALYSER

1. Fully automatic, upgradeable, fast electrolyte combi analyzer.
2. Essential Measured parameters; pH, pCO2, pO2, SaO2, tHb, Barometric Pressure, Na+, K+, Ca++, Cl-, Bl urea and Sr Creatanine & Blood sugar. All these parameters should be measured simultaneously
3. Calculated parameters should include BE, BE ecf, HCO3, Lactate, Anion Gap etc.
4. Sample volume-less than 100ul.
5. Fast analysis time – less than 60 sec.
6. Maintenance free electrodes with individual electrodes ON/OFF facility.
7. Fully automatic liquid calibration of all parameters at user-defined intervals without the use of Gas calibrated reagents, external gases, tanks or regulators.
8. Continuous reagent level monitoring with graphic display.
9. Data display on well-illuminated, adequate size LCD color touch screen display.
10. Data print out on built in graphic printer.
11. Built in auto Quality control facility.
12. Suitable UPS with 30 min backup.
13. Reagents for one year@ 20 samples/day should be provided along with the machine.
14. Cost of reagents to be quoted for comparative evaluation.
15. Stand by blood gas cum electrolyte analyzer in case of breakdown.
16. Should have local service facility
17. Back to back warranty to be taken by the supplier from the principal, to supply spares for minimum 10 years.
18. Must submit User list and Performance report
19. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet
20. Demonstration is required.
21. Guarantee as per bid.
22. It must be US-FDA /CE (Conformité Européenne) approved.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

SPECIFICATIONS FOR PATIENT WARMING SYSTEM

1. Should be suitable for intra-operative applications.
2. Should consist of active warming arm-cum-shoulder section, pair of leg segments and abdominal segment to cover the entire body.
3. Should be based on semiconductor polymer foil for precise warming of entire patient body during & after surgery.
4. Size
   - Abdominal Segment :(40-45) cm x (85-90) cm
   - Arm & Shoulder Section :(170-175) cm x (28-32) cm
   - Leg Segment :(40-45) cm X (85-90) cm
5. Control unit should be capable of warming minimum four segments at a time.
6. Control unit should have Color LCD touch screen for easy operation.
7. Control unit should have touch screen display to select & display temperature of all four segments at a time.
8. Control unit should automatically detect the number of segments which are connected to the unit and display the same on the screen.
9. Should offer precise digital temperature control with selectable temperature range of 36 to 42º C in steps of 0.1ºC
10. Arm cum shoulder segment should be divided in two sections capable of being switched ON or OFF independently depending upon the nature of surgery and condition of patient.
11. Should have facility to measure & display the real time core body temperature of the patient continuously on the screen.
12. Should also have on screen graphical display of patient body temperature for the entire duration of surgery.
13. Should have facility to independently adjust the temperature of individual segment.
14. Should have a provision to connect whole body blanket & pediatric size blanket to the same control unit for future requirement.
15. Should have safety features such as Automatic check, Precise temperature control between warming system and patient, Autostop on detecting any problem
16. Should have non latex anti-bacterially coated, blood and fluid Resistant covers
17. Covers should be washable and replaceable
18. The control unit should be light weight not more than 3.6 kg, small in size (23 x11x16.5 cm approx.) and easily attachable to IV rod/OT table with fixing claw.
19. Should have low energy consumption and noiseless operation
20. 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.

SPECIFICATION FOR RESUSCITATION KIT

Resuscitation kit should designed to store and carry basic resuscitation equipment, intubation equipment and accessories including ampoules. The outer cover of bag is made of splashproof polyamide, straps and belts are made of polypropylene.

It should have resuscitation bag (adult) to deliver a max. tidal volume of approximate 1300 ml, the outer cover of resuscitation bag should be 100% latex free, along with reservoir bag.

It should have pneumatically powered portable transport ventilator for adult and children with a body weight down to approximate 15 kg (3 years), it should deliver 12 or 20 breaths per minute & tidal volume in the range of 200-1200ml. Oxygen concentration switch for ventilation at either 60% or 100% should be present.

It should have double chamber Suction Pump which can be operated mechanically (i.e. by foot/hand). It should have 10-mm suction tip through which maximum free airflow of 70 l/min and a vacuum of -600 mmHg can be achieved. All parts should be autoclavable at 121ºC.

It should have oxygen regulator and oxygen cylinder for connection to uni-suction pump and portable transport ventilator with a filling pressure of maximum 200 bar. It should have controlled flow in the range of 0.25-25l/min for manual resuscitation.

It should have adult intubation equipments - Disposable Endo-tracheal tube with cuff of sizes 6.5,7,7.5,8 & 8.5 mm (1 Nos. each), Suction catheters 3.3, 4.0 & 5.5mm (3 Nos. each), Guedel airway size 1,2 & 4, Laryngoscope handle with 2 macintosh blades of sizes 2 & 3, Spare lamp (1 no.) for laryngoscope, Magill forceps, Pair of bandage scissor, Artery forceps, Lister type dressing forceps, Roll of adhesive plaster (silk quality), Insulation foil (gold /silver), plastic syringe 10 ml for cuff inflation & 2 ml, 5ml, 10 ml with luer connector (2 no.each), Hypodermic needle 18G & 21G (12 Nos. each),

It should not weigh more than 20 kg.

It should be internationally reputed company.

SPECIFICATIONS FOR MOBILE AIR ASEPTICIZER

- The device should be suitable for disinfection & deodorization of different rooms.
- It should have Four Ultra Violet sources for disinfection of Room upto 100 m^3 volume.
- The Ultra Violet source should produce emission in germicidal band at 2537 A.
- It should be equipped with four ozone lamps to provide ozone treatment.
- It should have a timer to select the time of operation.
- It should have Lamp guard shutters to enable it to be used in presence of personnel.
- It should be capable of sterilizing the air through direct UV radiation by opening the shutter in absence of person.
- It should be equipped with an atomizer to spray the bactericide.
- Should have selectable operating mode
  (i) UV radiation with fan
  (ii) UV radiation with Ozone
  (iii) UV radiation with Ozone & Atomizer
- Atomizer should be equipped with a fan, heating element and evaporation unit for spraying fine mist of bactericide.
- It should have an elapsed time counter to monitor the operative time of the U.V. Sources.
- It should have fans to provide treated Airflow rate of atleast 340m^3/h.
- It should be on castors for easy movement from one room to another & simple to operate
- Should meet international quality directives such as CE, ISO 9001 & ISO 14001.

BIOCHEMISTRY

Analyzer, Laboratory, Bio Chemistry, Automated,

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	For analysis of serum, plasma, urine, cerebrospinal fluid (CSF), hemolysate and whole blood.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Should be open system and fully computerized with random access, selective multi-batch type, providing maximum flexibility in programming		
2.2	Should be capable of undertaking 160-200 tests/hr involving fixed time, end point and kinetic chemistry		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Optical Requirement Wavelength Range: 340 to 700nm Absorbance: 0.000 to 3.000A Resolution: 0.0001A or better Measurement: Monochromatic & Biochromatic options. Flow cell volume: approx. 50µl Source of light: Halogen lamp		
3.2	Reagent Handling System: Pre and Post dilution: Automatic Aspiration volume: 5-1000µl in 0-0.5µl increments Wash Cycles: Programmable for aspiration and sampling probes		
3.3	Analytical Requirements: Sample Tray/reaction plate: >50 positions for samples/ standards/ controls Sample cups: 0.5-1ml Reaction types: End point, kinetic- differential and initial rate bichromatic, with & without blank correction Test Parameters: 50 or more, all programmable as per user requirement. Incubation Temp: 37ºC preferably with variable temperature options Cuvette Temp: 37ºC +0.1ºC Quality control: Daily and monthly QC, S.D., C.V. Calculated and precision check facility		

3.4	Date Processor: Pentium computer with instrument operating and data management software,windows NT Operating Software ,min 10 GB hard disk, CD-ROM, 17" colored monitor, Laser printer. Storage of 10,000 patients data.		
3.5	Inbuilt printer thermal type with 40 characters/line or better		
3.6	Software :Patient oriented, user friendly and test oriented.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Biochemistry Analyser-01		
4.2	Integrated Printer and computer as specified above-01		

5 Environmental factors

Sl	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 - 50deg C and relative humidity of 15-90%		
5.3	Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Suitable Servo controlled Stabilizer/CVT		
6.3	UPS of suitable rating shall be supplied for minimum 1 hour backup for the entire system		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Certified for meeting IEC 60601-1-4 Medical electrical equipment - Part 1-4: General requirements for safety - Collateral Standard: Programmable electrical medical systems		
7.2	Attach original manufacturer’s product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet. Please quote page number on compliance sheet as well as on technical bid corresponding to technical specifications.		

7.3	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.4	Should be US FDA or CE European standards approved product		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User manual in English		
8.2	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.3	Certificate of calibration and inspection.		
8.4	List of important spares and accessories with their part number and costing.		
8.5	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.6	Service manual in English		
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	Warranty as per bid document		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

CENTRIFUGE MACHINE

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Centrifuges are required in the Laboratory to separate various components of Blood and any other liquid sample for analysis		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Aerodynamic compact construction for vibration free performance		
2.2	Table top version		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Tube Capacity :No. 24 – 36 :Size 5 – 15 ml		
3.2	Should have a digital timer		
3.3	Body should be made of strong fabricated & corroision resistent steel		
3.4	Control panel – for start/stop switch, dynamic brakes, step less speed regulator with zero start switch & speed indicator with timer and protective fuses.		
3.5	Door interlock (Automatic Electronic Lid)		
3.6	Maintenance-free brushless drive motor with exact speed preselection and display. Speed range 100 to 6000 rpm and above, accuracy 1 rpm.		
3.7	RPM : Up to 6500-7000		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs	Bidders Deviation

		quoted by bidder	if any
4.1	Centrofuge complete with Swig and basic rotors and four buckets- 01 set.		
4.2	Tube Holders as appropriate		

5 Environmental factors

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

6 Power Supply

Sl	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	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	The supplier should be ISO certified for quality standards.		
7.2	Should be US FDA & CE, or European Standard approved product		
7.3	Should comply with IEC/TR 61010-3-020 :Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 3-020: Conformity verification report for IEC 61010-2-020:1992 Particular requirements for laboratory centrifuges"		
	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User manual in English		
8.2	Service manual in English		
8.3	Certificate of calibration and inspection.		
8.4	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.5	List of important spare parts and accessories with their part number and costing.		
8.6	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

Equipment Specifications for Analyzer,Ion Selective Electrolyte(ISE)

UNSPSC Code: 41113308
ECRI Code: 16-818

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	For analysis of Electrolytes in serum, plasma, urine, cerebrospinal fluid (CSF), hemolysate and whole blood.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System should be able to measure Na, K, and should be upgradable to measure calcium Cl (chloride) and Li (lithium) Electrodes.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	System should be able to measure following parameters: Na, K and should be upgradable to measure Calcium Cl (chloride) and Li (lithium) Electrodes.		
3.2	The machine should have reagent in single reagent pack for all the measurable parameters and the pack should be Bio Hazard free.		
3.3	It can be used for blood/plasma/serum, urine, body fluids, dialysate, aqueous & QC Fluids		
3.4	Resolution should at least in 0.1 mmol/Litre		
3.5	Sample can be fed by capillary syringe or sample tube directly		
3.6	Sample volume should be less than 100 micro-liters.		
3.7	Analysis time should be less than 60 seconds		
3.8	Calibration should be fully automatic 1 and 2 point calibration. 1 point with every sample and 2 point time bound		
3.9	Quality control memory storage, of at least 3 levels		
3.10	Facility of flagging of abnormal results and user programmable ranges.		
3.11	Stand by mode: user controlled and automatically controlled		
3.12	Memory for last 20 messages.		
3.13	Built in printer for printing the data.		
3.14	RS.232.C (standard serial port) should be available		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	ISE Analyser-01		
4.2	Na, K, Electrodes- 01 each		
4.3	Ca Li and Cl Electrodes-01 ea(OPTION) Quote price separately for these.		

5 Environmental factors

Sl	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 operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0 - 50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Suitable Servo controlled Stabilizer/CVT		
6.3	Resettable overcurrent breaker shall be fitted for protection		
6.4	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Certified for meeting IEC 60601-1-4 Medical electrical equipment - Part 1-4: General requirements for safety - Collateral Standard: Programmable electrical medical systems		
7.2	Attach original manufacturer's product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet. Please quote page number on compliance sheet as well as on technical bid corresponding to technical specifications.		
7.3	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.4	Should be US FDA or CE European Standards approved product		
7.5	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular		

	requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	Certificate of calibration and inspection.		
8.2	User manual in English		
8.3	Service manual in English		
8.4	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.5	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

Annexure 6

General Technical Specifications For Microplate ELISA Reader

- Microplate types: 96 well plate
- Detection Method: Absorbance
- Wavelength range: 400-700 nm
- Measurement system: 8 channel optical system
- Light source: Tungsten Halogen lamp
- Filters (at least four): 405, 450, 492, 630 nm
- Connection port: RS232 and USB
- Variable speed and time of shaking of plate
- Compatible software
- Suitable Laser printer

Equipment Specifications for Spectrophotometer,UV Visible,Dual Beam

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	UV/Vis spectroscopy is routinely used in the quantitative determination of solutions of transition metal ions and highly conjugated organic compounds.The instrument used in ultraviolet-visible spectroscopy is called a UV/vis spectrophotometer. It measures the intensity of light passing through a sample (I), and compares it to the intensity of light before it passes through the sample (Io)In a double-beam instrument, the light is split into two beams before it reaches the sample. One beam is used as the reference; the other beam passes through the sample. Some double-beam instruments have two detectors (photodiodes), and the sample and reference beam are measured at the same time.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System should provide for for analysis of Protein, DNA / RNA & Enzyme kinetics etc.		
2.2	Microprocessor controlled Double beam spectrophotometer with scanning, kinetic and multi wave length facility ,Self check & self diagnostic facility and Auto wavelength calibration facility		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Spectral: Wavelength Range 190-1100 nm Wavelength Accuracy:+/- 1 nm Bandwidth < 2.0 nm Wavelength Reproducability:+/- 0.5 nm		
3.2	Photometric: Photometric Accuracy + 0.005A at 1A Photometric Reproducibility + 0.002A at 1A Stability < 0.001A/nm Absorbance Range -3.000 to 3.000 Scanning Speed 6000 nm/min or better Stray light < 0.1% at 340 nm		

3.3	Light Source Deuterium (D2) & Tungsten (W) Halogen lamp		
3.4	Dual Detector: Photo Diode		
3.5	Detection Mode %, Transmission & Absorbance		
3.6	Large LCD display to view complete graphics		
3.7	Multi position(six positions preferable) cell holder/chamber.		
3.8	Must be supplied with 4 pairs of micro Quartz cuvettes (volume 400 ul or less), with suitable software for nucleic acid quantification, protein quantification and determination		
3.9	Advance version of compatible computer & printer		
3.10	Monochromator: 1200 lines/mm grating.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	As specified		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :200(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 -50deg C and relative humidity of 15-90%		
5.3	Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
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	Suitable Servo controlled Stabilizer/CVT		
6.4	UPS of suitable rating shall be supplied for minimum 1 hour backup for the entire system		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.2	Should be US FDA , CE,UL or BIS approved product		
7.3	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User manual in English		
8.2	Service manual in English		
8.3	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.4	Certificate of calibration and inspection.		
8.5	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.6	List of important spare parts and accessories with their part number and costing.		
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	Warranty as per bid document .		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

