

**JAWAHARLAL INSTITUTE OF POST GRADUATE
MEDICAL EDUCATION AND RESEARCH**

(AN INSTITUTE OF NATIONAL IMPORTANCE)

**Tender Document
for procurement of Lab Equipment**

TENDER NO.

HITES/IDS/16/08/JIPMERII/KIK06/LE/2016-17

Dated: 24th June 2016

By

HLL INFRA TECH SERVICES LIMITED

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SECTION I

NOTICE INVITING TENDERS (NIT) HLL Infra Tech Services Limited

Tender Enquiry No.: HITES/IDS/16/08/JIPMERII/KIK-06/LE/2016-17

Dated: 24.06.2016

1. HLL Infra Tech Services Limited,(HITES) on behalf of Jawaharlal Institute of Post Graduate Medical Education and Research,(Karakkal campus) invites bids from eligible firms of repute in two envelope system for the following procurement:

Sl.No	Item Name	Quantity	EMD in Rs.
1	Algometer	15	6000
2	Analytical balance	1	3000
3	Articulated Skelton with stand (Real Bone)	1	50000
4	Balance open pan	2	1600
5	Balance semi micro(mgs)	2	1600
6	Binocular Microscope	255	255000
7	Binocular Microscope with camera	3	24000
8	Bioharness	1	17000
9	Biosafety cabinet(Class II A2)	1	17000
10	Borosil glass pipettes a)10ml b)5ml c)2ml d)1ml e)0.2ml f)0.1ml	200 200 200 200 100 100	2400
11	Bottle dispenser	5	50000
12	Cadaver injector(Embalming machine)(Electric)	2	4000
13	Charts for Anatomy	As required	1000
14	Cold storage cabinets to keep 8 bodies.	1	14000
15	Colorimeter	6	1800
16	Deep freezer(-20 C)	1	14000
17	Digital chemical weighing machine	1	2400
18	Disarticulated Real Bone set	1	240000
19	Dissection Microscopes	5	3000
20	Double beam Spectrophotometer	1	10000
21	ECG machine - 12 Channel	5	12500
22	Electric Drill Machine	2	6000
23	Electronic weighing balance	1	5000

24	Electrophoresis apparatus with power supply	2	20000
25	ELISA reader	1	6000
26	Embryology Models	As required	10000
27	Haemoglobinometer(Sahli's)	60	3600
28	Hot air oven - Type 1	2	1600
29	Hot air oven - Type 2	1	1200
30	Hot Plate	3	300
31	Incubator - Type 1	3	4800
32	Incubator - Type 2	2	6000
33	Incubator - Type 3	1	800
34	Laboratory Refrigerator - Type 1	3	5100
35	Laboratory Refrigerator - Type 2	4	10000
36	Magnetic stirrer	2	600
37	<p>Micropipettes-</p> <p>Multichannel with adjustable volumes (10-100µL): 2 no</p> <p>Fixed volume autopipette (1000µL): 5 no</p> <p>Fixed volume autopipette (100µL): 5 no</p> <p>Fixed volume autopipette (200µL): 5 no</p> <p>Adjustable volume autopipette (100-1000µL): 5 no</p> <p>Adjustable volume autopipette (10-100µL): 5 no</p> <p>Adjustable volume autopipette (0.1-2µL): 2 no</p> <p>Adjustable volume autopipette (0.2-10µL): 2 no</p> <p>Adjustable volume autopipette (2-20µL): 2 no</p>	As required	2000
38	Models for Anatomy	As required	14000
39	Non invasive automated blood pressure monitor	1	60
40	Paraffin embedding bath	2	8000
41	Perimeter	5	1500
42	pH meter	4	4830
43	Physiograph, 3 channels, complete with accessories	1	3000
44	Rotary Microtome with Knife/blade	2	22000
45	Rotary Microtomes for paraffin sections	2	22000
46	Semi automated rotary microtome	1	20000
47	Slide Warming table-Rectangular	1	600
48	Slide filling cabinet	11	8800
49	Spirometer	6	6000
50	Table Top Centrifuge - Type 1	4	3200

51	Table Top Centrifuge - Type 2	2	2800
52	Tissue floatation bath	3	9000
53	Ultrasonic cleaner	2	10000
54	Vertical (upright) cooler	1	2500
55	Vertical autoclave	2	8000
56	Vortex mixer	2	800
57	Waterbath - Type 1	5	2000
58	Waterbath - Type 2	1	2500
59	X ray lobby-(4 plate size)	4	2400

2. Tender No.: HITES/IDS/16/08/JIPMERII/KIK-06/LE/2016-17

Sl No.	Description	Schedule
i.	Dates of sale of tender enquiry documents	24/06/16 to 16/07/16, during 1000 Hrs. to 1600 Hrs. (IST)
ii.	Place of sale of Tender Enquiry Documents	HLL Infra Tech Services Limited “ADARSH”, TC 6/1718(1), Vettamukku, Thirumala PO Thiruvananthapuram-695 006 Ph: 0471-2365872/73, FAX: 0471-2368144
iii.	Cost of the Tender Enquiry Document	Rs. 5200
iv.	Pre Tender Meeting Date & Time	05/07/16, 12:00 noon (IST)
v.	Pre Tender Meeting Venue	Same as given in 2 (ii)
vi.	Closing date & time for receipt of Tender	18/07/2016, 15:00 Hrs. (IST)
vii.	Time and date of opening of Techno – Commercial tenders	18/07/2016, 15:30 Hrs. (IST)
Viii	Venue of Opening of Techno Commercial Tender	Same as given in 2 (ii)

- 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 Rs.5200.00 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 **“HLL Infra Tech Services Limited”** payable at Thiruvananthapuram.
- deleted.
- Tenderer may also download the tender enquiry documents (a complete set of document is available on website) from the web site www.lifecarehll.com or www.nib.gov.in or cpp portal and 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 are indicated at Para 2 above.
7. Tenderers shall ensure that their tenders, complete in all respects, are dropped in the Tender Box located at **HLL Infra Tech Services Limited, “ADARSH”, TC 6/1718(1), Vettamukku, Thirumala PO Thiruvananthapuram-695 006** on or before the closing date and time indicated in the Para 2 above, failing which the tenders will be treated as late tender and rejected. The tenders sent by post/ courier must reach the above said address on or before the closing date & time indicated in Para 2 above, failing which the tenders will be treated as late tender 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. All Tenders must be accompanied by EMD as mentioned against each item. Tenders without EMD shall be rejected. However, Govt. instructions as on date on SSIs /PSUs will be applicable.
11. The purchaser reserves the right to accept or reject any tender either in full or part without showing any reason.

For and on behalf of **Jawaharlal Institute of Post Graduate Medical Education and Research**

**HLL Infra Tech Services Limited
“ADARSH”, TC 6/1718(1), Vettamukku,
Thirumala PO
Thiruvananthapuram-695 006**

SECTION - II

GENERAL INSTRUCTIONS TO TENDERERS (GIT)

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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 the organization purchasing goods and services as incorporated in the Tender Enquiry document.
- (ii) “Tender” means Bids / Quotation / Tender received from a Firm / Tenderer / Bidder.
- (iii) “Tenderer” means Bidder/ the Individual or Firm submitting Bids / Quotation / Tender
- (iii) “Supplier” means the individual or the firm supplying the goods and services as incorporated in the contract.
- (iv) “Goods” means the articles, material, commodities, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, medical equipment, scientific/laboratory equipments, industrial plant etc. which the supplier is required to supply to the purchaser under the contract.
- (v) “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.
- (vi) “Earnest Money Deposit” (EMD) means Bid Security/ monetary or financial guarantee to be furnished by a tenderer along with its tender.
- (vii) “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.
- (viii) “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.
- (ix) “Consignee” means the Hospital/Dispensaries/Institute/Medical College/ person 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.
- (x) “Specification” means the document/standard that prescribes the requirement with which goods or service has to conform.
- (xi) “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.
- (xii) “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) "deleted"
- (xxiii) "deleted"
- (xxiv) "deleted"
- (xxv) "deleted"
- (xxvi) "deleted"
- (xxvii) "deleted."
- (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) "JIPMER" means Jawaharlal Institute of Post Graduate Medical Education and Research.
- (xxxi) "The Director" means The Director, JIPMER.
- (xxxii) "CMC" means Comprehensive maintenance Contract (labour, spare and preventive maintenance)

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 quantity, delivery schedule, terms and place of delivery.
- 2.2 This section (Section II - "General Instructions to 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. Deleted

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 a notarised 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 notarised 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 & C
Section XVII	– Proforma of Consignee Receipt Certificate
Section XVIII	– Proforma of Final Acceptance Certificate by the consignee
Section XIX	– Details of Shipping arrangement for Liner Cargoes in respect of C&F/CIF/ Turnkey F.O.R. Contracts for Import

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 website as well as through email to all prospective tenderers, who 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 purchaser receives the same on or before the scheduled date of pre-bid meeting.

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) Techno-Commercial Tender (Unpriced Tender)

- 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.
- 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) deleted
- v) Power of Attorney/Authorisation in favour of signatory of TE documents
- 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 purchase orders and end users’ satisfaction certificate.
- viii) Price Schedule(s) as per Section XII filled up with all the details including Make, Model, Name of manufacturer, etc. of the goods offered with prices blank (without indicating any prices).
- ix) Certificate of Incorporation of the bidder wherever applicable.
- x) Checklist as per Section XX.
- xi) Statement of deviations parameter wise from tendered technical specifications, if any.
- xii) Statement of deviations para wise from tendered commercial conditions, if any.

B) Price Tender:

The information given at clause no. 11.1 A) viii) above should be reproduced with the prices indicated. The copies of the Previous Supply Order placed on the bidder for the same item should also be enclosed with the price bid justifying the rates quoted against this tender.

N.B.

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:

33.1.1 A 'Sole Proprietor' of the firm or constituted attorney of such Sole Proprietor.

33.1.2 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;

33.1.3 Constituted attorney of the firm if it is a company.

N.B. (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 warrant 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.

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 deleted

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.

- 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.

The price quoted by the tenderer for indigenous goods shall not be higher than the lowest price charged for the goods of the same nature, class or description to an individual/ firm/ organisation or department of Govt. of India.

If it is found at any stage that the goods as stated have been supplied at a lower price, then that price, with due allowance for elapsed time will be applicable to the present case and the difference in cost would be refunded by the supplier to the purchaser, if the contract has already been concluded.

- 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 finished goods in India if the contract is awarded;
- c) charges towards Packing & Forwarding, Inland Transportation, Insurance, 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 deleted

- 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.
- a) 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 relief, 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 entry tax/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 deleted

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 deleted

a. 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.

b. **The ownership of the supplies/equipments/goods belongs to Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER).**

14. deleted.

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.

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) deleted
 - 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) deleted.
 - d) deleted.

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 misleading 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(B) 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. The earnest money deposit lying with HITES. in respect of other tenders awaiting approval or rejection will not be adjusted towards earnest money for fresh tender.
- 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. 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). In case NSIC quote on behalf of some SSI units, such offers will be considered as offers from SSI units registered with DGS&D/NSIC.
- 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 scheduled commercial bank in India or country of the tenderer, in favour of the "**HLL Infra Tech Services Limited**" payable at Thiruvananthapuram. In case of bank guarantee, the same is to be provided from any scheduled commercial bank in India 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.
- a. 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.
- b. deleted

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 opening of techno-commercial tenders 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 two copies of its tender marking them as "Original" and "Duplicate". Duplicate tenders may contain all pages including Technical Literature/Catalogues as in Original tenders.
- 21.3 The original and duplicate 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 All 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 copy of the tender in separate envelopes, duly marking the same as "Original", "Duplicate" 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 along with envelope containing EMD, 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 (along with envelope containing EMD)'** 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 **HLL Infra Tech Services Limited, "ADARSH", TC 6/1718(1), Vettamukku, Thirumala PO Thiruvananthapuram-695 006**. In case of bulky tender, which can not be put into tender box, the same shall be submitted by the tenderer by hand to **DVP(tech.)** or his nominee, **HLL Infra Tech Services Limited, "ADARSH", TC 6/1718(1), Vettamukku, Thirumala PO Thiruvananthapuram-695 006**. The officer receiving the tender will give the tenderer an official receipt duly signed with date and time.
- 1.2 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 shall be opened at a latter date, which will be notified to such tenderers. 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. Preliminary 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 Prior to the detailed evaluation of Price Tenders, pursuant to GIT Clause 34, the Purchaser will determine the responsiveness of each Tender to the TE Document. For purposes of these clauses, a responsive Tender is one, which conforms to all the terms and conditions of the TE Documents without material deviations. Deviations from, or objections or reservations to critical provisions such as those concerning **Performance Security (GCC Clause 5), Warranty (GCC Clause 15), EMD (GIT Clause 19), Taxes & Duties (GCC Clause 20), Force Majeure (GCC Clause 26) and Applicable law (GCC Clause 31) will be deemed to be a material deviation.** 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 requirements, 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 summarily ignored.
- 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) deleted.
 - (vi) Tenderer has not agreed to give the required performance security.

- (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, terms of delivery, liquidated damages clause, warranty period.
- (ix) Poor/ unsatisfactory past performance.
- (x) Tenderers who stand deregistered/banned/blacklisted by any Statutory Authorities as per Govt. rules/procedures.
- (xi) Tenderer is not eligible as per GIT Clauses 5.1 & 17.1.
- (xii) Tenderer has not quoted for the entire quantity in the schedule as specified in the List of Requirements.
- (xiii) Tenderer has not quoted for CMC wherever required.

28. Minor Informality/Irregularity/Non-Conformity

- 28.1 If during the preliminary examination, the purchaser find any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the tenderers. Wherever necessary, 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.
- 28.2 The purchaser may seek clarifications of historical nature from the tenderers, which has no bearings on prices.

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 TT selling rate of exchange as quoted by authorised exchange banker approve 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 & offer discount for combined schedules. Such discounts wherever, applicable will be taken into account to determine the lowest evaluated cost for the purchase in deciding the successful tender for each schedule subject to tender(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 based on the terms of delivery as asked for in bid document. The quoted prices and CMC prices will also be added for comparison/ranking purpose for evaluation.

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.

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, inter alia, 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" 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 without any change in the unit price and other terms & conditions mentioned in the contract, during the currency of the contract.

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 be 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 by registered / speed post.
- 42.3 The Purchaser 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 EMD

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 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)

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.

SECTION - IV

GENERAL CONDITIONS OF CONTRACT (GCC)

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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, the supplier shall furnish performance security to the Purchaser 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.**
- 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 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 Consignee.

- b) 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.

