

**DOMESTIC
TENDER ENQUIRY DOCUMENT**

**FOR PURCHASE OF
MEDICAL EQUIPMENT
FOR GMC, BHOPAL**

On behalf of

The Dean,

Gandhi Medical College

HITES/PCD/MP/01/VIROLOGY/17-18

Through



HLL INFRA TECH SERVICES LIMITED
(Subsidiary of HLL Lifecare Ltd., a Govt. of India Enterprise)
B-14 A, Sector-62, Noida-201 307
Phone: 0120-4071500; Fax: 0120-4071513
URL: www.hllhites.com
Email: pcd@hllhites.com

INDEX

Section	Topic	Page No.
Section I	– Notice inviting e-Tender (e-NIT) -----	03
Section II	– General Instructions to Tenderers (GIT) -----	06
Section III	– Special Instructions to Tenderers (SIT) -----	26
Section IV	– General Conditions of Contract (GCC) -----	27
Section V	– Special Conditions of Contract (SCC) -----	41
Section VI	– List of Requirements -----	42
Section VII	– Technical Specifications -----	45
Section VIII	– Quality Control Requirements -----	95
Section IX	– Qualification Criteria -----	96
Section X	– Tender Form -----	98
Section XI	– Price Schedules -----	99
Section XII	– Questionnaire -----	100
Section XIII	– Bank Guarantee Form for EMD -----	101
Section XIV	– Manufacturer’s Authorisation Form -----	102
Section XV	– Bank Guarantee Form for Performance Security /CMC Security -----	103
Section XVI	– Contract Form (A & B) -----	104
Section XVII	– Proforma of Consignee Receipt Certificate -----	108
Section XVIII	– Proforma of Final Acceptance Certificate by the Consignee -----	109
Section XIX	– Consignee List -----	111

SECTION I

NOTICE INVITING TENDER (NIT)

Tender Enquiry No.: HITES/PCD/MP/01/PRECLINICAL/17-18 Dated:27.10.2017

- (1) Procurement & Consultancy Services Division of **HLL Infra Tech Services Limited (HITES)**, a fully owned subsidiary of HLL Lifecare Ltd. (HLL), for and on behalf of Govt. of Madhya Pradesh, Directorate of Medical Education & Research, invites e-tenders, from eligible and qualified tenderers for supply of Medical Equipment to Virology Lab, upcoming at Gandhi Medical Bhopal, Madhya Pradesh as mentioned in this Tender Enquiry Document:

Sl No	RFx No	Equipment	Quantity	EMD	Tender Processing Fee
1	3000002269	Autoclave Horizontal	2	99,000	1,180
		a) Autoclave Vertical	4		
		b) Autoclave Vertical	2		
		Egg Incubator	1		
		Hot Air Oven	4		
		Hybridizing Oven	1		
		Incubator – A	2		
		Incubator – B	6		
		Incubator – C	2		
		Lyophilizer	1		
		Routine Water Bath	4		
2	3000002270	Biological Safety Cabinet Level II A 2 Size 5 ft	3	200,000	2,360
		Biological Safety Cabinet Level II A 2 Size 4 ft	5		
		Biological Safety Cabinet Level II A 2 Size 3 ft	6		
		Biological Safety Cabinet Level II B 2 Size 4 ft	2		
		Laminar air flow system - Horizontal	6		
3	3000002271	Microcentrifuge	4	80,000	590
		Microcentrifuge (Refrigerated)	2		
		Refrigerated Centrifuge	3		
		Tabletop Centrifuge	10		
4	3000002272	pH meter	4	11,200	590
		Vortex with Cup head	8		
		Vortex with Platform	2		
		Water Distillation unit (Quartz)	2		
5	3000002273	Binocular Microscope	20	14,800	590
		Binocular Microscope with Camera & CCD attachment.	2		
6	3000002274	Beaker Shaker	2	8,600	590
		Liquid Nitrogen Cylinder	2		
		Liquid Nitrogen Transport Container	2		
		Membrane filters- Stainless steel syringe filter holder with filters (Variable sizes)	10		
		Microwave Laboratory	2		
		Plastic Shredder	1		