BLOOD BANK

Equipment Specifications for Blood Bank Refrigerator

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Blood Bank Refrigerator is used to store blood bags under controlled temperature.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System required with weekly chart recorder and digital displays.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Temp range-should have adjustable temperature control range from +1 degree to +8 degree C, factory preset at 4 degree C.		
3.2	Capacity should accommodate 350 or more unit's blood and storage internal volume should be 700 liters.		
3.3	Refrigerator system- a)The system should have high density CFC –free urethane foam insulation to protect cabinet from ambient temperature fluctuation. b)The system should have positive, forced, air circulation to maintain temperature uniformity at all shelf levels, with quick recovery +/- 1 degree C. c)The system should have sensors for activating automatic defrost cycle to minimize the frost build up. d) The system should have automatic condensate removal with no requirement for separate drainage lines.		
3.4	Internal construction should be made up of high grade stainless steel (min 22 G) External construction Corrosion resistant sheet at least I mm thickness.		
3.5	5.Internal Temp Control		

	a)System should have temperature control range from +1 degree C to +8 degree C. b)Temperature control resolution should be better than 0.1 degree C. c)Cooling down time of max of 150 min on half load. External ambient temp should perform in ambient temp up to +43 degree C.		
3.6	Should have connectivity to computer and data logger		
3.7	Door System should lockable double glass doors for better safety		
3.8	Safety system: a. system should have large and clear Digital displays for the set/run parameters. b. The system should have weekly chart recorder temperature changes c. The system should have key operated set point for the added security.		
3.9	10.Alarms. a) System should have audible/visual warnings for over-temperature under temperature and power failure with visual status reports on critical functions. b)System should have battery backup and connections for remote alarm contacts c) Should have connectivity to computer and data logger.		
3.10	Should have adjustments for uneven bases. The adjustments should be easy to use like rotating a screw at the legs in the base.		
3.11	Scratch resistant internal lining of the cabinet (stainless steel or aluminium).		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		
4.2	Quote pricing for the following essential spares:(01 each) Compressor ;Evaporator ;Evaporator fan motor; Condenser fan motor ;Filter drier; Condensate heater ;Service valve; Control unit; Transformer ;Thermostat ;Lamp ;Contactor ;Relay ;Relay base ;Door switch ;Door gasket.		

5 Environmental factors

Sl	Name	Technical Specs	Bidders Deviation

		quoted by bidder	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 5 to 45 deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		
6.3	Suitable Automatic Voltage regulator/stabilizer meeting ISI specifications should be supplied. Broad specifications are : Automatic Type Input 150-280V , Output 220 V +/- 7 % , 50 Hz . Single phase , AC with automatic 2-4 sec Cut Off and 6-9 minutes restart delay.. Quick start arrangements for bypassing the start delay. Suitable MCB on input voltmeter and indicators on Front Panel. Input Power Cable with 15 A Plug and six way output terminal strip for two outlets		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be US FDA , CE,UL or BIS approved product		
7.2	Should comply with WHO/UNICEF Specification Reference: BTS/RF.1		
7.3	Test and inspections as per WHO Procedure reference: Laboratory Test Procedure: Standard Test Procedure: BTS/ Proc/ 3.		
7.4	Should comply with International Electromagnetic Compliance standards like IEC OR EMC Directives. Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.5	Warranty as per bids.		

8 Documentation

Sl	Name	Technical Specs quoted	Bidders Deviation if any

		by bidder	
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection from factory.		
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.4	List of important spare parts and accessories with their part number and costing.		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

Technical Specifications Deep Freezer – Vertical -40^{0}C

1. Temperature range should be from -10^{0}C to -40^{0}C
2. System should be compression freezer with CFC free refrigerant gas.
3. System should be vertical standing and should have working volume of 450-600 liters.
4. System should be microprocessor controlled with digital display of all functions.
5. Construction
    i. Internal , high-grade stainless steel with rounded corners for easy cleaning.(minimum 22 gauge)
    ii. External corrosion resistant at least 1mm thickness
    iii. System should have minimum 5 inches thick foamed-in-place urethane insulation
    iv. System should offer positive closure to assure tight seal against double independent door gaskets to minimize frost build-up.
    v. System should have minimum five inner chambers with plastic doors with independent door hinges and magnetic latches.
    vi. System should have inventory systems like racks, boxes and dividers
6. Internal Temperature control
    a) System should have operating temperature & high/low limit alarm functions with set point adjustable in steps of 1^{0}C.
    b) System should have down-feed evaporator for efficient refrigerant flow.
    c) System should have washable condenser fiter to maintain peak cooling efficiency. It should also have indicator for advising removal and cleaning of dirty filters.
7. External ambient temp - Should perform in ambient temp up to +43^{0}C
8. Safety system
    a) System should have key operated switch for main power and alarm system.
    b) System should have large and clear Digital displays for the set/run parameters.
9. Temperature monitoring
    a) System should have 7 day Digital temperature recording system with 0.1 graduation
    b) System should have adjustable safety alarms with automatic, continuous charged battery back-up to provide alarm functions even in case of power failure.
    c) System should have exterior alarm contacts for connection to remote monitoring system.

d) System should have inbuilt features to identify any temperature deviation beyond alarm set point, to show the error that has occurred and to display if it had been auto-corrected.

e) c) Should have connectivity to computer and data logger

10 System should have automatic voltage boost compensation for low voltage conditions.

11 Suitable Automatic Voltage regulator/stabilizer meeting ISI specifications should be supplied. Broad specifications are : Automatic Type Input 150-280V , Output 220 V +/- 7 % , 50 Hz . Single phase , AC with automatic 2-4 sec Cut Off and 6-9 minutes restart delay.. Quick start arrangements for bypassing the start delay. Suitable MCB on input voltmeter and indicators on Front Panel. Input Power Cable with 15 A Plug and six way output terminal strip for two outlets

12 Electrical connections: 220 volt 50 HZ.

13 Should provide 2 years warranty and 3 years AMC/CMC.

14 List of spares to be provided and Quote Rates for the following essential spares:(01 each) Compressor ;Evaporator ;Evaporator fan motor; Condenser fan motor ;Filter drier; Condensate heater ;Service valve; Control unit; Transformer ;Thermostat ;Lamp ;Contactor ;Relay ;Relay base ;Door switch ;Door gasket.

15 Should comply with International Electromagnetic Compliance standards like IEC OR EMC Directives. Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

16The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

17 The unit shall be capable of operating continuously in ambient temperature of 5 to 45 deg C and relative humidity of 15-90%

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

Technical Specifications Deep Freezer – Vertical -80^{0}C

9. Temperature range should be from -50°C to -86°C and adjustable with setting accuracy of ±1°C.
10. System should be compression freezer with CFC free refrigerant gas.
11. System should be vertical standing and should have working volume of 450-600 liters.
12. System should be microprocessor controlled with digital display of all functions.
13. Construction
    vii. Internal , high-grade stainless steel with rounded corners for easy cleaning.(minimum 22 gauge)
    viii. External corrosion resistant at least 1mm thickness
    ix. System should have minimum 5 inches thick foamed-in-place urethane insulation
    x. System should offer positive closure to assure tight seal against double independent door gaskets to minimize frost build-up.
    xi. System should have minimum five inner chambers with plastic doors with independent door hinges and magnetic latches.
    xii. System should have inventory systems like racks, boxes and dividers
14. Internal Temperature control
    d) System should have operating temperature & high/low limit alarm functions with set point adjustable in steps of 1^{0}C.
    e) System should have down-feed evaporator for efficient refrigerant flow.
    f) System should have washable condenser fiter to maintain peak cooling efficiency. It should also have indicator for advising removal and cleaning of dirty filters.
15. External ambient temp - Should perform in ambient temp up to +43^{0}C
16. Safety system
    c) System should have key operated switch for main power and alarm system.
    d) System should have large and clear Digital displays for the set/run parameters.
9. Temperature monitoring
    f) System should have 7 day Digital temperature recording system with 0.1 graduation
    g) System should have adjustable safety alarms with automatic, continuous charged battery back-up to provide alarm functions even in case of power failure.

    h) System should have exterior alarm contacts for connection to remote monitoring system.
    i) System should have inbuilt features to identify any temperature deviation beyond alarm set point, to show the error that has occurred and to display if it had been auto-corrected.
    j) c) Should have connectivity to computer and data logger
10 System should have automatic voltage boost compensation for low voltage conditions.

11. Suitable Automatic Voltage regulator/stabilizer meeting ISI specifications should be supplied. Broad specifications are : Automatic Type Input 150-280V , Output 220 V +/- 7 % , 50 Hz . Single phase , AC with automatic 2-4 sec Cut Off and 6-9 minutes restart delay.. Quick start arrangements for bypassing the start delay. Suitable MCB on input voltmeter and indicators on Front Panel. Input Power Cable with 15 A Plug and six way output terminal strip for two outlets

12 Electrical connections: 220 volt 50 HZ.

13 Should provide warranty as per bid..

14 List of spares to be provided and Quote Rates for the following essential spares:(01 each) Compressor ;Evaporator ;Evaporator fan motor; Condenser fan motor ;Filter drier; Condensate heater ;Service valve; Control unit; Transformer ;Thermostat ;Lamp ;Contactor ;Relay ;Relay base ;Door switch ;Door gasket.

15 Should comply with International Electromagnetic Compliance standards like IEC OR EMC Directives. Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

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

17. The unit shall be capable of operating continuously in ambient temperature of 5 to 45 deg C and relative humidity of 15-90%

18. 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.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

Technical Specifications for Centrifuge -Table top

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Centrifuges are required in the Laboratory to separate various components of Blood for analysis.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Aerodynamic compact construction for vibration free performance		
2.2	Table top version		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Microprocessor controlled, swing out rotor		
3.2	Maximum speed: 3,500 -4,500 rpm		
3.3	The centrifuge must be capable of generating RCF in excess to 2,000 X g.		
3.4	Should be able to spin 8 /16 tubes 13 X 75 mm or 13 X100 mm at a time		
3.5	The system should have brush less induction drive		
3.6	Dynamic braking for rapid stop without cell disturbance		
3.7	System should have safety features like lid lock and lid interlock		
3.8	System should have touch keypads for data entry and large LED displays for good visibility		
3.9	Noise level should be less than 60dB.		
3.10	Body should be made of strong fabricated & corrosion resistant steel		

3.11	Should have a digital timer		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		

5 Environmental factors

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

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		

7 Standards and Safety

7.1	The supplier should be ISO certified for quality standards.		
7.2	Should be US FDA , CE,UL or BIS approved product		
7.3	Should comply with IEC/TR 61010-3-020 :Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 3-020: Conformity verification report for IEC 61010-2-020:1992 Particular requirements for laboratory centrifuges"		
7.4	Comprehensive warranty for as per bid.		

8 Documentation

8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection from factory.		
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		

8.4	List of important spare parts and accessories with their part number and costing.
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

Micro plate Centrifuge

Rotor for micro plate 2 x 1

1. Microprocessor controlled, swing out rotor
2. Maximum speed: 3,600 rpm.
3. Max RCF – 2000 x g
4. Should be able to accommodate rotor for 2 x 1 micro plate
5. The system should have brush less induction drive.
6. Dynamic braking for rapid stop without cell disturbance.
7. System should have safety features like lid lock and lid interlock
8. System should have touch keypads for data entry and large LED displays for good visibility.
9. Noise level should be less than 60dB.
10. Should work on 220 volts.
11. 2 year warranty and 3 year AMC/CMC
12. Should be US FDA or CE approved product
13. Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
14. Manufacturer should have ISO certification for quality standards.
15. User manual and Service manual in English
16. List of important spares and accessories with their part number and costing.
17. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt
18. List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual
19. **NOTE:**
20. Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

Equipment Specifications for Refrigerated Centrifuge for Blood Bank

1 Description of Function	
1.1	The Refrigerated Centrifuge (RC) is a mechanical device used to separate biological substances of differing densities.
2 Operational Requirements	
2.1	Programmable microprocessor control system with self-diagnostic feature
2.2	Operation: Unlimited and defined programming of all parameters , automatic programming sequence controlled by microprocessor, digital display of nominal and actual values.
2.3	Use-friendly Equipment . Easy to read digital display for controlling basic functions and equipped with an automatic lid lock
3 Technical Specifications	
3.1	Max. Speed: 4,200 rpm or more
3.2	
3.3	Memory with tamper proof facility
3.4	Max. Volume: 12 quadruple blood bag systems each 800 ml
3.5	Temperature range: -10°C / + 40°C.
3.6	Temperature adjustable within 1 deg C regardless of the centrifuge speed.
3.7	Timer 1 - 99 minutes and hold position
3.8	Motor imbalance detection: Automatic shut down of centrifuge if rotor load is out of balance with appropriate indicator.
3.9	Stain steel chamber: Easy to clean, corrosion resistant with provision of both drain and condensed water collection container.
3.10	Totally CFC free refrigerant fluid and insulation Minimum noise production preferably less than 58 dBA. Optional: delay function permitting the users to delay system start up.
3.11	Drive unit: Directly and maintenance free induction drive
3.12	Program memory: Capacity to store at least 30 centrifugation programs
3.13	Digital display and adjustment parameters: Acc/Deceleration: 9 acceleration/10 deceleration profiles Centrifugal time :3 digits, in hr and min, range 1 min – 99 hr operation Preliminary running time:3 digit, adjustable 0-99 hr for the period before starting Temperature:2 digits, adjustable in 10 intervals Temp. control range:- 20degC to 40degC Min. temp. at max. rcf: -50C Interference display: Program error, imbalance, lid open, internal interference

4	**System Configuration Accessories, spares and consumables**
4.1	System as specified-
4.2	Wind shielded swing-out rotor with 6 buckets for altogether 12 units of quadruple blood bags Volume per bucket:2 x 800 ml
4.3	Plastic insert, complete with spacers to spin triple blood bags for Red Blood Cells , Plasma (PRP or FFP)
4.4	Plastic insert, to spin quadruple blood bags, for Red Blood Cells, Plasma (PRP or FFP) platelets
4.5	Inserts with hook adapter, to spin buffy coat or small volumes of blood
4.6	Balancing weights for inserts
5	**Environmental factors**
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.
6	**Power Supply**
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)
7	**Standards and Safety**
7.1	It should have a security lock to prevent unintentional switch off and also unauthorised opening of the instrument.
7.2	Should incorporate Safety Features for Imbalance detection, lid interlock, over temperature, rotor over speed etc
7.3	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
7.4	Should be US-FDA or CE (European directive) approved product
7.5	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.
7.6	Should comply with IEC/TR 61010-3-020 :Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 3-020: Conformity verification report for IEC 61010-2-020:1992 Particular requirements for laboratory centrifuges"
7.7	Protection of data: In event of power interruption or complete failure, data should remain stored

	Warranty –as per bid.