- 5.3 In the event of any failure /default of the supplier with or without 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 (CMC) 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 to their final destination as indicated in the contract), rough handling, extreme weather conditions etc. so that there is no 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 in SCC. 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 in SCC, 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. The goods, should, on no account be dispatched /delivered without getting the same inspected and passed by the inspecting officer stipulated in the contract.
- 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. On rejection the supplier shall remove such stores within 14 days of the date of intimation of such rejection from consignee's premises. If such goods are not removed by the supplier within the period aforementioned, the purchaser/consignee may remove the rejected stores and either return the same to the supplier at his risk and cost by such mode of transport as purchaser/consignee may decide, or dispose of such goods at the supplier's risk to recover any expense incurred in connection with such disposals and also the cost of the rejected stores if already paid for.
- 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 as specified in the list of requirement.

10. Transportation of Goods

10.1.1 deleted

10.1.2 deleted

10.1.3 The procedure followed as above should be intimated to the purchaser.

10.1.4 Supplies being on DDP basis, the same shall be arranged by the supplier/its Indian agent as per the terms of the contract.

10.1.5 The agent shall take proactive measures before arrival of equipment/stores/goods at port of and obtain necessary statutory permits- entry permit, road permit, Octroi exemption, etc. from the concerned authority to avoid any hold up and/ or delay in supplies.

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. The supplier shall be responsible for all loss, destructions, damage or deterioration of or to the goods from any cause whatsoever while the goods after approval by the inspector are awaiting despatch or delivery.

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 arrive in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from "warehouse to warehouse" (consignee site) on all risk basis. The insurance cover shall be obtained by the Supplier **making the consignee as beneficiary** and should be valid till 3 months after the receipt of goods by the Consignee.

ii) deleted.

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 supplied to the Purchaser/Consignee promptly on receipt of order from the Purchaser/Consignee.

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

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) Two copies of packing list identifying contents of each package;
- (iii) Inspection certificate issued by the nominated Inspection agency, if any.
- (iv) Certificate of origin;
- (v) Insurance Certificate as per GCC Clause 11.
- (vi) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

B) deleted

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 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 This comprehensive warranty shall remain valid for **2 (two) years** after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the Purchaser/Consignee in terms of the contract, unless specified otherwise in the SCC.
- a. No conditional warranty will be acceptable.
 - b. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories.
 - 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 24 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 24 months from the date such rectified / replaced goods starts functioning to the satisfaction of the purchaser. In case the supplier is not able to rectify the defects to the full satisfaction of the purchaser the goods shall have to be replaced free of any charge with a new one and fresh warranty as per Clause 15.2 above shall be applicable. The decision of the purchaser in this respect shall be final and binding on the supplier.
- 15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 24 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 (CMC) 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.

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/consignee.

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:

80 % payment of the contract price shall be made 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) Manufacturer's/Supplier's warranty certificate
- (vi) Insurance Certificate as per GCC Clause 11;
- (vii) Certificate of origin (only in case of goods of foreign origin located in India).

b) On Acceptance:

Balance 20 % 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.

B) deleted.

C) Payment for Annual Comprehensive Maintenance Contract (CMC) Charges:

- 21.1 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 deleted.
- 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 the purchaser.
- 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 (upon provision if any in contract) of duties, taxes etc. (like sales tax, excise duty etc) 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 contract and the delivery must be completed not later than the date(s) as specified in the Contract.
- 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, inter alia 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.

23. Passing of Property:

- 23.1 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.
- 23.2 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.
- 23.3 Unless otherwise agreed, the goods remain at the supplier's risk until the property therein is transferred to the purchaser.

24. Liquidated damages

- 24.1 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.

25. Termination for default

- 25.1 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.
- 25.2 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.
- 25.3 Unless otherwise instructed by the Purchaser/Consignee, the supplier shall continue to perform the contract to the extent not terminated.

26. Termination for insolvency

- 26.1 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.

27. Force Majeure

- 27.1 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.

- 27.2 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.
- 27.3 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.
- 27.4 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.
- 27.5 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.

28. Termination for convenience

- 28.1 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.
- 28.2 The goods and services that 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.

29. Governing language

- 29.1 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.

30. Notices

- 30.1 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.
- 30.2 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.

31. Resolution of disputes

- 31.1 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.
- 31.2 If the parties fail to resolve their disputes of differences 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. Such dispute or difference shall be referred to the sole arbitrator appointed by the CEO of HITES. 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 lakh (Rs. 1,00,000/-)
- 31.3 Venue of Arbitration: The venue of arbitration shall be Thiruvananthapuram, Kerala (India).

32. Applicable Law

The contract shall be governed by Sales of Goods Act and Indian Contract Act. It shall be interpreted in accordance with the laws of India for the time being in force.

33. 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 contract 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 out of 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.

34. General/ Miscellaneous Clauses

- 34.1 Each member/constituent of the Supplier/its Indian Agent/CMC/AMC Provider, in case of consortium shall be jointly and severally liable to and responsible for all obligations towards the Purchaser/Consignee for performance of contract/services including that of its Associates/Sub Contractors under the Contract.
- 34.2 The Supplier/its Indian Agent/CMC Provider shall at all times, indemnify and keep indemnified the Purchaser against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while Providing its services under CMC or the Contract.
- 34.3 The Supplier/its Agent/CMC Provider shall, at all times, indemnify and keep indemnified the Purchaser/Consignee 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.
- 34.4 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:

DEPARTMENT WISE LIST OF ITEMS FOR JIPMER - KARAIKAL			
Sl.No	Item Name	Quantity	Department
1	Algometer	15	Physiology
2	Analytical balance	1	Microbiology
3	Articulated Skelton with stand (Real Bone)	1	Anatomy
4	Balance open pan	2	Biochemistry
5	Balance semi micro(mgs)	2	Biochemistry
6	Binocular Microscope	255	Anatomy (80 Nos) Microbiology (70 Nos) Pathology (50 Nos) Physiology (55 Nos)
7	Binocular Microscope with camera	3	Anatomy (01 No) Biochemistry (02 Nos)
8	Bioharness	1	Physiology
9	Biosafety cabinet(Class II A2)	1	Microbiology
10	Borosil glass pipettes a)10ml b)5ml c)2ml d)1ml e)0.2ml f)0.1ml	200 200 200 200 100 100	Biochemistry
11	Bottle dispenser	5	Biochemistry
12	Cadaver injector(Embaling machine)(Electric)	2	Anatomy
13	Charts for Anatomy	As required	Anatomy
14	Cold storage cabinets to keep 8 bodies.	1	Anatomy
15	Colorimeter	6	Biochemistry
16	Deep freezer(-20 C)	1	Microbiology
17	Digital chemical weighing machine	1	Physiology
18	Disarticulated Real Bone set	1	Anatomy
19	Dissection Microscopes	5	Anatomy
20	Double beam Spectrophotometer	1	Biochemistry
21	ECG machine - 12 Channel	5	Physiology
22	Electric Drill Machine	2	Anatomy
23	Electronic weighing balance	1	Pathology

24	Electrophoresis apparatus with power supply	2	Biochemistry
25	ELISA reader	1	Biochemistry
26	Embryology Models	As required	Anatomy
27	Haemoglobinometer(Sahli's)	60	Physiology
28	Hot air oven - Type 1	2	Biochemistry
29	Hot air oven - Type 2	1	Microbiology
30	Hot Plate	3	Pathology
31	Incubator - Type 1	3	Anatomy (02 Nos) Biochemistry (01 No)
32	Incubator - Type 2	2	Microbiology
33	Incubator - Type 3	1	Pathology
34	Laboratory Refrigerator - Type 1	3	Anatomy
35	Laboratory Refrigerator - Type 2	4	Biochemistry (02 Nos) Pathology (01 No) Physiology (01 No)
36	Magnetic stirrer	2	Biochemistry
37	Micropipettes- Multichannel with adjustable volumes (10-100µL): 2 no Fixed volume autopipette (1000µL): 5 no Fixed volume autopipette (100µL): 5 no Fixed volume autopipette (200µL): 5 no Adjustable volume autopipette (100-1000µL): 5 no Adjustable volume autopipette (10-100µL): 5 no Adjustable volume autopipette (0.1-2µL): 2 no Adjustable volume autopipette (0.2-10µL): 2 no Adjustable volume autopipette (2-20µL): 2 no	As required	Biochemistry
38	Models for Anatomy	As required	Anatomy
39	Non invasive automated blood pressure monitor	1	Physiology
40	Paraffin embedding bath	2	Anatomy
41	Perimeter	5	Physiology
42	pH meter	4	Biochemistry
43	Physiograph, 3 channels, complete with accessories	1	Physiology
44	Rotary Microtome with Knife/blade	2	Anatomy
45	Rotary Microtomes for paraffin sections	2	Anatomy
46	Semi automated rotary microtome	1	Pathology
47	Slide Warming table-Rectangular	1	Anatomy
48	Slide filling cabinet	11	Pathology (01 No) Physiology (10 Nos)
49	Spirometer	6	Physiology

50	Table Top Centrifuge - Type 1	4	Biochemistry
51	Table Top Centrifuge - Type 2	2	Pathology (01 No) Physiology (01 No)
52	Tissue floatation bath	3	Anatomy (02 Nos) Pathology (01 No)
53	Ultrasonic cleaner	2	Biochemistry
54	Vertical (upright) cooler	1	Microbiology
55	Vertical autoclave	2	Microbiology
56	Vortex mixer	2	Biochemistry
57	Waterbath - Type 1	5	Biochemistry
58	Waterbath - Type 2	1	Microbiology
59	X ray lobby-(4 plate size)	4	Anatomy

Part II: Required Delivery Schedule:

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

Within **30 days** from date of Notification of Award. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period).

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13. Installation & commissioning shall be completed within 15 days of handing over the site of installation complete in all respect by the consignee/site in charge. The date of handing over of the site has to be intimated by the supplier to the purchaser. The delay on the part of the supplier to install and commission the equipment will attract the provisions as contained in the liquidated damage clause.

Part IV:

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

Part V:

Annual Comprehensive Maintenance Contract (CMC) as detailed in **General Points** in Technical Specification.

Part VI:

Required Terms of Delivery and Destination.

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

Delivery required at Consignee Site.

b) deleted

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

Part VII:

Inspection:

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

At consignee site by the respective In-charge of the Institute or his authorised representative.

Section – VII

Technical Specifications

Note 1: Tenderer's attention is drawn to GIT clause 18 and GIT sub-clause 11.1(c). The tenderer is to provide the required details, information, confirmations, etc. accordingly failing that it's tender is liable to be ignored.

Note 2: OPTIONAL ITEMS: Bidders are requested to quote for all the available options as asked in the bidding document with reasonable pricing. However the pricing for optional items will not be considered for price comparison for ranking purpose.

TECHNICAL SPECIFICATION

1. **Algometer**

Specifications:

1. For assessing pain sensation
2. Made up of steel body with the outer tube being pushed over the inner tube when pressed
3. The inner tube displays the marks for force generated
4. When the pressure is released from the outer tube, the marker stops at the level of force chart indicating the force generated by the effort.

2. **Analytical Balance**

Specifications:

1 Description of Function

- 1.1 Electronic Balance is required for precision weighing of Lab samples.

2 Operational Requirements

- 2.1 Microprocessor based single pan Analytical Balance with High accuracy & precision is required.
- 2.2 Reading of the weight by digital display.
- 2.3 Electronic top loading balance with transparent case
- 2.4 The balance should have functions of piece counting, percent weighing, formulation, dynamic weighing with automatic and manual start and provision for data interface.

3 Technical Specifications

- 3.1 Weigh accurately up to 3rd decimal place
- 3.2 Fully automatic time and temperature controlled internal calibration and balance should be capable to adjust itself
- 3.3 Auto zero Setting
- 3.4 Weighing capacity up to 120g
- 3.5 Readability 0.001g
- 3.6 Repeatability 0.09mg
- 3.7 Setting time 1.5 second
- 3.8 Suitable for internal and external adjustment weights
- 3.9 Balance should have
 - Liquid Crystal Display (LCD) for display
 - Stainless steel square weighing pan
 - IR sensors for hands free operation
 - warns if balance is not correctly levelled
 - automatic and detachable draft shield
 - Detachable and adjustable terminal
 - QM tool box, including user administration and password protection
 - Integrated automatic safety function for external routine operations
 - Alphanumeric data entry of 4 ID's

4 System Configuration Accessories, spares and consumables

- 4.1 As specified

5 Environmental factors

- 5.1 Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
- 5.2 This unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.

6 Power Supply

- 6.1 Power input to be 220-240VAC, 50Hz
- 6.2 Suitable Auto voltage corrector with spike protector should be available.
- 6.3 Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
- 6.4 Resettable overcurrent breaker shall be fitted for protection

7 Standards and Safety

- 7.1 Should be FDA or CE or ISI approved product
- 7.2 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
- 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.

3. Human Skeleton Articulated (Real Bones)

Specifications:

1. Description of Function

- 1.1.** Mounted skeleton, one with the various parts connected in such a way as to demonstrate normal relationships and allow motion between components as in the living body.

2. Technical Specifications

2.1 The articulated skeleton should be ideal for teaching the basics of human anatomy.

- i. Adult Male & Female - 2 set each.
- ii. Child – Male & Female - 1 set each.

2.2 It should be real skeleton of a life size human skeleton and should show all skelton part in high details.

2.3 The arms, legs and skull cap should be removable for study.

2.4 All of the joints, sutures, fissure, formina and processes should be portrayed with at most accuracy/ intact.

2.5 Should be supplied with 5 caster roller stand.

2.6 It should be neat and clean.

2.7 Origin of muscles should be marked & painted in RED colour and insertions should be marked and painted in BLUE colour (Only 1 set should be marked).

4. Balance (Open pan)

Specifications:

1. Readability: 0.01 gm
2. Capacity: up to 500 gm
3. Linearity: + /- 0.02 gm
4. Repeatability: 0.01 gm
5. Operating temperature: 0- 45°C
6. Pan Size (diameter): 100 - 110 mm
7. Response time: 1 - 3 Seconds
8. Calibration: External
9. Display: Backlit LCD display
10. Power supply: 220 – 230 V AC \pm 10% 50 Hz
11. Should be FDA or CE or BIS approved product

5. **Balance (Semi micro)**

Specifications:

1. Should have Readability of 0.1 mg
2. Should have a weighing Capacity of 0-200 gm
3. Linearity should be ± 0.2 mg
4. Repeatability should be 0.1 mg
5. Should work on an operating temperature of 0 to 45° C
6. SS Pan Size (diameter): ≥ 80 mm
7. Response time should be within 1-2 Seconds
8. Should have internal calibration facility
9. LCD screen for displaying measured values
10. Should have Glass shield cabinet
11. Power supply: 230 V AC $\pm 10\%$ 50 Hz
12. Should be FDA or CE or BIS approved product

6. **Binocular Microscope**

Specifications:

Student upright Binocular Microscopes (with inbuilt light source & imported achromatic optics).