Sl No	RFx No	Equipment	Quantity	EMD	Tender Processing Fee
7	3000002275	Micropipette Single Channel Variable volume 0.2-2 ul	6	16,000	590
		Micropipette Single Channel Variable volume 2-20 ul	6		
		Micropipette Single Channel Variable volume 5-50 ul	6		
		Micropipette Single Channel Variable volume 10-100 ul	6		
		Micropipette Single Channel Variable volume 20-200 ul	6		
		Micropipette Single Channel Variable volume 100-1000 ul	6		
		Micropipette Fixed volume Single Channel 5 ul	6		
		Micropipette Fixed volume Single Channel 10 ul	6		
		Micropipette Fixed volume Single Channel 50 ul	6		
		Micropipette Fixed volume Single Channel 100 ul	6		
		Micropipette Fixed volume Single Channel 1000 ul	6		
		Micropipette Multichannel 5-50 ul	5		
Micropipette Multichannel 30-300 ul	5				
8	3000002276	Electronic pipettes digitally adjustable	1	3,000	590
9	3000002277	Stepper Pipette Multichannel	1	2,000	590
10	3000002278	Ice Flaking Machine	1	4,000	590
11	3000002279	Balance Analytical	2	6,000	590
12	3000002280	Balance Electronic	4	3,200	590
13	3000002281	Biological Oxygen Demand Incubator (BOD)	2	6,000	590
14	3000002282	CO2 Incubator with CO2 Cylinders and regulator	6	54,000	1,180
15	3000002283	Deep Freezer (-80°C)	2	24,000	590
16	3000002284	Deep Freezer (-20°C)	8	48,000	1,180
17	3000002285	Domestic Refrigerator 230 Ltrs. Capacity with Voltage Stabilizer	25	10,000	590
18	3000002286	Electrophoresis apparatus (Complete set)	2	20,000	590
19	3000002287	ELISA Reader and washer	4	24,000	590
20	3000002288	Fluorescent Microscope	1	44,000	590
21	3000002289	Fluorometer (Compact Bench top)	1	14,000	590
22	3000002290	Gel Documentation system (with Chemiluminescence)	1	20,000	590
23	3000002291	Gel Documentation system	1	2,000	590
24	3000002292	Inverted Microscope	4	60,000	1,180
25	3000002293	PCR machine with PCR Work Station	2	32,000	590
26	3000002294	Refrigerated Circulating Water Bath	1	3,000	590
27	3000002295	Two units of Real Time PCR along with one unit automated nucleic Acid Extraction System	1	220,000	2,360
28	3000002296	Spectrophotometer	1	8,000	590
29	3000002297	Ultrapure water purification system	1	12,000	590
30	3000002298	Lab Refrigerator (400Lit. Capacity)	4	8,000	590
31	3000002310	Walk in Cooler- 30 cum.	1	10,000	590

Note: Tender processing Fee is inclusive of GST @18% (Our GSTIN: 09AADCH4882R1ZP)

(2) Tender timeline:

Sl. No.	Description	Schedule
a.	Last date for receipt of Pre-bid queries	04.11.2017, 06.00 PM
b.	Pre-bid meeting date, time, Venue	06.11.2017, 11:00 AM Conference Hall, Gandhi Medical College, Bhopal
d.	Closing date & time for submission of online bids	27.11.2017, 18:00 PM

Sl. No.	Description	Schedule
c.	Closing date & time for submission of tender processing fee and EMD in physical form*	28.11.2017, 14:00 PM
e.	Time and date of opening of online bids	28.11.2017, 14:30 PM
f.	Venue for :- <ul style="list-style-type: none"> • Submission of tender processing fee, EMD in physical form. • Tender Opening-Tech Bid 	HLL Infra Tech Services Limited, Procurement & Consultancy Services Division, B-14 A, Sector-62, Noida-201307

* Bidders have to submit Original Bank Instruments for tender processing fee and EMD within the above mentioned date and time failing which the e bid submitted online will be considered rejected.