8 Documentation	
8.1	User/Technical/Maintenance manuals to be supplied in English.
8.2	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
8.3	Certificate of calibration and inspection from factory.
8.4	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
8.5	List of important spare parts and accessories with their part number and costing. available in stock with the supplier.
8.6	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.
8.7	Documentation: Possible connection to a computer, upgrading with monitoring system should be possible

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

Equipment Specifications for BLOOD MIXER AND COLLECTOR

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	The system is used to collect donated blood from the donor at the same time mixing the blood for quality collection of blood.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	It is meant for stationary and mobile use. Gentle end to end mixing and control of collection time to give high quality blood (platelets). Suitable for all blood bags on the market. Automatic check on blood flow and collection time with buzzer alarm. Shall continuously display collected volume, flow and time during collection. Shall provide repetitive notification of completed collection every minute including gentle mixing to avoid coagulation		
2.2	Should be advanced technologically and modern blood collection scale and mixer. It should be light weight & portable		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Volume Setting: Pre-selection of volume to be collected. ¬Tarring of bag volume before collection. Tarring range: 0 – 600 g. Automatic storage and recall of set volume. Measure volume with best accuracy		
3.2	Indications and Alarms 1.LED indication on commencement of collection. 2. LED indication and audible alarm at the end of collection. 3. Indication of time taken for collection. 4.Indication of blood flow with audio alarm when blood flow is higher or lower than desired. Continuous display of collected volume, flow and time during collection		
3.3	Automatic clamping at termination of preset volume collection		
3.4	Automatic release of bag when lifted.		

3.5	Continuous agitation of blood bags during collection: 12 – 16 rpm.		
3.6	Easy provision to change preset volume.		
3.7	Should operate on mains as well as rechargeable battery. On battery it should operate for a minimum of 5-8 hours.		
3.8	Should be less than 5 Kg		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Blood Mixer & collection unit-01		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -400 C and relative humidity of 15-90%		
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	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate fitted with Indian plug		
6.2	Resettable over current breaker shall be fitted for protection		
6.3	Suitable Automatic Voltage regulator/stabilizer meeting ISI specifications should be supplied. Broad specifications are : Automatic Type Input 150-280V , Output 220 V +/- 7 % , 50 Hz . Single phase , AC with automatic 2-4 sec Cut Off and 6-9 minutes restart delay.. Quick start arrangements for bypassing the start delay. Suitable MCB on input voltmeter and indicators on Front Panel. Input Poer Cable with 15 A Plug and six way output terminal strip for two outlets		

7 Standards and Safety

Sl	Name	Technical	Bidders

		Specs quoted by bidder	Deviation if any
7.1	Should be US FDA , CE,UL or BIS approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Manufacturer should have ISO certification for quality standards.		
7.4	Protection type class B		
7.5	Comprehensive warranty as per bid.		

8 Documentation

Sl	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 from the factory		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

EQUIPMENT SPECIFICATIONS FOR BLOOD DONOR COUCH

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Blood Donor Couch is a completely automatic enveloping, variable tilt chair and specially designed to make blood withdrawals easier, safe and functional, and also for other diagnostic and therapeutic areas		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	1) Provides a comfortable position for the donor. 2) Variable positioning for either arm with Comfortably wide arm-rests. 3) Arm rests have swinging out as well as up and down moving facility. 4) Reclining and upright body positions with a smooth shifting to any position. 5) Both sides should have supporting brackets. 6) If a vasovagal attack occurs the Donor's head needs to be lowered immediately and his legs lifted above his heart level so that blood can flow back to the brain and other vital organs. Electronic remote controlled facility should be provided for this function		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Ergonomically designed comfortable chair type for donor comfort. Mattress should be comfortably cushioned with elegantly thick washable upholstery.		
3.2	Seat, back rest and leg rest size designed for donor comfort. It should have step less electric remote controlled height adjustment approximately 58 – 60 cm.		
3.3	Adjustable arm rests-Swivel able and lift up for donor’s comfort and phlebotomist friendly		
3.4	Easily tilted to head low position, electrically operated		
3.5	Comfortable working level for the operator. Lifting capacity - Approx 200 kg.		

3.6	UP/DOWN control		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Donor Couch -01		
4.2	Dust Cover -01		
4.3	Power cable -01		
4.4	Arm Rests(pair) -01 pair		
4.5	Remote control -01		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -40 C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input: 220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate Indian plugs and sockets.		
6.2	Reset table over current breaker shall be fitted for protection		
6.3	Suitable Servo controlled Stabilizer/CVT		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be US FDA or CE approved product		

7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Manufacturer should have ISO certification for quality standards.		
7.4	All electrical actuators and mechanisms should be housed inside the structure making the product safer		
7.5	Comprehensive warranty as per bid.		

8 Documentation

Sl	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 from the factory		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

Equipment Specifications for Automatic Micro Plate Washer

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	For rapidly washing the micropates.		

2 Operational Requirements

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

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Fully automated programmable micro plate washer with 8/12 manifold.		
3.2	The micro plate washer should offer the possibility of flexible programming of the desired washing procedures. It should have 1-4 liquid channels.		
3.3	It should be capable of storing up to 75 user defined washing procedures.		
3.4	The dispensing volume/ well should be 50-3000 ul.		
3.5	Plate soaking be programmable at any point of the washing procedure.		
3.6	Should have soak time of 1-999 sec.		
3.7	Performance sequence should be either on whole plate “Plate Mode” or strip by strip “Strip Mode”.		
3.8	It should offer the possibility to present physical parameters & well shape (round or flat bottom) of the used micro plate (up to 10) & store this information under freely definable names.		
3.9	Application aspiration should be performed at the edge of the well, altering from one side to the other, or in the centre when using round bottom plates.		
3.10	Residual volume/ well should be less than 2 ul.		
3.11	The desired number of cycles as well as the interval time between the steps should be freely definable		

3.12	Necessary sequence should be defined as a combination of single steps, which are freely adjustable, be setting the corresponding parameters		
3.13	The result of the washing procedure may be intensified by an optional wash cycle limited to the bottom area (bottom wash).		
3.14	Aspiration should prevent an overflow of the well contents.		
3.15	A variety of pre- programming procedures should cover majority of standards application		
3.16	This should be able to be used as “COOMBS WASHER” with vertical and horizontal movements performed with 0.1 mm steps.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		

5 Environmental factors

Sl	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%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
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	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		
6.4	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.		

7 Standards and Safety

Sl	Name	Technical	Bidders

		Specs quoted by bidder	Deviation if any
7.1	Should be US FDA , CE,UL or BIS approved product		
7.2	Comprehensive warranty as per bid.		
7.3	Comprehensive training for lab staff and support services till familiarity with the system.		
7.4	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		

8 Documentation

Sl	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 Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.3	User/Technical/Maintenance manuals to be supplied in English.		
8.4	List of important spare parts and accessories with their part number and costing.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

Equipment Specifications for Microplate Shaker

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Microplate shaker provides reliable,regulated shaking for two or four microplates.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Suitable for holding 4 micro plates at a time		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Shaking speed 100-1400 rpm.		
3.2	Motion: exact orbital motion		
3.3	Should have adjustable regulator for time & speed.		
3.4	Timer: 0-20 min/ continuous		
3.5	Stroke: 3 mm		
3.6	Max load: 2 kg or more.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		

5 Environmental factors

Sl	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 -40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.		
6.3	Resettable overcurrent breaker shall be fitted for protection		
6.4	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.2	Should be US FDA , CE,UL or BIS approved product		
7.3	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		
7.4	Comprehensive warranty for as per bid.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection from factory.		
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		

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

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

Equipment Specifications for Water Bath

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Water bath maintains a constant preset temperature for treating samples.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	General purpose water bath is required		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Small (app dimensions 40-45X 35-40X20-25 cms) light, stainless steel body		
3.2	Microprocessor controlled programmable, digital display for temperature etc		
3.3	Temp. Range: 37ºC to 56ºC +0.50ºC.		
3.4	Should have a stirrer for circulation		
3.5	Bath Capacity: 8-10 litres.		
3.6	Should be easily cleanable as needs to be cleaned on daily basis		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		

5 Environmental factors

Sl	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%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.2	Should be US FDA , CE,UL or BIS approved product		
7.3	Comprehensive warranty as per bid.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection from factory.		
8.3	List of important spare parts and accessories with their part number and costing		

Equipment Specifications for PLASMA THAWING BATH

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	The Plasma Thawing Bath is designed for rapid and uniform thawing of frozen plasma.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Unit thaws four to eight plasma units in 25-30 minutes.		
2.2	Digital, electronic bench top system is required with touch screen operation & LED display		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Should be able to thaw 4/8 plasma bags (FFP / Apheresis or plasma bags of any size).		
3.2	Should have two separate basket assemblies with built-in fingers for securely holding the plasma bags of all sizes.		
3.3	Should be a water bath based system operating at a preset and precise temperature of 37 deg C-40 deg C +/- 0.5 deg C.		
3.4	Should give an alarm when the plasma bags are thawed		
3.5	Provision for programmable time setting for length of thawing with audio completion signal		
3.6	Should have digital timer clearly displaying the programmed set time or remaining cycle in minutes.		
3.7	Should have audio visual over-temperature alarm system		
3.8	Should have a deep thawing chamber with a stirrer for water circulation & gentle rocking for uniform heating		
3.9	Should have a system to drain the chamber within 3 minutes.		
3.10	Error messages should be conveyed and alarm for all fault condition		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Plasma separator automatic -01		
4.2	cover to keep the unit covered when not in use -01		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -400 C and relative humidity of 15-90%		
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	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate fitted with Indian plug		
6.2	Resettable overcurrent breaker shall be fitted for protection		
6.3	Suitable Servo controlled Stabilizer/CVT		
6.4	UPS of suitable rating conforming to IS-302 shall be supplied for computer system		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be US FDA , CE,UL or BIS approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Manufacturer should have ISO certification for quality standards. And warranty as per bids..		

8 Documentation

Sl	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 from factory.		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

Equipment Specifications for VDRL Shaker

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Required for rotating slides for VDRL tests		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Should have rotation in horizontal plane		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Platform size 12” X 12” for keeping reaction trays.		
3.2	Timer with 0 to 30 minutes for control of shaking duration with 1 minute interval.		
3.3	Should have built in speed regulator with maximum speed of 150-180 rpm.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		

5 Environmental factors

Sl	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%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be US FDA , CE,UL or BIS approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements		
7.3	Manufacturer/Supplier should have ISO certification for quality standards. Warranty as per bid.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection from factory.		
8.3	List of important spares and accessories with their part number and costing.		

Equipment Specifications for DIELECTRIC TUBE SEALER

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Blood Bag Tube Sealer is a compact equipment to seal the Blood Bag pilot tube by radio frequency sealing system		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The system should be heavy duty and be able to seal the blood bag etc quickly and effectively.		
2.2	Should be simple to handle		
2.3	System should gently seal the tubing with no hemolysis.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Should be a heavy duty tube-sealer capable of making wide seal of 2 mm thickness.		
3.2	Should be for bench-top use.		
3.3	The sealing time should be adjustable between 0.5-5 seconds		
3.4	Sealing trigger should be automatic		
3.5	Should also have extended portable hand unit Sealing hand should be with coaxial cable of 1.5-2.0 meter.		
3.6	Should have indication lamps for “Sealing Process” on handle as well as main unit and LED to show the battery test.		
3.7	No warm-up time should be required.		
3.8	Should ensure easy separation of tube segments after the sealing		
3.9	System should run on both mains and battery (more than 10hrs. back up and charger).		
3.10	On batteries it should seal more than 500 seals on PVC- tubes in continuous mode.		
3.11	Should be compact, light weight and portable, weighing not		

	more than 6 Kg .		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Tube Sealer -01		
4.2	Standard Accessories - 01		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -400 C and relative humidity of 15-90%		
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	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input :220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate Indian plugs and sockets.		
6.2	Resettable overcurrent breaker shall be fitted for protection		
6.3	Suitable Autovoltage corrector with spike protector should be available.		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be US FDA or CE approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		

7.3	Manufacturer should have ISO certification for quality standards.		
7.4	Class II type-B device to protect against electric shock.		
7.5	Electrodes should be well protected by a cover Warranty as per bid.		

8 Documentation

Sl	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 spares and accessories with their part number and costing.		
8.4	Certificate of calibration and inspection from factory.		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

Micro Pipettes (Mechanical)

1. User friendly high performance air displacement pipettors with compression spring mechanism
2. Should have Comfortable hand grip
3. Should have Consistency in quality
4. Should have Quick Click with digital display of volume setting
5. Should have Separate tip ejector
6. Should have Light weight ergonomic design
7. Should have Auto clavable tip cone
8. Should have Non Metallic internal Part
9. Should have Volume range from 0.5-10ul, 5-50ul,20-200ul,100-1000ul
10. Should have Safe zone filter lock provider
11. Should have Tip cone filter lock
12. Should have Easy calibration and maintence
13. Should have Micro pippete holders
14. Should have Capacity and Reproducibility as under:

		ACCURACY	REPRODUCIBILITY
I	0.5-10 ul	± 1%	1% - 0.5%
Ii	5-50 ul	± 1%	1% - 0.5%
Iii	20 - 200 ul	± 1%	1.5% - 1%
Iv	100 - 1000 ul	± 1%	0.5% - 0.4%

NOTE: The combination of Micropipettes in terms of set has been given from 0.5 ul to 1000 ul, which is indicative in nature. Any other combination to cover this volume may be considered.

15. Should have Comprehensive warranty for 2 years and 3 years AMC/CMC with rates after warranty
16. Should have Comprehensive training for lab staff and support services till familiarity with the system.
17. Should have Documentation Certificate of calibration and inspection from factory.
18. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.

MULTI-CHANNEL PIPETTE

1. Should have 8 channels for dispensing
2. Should have Comfortable and adjustable hand grip
3. Should have Consistency in quality
4. Should have Quick Click
5. Should have Separate tip ejector
6. Should have Ergonomic design
7. Should have Autoclavable tip cone
8. Should have Non Metallic internal Part
9. Should have Ajustables volume range from 20-200ul
10. Should be adjustable with all types of tip.
11. It should have pipette holders
12. Should have Comprehensive warranty as per bid.
13. Should have Comprehensive training for lab staff and support services till familiarity with the system.
14. Should have Documentation Certificate of calibration and inspection from factory.
15. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.

Electronic Analytical Balance

1. Electronic top loading balances with transparent case having following specifications:

Readability	0.1 mg
Capacity	200g
Repeatability	0.1mg
Linearity	+ -0.2mg
Stabilization time	<5 sec.
Adjustment weight (Int. wt.)	200g
Adjustment weight (Ex. Wt.)	500 mg,1gm,10gm,50gm,100gm,200gm

2. The balance should have functions of piece counting, percent weighing, formulation , dynamic weighing with automatic and manual start and' provision for data interface should comply with ISO/GLP with auto validation with ink jet printer.
3. Calibration: Fully automatic temperature .controlled internal calibration & balance should be capable to adjust itself.
4. Balance should have additional features as LCD Display
5. Should have vibration adapter for damps influence due to vibration and minor shocks
6. Should have built in instructions for its operation
7. To be operational on 220 to 240 V at 50 Hz.
8. Compatible UPS and voltage stabilizer should be part of configuration
9. Warranty as per bid.
10. Basic set of spares should be provided with the machine as stand by.
11. Equipments should be complete in all respect so that it can be started from day one.