1. Binocular microscope with universal infinity par focal corrected optical system.
2. LED light source illumination.
3. Rigid frame with ergonomics design.
4. Binocular observation tube with inclination of 45/30 degrees.
5. Built in torque adjustable focusing knob.
6. Mechanical stage with rigid hand coaxial control.
7. Abbe full plan Achromat condenser, Iris diaphragm.
8. Revolving Quadruple (5) nose piece (for objectives).
9. Full Plan achromat Parfocal objectives 4X, 10X, 20X, 40X, 100X (Oil) –
10. 40X, 100X objective should be spring loaded.
11. Eye piece 12X (FOV 20) – Magnification (wide angle eye piece).
12. Antifungal treatment should be applied to the observation tube, eyepiece and objective.
13. Accessories, dust cover and power cord.
14. Eye pieces pointers – 10 nos.
15. Power requirement 220 V/50 Hz.
16. Should be CE certified/FDA /BIS approved product.
17. Observation tube - should be Seidentopf type.
18. Warranty & CMC as per tender terms.

19. Spare bulbs per microscope 2 in number should be supplied for each microscope.
20. Power cord must be atleast 1.5 meters in length.

7. Binocular Microscope with camera

Specifications:

1. Digital Research Microscope with CCD Camera.
2. Observation Tube - Siedentopf Trinocular, 30 deg inclined 360 deg rotatable. IPD range 52-75mm.
3. Eyepiece - Focusable WF 10x (18mm/ 20mm).
4. Revolving Quintuple nose piece (for objectives)
5. Objectives - RP Series Infinity Corrected Plan 4X, 10X,40X(Spring Loaded), 100X (Spring Loaded, Oil Immersion)
6. Illumination - 6V 20 W Halogen Lamp with 5 spare lamps
7. Image Device - 2/3" CCD Camera - Resolution 1.4MP or better with suitable mount
8. Light Sensitivity - 1 Lux
9. Interface - USB
10. Software - Image Analysis Software
11. System Requirements – Suitable PC having 19" Colour LCD/TFT Monitor, CPU: RAM: 4 GB or more, Hard Disk Space: 500 GB or more, CD/DVD-ROM drive and USB port 3.0. Power adapters/ cables etc for projection and LAN transmission.
12. Should be supplied with compatible colour printer.
13. Manufactures/Supplier should have ISO certificate to Quality Standard.
14. Should be FDA/CE approved product.
15. Equipment should be installed and demonstrated.
16. Training should be given to at least two faculties.

8. Bioharness

Specifications:

Measuring Parameters	: Heart rate, Respiration rate, temperature, posture and activity
Sensors	: Heart rate, respiration, activity and temperature
Heart rate sensor range	: 25 – 240 BPM with resolution 1 BPM
Respiratory sensor range	: 3 – 70 BPM with resolution 1 BPM
Activity	: (\pm) 3.3g in each axis (Vertical/Lateral/Sagittal)
Skin Temperature	: 10°C to 60°C with accuracy \pm 0.2°C
Strap Fabric	: Washable conductive smart fabric (in small, medium and large

	size)
Operating Temperature	: 30° to 60° C
Wireless	: Up to 2.5 Km
GPS Accuracy	: Within 5 meters
Battery	: Li-Ion rechargeable batteries
Run Time	: Up to 8 hours
Software monitoring	: Suitable upgradable software for onscreen recording, and analysis
Connectivity	: USB / Bluetooth connectivity
Accessories	: Laptop with latest configuration
	Chest strap with shoulder support harness – 4 Nos
	USB charging cable with AC adapter
	4 wireless modems
	Rugged carrying case
	Complete accessories
Warranty	: As per tender terms
AMC	: As per tender terms
Free Installation and demonstration	

9. **Biosafety Cabinet Class II A2**

Specifications:

1 Type: BIOSAFETY CABINET, CLASS II A2 (As per NSF guidelines) NSF 49 Certified.

Use of the Equipment: - Transfer of microorganisms to media containers.

2 The basic equipment shall consist of exhaust HEPA filter,

‘Supply HEPA filter, HEPA filter for supply air, negative pressure exhaust plenum, front opening sash with either counter weight of motorized movement, suitable blower assembly, necessary lighting, indicators and controls for the cabinet.

3 The equipment should be mounted on a stand with levelling feet. The exhaust plenum should be under negative pressure, hard ducted to the outside.

4 HEPA FILTER: Face dimensions: 4ft. (L) X 2ft. (W) X 6ft . The HEPA filter should have rated efficiency of 99.97% (or better) at 0.3 microns to provide product protection of Class100 or exceeding Class 100 requirements of Federal Standards 209E or equivalent ISO within the work area.

5 **Face Velocity:** At least 100 fpm

Light Intensity at work surface: 800 lux or more over the entire work surface.

Noise level : <70 dBA.

UV germicidal lamp intensity: >40 microwatt/sq.cm over the entire work surface.

6 **Construction:** Main body, side and rear panel: Electro- galvanized Steel or Mild Steel, oven baked epoxy powder coated finish. Workable (surface): SS304 or SS 316. Switches and

indicators: Individual switches and indicator lamps for blower motor, florescent lamp and UV lamp.

7 Differential pressure gauge : Scale display in cms of water

Electrical protection : The LAF should be fitted with earth leakage circuit breaker (ELCB)

8 Other fittings required for Attaching auxiliary services : Electrical outlet socket (5 ampere rating) qty: 2 nos.

Prefilter :- one

9 The Biosafety Cabinet should be tested and comply with the following requirements (at site):-

1. Down flow velocity and Volume Test.
2. Inflow Velocity Test.
3. Airflow Smoke Pattern Test.
4. HEPA Filter Leakage Test.
5. Cabinet Leakage Test.
6. Electrical Leakage : Ground Circuit Resistance and . Polarity Test
7. Lighting Intensity Test.
8. Vibration Test.
9. Noise Level Test.
10. UV Lamp Intensity Test.
11. Alarms and indicators test (if provided).
12. The differential pressure gauge should be calibrated.

10 Spare accessories : HEPA Filter (one)-dimensions same as above, Prefilters (two).

11 Equipment quoted should Comply with Indian Standards Institutions Guidelines or any other

National or International Guidelines. Note:- All the tests will have to be conducted after installation at the laboratory site by the supplier

10. Borosil glass pipettes

Specifications:

Should be sturdy, strong and safe for repeated use and can be sterilized and cleaned conveniently.

One end of the pipette should be blunt and fire-polished and the other gently tapered and fire polished.

10 mL	200 no
5 mL	200 no

2 mL	200 no
1mL	200 no
0.2 mL	100 no
0.1 mL	100 no

11. Bottle dispenser

Specifications:

Should be autoclavable with smooth effortless plunger movement

With bubble free dispensing

0.25 to 2.5 mL	:	5 no
0.5 to 5 mL	:	5 no
1 to 10 mL	:	5 no
5 to 60 mL	:	5 no
10 to 100 mL	:	3 no
50 to 400 mL	:	2 no

12. Embalming Machine – Peristaltic Pressure Pump

Specifications:

1. Should have a Pressure range: 0 to 80 lbs
2. Should have a flow Rate: 0 to 1 gpm
3. Constant Pressure and/or Pulsating Feature on the Flip of a Switch.
4. Should have 1/6 hp motor – quieter, smoother running
5. Should have Automatic shut off when fluid runs out
6. SST Pulsator
7. No creep controls
8. Nylon dipped cabinet
9. Quick Disconnect Hose standard
10. In line stop cock
11. Should have a pilot light to show when machine is operating

13. Charts for Anatomy

Specifications:

All charts should be 26" x 20" size multi color, thick laminated with roller on up and lower end, wall hanging type.

NAME OF CHART

CHARTS ON ANATOMY

1. The Muscular System
2. The Skeletal Systems
3. The Vertebral Column
4. Rib, Vert, System & hyoid Bone
5. The Nervous System
6. The Anatomy of the Brain
7. The Spinal nerves
8. The Autonomic nervous System
9. The vascular System and Viscera
10. The Heart
11. The Lymphatic System
12. Skull External and Internal Surfaces
13. The Head and Neck
14. The Respiratory System
15. The Eye
16. The structural Anatomy of the eye
17. The Eye. Anterior & Posterior chambers
18. The Ear, Nose & Throat
19. The Ear - Organs of hearing & Balance
20. Pharynx & Larynx
21. Anatomy of the inner ear
22. Temporomandibular Joint (TMJ)
23. The Skin
24. The Female Reproductive System
25. The Male Reproductive System

26. Pregnancy & Birth
27. The Male & Female External Genitalia
28. Critical Stages of foetal development. 1st.lunar month - 10th lunar month
29. The Endocrine System
30. The Shoulder and Elbow (Ligament)
31. Shoulder, Arm, Elbow, forearm & Head
32. The Hand and Wrist (Ligament)
33. Male, Female pelvis, Sacrum, Coccyx, Hip and Knee
34. Hip Thighs, Knee and Leg
35. The Foot and Ankle (Ligament)
36. Ankle and Foot
37. Skeletal Maturation & Growth
38. The Digestive System
39. The liver
40. The Urinary Tract
41. The Kidney
42. The Prostate
43. The portal System
44. Structure of Cell
45. Soft Tissues of the Lower Limb
46. Soft Tissues of the Foot
47. Bones of the pelvis and Lower Limb
48. Varicose Veins
49. (a) External Morphological Features in Male Female
 - (b) Sex Differentiating Features in Skull (One Chart)
50. (a) Sex Differentiating Features in Mandible
 - (b) Sex Differentiating Features in hip Bone
 - (c) Sex Differentiating Features in Sacrum (One Chart)
51. (a) Sex Differentiating Features in Articulated pelvis In addition to those present in hip bone & sacrum

- (b) Sex Differentiating Features in Femur... (One Chart)
52. (a) Estimation of Age-Ages of Eruption of teeth
- (b) International system of numbering the Teeth..... (One Chart)
53. (a) Aged of appearance and fusion of different Ossification of bones.
- (b) Multiplication factor for different bones for calculation of persons of different parts of India..... (One Chart)

14. Mortuary Cooler/Refrigerator with arrangement to keep 8 bodies

Specifications:

1. Corrosion free interior and exterior.
2. Audio visual alarm for high and low temperature.
3. Designed for long storage of cadavers.
4. PUF insulation on all sides.
5. Special design ensuring best hygiene with washing & draining facility.
6. Reliable
7. Tray or Trolley should be available in the mortuary chamber so that the cadaver can be pushed inside or pulled outside the chamber smoothly.
8. Energy efficient and sturdy construction.
9. Light weight.
10. Digital temperature indication.
11. Low maintenance.
12. Microprocessor based / PLC temperature control.
13. Outer body of the mortuary chamber is constructed out of thick S.S sheets. The inner chamber made of heavy gauge stainless steel sheet of SS-304 grade. The 100mm gap between the walls filled high grade poly urethane insulation, which ensures maximum thermal efficiency.
14. The doors connected by very sturdy chrome plate hinges and fitted with hard chrome plated lubricated latches for opening of the door.
15. The doors made of galvanized steel sheets, lined with stainless steel for extra protection and long life.
16. All the doors fitted with high quality neoprene rubber gaskets for airtight fittings with very sturdy casters.
17. CFC free compressors, conforming to latest international standards and guidelines.

18. Vapour proof lamp inside.
19. Temperature range -2 to 4 deg C with temp failure alarms.
20. Suitable Voltage automatic stabilizer O/P 230 +/- 10% I/P 150 – 280Volts.
21. To be installed at each site as per the site conditions.
22. The unit should be (2 x 4) format.
23. The system should be CE/FDA/BIS approved product.

15. Colorimeter

Specifications:

Filters: seven glass filters

Photometric range : 0 t 100% T (Transmittance)
0-2 Abs (Absorbance)

With digital read outs

Sample container: square cuvette 10×10×45 (mm)

round cuvette : 10 mm internal diameter, 12 mm outer diameter, length 105 mm

works on 230V, 50 Hz

accessories

Filter case : 1 pc

Filters : 7 pc

Analogue output cable 1 pc

Power cord 1 pc

Operational manual - 1 pc

Bulbs : 5 nos.

Extra cuvettes : 10 no

16. Deep Freezer (-20°C)

A. Specifications:

Ultra Low Temperature Freezer – with operating temperature of (-20) Deg C having internal volume approximately 400 Litres, External casing should be powder coated galvanized sheet metal, non-corrosive.

B. Main Features:

1. Internal Casing: Stainless steel with 4 lockable castors.
2. Heated door sealing, lockable doors.
3. Five compartments, each with separate inner doors for better sample protection through minimum sample warming.
4. Adjustable shelves.
5. Polyurethane Insulation around 150mm for better thermal insulation and sample safety in case of power failure.

C. Refrigeration:

1. Refrigeration – CFC and HCFC free.
2. Cascade cooling system with two hermetic compressors.

D. Control Unit:

1. Microprocessor controlled.
2. Temperature deviation of maximum ± 3 K.
3. Ambient temperature: 16 to $+32^{\circ}\text{C}$.
4. Actual temperature display with at least 20mm LED display for better visibility.
5. Key Board lockable Battery Powered.
6. Optical and acoustical alarm system for high and low temperature.
7. Voltage stabilizer.

E. Should be FDA or CE or BIS approved product

17. Digital Chemical Weighing Balance

Specifications:

1. Electronic balance with glass cover and spatula.
2. Digital display of weight.
3. Capacity 0.01g – 500g
4. Accuracy $\pm 0.01\text{g}$
5. Firm will have to supply the stabilizer if required along with the equipment free of cost.
6. Electrical: The equipment should be able to operate at 220 V, 50 Hz, single phase AC supply. Also should operate on DC supply.
7. Product should be CE/FDA/BIS approved.
8. Warranty: As per tender terms.
9. Free Installation and demonstration should be given

18. Complete Human bones set dis articulated (Real Bones)

Specifications:

1. Real skeleton of life size human bone and should show all skeleton part in high details.
2. The disarticulated adult bone set for teaching the basics of human anatomy.
3. It should be neat and clean.
4. Should include Fetal Skull – 2 Numbers.
5. Should contain adult disarticulated bones (male and female) – 15 each.
6. Should submit license for sale of human bones.

19. Dissecting Microscope

Specifications:

1. Eye piece: Straight binocular type wide field (10 x)
2. Optic carriers with five steps magnification
3. Fine focusing- manual
4. Objective 250mm f & 400 mm f
5. Cold light co-axial illumination additional 10 spare bulbs
6. Solid metallic body with sturdy stand riding on heavy castor wheels with locking breaks.
7. Halogen illuminations 150W with power supply.
8. Should have 3 spare lamps with each unit.

B Power Supply

Power input to be 220-240VAC, 50Hz

CE or BIS approved product or equivalent.

20. Spectrophotometer UV-VIS, double beam

Specifications:

UV/Vis spectrometer with PC control

Solid Aluminum chassis for thermal and vibration stability .

Optics:

Double beam sealed, quartz coated, with monochromator Grating

Concave holographic grating with 1000 lines/mm or better.

Detector: silicone photodiode or photomultiplier (PMT)

Sources: Pre-aligned deuterium and tungsten-halogen lamps with automatic switch

over

Wavelength Range: 200-1100 nm or better

Stray Radiation/Light: <0.007% T at 220nm (NaI) or better

Wavelength Accuracy: Minimum +/- 0.2 nm at D2 peak, 656.1 nm or better.