SPECIFIC Instructions for e-Tender Participation:-

- (3) The tenders are invited through the e-tender portal of HLL/HITES (<https://etender.lifecarehll.com/irj/portal>) only.
- (4) The prospective bidders have to register in the e-tender portal for participating in the tender. There is no registration fee. The instruction for registering in the portal along with video tutorial is available in the *Bidder Help Documents* provided in the e-tender portal login screen.
- (5) Bidders should have a valid Class 3 Digital Signature Certificate with signing and encryption keys.
- (6) On completion of the registration process, the bidders will be provided user ID and password within 72 hours (excepting non-working days). In order to submit the bids electronically bidders are required to have a valid Class 3 Digital Signature Certificate (**signing and encryption/ decryption certificates**).
- (7) Bidders can access the portal for viewing/ downloading the tender enquiry document & uploading tender(s) after the receipt of User ID & Password.
- (8) Bidders are requested to go through the *Bidder Help Documents* on e-tender portal before proceeding for bidding.
- (9) The bidders shall submit the required Tender Processing Fee (in form of Demand Draft or Banker's Cheque) and EMD (as per GIT clause no. 19.3) in physical form in favour of 'HLL Infra Tech Services Limited' at the scheduled time and venue. Tender processing Fee is required from all the bidders irrespective of their registration with NSIC or any other Govt. organisation
- (10) Tenderer may download the tender enquiry documents from the web site www.hllhites.com or www.lifecarehll.com or www.eprocure.gov.in/cppp or <https://etender.lifecarehll.com/irj/portal>.
- (11) The submission of tender online can only be done thru '<https://etender.lifecarehll.com/irj/portal>'.
- (12) All prospective tenderers may attend the Pre Tender meeting. The venue, date and time indicated above.
- (13) Tenderers shall ensure that their bids, complete in all respects, are submitted online through HLL e-portal (as described above) ONLY. No DEVIATION is acceptable.

CEO
HLL Infra Tech Services Limited

SECTION - II
GENERAL INSTRUCTIONS TO TENDERERS (GIT)
CONTENTS

Sl. No.	Topic	Page No.
A	PREAMBLE	
1	Definitions and Abbreviations	8
2	Introduction	9
3	Availability of Funds	9
4	Language of Tender	10
5	Eligible Tenderers	10
6	Eligible Goods and Services	10
7	Tendering Expense	10
B	TENDER ENQUIRY DOCUMENTS	
8	Contents of Tender Enquiry Documents	10
9	Amendments to Tender Enquiry Documents	
10	Clarification of e-Tender Enquiry Documents	11
C	PREPARATION OF TENDER	
11	Documents Comprising the Tender	11
12	Tender Currencies	13
13	Tender Prices	13
14	Indian Agent	15
15	Firm Price	15
16	Alternative Tenders	16
17	Documents Establishing Tenderer's Eligibility and Qualifications	16
18	Documents Establishing Good's Conformity to Tender Enquiry Document	17
19	Earnest Money Deposit (EMD)	17
20	Tender Validity	17
21	Digital Signing of Tender	18
D	SUBMISSION OF TENDERS	
22	Submission of e-Tenders	18
23	Late Tender	19
24	Alteration and Withdrawal of e-Tender	19
E	TENDER OPENING	
25	Opening of e-Tenders	19
F	SCRUTINY AND EVALUATION OF TENDERS	
26	Basic Principle	20
27	Scrutiny of Tenders	20

Sl. No.	Topic	Page No.
28	Minor Infirmary/Irregularity/Non-Conformity	20
29	Discrepancy in Prices	20
30	Discrepancy between original and copies of Tender	21
31	Qualification Criteria	21
32	Conversion of Tender Currencies to Indian Rupees	21
33	Schedule-wise Evaluation	22
34	Comparison of Tenders	22
35	Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders	22
36	Tenderer's capability to perform the contract	24
37	Contacting the Purchaser	24
G	AWARD OF CONTRACT	
38	Purchaser's Right to Accept any Tender and to Reject any or All Tenders	24
39	Award Criteria	24
40	Variation of Quantities at the Time of Award	24
41	Notification of Award	24
42	Issue of Contract	24
43	Non-receipt of Performance Security and Contract by the Purchaser/Consignee	25
44	Return of EMD	25
45	Publication of Tender Result	25
46	Corrupt or Fraudulent Practices	25