FULLY AUTOMATED BLOOD BANKING SYSTEM BASED ON COLUMN AGGLUTINATION TECHNOLOGY

1. The analyzer shall be capable to do all Immunohematology tests like grouping, phenotyping, antibody screening & Identification, cross-matching in Blood samples.
2. It shall have the facility of random and continuous loading of samples and reagents.
3. It shall have the through-put of about 30 – 60 tests per hour.
4. It shall have the Random access, Continuous sample analysis capabilities to take care of the emergency sample analysis too.
5. It shall have the access to samples during operation with the ability to add or remove the samples from the system.
6. The loading sample capacity minimum of about 30-40 samples at a time.
7. The reagent loading capacity shall be 10-25 reagents with the facility of Liquid level detection, automatic agitation of red cells .
8. It shall have the facility to read bar-coded reagents and samples .
9. It should be able to verify presence of serum/plasma before centrifugation.
10. It shall have the facility for the preparation of required amount and concentration of red cell suspensions automatically.
11. There should be availability of complete panel of ready to use cells for antibody screening and identification, including anti D prophylaxis panel with minimum shelf life of 30 days.
12. It shall have the facility for centrifugation of cassettes with the minimum capacity of 24 cassettes.
13. System should be able to detect & differentiate double population cases
14. All reagents to be supplied with the system, free of cost till the equipment is standardized and calibrated for its effective performance.
15. All consumables/reagents required for at least additional 5000 tests to be provided.
16. System should be able to provide backup of results.
17. All the rates for the consumables and reagents should be provided

It shall have the facility for both room temperature incubation as well as 37°C incubation of cassettes with the minimum capacity of 24 -48 cards.

18. It shall have the facility for auto reading of cassettes using CCD Camera along with the calibration facility.
19. It shall have on board QC package system to monitor the process and the Quality of the results obtained.
20. It shall have continuous process verification to ensure precise and accurate results.
21. It shall have Bi-directional interface, compatible to the LIS or HIS system.
22. The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
23. The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%
24. Power input to be 220-240VAC, 50Hz fitted with Indian plug
25. Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz) Resettable over current breaker shall be fitted for protection
26. UPS of suitable rating shall be supplied for minimum 1 hour backup for the entire system
27. Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
28. The system should be US FDA , CE, or BIS approved
29. Comprehensive warranty as per bid.
30. Comprehensive training for lab staff and support services till familiarity with the system.
31. Documentation Certificate of calibration and inspection from factory.
32. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
33. Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
34. User/Technical/Maintenance manuals to be supplied in English.

Portable Refrigerated Blood Transport Box

1. Structure should be completely in undeformable (UVA resistant) plastic material both inside and outside
2. Should operate on Mains/Car battery and have a Battery back up of at least 4-6hrs.
3. All the internal corners should be rounded to make easy any cleaning operation
4. Insulation should be high density (40 Kg/m3) foamed-in-place polyurethane, with an average thickness of 50mm.CFC-free.
5. Should be high thickness value, the refrigerators should maintain the internal temperature for long time (also when it is not connected to any electrical source
6. Handles should be 2 in no , retractable, allowing an easy handling of the portable refrigerator
7. Lid should be hinged, fully insulated, realized in plastic material both inside and outside. The lid should be fitted up with a perimetric rubber gasket, with a special locking device (granting a perfect seal)
8. Internal equipment should have open wire basket made in sheet steel white coated, to make easy the handling of the stored materials
9. Thermostat should be external, digital, electronic, grouping both the function of displaying the present temperature and adjusting the internal temperature
10. Cooling unit should be compounded by a hermetically sealed compressor and a (both included in the refrigerator structure)and a perimetric evaporator(roll-bond type) in the whole internal chamber. All the used components should be industrial grade granting the maximum reliability
11. Refrigerant should be R134a CFC-free
12. Refrigeration should be static granting the maximum temperature uniformity and stability inside of the cabinet should be able to store 30-40 bags and available in different sizes.
13. Temperature range: infinitely adjustable between +10 C to –20C
14. Voltages: both 12/24 V and 220-230V/1 phase /50 Hz
15. Connecting cables (included): for both the voltage (12/24V and 220-230V)
16. Capacity: 65 litres
17. Warranty for 2 years AMC/CMC for Three years

Equipment Specifications for ULTRASONIC CLEANING SYSTEM (Multistage)

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Ultrasound cleaners can clean wherever the cleaning liquid can go and nearly perfect ultrasonic cleaning is achieved. It is particularly suitable for the cleaning of laboratory instruments and articles made of glass, plastic, or metal.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System should have multistage cleaning system with provision of pre-cleaning, disinfection, ultrasonic chamber and rinsing chamber built in		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	It should have drying heating facility		
3.2	It should have facility to clean all type of glassware plastic ware and even stainless steel instruments		
3.3	The tank and chamber should be made up of stainless steel		
3.4	Should have following four stsges: Stage One - Ultrasonic/undersurface jet clean. Stage Two - Tap Water Rinse. Stage Three -Distilled Water Rinse. Stage Four - Hot Air Dryer		
3.5	Digital timer control of approximately 60 minutes		
3.6	Operating Ultrasonic frequency: 25-30 KHz and 35-40 KHz		
3.7	Internal Tank Capacity: 18- 20 Litres		

3.8	There should be digital temperature controller and thermostat cut off heater.		
3.9	Should have buzzer for accurate temperature maintainance.		
3.10	There should be hose pipes clamps connections provided free with installation, inlet water supply pipes from the tap to the unit and drainage pipes.		
3.11	Drain in rear bottom.		
3.12	Built in heater of 20 to 70 deg C		
3.13	Digital temperature monitor		
3.14	Variable temperature control/indication for ultrasonics and drying stages		
3.15	Liquid level protection		
3.16	To supply inset baskets made of SS, perforated for holding goods to be cleaned – 2 nos.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified-		
4.2	SS Basket - 02		
4.3	All integrated accessories like Recirculating Pump and Filter Acou Lid Under surface jet for stages 1,2 & 3. Water recirculation systems etc should be included.		

5 Environmental factors

Sl	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%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Suaitable voltage corrector/stabilizer		
6.3	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Comprehensive training for lab staff and support services till familiarity with the system.		
7.2	Comprehensive Warranty as per bid.		
7.3	Manufacturer/Supplier should have ISO certification for quality standards.		
7.4	Should be US FDA or CE or ISI approved product		

8 Documentation

8.1	User/Technical/Maintenance manuals to be supplied		
8.2	Certificate of calibration and inspection from factory.		
8.3	List of important spare parts and accessories with their part number and costing.		
8.4	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		
8.5	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the “All inclusive lump sum price” should include all such costs.

CARDIOLOGY

PREMIUM END TOP OF THE LIVE PORTABLE 2D-ECHOCARDIOGRAPHY COLOUR DOPPLER SYSTEM.

The offered system should be top of the line platform on a worldwide basis.
It should be light weight easily portable machine (less than 7 Kgs) with proper bag and storage facility.
A separate Cart (of the same company) should be provided for mobility of the portable machine.
System should have extremely high resolution 2D Imaging, Colour Flow Imaging, M-mode, PW Doppler, CW Doppler, and Duplex modes.

System should have least 18,000 digital processed channels.

Should have advanced image processing algorithms to analyse between targets and artifacts so as to sharpen target anatomy and reduce speckle and artifacts for excellent image quality.

Should have flat panel high resolution display monitor minimum 15 inch.

Should have a dynamic range of 170 DB minimum.

Should have extended field of view imaging of structures, by continuously scanning and moving the probe over the area of interest.

Should have maximum colour Doppler Frame rate of 250 Hz should have an on-board workstation for storage and review of all exams i.e.2D Doppler, Loops etc.

Should have DICOM support to be able to connect to hospital network, Laser cameras etc.

Should have a large hard Disk capacity to store patient data into the hard drive.

Should be able to transfer images and clips to CD and DVD Media.

Should be offered with the following transducers without need for frequency selection:-

1. Adult Echo Transducer: Transducer technology for audit probes should be clearly mentioned in technical bid.

2. Pediatric Echo Transducer

3. Tran esophageal probe

System should be CE marked & US FDA approved.
It should have standard Electrical Safety Norms.

ACCESSORIES

Other accessories: Jelly Bottles (5 Nos.), Patient Examination Table, Doctor's chair, Patient Chair, curtains for changing room.

Guarantee: Comprehensive Guarantee as per Inq. Parts and labour. All software updates upto as per bid to be provided free.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings from the source, Electrical points of suitable ratings, water connection, water drainage, plumbing, air-conditioning & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs..

DENTAL CHAIR (REGULAR)

1 **Description of Function**

1.1 Dental Chair Medium is the dental chair required for dental and surgical procedures.

2 **Operational Requirements**

2.1 Physiological dental chair operated by electricity

3 **Technical Specifications**

3.1. Dental unit should have latest overhead delivery system

3.2. It should have two 3 way syringes (tip autoclavable, with 6 spare tips) one on unit side and other on the assistant side.

3.3. It should have one high speed Air Rotor terminal with water control on coupling supplied with handpieces.

3.4. It should have one high speed fiber-optic air-rotor terminal with handpiece

3.5. One air motor terminal having straight and contra angle handpieces

3.6. It should have LED light cure unit on unit sides (Min. Intensity 800 mW/cm2 and wavelength range - 370 - 500 nm output)

3.7. It should have one in-built Piezon LED (fiber-optic) Ultrasonic Scaler (frequency 28-36 KHz) with 4 scaler tips and one set of perio-curette tips

3.8. It should have infection control system with non-retraction valves (Bio System/ equivalent)

3.9. All handpieces/terminals should be kept on Autoclavable pads. 6 spare autoclavable pads should be supplied

3.10. Arm of unit should be pneumatically locked

3.11. All air tubing of the delivery system can be disinfected internally after every dental procedure

3.12. Removable auxillary tray (stainless steel)

3.13. It should have latest foot operated LED/halogen Light (min 35,000 LUX)

3.14. It should have Rotatable Water System with removable spittoon

3.15. It should have Medium Vacuum Suction and High suction (Motorised Suction)

3.16. It should have following programmes –

- Two programmable working positions
- Spitting and last working position with light ON and OFF automatically
- Return to Zero position with light OFF automatically
- It should have option to Lock the movements of chair
- It should have emergency stop control
- Programmable Bowl water and Cup filler water

3.16 It should have LED based X-ray viewer

3.17. It should be provided with right arm (options for Fixed, Lateral 90 degree swivel available)

3.18. It should have multifunctional foot control base (fixed or mobile)
3.19. It should be provided with one doctor's stool and one assistant's stool with adjustable backrest tilt including an adjustable ring for foot rest.
3.20. Oil Free Air Compressor (Medical Grade) with Air moisture filter

4 **System Configuration Accessories, spares and consumables**
4.1 System as specified
4.2 All consumables required for installation and standardization of system to be given free of cost.
4.3 Provision for modular furniture with sink for dental operator 10feet x 2 feet or dimensions as required by the operator.

5 Environmental factors
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 Complete installation of the system including water input and drainage system has to be installed

6 Power Supply
6.1 Power input to be 220-240VAC, 50Hz
6.2 Five KV Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)

7 Standards, Safety and Training
7.1 Should be US FDA/ CE approved product
7.2 Manufacturer/Supplier should have ISO certification for quality standards.
7.3 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450.

8 Documentation
8.1 User/Technical/Maintenance manuals to be supplied in English.
8.2 Certificate of calibration and inspection.
8.3 List of important spare parts, handpieces, and accessories with their part number and costing
8.4 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

EQUIPMENT SPECIFICATIONS FOR DENTAL SCALER

1 Description of Function
1.1 Dental Scaler is required for removing the supragingival and subgingival calculus.
2 Operational Requirements
2.1 Microprocessor based system

3 Technical Specifications
3.1 Based on piezoelectric technology
3.2 Having torque tool for tightening of the tip
3.3 High power turbo mode and low power mode
3.4 Should have LED light in scaler handpiece
3.5 Automatic smart power feedback control
3.6 Minimum vibration frequency of 28-36 KHZ and
3.7 Ten tips for scaler, one endodontic kit and one set of perio-curette tips
3.8 Foot pedal
3.9 Separate control for water and tip vibration
3.10 Should be supplied with two autoclavable hand pieces.
3.11 It should have self contained tank of 300 ml capacity

4 System Configuration Accessories, spares and consumables
4.1 System as specified

5 Environmental factors
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
6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2 Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)

7 Standards, Safety and Training
7.1 Should comply with Medical Device class II type BF, in conformity to the requisites of Directive 93/842/CEE for the SCALER unit
7.2 Should be US FDA/ CE approved product
7.3 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

8 Documentation
8.1 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet
8.2User/Technical/Maintenance manuals to be supplied in English.
8.3 Certificate of calibration and inspection.
8.4 List of important spare parts and accessories with their part number and costing.
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

DENTAL X-RAY

1 Description of Function
1.1 Dental x-ray machine is used for taking Intra Oral Periapical and Occlusal X-ray

2 Operational Requirements
2.1 High resolution RVG based on CCD/CMOS technology

3 Technical Specifications
3.1 Based on DC current
3.2 Tube voltage, selection: 60-65-70 kVp
3.3 Tube current 6 mA/ 8 mA
3.4 Focal spot 0.8 x 0.8 mm
3.5 Total filtration > 2 mm Al
3.6 Minimum range of exposure time range – 0.02 to 3.2 secs
3.7 Manufactured with International Safety standards for radiation leakage
3.8 Electronic selection of exposure time/radiation according to tooth number. It should be possible to select exposure time manually.

4 System Configuration Accessories, spares and consumables
4.1 X-ray unit should be supplied with lead apron, thyroid collar and gonadal sheath
4.2 Should be supplied with lead partition

5 Power Supply
5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
5.2 Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)

6 Standards, Safety and Training
6.1 Should be US FDA/ CE approved product
6.2 Manufacturer/ Supplier should have ISO certification for quality standards.
6.3 Electrical safety for dental x-ray unit conforms to standards for electrical safety IEC-60601 / IS-13450

7 Documentation
7.1 User/Technical/Maintenance manuals to be supplied in English.
7.2 List of important spare parts and accessories with their part number and costing
7.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

INSTRUCTIONS:

1. Vendor will get approval for the site plan from AERB for installation of the equipment.
2. Any civil and electrical work required at the site for installation of machine is to be done by the vendor .

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings from the source, Electrical points of suitable ratings, water connection, water drainage, plumbing, air-conditioning & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs. Bidders who have approval / authorisation of AERB / BARC shall only be considered with documentary evidence. It shall be bidders responsibility to get the equipment installed and commissioned as per AERB / BARC guidelines and installed and commission on "Turn Key basis.