Band-pass/Band width: Variable bandwidth setting

Scan speed: 2000nm/min

Photometric Accuracy: +/-0.005 A at 1A or better

Photometric Reproducibility (at 1A): 0.001 A (MAXIMUM DEVIATION OF 10

MEASUREMENTS) or better

Photometric Stability (at 1A): 0.00015A/h (at 500nm for 1.0 sec) or better

Baseline Flatness (1nm slit): ±0.001A or better

Photometric Noise Level at 500nm (1nm Slit): 0.0001 A RMS or better

Cuvette chambers to hold 4 cuvettes, 1 for blank, 3 samples for samples with matching cuvettes

Standard Accessories: 1. Quartz cuvette of 10mm path length (2 nos)

2. Glass cuvettes (10 nos)

3. PVC cuvettes (10 nos)

Local Accessories: Suitable PC, Printer and Online UPS are to be offered with the system.

Standard, Safety and Training

- 1 Should be FDA/UL/CE/BIS approved product.
- 2 Manufacture should have ISO 9001 certificate for quality standards.
- 4 On site comprehensive training for lab staff and support services till customer satisfaction with the system.
- 5 Installation testing: Supplier of the instrument must provide free installation , commissioning and testing
- 6 User/Technical/Maintenance manuals to be supplied in English.
- 8 Certificate of Calibration and Inspection.
- 9 List of Equipment available for providing calibration and routine Preventive maintenance support as per manufacturer service/maintenance manual.
- 10 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.
- 11 Current user/performance list to be provided and demonstration covering all aspects has to be provided
- 12 Validation document should supply by vendor etc IQ.QQ, PQ.
- 13 Surge Protector is to be quoted and supplied with the instruments.

21. ECG Machine 12 channel

Specifications:

1. Real-time recording and printing of 12-channel ECG waveform
2. Graphic display of 12-Channel ECG waveform with rhythm of Lead II
3. Light, compact with A4 size thermal recorder
4. Thermal writer speed: 5, 10, 25, or 50mm/s
5. Recording paper: 500 sheets
6. ECG gel – 5 bottles
7. Simultaneous acquisition of 12-lead ECG data
8. Powerful filters to minimize interference
9. Multi-printing formats: manual & automatic, standard 12 channel.
10. Leads: Removable lead wire with 6 chest leads and 4 limb leads, Extra 4 sets of lead wires with 4 sets of alligator clips and chest electrodes (suction type)
11. Gain settings: 5, 10, or 20 mm/mV
12. Power requirements: Universal AC power supply (220-240 V AC at 50 Hz) 50 VA.
13. Internally rechargeable battery
14. Warranty: As per tender terms.
15. Manufacturer should be ISO certified for quality standards.
16. Free Installation and demonstration should be given

22. Electric Hand drill machine with set of bits

Specifications:

The table top drill mounted on stand.
Should have variable speed operation, high speed drill.
The single phase ac motor should have approx 700 W.
Should be easy-to operate with a 2-finger sized trigger switch and a speed control dial
It should have a reliable and convenient push button type forward/reverse changeover switch.
Variable speed option must be there.
Jacob Chuck of 1/3”
It should have soft grip handle for comfortable operation
It should have low operation noise 80dB
Should be supplied with high quality drill bits of different size.

23. Electronic balance 10 µg – 10 gm

Specifications:

- 1 Digitally operated, Microprocessor controlled.
- 2 High contrast, large LCD display for easy viewing.
- 3 Automatic external calibration
- 4 Conforms GLP/GMP and ISO 9001/USFDA standard
- 5 Dye cast aluminium design for long term stability and accurate results.
- 6 User selectable stability.
- 8 Readability: 0.0001 gm
- 9 Linearity: 0.0002 gm
- 10 Pan size: > 80 mm diameter or as per user requirement.
- 11 Response time: 2-3 sec
- 12 Voltage range: 220v AC/50Hz
- 13 Warranty & CMC as per tender terms.

24. Electrophoresis System

Specifications:

- 1 Description of Function
 - 1.1 Of the various types of electrophoresis, other types, protein (or vertical) electrophoresis, utilizes apparatus for analyzing DNA, RNA and Proteins.
- 2 Operational Requirements
 - 2.1 Complete system for rapid electrophoresis of proteins & nucleic acids
- Technical Specifications
 - 3 Vertical Gel apparatus:
 - 3.1 Should be able to run two slab gels 10x8 cm approx. simultaneously
 - 3.2 Complete Gel casting system for casting multiple gels
 - 3.3 Power connector integral with safety lid
 - 3.4 Silicon rubber gaskets
 - 3.5 Supply at least 4 sets of 2mm thick notched and plain glass plates
 - 3.6 Supply at least 4 sets of 1.0 mm spacers
 - 3.7 Supply at least 4 Nos. of 1.0 mm thick comb for 8-24 samples

- 4 Horizontal Gel Apparatus
 - 4.1 Gel tanks sizes 8x11 inches (midi gel apparatus) and 3x 6 inches (mini gel apparatus) with platinum electrodes and dams.
 - 4.2 Complete Gel casting system for casting multiple gels
 - 4.3 Power connector integral with safety lid
 - 4.4 Supply at least 4 sets of gel casting trays
 - 4.5 Supply at least 6 Nos. of 1.0 mm thick comb for 8-20 samples
- 5 Compatible DC Power supply
 - 5.1 Compatible microprocessor based power supply to run at least 2 units at constant voltage or current with automatic cross over
 - 5.2 Output range programmable, 10-500V, 4-500 mA in 1 mA step, 100 W maximum
 - 5.3 Single-unit increments in settings and read-outs for precision and reproducibility
 - 5.4 Easy to read digital display
 - 5.5 Ensure safety features for overload, sudden load change, short circuit protection etc. and personal and environmental protection
 - 5.6 Automatic recovery after power failure
 - 5.7 Electro Blotter for transfer of proteins from acrylamide gel to nitrocellulose
- 6.1 Vertical Tank with safety lid and connecting leads.
- 6.2 Blotting pads with holders -2 Nos. compatible with the vertical gel apparatus.
- 7 System Configuration Accessories, spares and consumables
 - 7.1 As specified
- 8 Environmental factors
 - 8.1 Shall meet IEC-60601-1-2 :2001 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
 - 8.2 The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%
 - 8.3 The unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.
- 9 Power Supply
 - 9.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
 - 9.2 Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
- 10 Standards and Safety
 - 10.1 Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements
 - 10.2 Should be FDA or CE approved product
 - 10.3 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.
- 11 Documentation
 - 11.1 User/Technical/Maintenance manuals to be supplied
 - 11.2 Certificate of calibration and inspection from factory.
 - 11.3 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
 - 11.4 List of important spare parts and accessories with their part number and costing.
 - 11.5 List of Equipment available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
 - 11.6 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue.

25. Elisa Reader

Specifications:

- 1 Photometer & Measurement channel.
- 2 Wave Length range 400 – 750nm.
- 3 Filters – 405, 450, 492 and 620nm (up to 8 filters that can be mounted).
- 4 Absorbance range – 0 to 3.5 OD
- 5 Single Wave Length – 15 seconds.
- 6 Dual Wave Length – 20 seconds.
- 7 Multi label measurement and kinetic measurement.
- 8 Halogen lamp
- 9 Lamp save feature MTBF >1,00,000 plates.
- 10 Licensed window based software.
- 11 System should be US FDA / European CE certified.
- 12 Display: Inbuilt screen for display or display through PC. If through PC, then suitable PC to be supplied

26. Embryology Models

MODELS HAVE TO BE DEMONSTRATED BEFORE THE ACTUAL PURCHASE

Specifications:

1. Spermatogenesis
2. Oogenesis
3. Primordial follicle, Primary follicle and Graafian follicle
4. Fertilization
5. Events during first week of development
6. Stage of male and female pronuclei
7. Cleavage
8. 2 cell stage
9. 4 cell stage
10. Morula – 16 cell stage
11. Formation of Blastocyst
12. Implantation
13. Bilaminar germ disc, amniotic cavity and primary yolk sac
14. Formation of extraembryonic mesoderm and extra embryonic coelom
15. Abnormal implantation sites of blastocyst
16. Dorsal view of embryo (16 days) showing primitive streak and primitive node
17. Trilaminar germ disc (Gastrulation)
18. Formation of notochord
19. Dorsal view of embryo (19 days) showing neural groove

20. Dorsal view of embryo (22 days) showing somites on each side of neural tube
21. Lateral view of embryo (25 days) showing pericardial bulge and pharyngeal arches
22. Division of intraembryonic mesoderm transverse section (17 days)
23. Division of intraembryonic mesoderm transverse section (19 days)
24. Division of intraembryonic mesoderm transverse section (20 days)
25. Division of Intraembryonic mesoderm transverse section (21 days)
26. Stages in the development of somite – sclerotome, myotome and dermatome
27. Cephalocaudal folding of embryo & formation of primitive gut
28. Sagittal section of embryo showing derivatives of endodermal germ layer
29. T.S of embryo – closure of gut tube and ventral body wall
30. Chorionic villi
31. Placenta
32. Types of placenta
33. Relation of foetal membranes to wall of uterus
34. Monozygotic and dizygotic twins
35. Development of vertebral column
36. Endothelial heart tubes (Ventral view)
37. Fusion of endothelial heart tubes
38. Sub divisions of heart tube
39. Elongation and bending of heart tube
40. Heart in the pericardial cavity
41. Bulbo ventricular loop and transverse sinus of pericardium
42. Formation of cardiac septa
43. Aorticopulmonary septum
44. Tetralogy of Fallot
45. Patent ductus arteriosus
46. Transposition of great vessels
47. Aortic arches and their derivatives
48. Coarctation of aorta
49. Main components of venous and arterial systems in a 4mm embryo
50. Development of inferior venacava
51. Development of portal vein
52. Foetal circulation
53. Stages in the development of respiratory diverticulum
54. Tracheo oesophageal fistula

55. Development of lung
56. Primitive gastrointestinal tract
57. Physiological herniation of midgut loop
58. Rotation of midgut loop
59. Development of pancreas, liver and gall bladder
60. Development of diaphragm
61. Vitelline cyst, fistula and meckel's diverticulum
62. Subdivisions of cloaca
63. Pronephros, mesonephros and metanephros
64. Development of kidney
65. Congenital anomalies of kidney
66. Development of bladder
67. Urachal fistula, cyst and sinus
68. Development of testis
69. Descent of testis
70. Congenital hernias and hydrocele
71. Development of ovary
72. Development of uterus, fallopian tube and vagina
73. Mesonephric and paramesonephric ducts and their fate
74. Anomalies of uterus
75. Development of male and female external genitalia
76. Pharyngeal arches
77. Derivatives of pharyngeal arches
78. Development of tongue
79. Pharyngeal pouches, clefts and cervical sinus
80. Derivatives of Pharyngeal pouches
81. Branchial cyst and fistula
82. Development of face – various stages
83. Congenital anomalies of face
84. Development of palate
85. Cleft palate
86. Development of thyroid gland
87. Development of pituitary gland
88. Development of suprarenal gland
89. Development of tooth

- 90. Formation of neural tube and neural crest
- 91. Subdivisions of neural tube
- 92. Development of spinal cord
- 93. Neural tube defects – meningocele, myelocele, meningomyelocele, rachischisis
- 94. Lateral view of brain vesicles – 8 week embryo
- 95. Dorsal view of floor of fourth ventricle – 6 week embryo
- 96. Myelencephalon – alar and basal plates
- 97. T.S through caudal part of metencephalon
- 98. Meningocele, meningoencephalocele and meningohydroencephalocele
- 99. Development of eye
- 100. Development of ear

Specifications:

1. Should be able to measure the hemoglobin using blood from finger prick (Should be based on Sahli's Acid hematin method).
2. Should contain
 - i. Sahli's hemoglobinometer
 - ii. Stirrer
 - iii. Bottle with dropper cap containing N/10 HCl
 - iv. Blood collection pipette
 - v. Hemoglobin tube
 - vi. Box to keep the apparatus

28. **Hot Air Oven - Type 1****Specifications:****Description of Function**

Hot Air Oven is required for heating a sample under controlled conditions.

Operational Requirements

Microprocessor based system with PID-temperature controller with integrated auto diagnostic system with fault indicator.

Thermostatically controlled system

Technical Specifications.

External: Stainless Steel Casing: Insulated stainless steel door with locking and rear zinc-plated steel

Interior - Internal Volume at least 55 liters easy-to-clean interior, made of stainless steel, with supports on the three sides for three adjustable perforated stainless steel shelves.

Forced air circulation by quiet air turbine/Fan to ensure uniform temperature

Fitted with load indicator and safety thermostat take over indicator lamp. LCD/LED

Indicator. Automatic timer 0-60 minutes

Temperature Variation +/- 1 deg C.

Temperature Range- +50 to 250 deg C.

Output available for data acquisition.

System Configuration Accessories, spares and consumables.

System as specified

Environmental factors

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 0 -40deg C and relative humidity of 15-90%.

Power Supply.

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

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

Standards, Safety and Training.

System should confirm to IS:6365-1971(Reaffirmed 1995) with latest amendments in ISI specifications for Laboratory Electric Ovens. Alternatively System should be FDA Approved or CE Certified.

Electrical safety conforms to standards for electrical safety IEC-60601 / IS-3450.

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.

29. Hot Air Oven – Type 2

Specifications:

1. 2 set point Microprocessor based Digital Temperature Controller
2. Triple walled chambers with insulation; at least 75mm thick high grade glass-wool should be provided to minimize the heat loss.
3. External: Mild steel sheet 20 SWG thick powder coated
4. Toughened Glass window is to be provided to view inside the Oven
5. Insulated mild steel door with lock
6. Castor wheel to be fitted for easy mobility inside the laboratory.
7. Size of the inner chamber approx. 605 X 910 X 605mm (24" X 36" X 24"); 330 liters approx.
8. Inner chamber and three perforated shelves should be made up of 26 SWG thick stainless steel sheet 304 grade
9. Forced air circulation by quiet air turbine/Fan to ensure uniform temperature
10. SS Finned tubular air heater of 3000 watts capacity has to be provided
11. Digital display of temperature
12. Temperature Variation +/- 2 deg C.
13. Temperature Range: 50 to 250 deg C.
14. Alarm to indicate error or to if chamber temperature exceeds set point
15. Power input to be 220-240VAC, 50Hz fitted with Indian plug
16. Warranty: As per tender terms
17. AMC: As per tender terms

30. Hot Plate – Electrical

Specifications:

Description of Function

1. Used to heat glassware or its contents.

Technical Specifications

2. Durable cast-iron heating element that heats up fast.

3. Thermostatic control from simmer to boil.
4. Durable and easy-to-clean spray plastic finish.
5. Variable heat control.
6. Stainless steel body with top having the diameter 30cm.
7. Temperature and working indicator light.
8. Maximum surface Temperature - 300 °C.