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

1.3 Abbreviations:

- (i) **“TE Document”** means Tender Enquiry Document
- (ii) **“NIT”** means Notice Inviting Tenders.
- (iii) **“GIT”** means General Instructions to Tenderers
- (iv) **“SIT”** means Special Instructions to Tenderers
- (v) **“GCC”** means General Conditions of Contract
- (vi) **“SCC”** means Special Conditions of Contract
- (vii) **“DGS&D”** means Directorate General of Supplies and Disposals
- (viii) **“NSIC”** means National Small Industries Corporation

- (ix) “PSU” means Public Sector Undertaking
- (x) “CPSU” means Central Public Sector Undertaking
- (xi) “LSI” means Large Scale Industry
- (xii) “SSI” means Small Scale Industry
- (xiii) “LC” means Letter of Credit
- (xiv) “DP” means Delivery Period
- (xv) “BG” means Bank Guarantee
- (xvi) “ED” means Excise Duty
- (xvii) “CD” means Custom Duty
- (xviii) “RR” means Railway Receipt
- (xix) “BL” means Bill of Lading
- (xx) “FOB” means Free on Board
- (xxi) “FCA” means Free Carrier
- (xxii) “FOR” means Free On Rail
- (xxiii) “CIF” means Cost, Insurance and Freight
- (xxiv) “CIP (Destinations)” means Carriage and Insurance Paid up to named port of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
- (xxv) “DDP” means Delivery Duty Paid named place of destination (consignee site)
- (xxvi) “INCOTERMS” means International Commercial Terms as on the date of Tender Opening
- (xxvii) “CMC” means Comprehensive maintenance Contract (labour, spare and preventive maintenance)
- (xxviii) “RT” means Re-Tender.
- (xxix) “GST” means Goods and Services Tax

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, *inter alia*, the required delivery schedule, terms and place of delivery.
- 2.2 This section (Section II - “General Instruction Tenderers”) provides the relevant information as well as instructions to assist the prospective bidders in preparation and submission of bids. 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, etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

3. Availability of Funds

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

4. Language of Tender

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

5. Eligible Tenderers

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

6. Eligible Goods and Services

- 6.1 All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term “origin” used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied. **This being domestic tender goods should be manufactured or sourced at India.**

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. e-TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

- 8.1 In addition to Section I – “Notice inviting e-Tender” (NIT), the TE documents include:

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

- Section XVI – Contract Forms A & B
 Section XVII – Proforma of Consignee Receipt Certificate
 Section XVIII – Proforma of Final Acceptance Certificate by the consignee
 Section XIX – Consignee List

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

9. Amendments to TE documents

- 9.1 At any time prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it.
 9.2 Such an amendment will be notified in writing by registered/speed post or by fax/telex/e-mail, 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 on their letter head duly signed and scanned through email to pcd@hllhites.com and bmenoida@hllhites.com. The purchaser will respond to such request provided the same is received by the purchaser **within the due date mentioned in the NIT. Any queries/representations received later shall not be taken into cognizance.**

C. PREPARATION OF e-TENDERS

11. Documents comprising the e-Tender

- 11.1 The tender(s) shall only be submitted online as mentioned below:
- (i) Technical Bid (Consisting of Techno-Commercial bids in excel format provided with the tender enquiry along with the supporting documents i.e. scanned copies of Tender Processing Fee, EMD, Eligibility Criteria & Technical Specifications viz. Product Specification Sheets/Brochures, OEM Certificate, etc.) has to be attached in the C-folder of e-tendering module. Bidders have to ensure that the documents uploaded in pdf format are legible.
 - (ii) Price Bid has to be submitted in the prescribed excel format provided with the tender enquiry.