DIGITAL PANORAMIC WITH CEPHALOMETRIC X-RAY

1 Description of Function

1.1 This equipment enables digital imaging of both panoramic and cephalometric x-rays

2 Operational Requirements

2.1 System with Panaromic as well as Cephalometric X-Ray is required with all the accessories.

2.2 Should cater to all types of patients including adult, pediatrics, standing, sitting and wheel chair patients.

3 Technical Specifications

3.1 Based on DC current
3.2 Focal spot is 0.4/0.5 mm according to IEC 336/1993 specifications
3.3 Inherent filtration : 2.5mm Al equivalent
3.4 Tube voltage min range 60 kV to 80 kV
3.5 Tube current min range 5 mA to 10 mA
3.6 Exposure time – Panoramic – 10-15 secs; Cephalometric – 0.5-20 secs
3.7 Pixel size – 96-99 μm
3.8 Image resolution – 5-9 lp/mm

4 System Configuration Accessories, spares and consumables

4.1 Standard Intel Quad core desktop with original windows software, 4 GB RAM, 500 GB hard disk, 20 inch TFT monitor, DVD-RW and suitable film printer
4.2 X-ray unit should be supplied with lead apron, thyroid collar and gonadal sheath

5 Power Supply

5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
5.2 Five KV Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications. (Input 160-260 V and output 220-240 V and 50 Hz)

6 Standards, Safety and Training

6.1 Should be US FDA/ CE approved product
6.2 Manufacturer/ Supplier should have ISO certification for quality standards.
6.3 Electrical safety for dental x-ray unit conforms to standards for electrical safety IEC-60601 / IS-13450

7 Documentation

7.1 User/Technical/Maintenance manuals to be supplied in English.
7.2 List of important spare parts and accessories with their part number and costing
7.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

INSTRUCTIONS:

1. Vendor will get approval for the site plan from AERB for installation of the equipment.

2.Any civil and electrical work required at the site for installation of machine is to be done by the vendor.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings from the source, Electrical points of suitable ratings, water connection, water drainage, plumbing, air-conditioning & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs. Bidders who have approval / authorisation of AERB / BARC shall only be considered with documentary evidence. It shall be bidders responsibility to get the equipment installed and commissioned as per AERB / BARC guidelines and installed and commission on "Turn Key basis.

AUTOCLAVE

1 Description of Function

1.1 Autoclaves are required for sterilizing instruments in high temperature and high pressure steam.

2 Operational Requirements

2.1 Autoclave should be table top and front loading with fully automatic microprocessor based control

3 Technical Specifications

3.1 The autoclave should provide sterilization at 121^{o} C and 134^{o} C for both wrapped and unwrapped tools and also a flash cycle for rapid sterilization.

3.2 The autoclave should be equipped with a powerful vacuum pump to eject air pockets from the chamber at the beginning and at the end of cycle (Pre-vacuum and Post vacuum)

3.3 Water purification unit (based on reverse osmosis principle) should be supplied along with the autoclave, and it should be possible to connect the water purification unit directly to autoclave for continuous supply of high quality demineralized water.

3.4 It should have minimum four sterilization programs and two test program. Programs should be monitored by microprocessor.

3.5 Chamber volume 22 -25 liters.

3.6 Loading can be min. 4 Kg instrument/ 1 Kg textile.

3.7 It should be class B autoclave so that hollow bodied instruments, handpieces, and turbines can be fully autoclaved.

4 Environmental factors

4.1 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS)/ or EN61010-1-2 General Requirements of Safety for Electromagnetic Compatibility or should comply with 89/366/EEC; EMC-directive.

5 Power Supply

5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

5.2 Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)

6 Standards, Safety and Training

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

6.2 Should be US FDA/ CE approved product

6.3 Manufacturer/ Supplier should have ISO certification for quality standards.

7 Documentation

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

7.2 List of important spares and accessories with their part number and costing.

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

INTRA ORAL CAMERA

1 Description of Function

1.1 Intra-oral camera is required for documenting video and still images of intra-oral procedures

2 Operational Requirements

2.1 High resolution Intra-Oral camera based on CCD technology

3 Technical Specifications

3.1. Should give true image (not a mirror image)
3.2. Light source integrated into handpiece
3.3. Sealed design and hygienic material for proper disinfection
3.4. The image live/freeze/save functions should be initiated by the station foot control
3.5. Ergonomical shape of handle
3.6. True imaging angle of 530 approx
3.7. Viewing orientation - 90o approx
3.8. Magnification – minimum 40X
3.9. Resolution – minimum 470 lines
3.10. Focal range – min. 6mm to infinity
3.11. Light source – four output halogen, 32,000 LUX at 10 mm
3.12. It should be supplied along with Desktop computer 20 inch screen, Intel Pentium Quad Core, 500 GB HDD, RAM 4 GB, DVD-RW, latest genuine windows version software and color laserjet printer.

4 Power Supply

5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

5 Standards, Safety and Training

5.1 Should be US FDA/ CE approved product
5.2 Manufacturer/ Supplier should have ISO certification for quality standards.

5 Documentation

7.1 User/Technical/Maintenance manuals to be supplied in English.
7.2 List of important spare parts and accessories with their part number and costing.
7.3 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet
7.4 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

EMERGENCY DEPARTMENT

1) Specification for High-pressure noiseless suction unit.

- Should have.
- Noiseless suction unit should have fast vacuum build up.
- Vacuum should have minimum vacuum of 675 mm Hg, Suction capacity 50 liter/min. & twin bottle capacity of 3 liters each.
- Suction system should have piston/cylinder (self lubricating)
- Fitted on mobile stand with ON/OFF facility.
- Mechanical overflow protection system.
- Should be supplied with following accessories with each suction.
- 3 liters suction container, polysulfone, graduated -2 in no.
- Lid with overflow sensor and mechanical overflow protection device.
- Holder for 3 liters suction containers.
- Tubing
- Footswitch.
- Should be operable on manual mode in case of electricity failure
- Two years of comprehensive warranty

ENT

FIBREOPTIC OTOSCOPE

Each set should consist of

Otoscope with fibreoptic illumination.
3.5, volts Halogen bulb.
Pneumatic bag for Sieglisation of tympanic membrane
Reusable and autoclavable speculum set of 4 or 5—2 sets for each Otoscope
Heavy duty handles with charger and chargeable long life battery

OESOPHAGOSCOPE

S.N	Name with specification	Quantity
1	Universal Oesophagoscope with Distal or Proximal illumination Adult 250mm length 12x8 mm diameter	1
2	Universal Oesophagoscope with Distal or Proximal illumination Adult 300mm length 14x10 mm diameter	1
3	Universal Oesophagoscope with Distal or Proximal illumination Adult 300mm length 16x12 mm diameter	1
4	Universal Oesophagoscope with Distal or Proximal illumination Adult 500mm length 12x8 mm diameter	1
5	Illumination system, cap, magnifier and telescope sealing cap for adult scopes	One set
6	Universal Oesophagoscope with Distal or Proximal illumination Child 270mm length 5.5 mm diameter	1
7	Illumination system, cap, magnifier and telescope sealing cap for child scope	One set
8	Optical forceps for Oesophagoscope Alligator Foreign body to fit in 300 mm Oesophagoscope	1
9	Optical forceps for Oesophagoscope biopsy forcep to fit in 300 mm Oesophagoscope	1
10	Telescope 0 degree wide angle to fit in above optical Biopsy forceps	1
11	Jackson esophageal forcep standard shaft, deep serrated upper moving jaw, 400mm length	2
12	Foreign body forcep for cutting of denture hooks with good cutting power 450mm length	2
13	Foreign body forcep alligator jaw with deep serration 350mm length 2.0mm shaft diameter	2
14	Peanut grasping jaw 350mm length 2.0mm shaft diameter	2
15	Cut biopsy forcep 350mm length 2.0mm shaft diameter	2
16	Rotation Forcep for hard Foreign bodies 450mm length	2
17	Aspiration tubes rigid 350mm length 2.5mm diameter	4
18	Aspiration tubes rigid 500 mm length 4.0mm diameter	2
19	Cotton carrier working length 350mm	2
20	Cotton carrier working length 350mm	1
21	Fiber optic cable 2.5mm Diameter 1.80 meter length	2
22	Cold light source 250 Watt	1

MICROBIOLOGY

AUTOMATED BACTERIAL CULTURE SYSTEM

- Rapid and fully automated system capable to culture bacteria.
- Should process blood samples and other sterile body fluid.
- System should have, inbuilt calibration check, touch screen monitor.
- System should be capable of exporting data to the data management system for long-term storage, and should have the facility to analyze delayed specimens along with the routine bottles.
- Capacity: 300 bottles (minimum), or as per user requirement.
- Should include data management system and software to analyze and store the data.
- Easy to use software for patient information, entry and storage. Long term data storage facility, tracing patient by name, I.D. Hospital registration number.
- Should have inbuilt incubator with facility for decontamination.
- All consumables required for installation and standardization of system to be given free of cost.
- The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%.
- Power input to be 220-240VAC, 50Hz fitted with Indian plug.
- Resettable overcurrent breaker should be fitted for protection.
- Suitable voltage corrector/stabilizer.
- Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
- Should be compliant with ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.
- Comprehensive training to lab staff and support services till familiarity with the system.
- Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450. Should be US - FDA or European CE approved product or equivalent standard approved product.
- Warranty as per bid.
- Certificate of calibration and inspection from factory.

- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue.

- List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
- 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
- List of important spare parts and accessories with their part number and costing.
- Non radiometric, rapid bacterial culture system with bar code sample ID

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

AUTOMATED MYCOBACTERIUM CULTURE AND SENSITIVITY SYSTEM

- Rapid and Fully automated system capable to culture and identify mycobacteria along with drug susceptibility testing.
- System should have, inbuilt calibration check, touch screen monitor.
- Should be able to monitor the growth of mycobacteria continuously in each cell.
- System should be capable of exporting data to the data management system for long-term storage, and should have the facility to analyze delayed specimens with the routine bottles.
- Capacity: 300 bottles (minimum),as per user requirement.
- Should include data management system and software to analyze and store the data.
- Easy to use software for patient information, entry and storage. Long term data storage facility, tracing patient by name, barcode, I.D. Hospital registration number.
- Should have inbuilt incubator with facility for decontamination.
- All consumables required for installation and standardization of system to be given free of cost.
- The unit shall be capable of operating continuously in ambient temperature of 10 -40^0 C and relative humidity of 15-90%.
- Power input to be 220-240VAC, 50Hz fitted with Indian plug.
- Resettable overcurrent breaker shall be fitted for protection.
- Suitable voltage corrector/stabilizer.
- Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
- Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 or equivalent standard applicable to manufacturers and service providers that perform their own design activities.

  Comprehensive training for lab staff and support services till familiarity with the system.
- Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450 /CE certification or equivalent standards.
- Should be US - FDA or European CE approved product.

- Two years warranty, 3 yrs comprehensive CMC should be available with service centers in Delhi.
- Certificate of calibration and inspection from factory.
- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue.
- List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
- 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
- List of important spare parts and accessories with their part number and costing.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

FULLY AUTOMATIC BACTERIAL IDENTIFICATION AND SENSITIVITY SYSTEM

- Automated instrument for wide range of gram positive, Gram negative bacteria and yeasts, Neisseria, Haemophilus and anaerobes.
- Integrated software system with printer and inbuilt incubator.
- Biochemical identification strips/plates for at least 200 tests should be provided with long shelf life.
- Should give results of identification in two time frames – 4 hrs and overnight.
- Should have sample capacity of at least 25 – 30 samples at one go (or as per user requirement).
- Testing should be compliant with CLSI methods and option for both MIC & breakpoint testing.
- Instrument for Mc Farland adjustment of inoculum & pipette to be provided with the system.
- Special panel for ESBL, MRSA and MBL etc.
- List of closely related species on basis of the biochemical reactions to be given.
- All accessories required to make the equipment operational to be provided.
- Training of laboratory staff and support services till familiarity with the system.
- Warranty as per bid document.
- Availability of spares/disposables for at least 10 years.
- All consumables required for installation and standardization of system to be given free of cost.
- The unit shall be capable of operating continuously in ambient temperature of 10-40 degree Celsius and relation humidity of 15-90%.p
- List of users and satisfactory report of quoted model from reputed institute preferably government institute / hospitals
- European CE / ISI mark or other equivalent quality certification.

- All electrical peripherals required for smooth functioning e.g. voltage stabilizer and UPS should be provided with the equipment.
- There should be provision for demonstration before final approval of equipment.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

FULLY AUTOMATED IMMUNO ANALYZER

- Fully, automated, bench top analyzer to perform the qualitative and quantitative analysis of infectious disease markers and other special immunoassays from serum samples.
- System should be Discrete, fully selective random access with a provision to test STAT samples.
- System should be based on chemiluminiscence / ELFA (Enzyme linked fluorescent based assay) / E CLIA technology for measuring the assays with very high sensitivity, specificity and linearity.
- System should have facility for on-board programs for at least 50 different test parameters.
- Onboard sample size should be at least 25-30 or more at one time with a procedure for continuous loading.
- System should have a routine throughput of about 60-80 tests/hour.
- Incubation time for the assays should not be more than 15 minutes.
- System should have reagent slots for a minimum of 15-20 assays.
- System should have on-board cooling facility to maintain the temperature of the reagents.
- Flexibility to use different sample containers like primary tube with different sizes; sample cups etc for easy processing.
- Sample volume should be 5-$50\mu l$ per tests.
- User defined onboard sample dilution is must (1-400 times).
- System must use disposable cups and tips for pipetting sample and reagent for all immunoassay to prevent any carryover contamination to have reliable patient results.
- System to use latest mixing probe technology to mix the samples and reagents .It shall have clot detection facility.
- Systems shall have the facility to test immunoassays like anti-CCP, Hepatitis markers, TORCH Panel etc.
- Rates of consumables would not be increased for at least 5 years.
- On board reagent stability be up to two months. Calibration frequency should be as per quality control requirements.
- Patient samples and Reagents should be scanned with on-board barcode scanner for easy operation.
- Should be ISO / ISI / European CE or equivalent standard certified.
- System should have on-board windows based data control work station with 15" TFT LCD color touch screen monitor for programming the tests and entering the patient data.

- System should have the facility to store minimum of 2000 tests.
- Should have comprehensive software with calibration management, management of internal control, management of external control and customized patient data management.

- System must have extensive quality control like – west –guard rules, Levy – Jennings graphical presentation.
- External Printer to take printout of patient results and QC reports.
- Track record of the firm should be final deciding factor, if other qualifications are the same.
- System should have 2×RS 232 bidirectional interface.
- Power supply -220V/50 Hz.
- Suitable voltage stabilizer.
- UPS with maintenance free batteries with at least one and half hour backup.
- Laboratory staff would be comprehensively trained on all the operational function of equipments.
- Calibration certificate shall be provided after installation
- Original manufacturer's catalogue would be submitted be submitted by the company and all the technical specification would be traceable to the original catalogue point wise .Photocopies or computer printouts would not be accepted.
- Warranty as per bid..