31. Incubator - Type 1

Specifications:

1. Description of Function.

1.1 Incubator is a closed chamber which heats/chill a sample at a preset temperature for long term for applications like culture growth etc.

2. Operational Requirements.

2.1 Microprocessor/Microcontroller/Microcomputer controlled system.

3 . Technical Specifications.

3.1 Capacity: 100-150L.

3.2 Interior chamber: Stainless steel for easy cleaning and decontamination.

3.3 Timer: 1 min. to 100 hours and hold position.

3.4 Minimum turbulence and no cross contamination.

3.5 Adjustable safety thermostat for temp setting at 1 deg C increment.

3.6 Temp Accuracy +/-1% of required temp, with inbuilt Temperature Sensor.

3.7 Internal glass door for the observation.

3.8 With minimum two adjustable shelves.

3.9 Audiovisual Alarm to Indicate when temperature deviates more than 1°C from set point, and when program or time has finished. Alarm may be muted.

3.10 Peltier or alternative heating system with continuous air circulation and Heating by natural/forced convection for homogenous temperature distribution.

3.11 Temperature range: +5° C to 80°C.

3.12 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.

3.13 Interior lighting facility, insulated door fitted with heavy hinges handle locking, mechanical door lock.

4 System Configuration Accessories, spares and consumables.

4.1 As specified

5. Environmental factors

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

7.2 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 activity.

7.3 Should be FDA or CE or BIS approved product.

32. Incubator – Type 2

Specifications:

1. **Size** inner chamber- (600mm lx600 mm bx600 mm h)
2. **Body:** double walled chamber with interior of stainless steel sheets for easy cleaning and decontamination and exterior made of tightly rolled mild steel sheet finished in powder coating. Silicon rubber gasket fitted on door to prevent loss of heat.
3. Stainless steel perforated trays at adjustable height- 3 shelves
4. **Door** – insulated door fitted with magnetic door features with heavy hinges handle locking, mechanical door lock.
5. **Temperature control & Display**
 - a. Temperature range: +5° C to 80°C
 - b. Temperature is controlled by capillary thermostat with temperature uniformity of $\pm 0.5^{\circ}\text{C}$
 - c. LED display for temperature.
 - d. Adjustable safety thermostat for temp setting at 1 deg C increment.
 - e. Temp Accuracy +/-1% of required temp, with inbuilt Temperature Sensor.
 - f. Facility for providing on demand 24 hr record of temperature.
 - g. Safety thermostat for overshoot temperature
 - h. Timer: 1 min. to 100 hours and hold position
 - i. Minimum turbulence and no cross contamination
 - j. Audiovisual Alarm to Indicate when temperature deviates more than 1°C from set point, and when program or time has finished. Alarm may be muted
 - k. Facility for on demand sterilization at 140 – 180 °C .
 - l. Peltier heating with continuous air circulation and Heating by natural/forced convection for homogenous temperature distribution.
 - m. Built in HEPA filter Airflow System (100% HEPA filtered air within 1 minute) with internal blower but without FAN inside

- n. Alpha numeric message for HEPA filter replacement.
6. **Interface-** 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.
7. Power input to be 220-240VAC, 50Hz fitted with Indian plug.
8. Certified by ISO 9001, CE mark, UL listed CSA approved.
9. Onsite training of users should be arranged for use and maintenance of the equipment
10. Warranty as per tender terms
11. CMC as per tender terms
12. Vendor must ensure availability of spares and service for upto 10 years after sale of equipment
List of users and Satisfactory report of quoted model from reputed institute preferably Government institute/ hospital

33. **Incubator – Type 3**

Specifications:

1. Should be operated on 230 V, 50 Hz single phase AC supply and having temperature ranging from ambient to 60°C.
2. Should be double walled with stainless steel inner chamber having a minimum of two inner stainless steel shelves with holes and powder coated over surface.
3. Inner chamber should be fabricated with sides for adjusting shelves to convenient height.
4. Should have a minimum of chamber size (L x B x H) of 450 x 450 x 450 mm
5. Should be provided with three side heating elements.
6. Should have air incubating (with on/off) for uniform temperature on all shelves.
7. Should have double door with acrylic transparent door.
8. Should provide microprocessor band digital temperature controller with digital display.
9. Should have synthetic rubber gasket at door.
10. Warranty & CMC as per tender terms.

34. **Laboratory Refrigerator – Type 1**

Specifications:

For storing blood plasma and other blood products, vaccines, other medical or pharmaceutical supplies. Also to cool samples or specimens for preservation. For faster pull-down and recovery times, it should have bypass refrigeration and microprocessor-based controls.

Technical Specifications

1. Laboratory refrigerator should have capacity of 200-280 Liters.
2. Temperature range from 2°C to 8°C.
3. It should have galvanized sheet steel construction, powder coated and adjustable feet.
4. No welded joint to be exposed for rusting.
5. Insulation of high-grade pressure – foam material.
6. Lockable door with tight sealing surround to prevent cold loss.
7. Automatic defrosting and condensed melt water evaporation.
8. Re-circulating air-cooling system.
9. Control panel with thermometer, main switch and temperature selection.
10. Hermetically enclosed, low noise, vibration proof/low vibration compressor.
11. Visual and a caustic signal alarm system.
12. Epoxy coated outside finish and GS interior.
13. Low noise, automatic defrosting, CFC free & HCFC free.
14. Should be CFC free.
15. Digital temperature display should be provided.
16. Power input to be 220-240VAC, 50Hz.
17. Should be CE or FDA or BIS approved product.

35. Laboratory Refrigerator – Type 2**Specifications:**

1. Capacity (as per user requirement) 300-380 Litres.
2. Temperature 2-8° C (Freezer 0°C)
3. Preferably roller or caster mounted.
4. Adjustable shelves.
5. Battery backup for display and alarms.
6. Durable rust free exterior.
7. Durable interior.
8. Control panel with temperature alarm, on/off switch and digital thermometer.
9. Interior lighting, auto or manual defrosting arrangement.
10. Adequate circulation of air to ensure even cooling.
11. Door with lock.

12. Control panel with temperature alarm, ON /OFF switch with power on indicator, digital thermometer, temperature display.
13. Electronic automatic temperature control,
14. Operable at 220 V, 50 Hz, single phase AC supply.
15. Compressor unit to be thermatically sealed with guarantee for at least five years.
16. Training of laboratory staff for the purchased equipment.
17. Availability of spares/ disposables for at least 10 years.
18. List of users and satisfactory report of quoted model from reputed institute preferably Government institute/ hospitals.
19. Should have all the accessories required for the functioning of the equipment.
20. CE / ISI mark or other equivalent quality certification.
21. All electrical peripherals required for smooth functioning e.g. voltage stabilizer provided with the equipment.
22. Demonstration: As per General Tender Terms & Conditions.

36. Magnetic Stirrer

Specifications:

With Electronic speed control and digital display.

- 1 Speed range: 100 - 1,400 rpm
- 2 Speed accuracy: 2 %
- 3 Enhanced heavy-duty stirring magnet drives stirring bars with ease
- 4 Top plate made of corrosion-resistant stainless steel
- 5 Plate diameter : 150 mm ($\pm 10\%$)
- 6 Even after extended operation minor heat transfer to the top plate only
- 7 Electrical Supply: 230 V AC 50 Hz single phase.
- 8 Free magnetic bars with teflon coating of varying sizes (5 Nos.)

37. Autoclavable micro-pipettes

Multichannel with adjustable volumes (10-100 μ L):	2 no
Fixed volume autopipette (1000 μ L):	5 no
Fixed volume autopipette (100 μ L):	5 no
Fixed volume autopipette (200 μ L):	5 no
Adjustable volume autopipette (100-1000 μ L):	5 no
Adjustable volume autopipette (10-100 μ L):	5 no
Adjustable volume autopipette (0.1-2 μ L):	2 no
Adjustable volume autopipette (0.2-10 μ L):	2 no
Adjustable volume autopipette (2-20 μ L):	2 no

Specifications:

Fully autoclavable.

Should be sturdy, strong and safe for repeated use

Accuracy in measurement.
 Ejector should ensure safe eject contaminated tips, positioned for perfect ergonomics.
 Precision in control, spring loaded tip cone.
 One-button operation for aspiration, dispensing and tip ejection.
 Volume setting automatically locks.
 Chemically resistant.
 4-digit display.
 Accuracy: $\pm 1\%$ for all.
 Calibration certificate should be provided with the supply.
 Disposable tips 5000 each volume.
 Should be supplied with tips holder rack & pipettes stand.
 Should be US FDA/ European CE approved.

38. Models for Anatomy

MODELS HAVE TO BE DEMONSTRATED BEFORE THE ACTUAL PURCHASE

Specifications:

1. Model of Man or Woman...Normal Size....Adult
 Showing superficial dissection on one side. And other side intact.
 Arms and legs are detachable. The internal organs in abdominal & thoracic wall are shown in situ and they are detachable.
2. Human Torso with Head Life size.(Male or Female)
 Height 38 inches excluding arms & legs. Showing superficial dissection on one side and other side intact. The internal organs in abdominal & thoracic wall are shown in situ. Half of the skull cap can be removed and brain can be taken out.
3. Principal Structures found within tissue Cells
4. Head and NeckLongitudinal Section of Head and Neck
5. Brain with Skull
6. Brain in 4 Parts
7. Nervous system
8. Mid sagittal Section through the Brain
9. Structure of the Cerebellum - A Superior View, An Inferior View, A Sagittal View.
10. Sagittal section through the Medulla Oblongata and pons showing the Cranial Nerve Nuclei
11. The Autonomic Nervous System
12. Spinal Cord with Spinal Nerves
13. Stretch Reflex
14. Tendon Reflex

15. Flexor (Withdrawal) Reflex
16. Crossed Extensor Reflex
17. Nerves of the upper limb Anterior View & Posterior view
18. Nerves of the Lower Limb – Anterior & Posterior view
19. Posterior view of the brain Stem
20. Lymphatic System
21. Types of Neurons - Multipolar Neuron, Bipolar Neuron, Unipolar Neuron
22. Reflex Arc. Including the Sensory receptor, Afferent Neuron, Association Neuron, Efferent neuron and Effector organ.
23. Converging Circuit in the Spinal Cord
24. Diverging Circuit in the spinal Cord
25. Ascending Pathway: The Dorsal Column, Descending Pathway: The Pyramidal System (2 Models)
26. Relationship of the Lymphatic System to the Cardio vascular system.
27. The cervicle sympathetic Ganglia
28. Human Eye ... Vertical SectionGreatly Enlarged Showing Muscle, Optic Nerves, Crystalline Lens, Iris, Cornea etc.
29. Human Eye ball.... 100 times enlarged (Detachable)
30. Visual Central nervous System pathways (Superior View)
31. Ear ... Large Size ... Dissectible in 4 parts
32. Structure within the inner ear including the cochlea & Vestibular Apparatus
33. Ear ... Sagittal Section ... On board. (External, middle & Inner Ear)
34. Larynx.... Anterior View, Posterior View, Side View, Cut away Side View & Sagittal Section (5 Models)
35. Functional Model of Larynx...
36. LarynxDeep side-View
37. The Pharynx.....Posterior View
38. PharynxSagittal Section
39. Tonsils Pharyngeal, Palatine & Lingual Tonsil
40. Teeth (Lower jaw) with structure shown

41. The Structure of tooth
42. The Cavity in tooth
43. The Tongue Dorsal Surface
44. Pituitary Gland Hypothalamus
45. Thyroid & Parathyroid Glands
46. Sagittal Section through Nasal Cavity and Pharynx Viewed From medical Side
47. Lungs One side sectioned with Respiratory Tract, Bronchial Tubes, Arteries and Veins
48. Pulmonary circulation
49. The Respiratory System
50. Liver Enlarged showing Gall Bladder
51. Liver with Gall Bladder & Pancreas (On Stand)
52. Blood Supply of the Liver
53. Duct System with Gall Stones in common sites
54. Duct Hepatic Portal System
55. Endocrine System
56. Structure of the pancreas
57. Stomach.....Enlarged.....with duodenum, sectioned showing details
58. An Anterior view of Abdominal aorta & its principles branches
59. Spleen..... Normal size with details
60. Gall bladder, Pancreas & Duodenum
61. Blood supply of the Intestine
62. Rectum (Anal Canal)
63. Large Intestine
64. Small Intestine
65. The Digestive System
66. Heart EnlargedSeparable in 4 Parts
67. Artery section with Blockage. (Plaque built up on artery body)
68. Principal Arteries of the body

69. Principal Veins of the body
70. Veins that drain the head & Neck
71. An Anterior view of the Veins of the upper right extremity
72. Veins of the lower Extremities
73. Circulatory System
74. Relationship of the lymphatic system to the Cardio vascular system
75. Fetal Circulations
76. A Schematic Model of Circulatory System
77. Arteries of the Neck and Head. Major branches of the right Common carotid and right subclavian arteries
78. An Anterior view of the Major Arteries of the Upper Extremity
79. Arteries of the pelvic Region
80. Arteries of the right lower Extremity (Anterior view & posterior view)
81. Urinary System With Kidney and Urinary Bladder
82. Kidneyin 2 Parts.....on stand
83. Blood supply of the kidney
84. Urinary BladderSectioned
85. testisX Section
86. Cross Section of the Penis..... Anterior view (Oblique section)
87. Structure of the Penis showing the Attachment, Blood & Nerve supply and the arrangement of the erectile tissue
88. Longitudinal Section of the Female Urethra
89. Organs of the Male Reproductive System.(A Sagittal View)
90. Organs of the Female Reproductive System (A Sagittal Section)
91. The Size & Position of the Uterus in a full term Pregnant Woman in a Sagittal Section
92. UterusSagittal Sectionwith fallopian tube with details
93. Ovarian Cycle, Fertilization and the Morphogenic events of the first week
94. Blood supply of the uterus
95. Tubal Ligation involves removal of a portion of each uterine tube

96. Structure of the Breast and Mammary glands (A sagittal section and anterior view partially sectioned)
 97. The skin 1000 times Enlarged
 98. Types of Skin Lesions.....Macule, Papule, Nodule, Wheel, vesicle, Intra or Sub epidermal blister, Pustule, Cyst, fissure and Ulcer
 99. Bone Structure..... Cross Section
 100. Hair Structure.....Cross Section
- Anatomy & Physiology of Pregnancy
101. Human Ovum Enlarged
 102. Structure of Human Spermatozoon
 103. Spermatogenesis and Oogenesis
 104. Uterus in section showing Sperm and Ovum in Process of fertilization
 105. Foetal Surface of Placenta
 106. Maternal Surface of Placenta
 107. Breast In Pregnancy (Made of fibre Glass Material)
 - Before Puberty
 - At Puberty
 - Adolescent
 - Adult, conical type
 - Adult, well developed hemispherical type
 - In Pregnancy
 - in Lactation
 - Pendulous, in older multiparous woman
 108. Breast In Pregnancy (Made in Silicon Material Germany Make) Looks natural, Feels natural.
 109. Gradual Development of Uterus from 1st month to 9 months (9 Models)
 110. Model showing First, Second & third stage of Labour.