Note:

- (i) The Tender Processing Fee and EMD, in favor of HLL Infra Tech Services Ltd, are to be submitted in physical form as per Section - I, Notice Inviting Tender, of this tender enquiry.
- (ii) The bidders have to follow the steps listed in *Bidding Manual – Attachment Mode* available in the *Bidder Help Documents* of e-tender portal login screen for uploading the Techno-Commercial Bid.

A) Details of Technical Tender (Un priced Tender)

Bidders shall furnish the following information along with technical tender:.

- i) Techno-Commercial Bid in excel format provided with the tender enquiry
- ii) Earnest money Deposit (EMD) 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.
- iii) Tender Form as per Section X (without indicating any prices).
- iv) 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.
- v) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorization **strictly as per the prescribed format (Section - XIV)**.
- vi) Power of Attorney issued by Competent Authority in favour of the person **who is digitally signing/ uploading the tender(s)**.
- vii) 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.
- viii) Performance Statement as per section IX along with relevant copies of orders and end users' satisfaction certificate.
- ix) Price Schedule(s) as per Section XI filled up with all the details including Make, Model etc. of the goods offered with prices blank (without indicating any prices).
 - x) Certificate of Incorporation.
 - xi) Self-Attested copies of VAT registration certificate and PAN Card.
 - xii) Non conviction /no pending conviction certification issued by Notary on judicial stamp paper for preceding three years.
 - xiii) Self-Attested copies of quality certificates i.e. US FDA /CE Certificate issued by competent authority, if applicable.
 - xiv) Documentary evidence stating the status of bidder.
 - xv) List of procurement agencies of repute to which the tendered product have been supplied during last 12 months.
 - xvi) Self-attested copies of annual report, audited balance sheet and profit & loss account for preceding three years from the date of tender opening.
 - xvii) Notarized affidavit that Tenderer does not have any relation with the person authorized to evaluate technically or involve in finalizing the tender or will decide the use of tendered items.
 - xviii) A self-declaration on Rs. 10/-non-judicial Stamp Paper that the rates quoted in the tender are the lowest and not quoted less than this to any Government Institution (State/Central/ other Institute in India).
 - xix) **Copies of original product catalogues / data sheet must be enclosed of all quoted items.**

B) Price Bid:

Prices are to be quoted in the prescribed Price Bid format in excel provided along with the tender enquiry in the e-tender portal. The price should be quoted for the accounting unit indicated in the e-tender document.

Note:

- (i) **The bidder has to be diligent while filling up the Techno-Commercial Bid and Price Bid provided in excel formats and must not tamper with the contents of the sheets.**

(ii) It is the responsibility of bidder to go through the TE document to ensure furnishing all required documents in addition to above, if any.

(iii) The bidders have to follow the steps listed in *Bidding Manual – Attachment Mode* available in the *Bidder Help Documents* of e-tender portal login screen for uploading the Price Bid.

11.2 A person signing (manually or digitally) 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 fulfill any of the above requirements and/or give evasive information/reply against any such requirement, shall be liable to be ignored.

11.4 Tender sent by fax/telex/cable 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.

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. However, while quoting for a schedule, the tenderer shall quote for the complete requirement of goods and services as specified in that particular schedule.

13.3 Deleted.

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, Custom Duty and/or GST 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 taxes and duties including Custom duty and/or GST, which will be payable on the goods in India if the contract is awarded;
- c) Charges towards Packing & Forwarding, Inland Transportation, Insurance (local transportation and storage), Loading& Unloading etc. would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;
- d) The price of Incidental Services, as mentioned in List of Requirements and Price Schedule;

- e) The prices of Site Modification Work (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule.
- 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 GST or any other taxes 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 taxes and no claim for the same will be entertained later.