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

LAB REFRIGERATORS

- Capacity (as per user requirement) 280-400 Liters.
- Temperature 2-8^{o}C
- Preferably roller mounted
- Adjustable shelves
- Durable rust free exterior
- Durable unbreakable interior
- Control panel with temperature alarm, on/off switch and digital thermometer,
- Interior lighting, Drip tray and defrosting arrangement .
- Adequate circulation of air to ensure even cooling by DUCT system
- Door with lock. Inside of door provided with racks. Door hinges and latches should be chromium plated.
- Control panel with temperature alarm, ON /OFF switch with power on indicator, digital thermometer, temperature display.
- Electronic automatic temperature control,
- Operable at 220 V, 50 Hz, single phase AC supply.
- Compressor unit to be hermetically sealed with guarantee for at least five years.
- Training of laboratory staff for the purchased equipment
- Warranty as per bid document.
- Availability of spares/ disposables for at least 10 years.
- All consumables required for installation and standardization of system to be given free of cost.
- List of users and satisfactory report of quoted model from reputed institute preferably Government institute/ hospitals
- Should have all the accessories required for the functioning of the equipment.
- European CE / ISI mark or other equivalent quality certification.
- All electrical peripherals required for smoothes functioning e.g. voltage stabilizer provided with the equipment
- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet
- There should be provision for demonstration before final approval of equipment.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

DEEP FREEZER (-20 ^{o}C)

- Microprocessor controlled vertical Freezer
- Separate chamber racks can be pulled out for easy handling
- Refrigeration – Heavy duty CFC free with hermetically sealed compressor.
- Cabinet construction should be corrosion and rust free and resist chipping.
- Operational control – like temperature setting, temperature calibration, temperature display, temperature recording etc. shall all be microprocessor based.
- Freezer condition monitor – Alarm indicators, maintenance indicator to take care of eventualities like power failure, high or low temperature, door open, probe failure etc.
- Capacity 350-400 Litre. (or as per user requirement).
- Temperature adjustable from -10 to -30^{o}C.
- Digital display of set and actual temperature
- No condensation on storing material with automatic electric defrost
- With standard safety features
- Rechargeable battery backup including charger maintenance free.
- Training of laboratory staff for the purchased equipment
- Warranty as per bid document.
- Availability of spares / disposable for at least 10 years.
- All consumables required for installation and standardization of system to be given free of cost.
- List of users and satisfactory report of quoted model from reputed institute preferably Government institute/ hospital.
- Should have all the accessories required for the functioning of the equipment.
- European CE / ISI mark or other equivalent quality certification.
- All electrical peripherals required for smooth functioning e.g. voltage stabilizer and UPS should be provided with the equipment.
- There should be provision for demonstration before final approval of equipment.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

DEEP FREEZER (-80^{0}C) VERTICAL/ HORIZONTAL

- **Description of function**
  - Deep freezers are required to preserve blood and blood products, vaccinations etc at specified temperature.

- **Operational Requirements**
  - Internal minimum capacity 350 to 400 L net at least double door with adjustable at least 4 to 6 shelves
  - Range up to -65^{o}C to -85^{o}C (adjustable)
  - Vertical Cabinet (upright mode)

- **Technical Specifications**
  - Construction: Solid rust free cabinet to prevent corrosion and lockable castor wheels. Inner surface should be stainless steel.
  - Control System: Micro-processor based temperature controller with digital temperature display LED/LCD with seven days graphic temperature recorder with rechargeable battery backup including charger maintenance free and insensitive to vibration. Details of battery and battery charger shall be indicated.
  - Refrigeration System: Heavy Duty refrigeration system, maintenance free, below -85^{o}C (± 1^{o}C) with hermetically sealed dual compressor, noise free and vibration free, air cooled with security lock to prevent unintentional switch off shall be supplied. It should have maximum cooling time of 5 hours at maximum ambient temperature of 33^{o}C.
  - Alarm: It should also have audio visual Electronic Alarm System independent of power supply.
  - Insulation: High density polyurethane or equivalent Gaskets – Double seal silicon.
  - Door heating system for easy opening of door.
  - Availability of spares / disposable for at least 10 years.
  - All consumables required for installation and standardization of system to be given free of cost.

- **Environment factors**
  - The unit shall be capable of operating continuously in ambient temperature of 10 – 40^{0}C and relative humidity of 15-90%.
  - The unit shall be capable of being stored continuously in ambient temperature of 0 – 50^{0}C and relative humidity of 15-90%.

- **Power Supply**
  - Power input to be 220-240V AC, 50Hz, / 440V 3 Phase as appropriate fitted with Indian plug.
  - Resettable over current breaker shall be fitted for protection.
  - Suitable voltage Stabilizer / CVT should be provided.
  - Power backup / UPS.

- **Standards and Safety**
  - Should be US FDA or CE or ISI approved product.
  - Electrical safety conforms to standards for electrical safety IEC-60601/ IS-13450.
  - Manufacturer should have ISO or equivalent certification for quality standards.
- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet

NOTE:

- Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

BINOCULAR MICROSCOPE COMPOUND

1. Optical system should be infinity corrected.

2. System complete with illumination system is required.

3. Body: Binocular, sturdy, stable base body with focus adjustment controls.

4. Eye piece: Paired, high quality, (the image of the object as seen through the binocular eyepiece should be well defined centrally in at least 2/3 field of view), achromatic, wide field, 10x with inbuilt pointer. The eyepiece should be aplanatic and have a minimum field number of 18. Diopter adjustment must be present on one/ both eye pieces or on the eye piece tube.

5. Objective: Three objectives10x,40x,100x,10x and 40x objectives should have numerical apertures of 0.25 and 0.65 respectively and should be of spring loaded type or otherwise.100x should have numerical aperture of 1.25 and should be of oil immersion and spring loaded type. Suitable prominent marking should be provided on100x for easy identification. Unbreakable containers to be provided for storing the objectives. All objectives should be wide field, achromatic and parafocal. Making for the Objectives :Each objective should be engraved with the following information's :-

- Name of the manufacturer
- Magnification and numerical aperture, for example,10x/0.25
- 100x objective should be engraved with the word 'Oil' in changing from one objective to another or reintroducing the same objective by rotation of the nosepiece, the object at the center of the field should not appear displaced by more than 0.02 mm in the object plane in any direction.

6. Nose piece: Revolving nose piece to accommodate a minimum of three objectives with click stops. It should be provided with ribbed grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment. Extra ports if any should be fitted with dust proof metallic/ebonite caps.

7. Stage Uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/-20mm) with fine vermier graduations (minimum reading accuracy of 0.1 mm). the stage should be provided with spring loaded slide holder for exact positioning of specimen/ slide. It should be designed with convenient sub-stage vertical coaxial adjustment for slide manipulation. The stage should have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5mm) and front to back direction, 50mm (+/-5mm).
8. Sub-stage condenser: Abbe-type condenser, numerical aperture (N.A.) 1.25 focusable with rack and pinion arrangement incorporating an aspherical lens and an iris-diaphragm. The condenser should have a filter holder and removable/ swing in/ out blue filter (suitable for bright field Microscopy).
9. Sub-stage illuminator:
    1. The system should have a build-in variable light source (Illuminator). This light

source should have a 20 W, 6 V Halogen lamp. The circuitry for the light source should include a constant voltage supply. The system should be provided with a step down transformer and an on-off switch and intensity control. The lamp should

be provided with a lamp socket which has the facility for easy replacement of the bulb,

2. Power Supply
   a. Voltage220V,50HzAC
   b. Should have one on-off power switch, 3 core power cord with a 3 point male plug.

3. The system should have an inbuilt protective/ safety device to withstand fluctuations of voltage from 140 V to 280 V

4. A plano-concave mirror in fork mounting should be supplied which would be attachable to the base for field use. (Where power is not available).

5. The fuse for the halogen lamp should be easily accessible to the operator

6. The Illuminator should have a build-in field diaphragm for Kohler illumination.

10. Eye piece tubes: Binocular eye piece tubes, inclined at 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range.

11. Focusing knob: Co-axial coarse and fine focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. The fine focusing movement should have sensitivity of two microns or less (finer) over the entire coarse focusing stop safety arrangement should be provided.

12. General 1.All optical parts including objectives, eye pieces and prisms should have anti-reflective coating which also gives anti-fungal property.
2.All metallic parts should be corrosion-proof, acid-proof and stain-proof
3.Working manual should be provided with each microscope
4.A bottle of at least 25 ml immersion oil, a roll of lens tissue paper and lens cleaning solution (100 ml) should be provided with each microscope.
5.One no.of anti static cleaning brush should be provided with each Microscope for cleaning purpose.

13. Microscope should be supplied with spare parts as under:
•100x oil immersion objective (as per the specifications given under B3) – one.
•Halogen bulb,(6volts,20w) – 6Nos.
- Fuses – 6 Nos.

14. All consumables including microscope cover required for installation and standardization of system to be given free of cost.

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

16. Power input to be 220-240VAC, 50Hz fitted with Indian plug.

17. Suitable voltage corrector/stabilizer

18. Should be US FDA or CE or ISI approved product

19. Two years warranty, 3 yrs comprehensive AMC should be available with service centers in close proximity.

20. User/Technical/Maintenance manuals to be supplied.

21. Certificate of calibration and inspection from factory.

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

MICROSCOPE WITH PHOTOGRAPHIC ATTACHMENT / DIGITAL CAMERA

Item		**Microscope with digital camera**
Microscope frame	Optical system	US12 optical system
	Focus	Vertical stage movement: 25mm stage stroke with coarse adjustment limit stopper, Torque adjustment for coarse adjustment knobs, stage mounting position variable, high sensitivity fine focusing knob (minimum adjustment gradations: 1 μm).
	Illuminator	Built-in Koehler for transmitted light 12V100W halogen tube (pre-centered), light preset switch, and light intensity LED indicator, built-in filters.
Revolving nosepiece		Interchangeable reversed quintuple/sexuple/septuple nosepiece.
Observation tube	Wide field	• Wide field binocular, inclined 30^0C • Wide field tilting binoculars 5^0-35^0 • Wide-field trinocular, inclined 30^0 • Wide field ergo binocular, inclined 0^0 – 25^0.
	Super wide field	• Super wide field trinocular,, inclined 24^0 .
Stage	Ceramic-coated coaxial stage with left or right hand low drive control: with rotating mechanism and torque adjustment mechanism, optional rubber grips available.	
Condenser	• Abbe (N A. 1.1), for 4X – 100X • Swing out Achromatic (N A. 0.9), for 1.25X- 100X (swing-out: 1.25X-4X) • Achromatic Aplanatic (N A. 1.4), for 10X – 100X • Phase contrast, dark field (N.A. 1.1), (phase contrast: for 10X – 100X, dark field: for 10X-100X. • Universal (N.A. 1.4/0.9), for 2X – 100X • Dark field dry (N. A. 0.8 – 0.92), for 10X -1 • Dark field oil (N.A. 1.20 – 1.40) for 10X – 100X for 10X -1 • Ultra low (N.A. 0.16) for 1.25X – 4X.	
Camera Adapters	• Photo system • Video system • Microscope Digital Camera System & DP-BSW/software.	

P.T.O.

SPECIFICATION OF DIGITAL CAMERA FOR FIELD PHOTOGRAPHY.

1. Effective 5.1 Mega Pixel
2. 12xOptical Zoom (24x Precision Digital Zoom)
3. Super Steady shot (Optical Image Stabilizer)
4. Large 6.35 cms LCD (115K Dots)
5. 32 MB internal Memory
6. AF Illuminator.

Documents:

- Warranty as per bid.
- Should be US FDA/ CE/ ISI or other equivalent certificate approved product
- User/Technical/Maintenance manuals to be supplied

AUTOCLAVE (VERTICAL)

- Description of Function: Steam Sterilizers or Autoclaves are required to sterilize objects under high temperature and pressured steam.
- Operational Requirements: Suitable for hospital dressings, linen, surgical instruments, glassware, culture media and laboratory ware etc.
- Technical Specifications:-
  - Single door high pressure steam sterilizer with double/triple walled, steam jacket and separate boiler
  - Material of construction:
    - **a.** Sterilizer chamber SS 316
    - **b.** Door SS 316
    - **c.** Jacket MS
    - **d.** Loading carriage SS 316
    - **e.** Transfer trolley: MS, painted
    - **f.** Door Gasket: Silicon or better
    - **g.** Insulation: fiber glass resin bonded wool or better
    - **h.** Insulation cover: SS sheets
  - Chamber capacity as per requirement
  - Operating temperature 121^0C - 138^0C pressure 1.1 to 2.2 kg/ cm^2 of steam pressure
  - Sterilizer should be provided with steam generator
  - Spring loaded safety valves and automatic vacuum breaker for jacket
  - Removable plug screen for chamber drain
  - SS baffle for even steam distribution in the chamber
  - Safety valve protection against poor pressure.
  - Safety lock for door :pressure lock safety device
  - Low water off
- System Configuration Accessories, spares and consumables:
  - System as specified-
  - Should provide available spares and consumables for at least 10 years
  - Should provide a sufficient quality of consumable along with the equipment
- Environmental factors: Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
- Power Supply: Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate and fitted with plug compatible with local sockets

P.T.O.

- Standards and Safety:
  - Comprehensive onsite training for lab staff and support services till familiar with the system.
  - Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450 (BIS)
  - Should be ISI /CE or equivalent standard approved product.

- Documentation:
  - User/Technical/Maintenance manuals to be supplied
  - Certificate of calibration and inspection from factory.
  - List of important spare parts and accessories with their part number and costing.
  - 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
  - Should submit a report of quality checks using biological indicator.

NOTE:

- Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

AUTOCLAVE (FULLY AUTOMATIC, HORIZONTAL)

1. Horizontal rectangular high speed fully automatic steam sterilizer with capacity of 400-500 liters and dimensions of 600 – 700 X 600 – 700 X 1200 -1300 mm approximate. (or as per user demand).
2. Normal working pressure should be 1.2 / 2.1 Kg/cm square.
3. Normal working temperature should be 121 degree Celsius / 134 degree Celsius.
4. Working on three phases for 440 Volts.
5. Machine should be made of good quality stainless steel.
6. Machine should be provided with fully automatic door made of stainless steel.
7. The chamber should be of good quality ISI stainless steel covered with glass wool insulation.
8. Safety valve protection against poor pressure.
9. Touch screen digital display at front panel to show the temperature of chamber, cycle number, batch number, time and date, alarm indicator, error code.
10. Should have powerful cooling system that does not need to be connected to water source.
11. Computerized recording device with printer should be provided that will automatically and continuously monitor and record dates, times of day, load, operating parameters.
12. The unit should be provided with microprocessor based control panel.
13. Warning and error messages by microprocessor.
14. The unit should have indicator for maximum and minimum level of water.
15. Thermal fuse protection against overheating and against non permissible operation without water.
16. Safe, comfortable and easy to use.
17. Loading carriage of stainless steel with two numbers perforated, adjustable & removable shelves with suitable M.S. trolley moving on casters.
18. Carriage should have two stainless steel detachable arms for protection to load on three sides.
19. Trolley should have three locks one for locking carriage with trolley & second for locking trolley with sterilizer & third for trolley wheels.