MODEL ON ANATOMY..... DISSECTION OF UPPER & LOWER EXTRIMITIES...

Made of fiber glass

MODELS HAVE TO BE DEMONSTRATED BEFORE THE ACTUAL PURCHASE

Material for Understanding dissection

1. 1 Superficial branches of cervical plexus.
2. Dissection of the right mammary gland.
3. Contents of axilla exposed by reflexion of pectoralis major nodes. and the fascia, and removal of fat and lymph nodes. Part of axillary vein has been removed to display the medial cutaneous nerve of forearm and ulnar nerve.

4. Lymph nodes and lymph vessels of axilla and mammary gland.
5. Dissection of axillary artery and its branches.
6. Dissection of lower part of posterior triangle of neck showing the supraclavicular part of brachial plexus.
7. Dissection of superficial muscles and nerves of the back.
8. Superficial veins at bend of elbow in a specimen in which the median vein was large.
9. Superficial lymph vessels and lymph nodes of front of upper limb.
10. Superficial lymph vessels of back of upper limb.
11. Superficial veins and nerves of front of upper limb.
12. Superficial veins and nerves of back of upper limb.
13. Deltoid muscle and lateral aspect of arm.
14. Anastomosing arteries around the scapula.
15. Dissection of left cubital fossa. The fat has been removed and the bicipital aponeurosis cut away with the rest of the deep fascia.
16. Dissection of back shoulder and arm. The lateral head of triceps has been divided and turned aside to expose the spiral groove on the humerus for the radial nerve.
17. Dissection of superficial muscles, arteries, and nerves of front of forearm. Part of the radial artery was removed to show the muscles deep to it.
18. Deep dissection of muscles, and nerves of front of forearm. The division of the brachial artery is slightly lower than usual.
19. Deep dissection of front of forearm. The elbow is partially flexed, the forearm semi-pronated. The superficial muscles are cut short and turned aside. The deeper parts are still further displayed by the separation of the flexor digitorum superficial from the flexor carpi ulnaris.
20. Superficial dissection of palm to show the palmar aponeurosis. The deep fascia has been removed from the thenar and hypothenar eminences.
21. Structure in palm displayed by removal of palmar aponeurosis. In this specimen the radial indicis and the princeps pollicis arteries took origin from the superficial palmar arch.
22. Superficial dissection of back of forearm.
23. Deep dissection of back of forearm.
24. Dissection of right forearm.

25. Dissection of adductor canal in the right thigh. A portion of the sartorius has been removed.
26. Scheme of adductor group of muscles and obturator nerve.
27. Dissection of left gluteal region. Gluteus maximus and gluteus medius have been removed, and quadratus femoris has been reflected. In the specimen, the inferior gluteal artery was medial to the internal pudendal instead of lateral to it.
28. Left popliteal region after removal of the deep fascia- the muscles and fat being left undisturbed.
29. Dissection of left popliteal fossa. The upper boundaries have been pulled apart and the aponeurosis to which the two heads of the gastrocnemius are attached has been split and the heads separated. For deeper dissection.
30. Dissection of left popliteal fossa. The two heads of the gastrocnemius and portions of the semimembranosus and semitendinosus have been removed. For more superficial dissection.
31. Left popliteal artery and its branches.
32. Dissection of gluteal region and back of thigh.
33. Synovial sheaths of dorsum of foot.
34. Dissection of front and lateral side of leg.
35. Dissection of dorsum of foot.
36. Dissection of showing synovial sheaths of tendons of lateral aspect of foot.
37. Superficial dissection of leg viewed from posteromedial side, showing veins and nerves. Note the numerous anastomosis between the great and the small saphenous veins.
38. Superficial dissection of leg viewed from posterolateral side showing veins and nerves. In the specimen were numerous large anastomosing channels between the small and the great saphenous veins.
39. Deep dissection of back of leg.
40. Dissection of medial side of ankle, showing the relations of the flexor retinaculum. (model no.-1)

Dissection of leg and foot showing synovial sheaths. (model no.-2)
41. Superficial dissection of sole of foot to show plantar aponeurosis. The skin and superficial Fascia, except the superficial transverse ligament, have been removed, and the fibrous flexor sheaths partially opened.
42. Superficial dissection of sole of foot. The plantar aponeurosis has been removed. The abductor digiti minimi and the abductor hallucis have been pulled aside

43. Dissection of sole of foot. Most of the flexor digitorum brevis has been removed.
44. Deep dissection of sole of foot.

39. Non-invasive Automated Blood Pressure Monitor (Arm Type)

Specifications:

1. Measuring Principle: Oscillometric method.
2. Measurement range: BP – 0-280 mmHg
Pulse 40 -180 beats '/min
3. Accuracy – Pressure : ± 3 mm Hg
Pulse : $\pm 5\%$ of display reading
4. Power Source: 4 AA size batteries
5. Clinically validated algorithm.
6. Inflation – automatic electronic pump
Deflation – automatic air release valve
7. Standard upper arm cuff for adults - 22 cm to 32 cm
8. Warranty As per tender terms. Sample to be demonstrated.
9. To be validated by World Hypertension League.

40. Paraffin Embedding Bath

Specifications:

1. Internal tank minimum size will be around: 22x16x12 inches.
2. Internal tank should be made of stainless steel sheet.
3. The top has a metallic cover and the edges of the bath have a laminated covered wooden rim, all around the top.
4. Drying chamber is provided at the bottom of the apparatus below the cups and tube.
5. Cups are supplied with nickel plated polished handle.
6. Temperature is controlled between 37°C to 56°C
7. Accuracy $\pm 2^\circ\text{C}$
8. Should have castors for easy mobility.
9. Works on 220V A.C., provided with one special wax immersion heater and thermostat to control temperature from 0 to 100 deg. Cent.

41. Perimeters, with charts (Priestly Smith Model)

Specifications:

1. Should have a calibrated arc, revolving chart holder.
2. Should be able to rotate in any direction and fix at any position with a tightening screw. The arc should be graduated from 0° to 90° with a movable test object.
3. At the back of the arc arrangement should be provided for fixing of chart which has concentric circles corresponding to the degrees of arc.
4. Adjustable chin rest.
5. The above mentioned should be fitted over a sturdy base with receptacle for keeping charts.
6. Accessories:
 - a) Different sized (2mm & 5mm), shaped (round & square) and coloured (five different) objects.
 - b) Should be supplied with 20 packets of charts (100 charts/packet).

42. pH Meter**Specifications:**

- 1 Microprocessor based for fast and accurate pH measurement with soft touch control panel (3 point)
- 2 pH range (0 – 14)
- 3 Auto-calibration with 2 buffers
- 4 Built-in-Auto buffer recognition
- 5 pH and Temperature display
- 6 Refillable Triode 3-in-1 epoxy body combination pH electrode
- 7 Power 220-240 V: 50/60 Hz (mV mode: 0 to \pm 1999 mV), Automatic temperature
- 8 Compensation (0-100°C)
- 9 CE, ISO 9001, ISO 13485 Marked or equivalent marked.
- 10 Standard buffers 4,7,10 pH to make upto 2 L each.
- 11 Electrode tablets 1 set extra
- 12 Original literature should be attached
- 13 Users' list with satisfactory report should be attached
- 14 Firm will have to supply the stabilizer if required along with the equipment free of cost.
- 15 Original literature of equipment should be submitted.
- 16 Users' list should be attached with satisfactory report for the last three years from three users with contact details.
- 17 Demonstration of performance of equipment is compulsory in nearby area failing to which will be disqualification.
- 18 Electrical: The equipment should be able to run on the existing electrical provision
Input impedance > 100 ohms, Auto compensation

43. Physiograph – three channel

Specifications:

1. Console with time & Event channel and stimulator for human experiments
2. Couplers
3. Strain gauge - 1 No.
4. Isotonic - 1 No.
5. Pulse respiration - 1 No.
6. Temperature - 1 No.
7. EKG (Clinical) with electrode. 1 No. 5 pin junction and belly
8. Biopotential (with electrodes, 1 No.s, 3 pin junction box, pastes and electrodes for action potential)
9. Transducers:
10. Pressure – 1 No.s
11. Volume – 1 No.s
12. Muscle activity /Force – 1 No.s
13. Respiration belt – 1 No.s
14. Isotonic Fine movement – 1 No.s
15. Pulse – 1 No.s
16. Respiration (Thermister type) – 1 No.s
17. Temperature – 1 No.s
18. Accessories: Following accessories are supplied along with each console:
19. Chart paper Z folds 250 folds 10 no.s
20. Fuses 10 no.s
21. Instruction manual
22. Earthing codes 01. No.s
23. Extra pen with Cradles 01 no.s
24. Ink ½ Ltr
25. Machine cover 01 no.s
26. The product should be CE or FDA or BIS Certified

44. Rotary Microtome with Knife / Blade**Specifications:**

Rotary microtome complete with standard accessories e.g. disposable blade holder, specimen clamp, tool kit operating manual.

1. High precision machine suitable for both delicate as well as hard tissue sectioning.
2. Section thickness settings 1-60 µm with settings in 1, 2, 5 increment at different levels.
3. Specimen advance 28 mm or more.

4. Vertical stroke 60 mm or more.
5. Provision of step trimming.
6. Adjustable specimen clamp at least 50 x 45 mm with orientation in X,Y axis.
7. Single disposable blade holder for accommodating both high and low profile blades.
8. Lateral coarse feed.
9. Integrate removable section waste tray.
10. Spare low and high profile blades in dispenser pack of 50 blades: 6 packets each.
11. Microtome knives – 02 nos.
12. Specimen holders – Plastic (as many as required).
13. The equipment should conform to ISO 9001 & CE/BIS.

45. Rotary Microtomes for Paraffin Sections

Specifications:

1. Rotary high precision manual microtome for paraffin sections.
2. Mechanical automated feeding system.
3. Integrated lockable hand wheel capable of being locked in any desired position
4. Section waste tray
5. Section thickness range 1-60 micrometer
6. Trimming Range 10-30 micrometer
7. Stable knife holder and blade holder to ensure that no vibrations occur when section is being cut
8. Specimen retraction should occur in return stroke
9. Desirable to have arrangements to attach a cooling device for the paraffin block
10. Holder for disposal knives (both low and high profile) as well as steel knives to be provided
11. Disposal blades 5,000 number low profile.

46. Semi-Automated Rotary Microtome with disposable Blades

Specifications:

Rotary microtome complete with standard accessories e.g. disposable blade holder, specimen clamp, tool kit operating manual

1. Low maintenance High precision motorized and manual sectioning machine suitable for both delicate as well as hard tissue sectioning.
2. Section thickness settings 0.5-60 μm with settings in 0.5 μm , 1 μm , 2 μm , 5 μm , 10 μm increment at different levels.
3. Specimen advance 28 mm or more.
4. Vertical stroke 70 mm or more.
5. Provision of step trimming.
6. Adjustable specimen clamp at least 50 x 45 mm with orientation in 8° X/Y axis precision orientation system lotion calibrated controls.
7. Single disposable blade holder for accommodating both high and low profile blades.
8. Lateral coarse feed.
9. Integrate removable section waste tray.
10. Spare low and high profile blades in dispenser pack of 50 blades: 6 packets each.
11. Disposable blades – 5000 nos.
12. Specimen holders – Plastic (as many as required).
13. The equipment should conform to ISO 9001 & CE/BIS.
14. Micrometer feed system with backlash and maintenance free vertical cross roller guides.
15. Horizontal specimen feed via precision cylinder guide system.
16. Section thickness feed to specimen from 0.5 – 60 μm with increments of
 - a) 0 – 2 μm in 0.5 μm steps
 - b) 2 – 10 μm in 1 μm steps
 - c) 10 – 20 μm in 2 μm steps
 - d) 20 – 60 μm in 5 μm steps
17. Warranty & CMC as per tender terms.
18. Suitable stabilizer.
19. Accessories necessary for maintenance.

47. Slide Warming Table

Specifications:

1. Heating slides to a uniform temperature.
2. Just below the melting point of wax to provide maximum flattening.
3. Without damaging the section.
4. Top plate is mounted on an insulated metal frame.
5. It is fitted with Imported thermostat to control surface temperature from ambient to 70°C.
6. A depression has been provided on the top surface to house a thermometer to indicate the surface temperature.
7. Complete with pilot high, cord and plug, but without thermometer.
8. Top Plate Size (Length x width): 600 x 150 mm

48. Slide Filling Cabinet

Specifications:

Stainless steel

To accomdate 5000 glass slides in 50 chambers with lock and chamber and provisions for labeling.

49. Computerized Spirometer with Inbuilt Printer

Specifications:

1. Measuring Parameters: FVC, FEV1, FEV1/FVC, FEV3, FEV6, PEFR, FEF 25-75, FEF25%, FEF50%, FIVC, FIV1, FIV1/FIVC%, PIF, VC, SVC: IVC, EVC, ERV, IRV, VT, MVV
2. Accuracy: 5% or better for flow & volume
3. Flow Range: ± 16 l/s
4. Dynamic resistance: < 0.5 cm H₂O/L/s
5. Display: High resolution graphic LCD
6. Desirable: Oximetry
7. Power Supply: AC mains and rechargeable batteries
8. Data memory: Minimum, 1000 tests
9. Inbuilt printer and provision for connection to a desktop or laptop
10. Mouth pieces: Disposable, plastic or paper type – 500 nos.
11. Approved by ATS, ERS, FDA, CE, Gold, Quality instruments
12. Warranty: As per tender terms.
13. Free installation and demonstration

50. Tabletop Centrifuge – Type 1

Specifications:

1. Should accommodate Max. Volume of 180 ml (12 x 15ml).
2. Should have an maximum speed of 5,000 rpm with speed regulator
3. Should have an Max. RCF 3,000 x g
4. Should have an LCD or LED display for displaying the parameters
5. Should have a Timer programmable from 0 to 30 minutes or continuous mode
6. Should have alarm facility
7. Rotor swing angle Bucket : swing type with appropriate lids
8. Power supply – 220V 50Hz
9. Should be FDA or CE or BIS approved product

51. Tabletop Centrifuge

Specifications:

1. Should accommodate Maximum Volume of 180 ml (12 x 15ml).
2. Should have a maximum speed of 10,000 rpm with digital speed regulator.
3. Should have a Maximum. RCF 5,000 x g
4. Should have an LCD or LED display for displaying the parameters
5. Should have a Timer programmable from 0 to 99 minutes or continuous mode
Microprocessor controlled Brushless Motor.
6. Should have alarm facility
7. Bucket swing
8. Power supply – 220V 50Hz
9. Should be FDA or CE or BIS approved product with 6.0 safety led.
10. Warranty & CMC as per tender terms..