13.5.2 Deleted

13.5.3 Deleted

13.5.4 **Octroi Duty and Local Duties & Taxes:**

Normally, goods to be supplied to government departments against government contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, on some occasions, the local bodies (like town body, municipal body etc.) as per their regulations allow such exemptions only on production of certificate to this effect from the concerned government department. Keeping this in view, the supplier shall ensure that the stores to be supplied by the supplier against the contract placed by the purchaser are exempted from levy of any such duty or tax and, wherever necessary, obtain the exemption certificate from the purchaser. The purchaser should issue the certificate to the supplier within 21 days from the date of receipt of request from the supplier.

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

13.5.6 **Goods and Services Tax (GST) :**

If a tenderer asks for Goods and Services Tax to be paid extra, the rate and nature of Goods and Services Tax applicable should be shown separately. The Goods and Services Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction is legally liable to Goods and Services 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 forthwith to the purchaser

13.6 Deleted

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

13.8 Deleted

13.9 The need for indication of all such price components by the tenderers, as required in this clause (viz., GIT clause 13) is for the purpose of comparison of the tenders by the purchaser and will not restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

14. **Indian Agent**

14.1 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. Bidders are requested to quote BOQ wise unit price (**uniform unit prices must be quoted for same BOQ items across India**) and total price. If a firm quotes NIL Charges/ consideration, the bid shall be treated as unresponsive and will not be considered

16. Alternative Tenders

16.1 Alternative Tenders are not permitted.

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

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

17 Documents Establishing Tenderer's Eligibility and Qualifications

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

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

- a) in case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The tenderer shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIV in this document.
- b) the tenderer has the required financial, technical and production capability necessary to perform the contract and, further, it meets the qualification criteria incorporated in the Section IX in these documents.
- c) in case the tenderer is not doing business in India, it is duly represented by an agent stationed in India fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.
- 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 A (i) the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 19.7 below.
- 19.2 The tenderers who are currently registered and, also, will continue to remain registered during the tender validity period with Directorate General of Supplies & Disposals or with National Small Industries Corporation, New Delhi for the specific goods as per tender enquiry specification shall be eligible for exemption from EMD. Vague stipulations in the Registration Certificate such as "to customers' specification", etc. will not be acceptable for exemption from furnishing of earnest money. In case the tenderer falls in these categories, it should furnish copy of its valid registration details (with DGS&D or NSIC, as the case may be).
- 19.3 The earnest money shall be denominated in Indian Rupees or equivalent currencies as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:
- i) Account Payee Demand Draft
 - ii) Fixed Deposit Receipt
 - iii) Banker's cheque and
 - iv) Bank Guarantee
- 19.4 The demand draft or banker's cheque or Fixed Deposit Receipt 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 New Delhi. In case of bank guarantee, the same is to be provided from any scheduled commercial bank in India or country of the tenderer as per the format specified under Section XIII in these documents.
- 19.5 The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 20 of GIT is 120 days, the EMD shall be valid for 165 days from Techno – Commercial Tender opening date.
- 19.6 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.
- 19.7 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.

19.8 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 tender opening prescribed in the TE document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.
- 20.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/ telex/cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, who may not agree to extend its tender validity after the expiry of the original validity period the EMD furnished by them shall not be forfeited.
- 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. Digital Signing of Tender

21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11. Tenders shall be uploaded with all relevant tender documents in the prescribed format. The relevant tender documents should be uploaded by an authorised person having Class 3 digital signature certificate.