20. The machine should confirm to CE/ISO/TUB/UL or equivalent standards of equivalent national or international standards. Certificate should be provided.
21. Installation free of cost with satisfactory biological indicator report.
22. Warranty as per bid.

23. Service centre should be located nearby.
24. User / Technical / maintenance manuals in English should be provided.
25. List of important spare parts and accessories with their parts number and costing.
26. List of user & performance report of the quoted model should be provided from Government hospitals /institute of repute.
27. Attach original manufacturer's product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

ULTRASONIC CLEANING SYSTEM (MULTISTAGE).

- System should have multistage cleaning system with provision of pre-cleaning, disinfection, ultrasonic chamber and rinsing chamber built in
- It should have drying heating facility
- It should have facility to clean all type of glassware plastic ware and even stainless steel instruments
- The tank and chamber should be made up of stainless steel
- Digital timer control of approximately 60 minutes
- Operating Ultrasonic frequency: 25-30 KHz and 35-40 KHz
- Internal Tank Capacity as per requirement.
- There should be digital temperature controller and thermostat cut off heater.
- Should have buzzer for accurate temperature maintenance.
- There should be hose pipes clamps connections provided free with installation, inlet water supply pipes from the tap to the unit and drainage pipes.
- Drain in rear bottom.
- Heater should be incorporated in the system in the chamber like rinsing, ultrasonic and drying.
- Dry run protection device and prevention against electric shock.
- Digital temperature monitor
- Variable temperature control/indication for ultrasonics and drying stages
- Liquid level protection
- To supply inset baskets made of SS, perforated for holding goods to be cleaned – 2 nos.SS Basket – 02.
- All integrated accessories like Recalculating Pump and Filter Acou Lid Under surface jet for stages 1,2 & 3. Water recirculation systems etc should be included.

.

- The unit shall be capable of operating continuously in ambient temperature of 10 -40^{0}C and relative humidity of 15-90%
- Power input to be 220-240VAC, 50Hz fitted with Indian plug
- Suitable voltage corrector/stabilizer
- Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
-

- Comprehensive training for lab staff and support services till familiarity with the system.
- Warranty as per bid.
- Manufacturer/Supplier should have ISO certification for quality standards.
- Should be US FDA or CE or ISI approved product
- User/Technical/Maintenance manuals to be supplied
- Certificate of calibration and inspection from factory.
- List of important spare parts and accessories with their part number and costing.
- 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
- List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

CO_2 INCUBATOR

Technical Specifications:-

- Steam jacket with internal capacity: 120 L (Approx) or as per user demand
- Minimum of 4 adjustable shelves (or as per user requirement) with separate air tight doors should be available.
- Interior chamber: Stainless steel for easy cleaning and decontamination
- Stable temperature control, excellent uniformity, and rapid recovery with no overshoot. Fan less convection circulation to provide chamber homogeneity, eliminate vibration & reduce sample evaporation.
- HEPA Filters (99.98% efficient)at the inlet to minimize contamination.
- Timer: 1 min. to 100 hours
- Temperature range: +5° C to 80°C
- Temp Accuracy +/-0.5^{0}C of required temp, with inbuilt Temperature Sensor.
- Audiovisual Alarm to Indicate when temperature deviates more than 0.5°C from set point, and when program or time has finished. Alarm may be muted.
- There should be a Membrane Keypad with LCD/LED to set and display operating parameters, current status, running time and alarm conditions for time and temperature.
- Internal glass door for the observation
- CO_2 Range- 0-20%; CO_2 Accuracy: +/- 0.5%; CO_2 Inlet pressure 1.5 bars (app) and fast recovery after opening door.
- Compensation: Temperature compensation @ 0.5 deg C / min and CO_2 Compensation up to 5%+/-0.5% in 5 minutes.
- High Humidity Chamber to achieve 95% RH, minimizing sample evaporation. Independent door heater to eliminate condensation on inner glass surfaces should be available.
- 72-Hour Data Storage for CO_2 concentration, temperature, alarms and door openings should be a automatically recorded for on-screen display.
- Data output for data acquisition and printing.
- PC Connectivity through RS232C
- Communication protocols HL-7 for Networked environments to HIS
- Interior lighting facility, insulated door fitted with heavy hinges handles locking, mechanical door lock.
- Low water alarm/ indication
- On castors for easy movements

- System Configuration Accessories, spares and consumables:
  - System as specified-
  - CO_2 cylinders 2 nos. (capacity at least 30 kg) with regular (at least one) compatible to machine part

- Environmental factors:

  - The unit shall be capable of operating continuously in ambient temperature of 10 -45^{0}C and relative humidity of 15-90%.

- Power Supply:-

  - Power input to be 220-240VAC, 50Hz fitted with plug, compatible with local electrical socket
  - Resettable overcurrent breaker shall be fitted for protection
  - Suitable voltage corrector/stabilizer
  - Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
- Standards and Safety:-
  - Should be compliant to ISO 13485/ISO 9001 quality systems or equivalent
  - Should be compliant with IEC 61010-1:covering safety requirements for electrical equipment for measurement control and laboratory use.
  - Should be US FDA or CE or ISI approved product
  - Attach original manufacturer's product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet. Please quote page number on compliance sheet as well as on technical bid corresponding to technical specifications.
  - Comprehensive onsite training for lab staff and support services till familiarity with the system.
- Documentation:

  - Certificate of calibration and inspection from factory.
  - List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
  - List of important spare parts and accessories with their part number and costing.
  - User/Technical/Maintenance manuals to be supplied
  - Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
  - Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

BOD INCUBATOR

Technical Specifications:-

- Double walled construction, inner chamber stain less steel, inner glass/ transparent door
- Facility for adjustable shelves to convenient heights, 10 removable shelves of stainless steel/ anodized aluminum to be supplied.
- Interior lighting facility, insulated door fitted with heavy hinges handles locking, mechanical door lock.
- Temperature range 0º to 80ºC with accuracy 0.5ºC high quality, environment friendly refrigerant.
- Independent temperature measuring through PT 100 sensor with indicator LCD display
- Recovery time short, precise regulation of temperature and acoustic alarm.
- Digital safety thermostat (class 3)
- Adjustable ventilation rate 10 – 100% thin form air circulation.
- Size of inner chamber approximately 50x60x50 cm. (or as per user requirement).

- System Configuration Accessories, spares and consumables:

  - System as specified.
  - All consumables required for installation and standardization of system to be given free of cost.

- Environmental factors

  - The unit shall be capable of operating continuously ambient temperature of 10 -45ºC and relative humidity of 15-95%.

- Power Supply:-

  - Power input to be 220-240VAC, 50Hz fitted with plug compatible with local electrical socket.
  - Resettable over current breaker shall be fitted for protection
  - Suitable Stabilizer/CVT
  - Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.

- Standards and Safety:-

  - Comprehensive onsite training for lab staff and support services till familiarity with the system.
  - Two years warranty, 3 yrs comprehensive CMC should be available with service centers in close proximity.
  - Should be US FDA or CE approved or ISI marked / equivalent standard product.
  - Should be compliant to ISO 13485:/ ISO 9001Quality systems or equivalent.

- Documentation

  - Certificate of calibration and inspection from factory.
  - User/Technical/Maintenance manuals to be supplied
  - 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
  - List of important spare parts and accessories with their part number and costing.
  - List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
  - Attach original manufacturer's product catalogue and specification sheet. Photocopy/ computer print will not be accepted.
  - All technical data to be supported with original product data sheet. Please quote page number on compliance sheet as well as on technical bid corresponding to technical specifications.

    NOTE:

    Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

BIOSAFETY CABINET

1. The system should be microprocessor based. The microprocessor must display the inflow and down flow air velocities in real time on an LED display to ensure the user knows whether or not the cabinet is working under safe operating conditions.
2. Motor must automatically adjust the air flow speed to ensure continuous safe working condition. Air flow shall be as per requirements of Biosafety regulations in respect of at least BSC II A level cabinet.
3. The cabinet noise level must be less than 60 decibel.
4. Dimensions (Cabinet Size): 4 to 6 feet. The interior of the cabinet shall be of stainless steel or equivalent material and must be smooth to ensure no risk of cuts to the users.
5. Efficiency of HEPA filter should be almost 99%
6. In order to ensure consistent and reliable down flow velocity across the supply HEPA filter over the life of the cabinet, the cabinet must use a pressure sensor (rather than anemometer) to detect pressure drop across the supply filter, rather than in just one point across the down flow. The pressure sensor must be encased in order to protect the sensor form temperature, humidity and other environmental phenomena that can impact the sensor's performance.
7. Fluorescent lamps for lighting of the interior of the cabinet. Front of the cabinet preferably be angled to help minimize glair.
8. A provision for UV light to disinfect the interior of the cabinet. UV light must be programmable to allow for specific exposure time from 0 to 24 hrs. Automatic UV switch 'OFF' on opening of front window. The front window should be made of laminated safety glass to prot4ct against leakage of UV rays and to ensure containment of potential hazardous material.
9. Safety alarm / safety display for :
   - Low air velocity
   - Faulty exhaust fan etc.
10. Power input to be 220-240 v AC, 50 Hz fitted with Indian plug.
11. CE / ISI certified or equivalent standards of repute.
12. Movable stands
13. Warranty as per bid.

14. Calibration certificate shall be provided at the time of installation in respect of all the parameters that require calibration.

15. Comprehensive training for lab staff and support services till familiarity with the system.
16. Attach original manufacturer's product catalogue and specification sheet in English.
17. Satisfactory working of quoted model from Govt. installation of repute preferably from Delhi.
18. List of important spare parts and accessories with their part number and costing.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

AUTOMATIC AIR SAMPLER

- The High Volume Air Sampler utilize a precise and versatile, venture sampling system feature electronic flow control, and meets the most recent international methods for atmospheric particulate matter measurement.
- Should have the configurations: Total Suspended Particulates (TSP), PM10 and PM205.
- The instrument should have a speed controlled brushels blower for accurate, quiet operation and 2 filter holders for easy exchange in the field.
- Should have an integrated real time clock, wide graphic display and dedicated keypad allow for user friendly sample programming. The equipment should have the selection from automatic 3 and 6 day runs or creation their own program selectable from 1 min to 168 hours.
- The equipment should be microprocessor controlled system for measurement of ambient and orifice flow temperatures, ambient and venture pressures for true mass or volumetric flow standardized with selectable reference temperature.
- Measured parameters should be logged every five seconds and recorded as five minute averages for the 24 hours run period. Run time, averages flow and standard deviation are just some of the obtainable results from the Flow Choice allowing the user to validate the sample run. Data is accessible on the display should able to downloaded to a PC via Modem (optional).
- The Equipment should have:
  - TSP, PM10 or PM2.5 Configurations
  - Easy Programming – Automatic 3 or 6 day runs or user selectable programs.
  - Quality Assurance System – Flow rate, total volume, temperature and pressure are logged and data is available for download to your PC.
  - Brushless Blower – Provides a accurate flow and quiet operation.
  - Remote Control via Modem (optional).
- Measured parameters:
  - Flow rate (standard and actual condition)
  - Total volume (standard and actual condition)
  - Ambient temperature
  - Ambient pressure
  - Pressure drop on the filter
- Conditions should be measured every 5 seconds and condensed to 5 minute log files.
- Data Memory: More than 30 sampling reports should be saved, and should be accessible through the display or by download to a PC via RS232 or modem (optional).
- Electronic sampling flow rate should be controlled at standard or actual condition.
- Sample time programming: Resolution 1 minute, selectable from 1 min. to 168h. Automatic 3 or 6 day runs.
- There should be provision of retrofitted light graphic display, dedicated keypad, real time clock and date.
- The machine should have brushless blower which should control the speed to limit noise and provide extremely accurate flow control.
- Flow Range: 1000 – 1400 L/min
- Flow Stability: ± 1% of set flow rate
- Power Requirements: 220-240 Vac, 50 Hz, 15amp.

P.T.O.

- Allowable environmental temperature operating range: 0-50^{0}C
- Dimensions 62cm x 43cm x 110cm (W x D x H) for TSP unit.(or as per user requirement).
- Detachable base: Inlet head should be easily attached on site.
- Should have dual filter cassettes to allow rotating of cartridge with filter changes in lab
- Warranty as per bid.
- Power Requirements: 230 – 240 V
- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet

- **Accessories:**
  - Ambient Gas & Particulate Monitors
  - Meteorological Equipment
  - IH and IAQ Equipment
  - Reach-In and Walk-In Equipment Shelters
  - Process Stack Gas, Particulate & Velocity Systems
  - System Design, Installation & Commissioning

- **Optional accessories:**
  - Calibration Kit Including: Orifice plate, slack tube manometer and carry case
  - Remote control via Modem GSM
  - Muffler for further noise reduction
  - Filter Papers (200mm x 250mm)
  - Calibration Contracts (conducted by qualified technician)

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

HOT AIR OVEN

- Microprocessor based digitally controlled equipment suitable for daily usage.
- Should have double walled construction, special high quality insulated steel.
- Facility for adjustable shelves, 10 removable shelves to be provided.
- Size of inner chamber approx 55x55x70 cm (or as per user demand) with internal lighting facility
- Insulated door fitted with heavy hinges, mechanical door lock.
- Temperature range 30-250^{o}C, digitally temperature setting accuracy
- Separate PT 100 sensor and display for temperature (LCD).
- Forced uniform air circulation, Digital safety thermostat.
- Delayed start and stop function, high quality heating element
- Supplied with cord & plug, operate at 220V/50 Hz AC supply
- Training of laboratory staff for the purchased equipment
- Warranty as per bid.

- Availability of spares / disposables for at least 10 years.
- All consumables required for installation and standardization of system should be provided free of cost
- List of users and Satisfactory Report of quoted model from reputed institute / hospital
- Should have all the accessories required for the functioning of the equipment.
- CE / ISI mark or other equivalent quality certification.
- All electrical peripherals required for smooth functioning e.g. voltage stabilizer provided with the equipment
- There should be provision for demonstration before final approval of equipment
- Service centre should be closed proximity.
- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet

NOTE:

- Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

DOUBLE DISTILLATION APPARATUS

- Double distillation plant with stand not wall mounted and approx. 5 – 10 liters/ hour output.
- Instant distilled water flow should be there
- Easy to operate, durable, safe for routine use.
- Quartz distiller, Demountable boiler
- Panel box and stand to accommodate regulator and electrical supply, clamps etc
- Quality of distillate – pyrogen free, PH- 6.9- 7.0.High purity, low conductivity.
- Distilled water should be heavy metal, salts, pyrogon and iron free.
- Specific Conductivity at 25 deg C less than 0.4 x 10-6S/cm
- Glass material (or chemical inert material)
- Equipment should be thermal shock proof.
- Gas vent should be there to remove volatile impurities leaving the condensate free from gaseous impurities
- Automatic low water cut off.
- Tubing should be made up of good quality rubber (heat resistant).
- Wiring of the equipment should be enclosed in Case.
- It should have deconcentrator that constantly removes a part of the boiling water from it so that the cumulative concentration of non volatile impurities in the water is prevented
- All consumables required for installation and standardization of system to be given free of cost.
- The unit shall be capable of being stored continuously in ambient temperature of 0 - 50deg C and relative humidity of 15-90%
- The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%
- Power input to be 220-240VAC, 50Hz fitted with Indian plug
- Suitable voltage corrector/stabilizer.