Speed setting – Digital display from 300 to 10,000 rpm, 10 rpm increments

Digital display from 0 to 10,000 rpm, 10 rpm increments

Digital display from 20 to 10,000 rpm, 10 rpm increments

Dimensions – 44 (W) x 56 (D) x 31 (H) cm

Weight - 35 to 40 kg

52. Tissue Floation Bath

Specifications:

Rectangular/Circular water bath for flattening paraffin embedded tissue sections

1. Capacity: Around 4 Ltrs.
2. Dimensions: Commensurate with the capacity
3. Temperature Range: Ambient + 5°C + 99°C Desirable
+ 30°C to + 60°C Essential
4. Temperature accuracy : $\pm 0.5^{\circ}\text{C}$
5. Temperature should be uniform: $\pm 1.0^{\circ}\text{C}$
6. Temperature should be adjustable at increments of 1°C or less

7. Temperature should be displayed accurately aluminum/cervix – Digital display with microprocessor control.
8. Material
 - (i) Bath: Stainless steel/Hight quality
 - (ii) Inner Surface: Should permit easy identification of tissue section
 - (iii) Outer surface: Powder coated
9. Power Supply: 200V-24V/50-60 Hz
10. Additional features it any as below should be indicated

Electronic controls of thermostat

11. LED Display - Digital
12. Safety systems to prevent over heating
13. Timers/Alarms etc.
14. Warranty & CMC as per tender terms.

53. Ultrasonic Cleaner

Specifications:

- 1 "The units should be a compact free-standing bench model, with a built-in tank
- 2 microprocessor controlled display with memory time and temperature functions.
- 3 The electrical energy should be transformed into sound waves by transducers, fixed to the bottom of the tank
- 4 The ultrasonic cleaner should have a display and control which could be easily seen and placed above any liquid for safety and reliability.
- 5 It should have digital read out timer and temperature setting (temperature adjustable from 30 to 69 °C or more) monitoring.
- 6 Capacity should be 10 L or more
- 7 Should work on 230V, 50 Hz AC Supply.
- 8 Ultrasonic cleaner should be European CE /US FDA certified.

54. Vertical Upright Cooler

Specifications:

Features

- Maximum visibility
- Reversible glass door
- Integrated lock
- Functional adjustable wire shelves

Specifications

- Should have Gross capacity of 380 liters
- Should have Net capacity of 350 liters
- Should have Capacity for 220 number 0.5 L bottles .
- Temperature range, +3°C to +10°C
- Power consumption per 24h,
- kWh (R134a/R600a) : 2.75 / 2.25
- Rated load, W : 350
- Refrigerant : R134a / R600a
- Warranty – As per tender terms.

55. Autoclave (Vertical)

Specifications:

1. Autoclave Applications:-

- For effective sterilization for smaller work load.
- For decontamination of infected material prior to its disposal.
- For faster work in the laboratory.

2. Autoclave with water level indicator, pressure gauge, steam release cock, spring loaded safety valve, Triple walled construction, all the three walls are made of thick high grade stainless steel sheet of SS-304 grade. The lid made of stainless steel sheet, Unit fitted with Double safety radial locking system with paddle lifting device, made of MS chrome plated, with built- in safety valve, pressure gauge, pressure release valve and water level indicator. Pressure adjustable from 5 psi to 20 psi with an accuracy of +/- 1 psi, with automatic pressure control switch.

3. Supply complete with stainless steel basket, chord and plug.

4. Working Chamber: Height x Internal Diameter: 500mm x 300mm

5. Electrically heated by immersion type heaters bearing ISI mark, to work on 220 volts single phase 50 cycles.

6. The pressure inside the chamber is variable from 5 psi. to 20 psi..

7. Working Temperature : 121° C to 138° C,

8. Hydrostatic Pressure: 2.5 kg/cm sq. (35 psi),

9. stainless steel steam release valve, spring loaded safety valve of stainless steel (grade SS-304),

10. Water inlet and water valves, water level indicating gauge glass with stainless steel guard, pressure gauge,
11. Electrical control box, fitted with toggle switch, indicating Neon lamps and steam release valve, foot paddle lifting device.
12. Automatic Pressure Control Switch - To cut-off the current from the heating elements, when the desired/ set pressure value level is attained inside the chamber and restarts the mechanism once the pressure inside the chamber falls from the desired level.
13. Automatic Water Cut-off Device – To protect the heaters from running dry and to ensure that the machine is automatically switched off in case the desired water level falls below the prescribed level.
14. Temperature Indicator to indicate the temperature inside the chamber.
15. Timer with Alarm System - To regulate the sterilization time of the media to be sterilized with a buzzer.
16. The instrument should come with warranty as per tender terms.
17. Should quote CMC as per tender terms.
18. Voltage regulator of appropriate rating to be included to cope with 160-260 V.
19. The apparatus should conform to national or international standards with latest amendments covering Markings, Safety requirements with recommendations of safe operations from any reputed firm with ISO 9001:2000 & CE Certification

56. Vortex Mixer

Specifications:

- 1 Should be lightweight and portable.
- 2 Should have speed range of 200-500 rpm with provision of speed change of at least 10 rpm
- 3 Orbit: 2-4 mm
- 4 Should operate in pulse mode and continuous mode/auto mode
- 5 Should have display to show speed and time remaining
- 6 Should have timer (0-9999 min) with increment/decrement of 1 sec
- 7 Should have provision to be adopted for single or multiple tubes (1-100) of varying sizes (microtubes – 25 ml tubes)
- 8 Should have auto-cut off function
- 9 Should operate at 220-265 V and 50 – 60 Hz
- 10 Manufacturer/Supplier should have ISO certification for quality standards.
- 11 Time of acceleration 3 seconds.

57. Water Bath – Type 1

Specifications:

Useful for dual purpose. It is a combination of serological and routine rectangular water bath with holes and concentric rings.

Standard double wall construction with a stainless steel cover.

Inner chamber made out of highly polished stainless steel sheet and exterior made out of thick mild steel duly finished power coated paint.

Immersion heaters are provided for heating to attain temperature range from 5° C above ambient to 100°C ± 1°C.

Digital temp. Indicator-cum-Controller. The equipment to work on 220V AC 50 Hz single phase.

Chamber size in mm & inches L x W x H 300 x 225 x 175 mm Approx Capacity approx 15 ltrs. Approx.

Should be CE or FDA or BIS approved product.

58. Water Bath – Type 2

Specifications:

1. Operational and technical specifications:

- Rectangular, Volume within 20 – 25 liters.
- Double walled chamber with inner chamber made of stainless steel and the outer is made of thick sheet and duly powder coated.
- The cavity between the two chambers should be filled with high quality mineral glass wool. Dome shaped cover with knob to be provided.
- Temperature should be controlled at increments of 10 C or less and is controlled by thermostat from room temperature of 100 C with an accuracy of +/-10C
- Heating should be provided with immersion type heater 1000 watts capacity.
- It should be supplied with the drain facility of the bath contents.
- LED display of temperature
- Mercury thermometer to read up to 100 C.
- Should have a water circulatory device
- Should have warning alarm for deviation from the set temperature.
- Should have an inbuilt timer.
- Should be supplied with removable stainless trays for accommodating test tubes and flasks to fit the water bath

2. Accessories, consumables and miscellaneous:

- Should be FDA or CE or ISI approved product

- List of users and Satisfactory report of quoted model from reputed institute preferably Government institute/ hospital
- Training of laboratory staff for the purchased equipment
- Warranty & CMC as per tender terms.
- Availability of spares/ disposables for at least 10 years.
- Should provide onsite training for operation and maintenance.
- There should be provision for demonstration before final approval of equipment
- All consumables required for installation and standardization of system to be given free of cost

59. X-Ray viewing Lobby

Specifications:

1. Panel Side by Side X-Ray View Box Illuminators; High quality with aesthetic finish.

Should have the following Standard Features:

2. LED light source (blue type) lasting several thousand hours.
3. Roller gravity film holding system.
4. Durable steel construction.
5. Thin 3" profile
6. Chip resistant hospital white finish
7. Continuous bottom film ledge
8. Even view reflective system, with white acrylic translucent surface
9. Centralized cluster On/Off switching

Optional Features:

10. FAS – Film Activated Switching
11. MS - Master Switch
12. HGP - Hospital Grade Plug Specs: Surface Wall Mount 3 Panels Side by Side 56" x 17" Viewing Area
13. Overall Dimensions approx.: 56" (L) 21" (H) 3 3/8" (D) (approx.)
14. Illumination: 2000 cd/m²
15. It should be aesthetic and high quality, thin type and mountable on wall

Power Supply: Power input to be 220-240VAC, 50Hz

GENERAL POINTS OF TECHNICAL SPECIFICATIONS

1. Warranty:

- a) **Two years** Comprehensive Warranty as per Conditions of Contract of the TE document for complete equipment from the date of satisfactory installation, commissioning, trial run & handing over of equipment to Consignee.
- b) 98% up time Warranty of complete equipment with extension of Warranty period by double the downtime period on 24 (hrs) X 7 (days) X 365 (days) basis.
- c) All software updates should be provided free of cost during Warranty period.

2. After Sales Service:

After sales service centre should be available at the city of Consignee on 24 (hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within **24 hrs**. The service should be provided by Tenderer/Indian Agent. Undertaking by the Principals that the spares for the equipment shall be available for at least 10 years from the date of supply

3. Training:

On Site training to Doctors/ Technicians/ staff is to be provided by supplier (if they have the requisite know-how) for operation and maintenance of the equipment to the satisfaction of the consignee.

4. Annual Comprehensive Maintenance Contract (CMC) of subject equipment:

- a) **The cost of Annual Comprehensive Maintenance Contract (CMC)** which includes preventive maintenance including testing & calibration as per technical/ service /operational manual of the manufacturer, labour and spares, after satisfactory completion of Warranty period **to be quoted for next 5 years on yearly basis** for complete equipment (including X ray tubes, HT Cable, Probes, Electrodes, Detectors, Batteries for UPS, other vacuumatic parts wherever applicable) and Turnkey (if any). The supplier shall visit each consignee site as recommended in the manufacturer's technical/ service /operational manual, but at least once in six months during the CMC period
- b) The cost of CMC to be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- c) Cost of CMC will be added for Ranking/Evaluation purpose.
- d) The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by end user on receipt of bank guarantee for 2.5 % of the cost of the equipment as per Section XV valid till 2 months after expiry of entire CMC period.
- e) There will be 95% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- f) During CMC period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- g) All software updates should be provided free of cost during CMC.
- h) Failure of the above [4. e) to 4. g)] by the supplier, may lead to the forfeiture of the Bank Guarantee for Annual CMC.
- i) The payment of CMC will be made as stipulated in GCC Clause 21.

Section – VIII

Quality Control Requirements

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

Tender Reference No.

Date of opening

Time

Name and address of the Tenderer:

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

- 01 Name of the manufacturer
 - a. full postal address
 - b. full address of the premises
 - c. Email ID
 - d. telephone number
 - e. fax number

- 02 Plant and machinery details
- 03 Manufacturing process details
- 04 Monthly (single shift) production capacity of goods quoted for
 - a. normal
 - b. maximum

- 05 Total annual turn-over (value in Rupees)
- 06 Quality control arrangement details
 - a. for incoming materials and bought-out components
 - b. for process control
 - c. for final product evaluation
- 07 Test certificate held
 - a. . type test
 - b. . BIS/ISO certification
 - c. . any other
- 08 Details of staff
 - a. technical
 - b. skilled
 - c. unskilled

Signature and seal of the Tenderer

Section – IX

Qualification Criteria

01. The bidder should have supplied and installed in last **Five** years from the date of Tender Opening, atleast 100% of the quoted quantity of the similar equipment meeting major specification parameters which is functioning satisfactorily.

Note:

1. In support of above the Tenderer shall furnish Performance statement in the enclosed Proforma 'A'.
The manufacturer as well as the Tenderer/ Indian Agent shall furnish Satisfactory **Performance Certificate from end user** in respect of above, duly translated in English and duly notarized in the country of origin, along with the tender.
2. The Tenderer shall furnish a brief write-up, packed with adequate data explaining and establishing his available capacity/capability (both technical and financial) to perform the Contract (if awarded) within the stipulated time period, after meeting all its current/present commitments. The Tenderer shall also furnish details of Equipment and Quality Control in the enclosed Section VIII.
3. Notwithstanding anything stated above, the Purchaser reserves the right to assess the Tenderer's capability and capacity to perform the contract satisfactorily before deciding on award of Contract, should circumstances warrant such an assessment in the overall interest of the Purchaser.
4. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser for technical acceptability as per the tender specifications, before the opening of the Price Tender.

PROFORMA 'A'
PROFORMA FOR PERFORMANCE STATEMENT

(For the period of last five years)

Tender Reference No. : _____

Date of opening : _____

Time : _____

Name and address of the Tenderer : _____

Name and address of the manufacturer : _____

Order placed by (full address of Purchaser/Consignee)	Order number and date	Description of ordered goods and services	Quantity of ordered goods	Value of order (Rs.)	Date of completion of Contract		Remarks indicating reasons for delay if any	Have the goods been functioning Satisfactorily (attach documentary proof)**
					As per contract	Actual		
1	2	3	4	5	6	7	8	9

Signature and seal of the Tenderer

** The documentary proof will be a certificate from the consignee/end user with cross-reference of order no. and date in the certificate duly notarised certification authenticating the correctness of the information furnished. If at any time, information furnished is proved to be false or incorrect, the earnest money and or performance security furnished will be forfeited. Such certificates from a third party or middleman other than actual end user will not be accepted. The satisfactory performance implies working satisfactorily without any complaint since the date of installation, commissioning & handing over to the end user as per the standard format enclosed.

Section – X TENDER FORM

Date_____

To
DVP(Tech)
HLL Infra Tech Services Limited
“ADARSH”, TC 6/1718(1), Vettamukku,
Thirumala PO Thiruvananthapuram-695 006

Ref. Your TE document No. _____ dated _____

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. _____, dated _____ (*if any*), the receipt of which is hereby confirmed. We now offer to supply and deliver _____ (*Description of goods and services*) in conformity with your above referred document, attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount 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.

We agree to keep our tender valid for acceptance as required in the GIT clause 20, read with modification, if any in Section - III – “Special Instructions to Tenderers” or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.

We confirm that we do not stand deregistered/banned/blacklisted by any statutory Authorities as per govt. rules/procedures.