D. SUBMISSION OF TENDERS**22. Submission of Tenders**

22.1 The tender shall be submitted online only.

- (i) Pre-qualification and Technical compliance along with the Techno-Commercial Bid in excel format:
- a) Scanned copies of tender processing fee and EMD
 - b) Manufacturer's authorization in case bid is submitted by an Indian agent (A declaration must be attached here in case directly quoted by a manufacturer or a document establishing the relation of the Indian office with the manufacturer in case quoted by Indian office of the manufacturer).
 - c) Tender Form as per Section X.
 - d) Compliance of all terms and conditions of TED like- warranty, CMC, delivery period, delivery terms, payment terms, Liquidated Damages Clause, Arbitration clause, etc
 - e) Declaration regarding Fall Clause and Deregistration, debarment from any Govt Dept/ Agencies
 - f) Copy of PAN.
 - g) Certificate of Incorporation/ or a Declaration in case the firm is being a proprietary firm.
 - h) Abridged Annual report of last 03 years (Balance sheet and Profit & Loss Account) completed till December 2016, in pdf format.
 - i) Name, address and details of account with respect to bidder and/or beneficiary of L/C.
 - j) Quality Control Requirements as per Section VIII
 - k) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
 - l) Technical Bid along with clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications along with product catalogue and data sheet in the tender enquiry.
 - m) The bidder should submit blank proforma invoice from the foreign manufacturer along with his technical bid, duly mentioning the specifications and code number of the parts quoted.
 - n) The original proforma invoices from the foreign principal will be applicable in case of 100% subsidiary companies incorporated in India also.
 - o) In case the bidder quotes an equipment of a foreign manufacturer and submits the documents as per Clause 22.1 (i) l & m from the subsidiary company of the foreign Original Equipment Manufacturer in India, the bidder must submit the Power of Attorney given to the subsidiary company by the foreign Original Equipment Manufacturer, authorizing it to do business and perform all obligations for and on behalf of the foreign manufacturer company, in India.
- (ii) **PRICE BID (ONLY ONLINE)**
- a) The tenderers must ensure that they submit the Price Bid in prescribed format uploaded along with the tender enquiry. It is the responsibility of the bidder to ensure that the contents of the format are not tampered.
 - b) The tenderers must ensure that they submit the on-line tenders not later than the closing time and date specified for submission of tenders.

- c) Along with price bid recent purchase order copies for the same model and technical configuration issued by institute of National importance and/or reputed central/state government hospitals should be uploaded in pdf form for reasonability of the offered price.
- d) The bidder should submit the copy of original proforma invoice from the foreign manufacturer along with the price bid.
- e) The supplier shall justify the present quotes based on previous purchase orders for similar project executed either in India or Globally. If they quote any new model or upgraded version of earlier model, they may mention the same in their tender.

22.2 The tenderers must ensure that they submit the on-line tenders within the scheduled closing date & time. They shall also ensure to submit the original Tender Processing Fee and EMD within its scheduled date & time.

23. Late Tender:

23.1 There is NO PROVISION of uploading late tender beyond stipulated date & time in the e-tendering system. However, if the necessary Tender Processing Fee and EMD in original are not submitted within the scheduled time, the tender shall be declared as late tender and online tender shall not be opened and shall be ignored.

24. Alteration and Withdrawal of Tender

24.1 The tenderer is permitted to change, edit or withdraw its bid on or before the end date & time.

E. TENDER OPENING

25. Opening of Tenders

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

F. SCRUTINY AND EVALUATION OF TENDERS

26. Basic Principle

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

27. Scrutiny of Tenders

27.1 The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished and, whether the documents uploaded are in legible form.

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

27.3 Deleted

27.4 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.

27.5 The following are some of the important aspects, for which a tender shall be declared non-responsive during the evaluation and will be ignored;

- (i) Tender validity is shorter than the required period.
- (ii) Required EMD or its exemption documents have not been provided.
- (iii) Tenderer has not agreed to give the required 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.
- (iv) Poor/ unsatisfactory past performance.
- (v) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
- (vi) Tenderer is not eligible as per GIT Clauses 5.1 & 17.1.
- (vii) Tenderer has not quoted for the entire quantity as specified in the List of Requirements/ BOQ for the quoted schedule.
- (viii) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry, like delivery terms, delivery schedule, terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism applicable law.

28. Minor Informality/Irregularity/Non-Conformity

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 tenders. 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.

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

Not applicable being e-Tender.

31. Qualification Criteria

- 31.1 Tenders of the tenderers, which do not meet the required Qualification Criteria prescribed in Section IX, will be treated as non - responsive and will not be considered further.
- 31.2 The Purchaser reserves the right to relax the Norms on Prior Experience for Start-ups and Micro & Small Enterprises in Public Procurement.