P.T.O.

- Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
- Should be US FDA or CE or ISI or equivalent approved product
- Warranty as per bid.
- Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001
  applicable to manufacturers and service providers that perform their own design activities.
- User/Technical/Maintenance manuals to be supplied
- Certificate of calibration and inspection from factory.
- List of important spare parts and accessories with their part number and costing.

NOTE:

- Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

SEROLOGICAL WATER BATH

- Temperature range from ambient temperature 0° to 100°C.
- Thermostatic control with an accuracy of plus minus 0.5°C
- Double walled inside stainless steel and outside mild steel sheet painted in epoxy powder coating.
- Bath consist two pilot lamp, temperature control knob and ON/OFF switch to work on 220/230 volts AC supplied with or without stirring arrangement without racks and thermometer.
- Lid of water bath is made of stainless steel 304 Qlty.

	L	M	D		
SBS-1	300mm	250mm	175mm	Suitable for 2 racks	14 Ltrs

(Or as per user requirement)

- Should be US FDA or CE / ISI or other equivalent approved.
- Audible warning safety signals should be there for high/low temperature warnings, and dry running protection.
- Instrument should have lift up bath cover.
- Carrier racks should be given for flasks and test tubes racks.
- A cock should be provided to facilitate draining of bath contents.
- Water bath protective media should be there to prevent contamination and formation of algae.
- Heating capacity - 2 KW.
- Training of laboratory staff for the purchased equipment
- Warranty as per bid.
- Availability of spares/ disposables for at least 10 years.
- All consumable required for installation and standardization of system to be given free of cost.
- List of users and satisfactory report of quoted model from reputed institute preferably Government institute/ hospitals.
- Should have all the accessories required for the functioning of the equipment.
- Equipment should be ISI certified or equivalent standard of repute.
- It should be ISO 9001:2000 or other equivalent quality certification.
- All electrical peripherals required for smooth functioning e.g. voltage stabilizer should be provided with the equipment.
- There should be provision for demonstration before final approval of equipment.
- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet

SHAKING WATER BATH

- Should be based on advanced microprocessor technology with temperature control.
- Operation through key pad.
- Bath tanks and all parts in contract with the bath liquid should be made up of high grade stainless steel.
- Filling volume should be around 20 liters. (Or as per user requirements).9
- Working temperature range- room temperature to 90° C.
- There should be a multiplay (LED) with actual value, set point, high/low temperature, for shaking frequency and times with display resolution of 0.1° C.
- Temperature stability should be ± 0.2° C.
- Temperature uniformity in the bath should be ± 0.05° C.
- Should have provision to adjust shaking frequency up to 200 RPM.
- Audible warning safety signals should be there for high/low temperature warnings, and dry running protection.
- Instrument should have lift up bath cover.
- Carrier racks should be given for flasks and test tubes racks.
- A cock should be provided to facilitate draining of bath contents.
- Water bath protective media should be there to prevent contamination and formation of algae.
- Heating capacity - 2 KW.
- Training of laboratory staff for the purchased equipment
- Warranty as per bid document.
- Availability of spares/ disposables for at least 10 years.
- All consumable required for installation and standardization of system to be given free of cost.
- List of users and satisfactory report of quoted model from reputed institute preferably Government institute/ hospitals.
- Should have all the accessories required for the functioning of the equipment.
- Equipment should be US FDA / CE or equivalent standard of repute.
- It should be ISO 9001:2000 or other equivalent quality certification.
- All electrical peripherals required for smooth functioning e.g. voltage stabilizer should be provided with the equipment.
- There should be provision for demonstration before final approval of equipment.
- Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet

MICRO PIPETTES

1. Micropipettes are micro tools constructed from anti corrosive material tubing's for microinjection and micromanipulation purposes.
2. Required in various sizes and compatible with all brands of tips.
3. Micro pipettes required in following sizes:1-10 ul, 2-20 ul, 10-100 ul, 10-200 ul,100-1000 ul, 0.1-2.5ul; 2.0-20ul; 20-200ul; 200-1000ul; 1000-5000ul.
4. Suitable for all brands of tips.
5. Adjustable for variable volume.
6. Offer high accuracy and precision variations in volume acceptable as permissible in calibration requirements.
7. With tip ejector mechanism.
8. Made of corrosion proof material.
9. Should be disinfect able to quality requirement levels.
10. Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic compatibility.
11. Should be capable of being stored and operable at ambient temperature.
12. Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001applicable to manufacturers and service providers that perform their own design activities.
13. User/Technical/Maintenance manuals to be supplied in English.
14. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
15. Certificate of Calibration and inspection from the factory.
16. List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
17. 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.
18. List of important spare parts and accessories with their part number
    and costing.

ELECTRONIC BALANCE (0.001 GM – 500 GM)

- Digitally operated
- High contrast, large LCD display for easy viewing.
- Automatic external calibration
- Conforms GLP/GMP and ISO 9001 standard.
- Various weighing units like gm, mg etc should be provided.
- User selectable stability.
- Readability : 0.001 gm
- Linearity : 0.002 gm
- Pan size : > 80 mm diameter or as per user requirement.
- Response time : 2-3 sec
- Power back up should be provided / UPS with maintenance free batteries.
- Data acquisition and storage system.
- Should have printer facility if possible.

TABLE TOP REFRIGERATED CENTRIFUGE

Table Top Refrigerated Centrifuge

(SPECIFICATION)

Sl. No.	Description
1.	A microprocessor controlled refrigerated table top micro centrifuge.
2.	It should have a maximum speed of at least 15,000 rpm or more.
3.	It should develop a RCF of at least 21,000 x g or more.
4.	It should be able to maintain temperatures ranging between -20^{0}C to + 40^0 C, while stand still and during run.
5.	It should have a working speed range at least between 200 – 15,000 rpm or better.
6.	It should have a continuous run time range at least between 10 sec. – 99th 59 min or better.
7.	It should have maintenance free induction drive.
8.	It should have a large LCD display for RPM, RCF, Temperature, Time & acceleration / deceleration.
9.	It should have a motor driven lid lick.
10.	It should have active imbalance detection and cut off.
11.	It should have a foil key board.
12.	It should have permanent indication for pre-set and actual values.
13.	It should have a facility for selection of speed in both rpm and g-force with increment of 10.
14.	It should give an audible signal at the end of each run.
15.	It should have a "Quick" key for short run.
16.	It should have at least 10 acceleration & deceleration. rates.
17.	It should have maximum capacity: 44 x 1.5/2.0 ml. Rotor to be provided for : 24 x 1.5 ml, 24x2.0ml, 40x0.2ml, 40x0.5ml.
18.	It should have storage of up to 99 runs.
19.	It should have pre cooling program.
20.	Noise level < 60dbA.
21.	System must be manufactured according to international safety regulations IEC 1010. CE approved. ISO 9001 certified.
22.	Power Supply: 220-240 V/50 Hz.
23.	A stabilizer should be provided.
24.	Warranty: 2 years as per bid documents.

NOTE:

Bidders are requested to visit AIIA, Sarita Vihar, New Delhi to assess the site condition of Equipment placement and installation in this Section. Bidders must take into consideration in its bid costs to be incurred for any additional work viz. Electrical cabling of suitable ratings, Electrical points of suitable ratings, water connection, water drainage, plumbing & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the "All inclusive lump sum price" should include all such costs.

OBS & GYNE

SPECIFICATION LAPAROSCOPE(SINGLE PUNCTURE):

1 Telescope

a)Telescope 0 degree with parallel/straight eye piece, 10 to 12 mm diameter

Equipment Specifications for Single puncture Laparoscope for female sterilization

UNSPSC Code:

ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Laparoscope is used for minimal invasive surgery and comprises of telescope and associated instruments.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System complete with Telescope and associated instruments and accessories are required for sterilization in double puncture applications		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidder Deviat if any
3.1	Specification Laparoscope(single puncture): 1 Telescope a)Telescope 0 degree with parallel/straight eye piece, 10 to 12 mm diameter with operating channel for ring applicator b)Fibre optic light transmission incorporated, should be compatible with the commonly available light cable (necessary adaptors should be provided) c)Can be sterlised by autoclaving,cidex solutions and Formalin Chamber. d)Should have 6 mm instrument channel/built in ring applicator for use with silastic rings. Working length of 270-275 mm. 2. Trocar & Cannula – Stainless Steel Cannula size + 1 mm more than the telescope diameter. should have an		

automatic silicon leaflet valve and stopcock for insufflation length 10-15 cm Trocar should have pyramidal tip.
3. Ring Applicator
Ring applicator for use with parallel/straight eyepiece telescope compatible with the above telescope, capable of loading four silastic rings
4. Cone and pusher made of white plastic (Thick)
Suitable cones and pusher for loading rings to the above applicator.
5. Bipolar Grasping forceps rotating with connector pin for bipolar coagulati size 5mm length 40-45 cm , atraumatic serrations , fenestrated jaws with lon flat non retracting jaws with handle with necessary HF bipolar cord, 300mm length with 2 4mm banana plug.(optional)
6. Unipolar Grasping Forcepswith connector pin for unipolar coagulation, 5mm, length40-45 mm, atraumatic double action jaws consisting of insulate handle without ratchet with monopolar high frequency cord 300cm or more length with 4mm plug for HF unit(optional)
7. Suction & irrigation cannula 5mm. 30-36cms. two way stop for single han control and with handle tubings.(optional)
8. Bipolar coagulating and suction tube 5mm with connector pin with pistol grip handle with trumpet valve and silicon tubings with necessary HF cord t fit into above 6mm working channel(optional)
9. Reducer for using the above instruments through 6mm instrument channel above operating channel of laparoscope.
10. Verees needle with spring loaded blunt stylet, luer lock size10 & 15 cm. Tray for storing the equipment (with cover)
11. Essential Spares
i) Spares Washers Spares washers for trocar and cannula and automatic valv
ii) Kits for cleaning- i) Trocar Brush
ii) Cannula Brush.
iii) Cleaning Oil 100 ml.

3.20. Carbon Dioxide insufflators -Specifications:
a).Electronic CO2 insufflator with pin index connection. Should have an adjustable flow rate of 0 to 30 litres per minute and a pressure range adjustab between 0-30 mm Hg.
b).Pressure and flow rate should be displayed on the front panel with display of actual and set values.
c. Provided with silicon autoclavable tubing with luer lock attachment.
d) Instrument should work on a supply of 220-240 V, with a frequency of 50 HZ single phase.
d) Optical and acoustic warning signals for pressure exceeding set limits. Constant monitoring of intraabdominal pressure with safety to reduce overpressure
e) Provision for preheating gas to body temperature.(optional)
f) Fully automatic gas refill.
g) High Pressure Hose suitable to connect the insufflator with pin indexed CO2 cylinder

	Should be supplied with CO2 cylinder, connecting pipe, main cord and silic tubing set h.) Autoclovable wrench & CO2 gas filters disposable .		
3.2	B). High intensity Xenon Light Source 1-300 watts bulb minimum 1000 hrs. with at least one spare bulb of 15V 300 watts 2- Fully automatic with light intensity continuously adjustable from 0-100% manually orautomatically by the cameras video output signal 3- Should have display of lamp service life. 4- Stand by mode 5- Monitoring of lamp function. 6- Built in antifog air pump. 7- Universal jaw assembly to adapt cable of any make. 8- Light wt. 9-Certified for international /national safety standard norms+power supply 10- Power supply 220-240 VAC 50/60 Hz. 11- Should be quoted along with spare lamp 12. Fibreoptic light cable 4.8mm in diameter and 230 - 300cms in length compatible with cold light source and commonly available telescopes (Necessary adaptors may be provided).		
3.3	Full High Definition(HD) Endoscopic camera with T.V. medical grade monitor and printer A.2)Endoscopic High Definition Camera (Digital) 1. 3X1/3 CCD image sensor. 2. Should have progressive scanning and should support 16:9 format 3. Should have option of controlling the compatible endoscopic units in hands of surgeon/ touchscreen 4. Should be compatible with 23- 26 inch monitor 16:9 HD format 5. Upgradeable 6. Resolution should be 1900 x 1080p or more 7. Light weight camera head with programmable function key 8. PAL system/ multimedia as existing in this country 9 Automatic white balancing 10. Freely programmable camera head buttons 11. Cable should have buckling protection		

12. Facilities for fine focus for smooth function. Microprocessor controlled.
13. Built in antifogging device.
14. Camera head should be compatible with telescope of any make and light of any make.
15. Integrated universal power supply
16. Compatible with medical grade monitor with multimedia projection available in this country.
17. Should have specific built in facility for camera functionality automatically optimizing all settings
18. Camera should be ready to use as soon as it is connected to camera control unit.
19 Universal coupler
20. Inbuilt electronic Fibre optic filters

B.2) Camera Control Unit
1. Should have microprocessor control
2. The Camera CCU should be capable of either down-converting HD signals to SD or up-converting SD signals to HD.
3. It should have provision of working / compatible with lower models of camera heads.
4. . It should allow images from one format to be viewed, on displays in different format ie it is the HD system is compatible with both SD and HD.
5. Should have multiple video input and out puts – BNC,RGB,Y/C, DVI-D socket,digitalSDI signal, DV for digital recording etc
6. Should have all necessary connecting cables between camera head and video monitor

C. 2 HD MEDICAL GRADE MONITOR, flat screen,LCD/LED/ TFT MONITOR
1.Desktop or wall mountable
2. Multinorm/PAL system color monitor for different color systems existing in the country.
3. Compatible with endovision camera of any makes
4.Screen size diagonal 23/24/26" Ultra high resolution, more than 2 MP.
5.Aspect ratio 16:10
6. Should preferably have advanced technology feature to perform interlace to progressive conversion of the image.
7. Number of colors should be approximately 16.8 million.
8. Viewing angle should be wide

	9. Monitor menu displays all controls, capabilities and operations via curser keys, user defined captions, easy to use and highly dependable. 10. Should be composite, have multiple video input and out puts – BNC, RGB, Y/C, SDI, DVI etc 11. Power supply of 200-240 VAC. 50 /60Hz 12.Should have facilities for recording the data on computer /digital Video recorders/CD 13. On screen menu for monitor setting , Compact and light weight ,Drip water protected dust proof , all connecting cables to be supplied 14. Brightness 400cd/m2, contrast ratio 1000:1 15. Antireflection quoted front glass. 16. Should have consistent illumination level. 17. Should preferably have facility for upgradation and should be compatible with lower models. 18. Should be supplied with power supply, monitor stand and mains cord 19. Camera, CCU, & Monitor should be compatible with each other and preferably should be of same make. D) Documentation system for storage and transfer of digital data 1- Digital storage of still HD images and video/ audio files. It should have the facility editing/cutting of recorded data. 2 Auto detection of the connected camera system on HD_SD/ SD-SDI input 5 Archiving on DVD CD- ROM or USB stick, Multi-Session and Multi –Patient 6 Network saving 7 Automatic generation of standard reports Approved use of computers and monitors in the or environment as per 60601- 1		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	All consumables required for installation and standardization of system to be given free of cost.		