We confirm that we fully agree to the terms and conditions specified in above mentioned TE document, including amendment/ corrigendum if any

(Signature with date)

(Name and designation) Duly authorised to sign tender for and on behalf of

SECTION – XI PRICE SCHEDULE**A) PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA**

1	2	3	4	5							6
Item Sl. No.	Brief Description of Goods (with make & model)	Country of Origin	Quantity (Nos.)	Price per unit (Rs.)							Total Price (at Consignee Site) basis (Rs.)
				Ex - factory/ Ex - warehouse /Ex-showroom /Off - the shelf (a)	Excise Duty (if any) [%age & value] (b)	Sales Tax/ VAT (if any) [%age & value] (c)	Transportation, loading/ unloading and Incidental costs till consignee's site (d)	Insurance charges for a period including 3 months beyond the date of delivery (e)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site (f)	Unit Price (at Consignee Site) basis (g) =a+b+c+d+e+f	
											4 x 5(g)

Total Tender price in Rupees: _____

In words: _____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted separately as per Section-XI – Price Schedule C

Name_____

Business Address_____

Signature of Tenderer_____

Seal of the Tenderer_____

Place: _____

Date: _____

C) (1) PRICE SCHEDULE FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT (CMC) AFTER WARRANTY PERIOD

1	2	3	4					5
Schedule No.	Brief Description of the Goods	Quantity (Nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.					Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c+4d+4e)]
			1 st	2 nd	3 rd	4 th	5 th	
			a	B	c	D	e	

* After completion of Warranty period

NOTE:-

1. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years on yearly basis for complete equipment and Turnkey (if any). The quotation may also be given separately for AMC (Without spares but with labour charges included).
2. The cost of CMC may be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
3. Cost of CMC will be added for Ranking/Evaluation purpose.
4. The payment of CMC will be made as per clause GCC clause 21.1 (C).
5. All software updates should be provided free of cost during CMC period.
6. The supplier shall keep sufficient stock of spares required during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

Name_____

Business Address_____

Place: _____

Signature of Tenderer_____

Date: _____

Seal of the Tenderer_____

SECTION – XII
QUESTIONNAIRE

Fill up the Section XX – Check List for Tenderers and enclose with the Tender

1. The tenderer should furnish specific answers to all the questions/issues mentioned in the Checklist. In case a question/issue does not apply to a tenderer, the same should be answered with the remark “not applicable”
2. Wherever necessary and applicable, the tenderer shall enclose certified copy as documentary proof/ evidence to substantiate the corresponding statement.
3. In case a tenderer furnishes a wrong or evasive answer against any of the question/issues mentioned in the Checklist, its tender will be liable to be ignored.

SECTION – XIII
BANK GUARANTEE FORM FOR EMD

Whereas _____ (hereinafter called the “Tenderer”) has submitted its quotation dated _____ for the supply of _____ (hereinafter called the “tender”) against the purchaser’s tender enquiry No. _____ Know all persons by these presents that we _____ of _____ (Hereinafter called the “Bank”) having our registered office at _____ are bound unto _____ (hereinafter called the “Purchaser) in the sum of _____ for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 20____. The conditions of this obligation are:

- (1) If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the Tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-
 - a) fails or refuses to furnish the performance security for the due performance of the contract.
 - or
 - b) fails or refuses to accept/execute the contract.
 - or
 - c) if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition(s).

This guarantee will remain in force for a period of forty-five days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorised officer of the Bank)

Name and designation of the officer

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

SECTION – XV

**BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/ CMC
SECURITY**

To
DVP(Tech.)
HLL Infra Tech Services Limited
“ADARSH”, TC 6/1718(1), Vettamukku,
Thirumala PO Thiruvananthapuram-695 006

WHEREAS _____ (Name and address of the supplier) (Hereinafter called “the supplier”) has undertaken, in pursuance of contract no _____ dated _____ to supply (description of goods and services) (herein after called “the contract”).

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

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

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

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

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

This guarantee shall be valid up to 30 (thirty) months from the date of Notification of Award i.e up to ----- (indicate date)

.....
(Signature with date of the authorised officer of the Bank)

.....
Name and designation of the officer

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

SECTION – XVI

CONTRACT FORM - A

CONTRACT FORM FOR SUPPLY, INSTALLATION, COMMISSIONING, HANDING OVER, TRIAL RUN, TRAINING OF OPERATORS & WARRANTY OF GOODS

(Address of the Purchaser's/Consignee's office issuing the contract)

Contract No _____ dated _____

This is in continuation to this office's Notification of Award No _____ dated _____

1. Name & address of the Supplier: _____
2. Purchaser's TE document No _____ dated _____ and subsequent Amendment No _____, dated _____ (if any), issued by the purchaser
3. Supplier's Tender No _____ dated _____ and subsequent communication(s) No _____ dated _____ (if any), exchanged between the supplier and the purchaser in connection with this tender.
4. In addition to this Contract Form, the following documents etc, which are included in the documents mentioned under paragraphs 2 and 3 above, shall also be deemed to form and be read and construed as integral part of this contract:

- (i) General Conditions of Contract;
- (ii) Special Conditions of Contract;
- (iii) List of Requirements;
- (iv) Technical Specifications;
- (v) Quality Control Requirements;
- (vi) Tender Form furnished by the supplier;
- (vii) Price Schedule(s) furnished by the supplier in its tender;
- (viii) Manufacturers' Authorisation Form (if applicable for this tender);
- (ix) Purchaser's Notification of Award

Note : The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under clause 1 of Section II – 'General Instructions to Tenderers' of the Purchaser's TE document shall also apply to this contract.

5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:
 - (i) Brief particulars of the goods and services which shall be supplied/ provided by the supplier are as under:

Schedule No.	Brief description of goods/services	Accounting unit	Quantity to be supplied	Unit Price	Total price	Terms of delivery

Any other additional services (if applicable) and cost thereof: _____

Total value (in figure) _____ (In words) _____

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-
- (ii) Delivery schedule
 - (iii) Details of Performance Security
 - (iv) Quality Control:
 - (a) Mode(s), stage(s) and place(s) of conducting inspections and tests.
 - (b) Designation and address of purchaser's inspecting officer
 - (v) Destination and despatch instructions
 - (vi) Consignee, including port consignee, if any
- 6 Warranty clause
- 7 Payment terms
- 8 Paying authority

**(Signature, name and address
of the Purchaser's/Consignee's authorised official)
For and on behalf of _____**

Received and accepted this contract

(Signature, name and address of the supplier's executive
duly authorised to sign on behalf of the supplier)

For and on behalf of _____

(Name and address of the supplier)

(Seal of the supplier)

Date: _____

Place: _____

CONTRACT FORM – B
CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT

Annual CM Contract No. _____ dated _____
 Between _____

(Address of Head of Hospital/Institute/Medical College)
 And _____

(Name & Address of the Supplier)

Ref: Contract No. _____ dated _____ (Contract No. & date of Contract for supply, installation, commissioning, handing over, Trial run, Training of operators & warranty of goods)

In continuation to the above referred contract

a) The Contract of Annual Comprehensive Maintenance is hereby concluded as under: -

1	2	3	4					5
Schedule No.	BRIEF DESCRIPTION OF GOODS	QUANTITY. (Nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.					Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c+4d+4e)]
			1 st	2 nd	3 rd	4 th	5 th	
			a	b	c	d	e	

Total value (in figure) _____ (In words) _____

- b) The CMC commence from the date of expiry of all obligations under Warranty i.e. from _____ (date of expiry of Warranty) and will expire on _____ (date of expiry of CMC)
- c) The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years as contained in the above referred contract on yearly basis for complete equipment (including Batteries for UPS, etc.) and Turnkey (if any).
- d) There will be 95% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- e) During CMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service/ technical/ operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- f) All software updates should be provided free of cost during CMC.
- g) The bank guarantee valid till _____ [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs. _____ [(fill amount) equivalent to 2.5 % of the cost of the equipment as per contract] shall be furnished in the prescribed format given in Section XV of the TE document, along with the signed copy of Annual CMC within a period

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of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the Purchaser/Consignee.

h) If there is any lapse in the performance of the CMC as per contract, the proceeds Annual CMC bank guarantee for an amount of Rs. _____ (equivalent to 2.5 % of the cost of the equipment as per contract) shall be payable to the Consignee.

i) **Payment terms:** The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the HOD concerned. The payment will be made in Indian Rupees.

j) **Paying authority:** _____ (name of the consignee i.e. Hospital/
Institute /Medical College's
authorised official)

(Signature, name and address
of Hospital/Institute/Medical College's authorised official)
For and on behalf of _____

Received and accepted this contract

(Signature, name and address of the supplier's executive
duly authorised to sign on behalf of the supplier)

For and on behalf of _____

(Name and address of the supplier)

(Seal of the supplier)

Date: _____

Place: _____

SECTION – XVII

CONSIGNEE RECEIPT CERTIFICATE
(To be given by consignee's authorized representative)

The following store (s) has/have been received in good condition:

- 1) Contract No. & date : _____
- 2) Supplier's Name : _____
- 3) Consignee's Name & Address with
telephone No. & Fax No. : _____
- 4) Name of the item supplied : _____
- 5) Quantity Supplied : _____
- 6) Date of Receipt by the Consignee : _____
- 7) Name and designation of Authorized
Representative of Consignee : _____
- 8) Signature of Authorized
Representative of Consignee with
date : _____
- 9) Seal of the Consignee : _____

SECTION – XVIII**Proforma of Final Acceptance Certificate by the Consignee**

No _____

Date _____

ToM/s _____

Subject: Certificate of commissioning of equipment/plant.

This is to certify that the equipment(s)/plant(s) as detailed below has/have been received in good conditions along with all the standard and special accessories and a set of spares (subject to remarks in Para no.02) in accordance with the contract/technical specifications. The same has been installed and commissioned.

(a) Contract No _____ dated _____

(b) Description of the equipment(s)/plants: _____

(c) Equipment(s)/ plant(s) nos.: _____

(d) Quantity: _____

(e) **Bill of Loading/Air Way Bill/Railway**

Receipt/ Goods Consignment Note no _____ dated _____

(f) **Name of the vessel/Transporter:** _____(g) **Name of the Consignee:** _____(h) **Date of commissioning and proving test:** _____**Details of accessories/spares not yet supplied and recoveries to be made on that account.**

Sl. No.	Description of Item recovered	Quantity	Amount to be
---------	-------------------------------	----------	--------------

The proving test has been done to our entire satisfaction and operators have been trained to operate the equipment(s)/plant(s).

The supplier has fulfilled its contractual obligations satisfactorily ## or

The supplier has failed to fulfil its contractual obligations with regard to the following:

He has not adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specifications'.

He has not supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the period specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).

The supplier as specified in the contract has not done training of personnel.

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The extent of delay for each of the activities to be performed by the supplier in terms of the contract is

The amount of recovery on account of non-supply of accessories and spares is given under Para no.02.

The amount of recovery on account of failure of the supplier to meet his contractual obligations is _____ (here indicate the amount).

Signature

Name

Designation with stamp

Explanatory notes for filling up the certificate:

He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specification'.

He has supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the time specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).

Training of personnel has been done by the supplier as specified in the contract

In the event of documents/drawings having not been supplied or installation and commissioning of the equipment(s)/plant(s) having been delayed on account of the supplier, the extent of delay should always be mentioned in clear terms.

SECTION – XX**CHECKLIST****Name of Tenderer:****Name of Manufacturer:**

Sl. No.	Activity	Yes/ No/ NA	Page No. in the Tender document	Remarks
1. a.	Have you enclosed EMD of required amount for the quoted item(s)?			
b.	In case EMD is furnished in the form of Bank Guarantee, has it been furnished as per Section XIII?			
c.	In case Bank Guarantee is furnished, have you kept its validity of 165 days from Techno-Commercial Tender Opening date as per clause 19 of GIT?			
2. a.	Have you enclosed duly filled Tender Form as per format in Section X?			
b.	Have you enclosed Power of Attorney/ Partnership Agreement in favour of the signatory attested by a Notary Public?			
3.a	Are you a SSI unit, registered with NSIC under Single point registration Scheme or registered with DGS&D for the quoted items? If so, have you enclosed a copy of the registration certificate?			
b.	Are you enlisted with DGS&D as Indian Agent under the compulsory Enlistment Scheme of Ministry of Finance, Govt. of India? If so have you enclosed a copy of the enlistment certificate?			
4. a.	Have you enclosed clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications?			

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Sl. No.	Activity	Yes/ No/ NA	Page No. in the Tender document	Remarks
b.	In case of Technical deviations in the compliance statement, have you identified and marked the deviations?			
5. a.	Have you submitted satisfactory performance certificate from the end users in respect of all orders mentioned in the Proforma for performance statement in Sec. IX of TE document.			
b.	Have you submitted copy of the supply order(s) and Performance Certificate from end user?			
6.a	Have you submitted manufacturer's authorization as per Section XIV?			
b.	Have you submitted a copy of the agreement between you and your Principal as per clause 14 of GIT?			
7.a	Have you submitted prices of goods, turnkey (if any), CMC etc. in the Price Bid as per Section XI?			
b.	Have you submitted with your Price Bid your Principal's /Manufacturer's Original Proforma Invoice indicating FOB value and Indian Agent Commission?			
8.	Have you kept validity of 120 days from the Techno Commercial Tender Opening date as per the TE document?			
9. a.	In case of Indian Tenderer, have you furnished Income Tax Account No. as allotted by the Income Tax Department of Government of India?			
b.	In case of Foreign Tenderer, have you furnished Income Tax Account No. of your Indian Agent as allotted by the Income Tax Department of Government of India?			

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Sl. No.	Activity	Yes/ No/ NA	Page No. in the Tender document	Remarks
10.	Have you intimated the name and full address of your Banker (s) along with your Account Number?			
11.a	Have you fully accepted payment terms as per TE document?			
b.	Have you accepted “terms of delivery” as per TE document?			
12.	Have you fully accepted delivery period as per TE document?			
13.	Have you confirmed that the terms of delivery shall be “Delivery at Consignee Site”?			
14.	Have you accepted the warranty & CMC as per TE document?			
15.	Have you accepted all other terms and conditions of TE document?			
16.a	Have you furnished documents establishing your eligibility & qualification criteria as per TE documents?			
b.	Have you given “write up” as asked for in Qualification Criteria (Section IX) under Note 2 ?			
17	Have you furnished Annual Report (Balance Sheet and Profit & Loss Account) for last three years prior to the date of Tender opening?			
18	Have you submitted the certificate of incorporation?			
19	Have you submitted the Quality Control Requirement as per Section VIII?			

N.B.

- All pages of the Tender should be page numbered and indexed.**
- The Tenderer may go through the checklist and ensure that all the documents/confirmations listed above are enclosed in the tender and no column is left blank. If any column is not applicable, it may be filled up as NA.**

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3. It is the responsibility of tenderer to go through the TE document to ensure furnishing all required documents in addition to above, if any. Non submission of the above information/documents makes the bid liable to be ignored without any further reference to the Bidder.

(Signature with date)

(Full name, designation & address of the person duly authorised sign on behalf of the
Tenderer)

For and on behalf of

(Name, address and stamp of the tendering firm)

Section – XXI

Consignee Addresses:

**The Director
JIPMER,
JIPMER-II campus
at Karaikal, Puducherry**

NB: The consignee will ensure timely issue of Octroi Exemption Certificates, Road Permits & Entry Tax Exemption Certificates, wherever applicable, to the suppliers.