The Start-ups are defined in Annexure-A of the “Action Plan for Start-ups in India”. The same is available on the website of Department of Industrial policy and Promotion (DIPP), Ministry of Commerce & Industry.

The Notification is available in the below link:

http://www.finmin.nic.in/the_ministry/dept_expenditure/ppcell/RelaxNorms_StartupMedEnterpris_e25072016.pdf

The FAQs are available in the below link:

http://dipp.nic.in/English/Investor/startupindia/FAQs_StartupIndia_30March2016.pdf

Note:- Definition of Startup (only for the purpose of Government schemes)

(Ref: Ministry of Finance Office Memorandum No. F.20/2/2014-PPD(Pt.) dated 25th July 2016.)

Start-up means an entity, incorporated or registered in India not prior to five years, with annual turnover not exceeding INR 25 crore in any preceding financial year, working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.

Provided that such entity is not formed by splitting up, or reconstruction, of a business already inexistence.

Provided also that an entity shall cease to be a Start-up if its turnover for the previous financial years has exceeded INR 25 crore or it has completed 5 years from the date of incorporation/ registration.

Provided further that a Start-up shall be eligible for tax benefits only after it has obtained certification from the Inter-Ministerial Board, setup for such purpose.

32. Conversion of tender currencies to Indian Rupees

- 32.1 Deleted,

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.

34. Comparison of Tenders

34.1 Unless mentioned otherwise in Section – III – Special Instructions to Tenderers and Section – VI – List of Requirements, the comparison of the responsive tenders shall be carried out on Delivery Duty Paid (DDP) consignee site basis. The quoted Site Modification Work prices and Comprehensive Annual Maintenance charges (CMC) prices will also be added for comparison/ranking purpose for evaluation. **“Net Present value (NPV) of the actual CMC price quoted for the required CMC period after the warranty period shall be considered for bid comparison and the NPV will be calculated after discounting the quoted CMC price by a discounting factor of 10% per annum.”**

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, GST or any other taxes which will be contractually payable (to the tenderer), on the goods if a contract is awarded on the tenderer; and

ii) Deleted

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

35.3 The Purchaser reserves the right to give the price preference to small-scale sectors etc. and purchase preference to central public sector undertakings as per the instruction in vogue while evaluating, comparing and ranking the responsive tenders.

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

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

iii. The MSEs fulfilling the prescribed eligibility criteria and participating in the tender shall enclose with their tender a copy of their valid registration certificate with District Industries Centres or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or any other body specified by

Ministry of Micro and Small enterprises in support of their being an MSE, failing which their tender will be liable to be ignored.

- iv. The Purchaser reserves the right to relax the Norms on Prior Experience for Start-ups and Micro & Small Enterprises in Public Procurement.

The Start-ups are defined in Annexure-A of the “Action Plan for Start-ups in India”. The same is available on the website of Department of Industrial policy and Promotion (DIPP), Ministry of Commerce & Industry.

The Notification is available in the below link:

http://www.finmin.nic.in/the_ministry/dept_expenditure/ppcell/RelaxNorms_StartupMedEnterprise25072016.pdf

The FAQs are available in the below link:

http://dipp.nic.in/English/Investor/startupindia/FAQs_StartupIndia_30March2016.pdf

Note:- Definition of Startup (only for the purpose of Government schemes)

(Ref: Ministry of Finance Office Memorandum No. F.20/2/2014-PPD(Pt.) dated 25th July 2016.)

Start-up means an entity, incorporated or registered in India not prior to five years, with annual turnover not exceeding INR 25 crore in any preceding financial year, working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.

Provided that such entity is not formed by splitting up, or reconstruction, of a business already in existence.

Provided also that an entity shall cease to be a Startup if its turnover for the previous financial years has exceeded INR 25 crore or it has completed 5 years from the date of incorporation/ registration.

Provided further that a Startup shall be eligible for tax benefits only after it has obtained certification from the Inter-Ministerial Board, setup for such purpose.

35.4 Preference to Make in India: As per the order issued by Department of Industrial Policy and Promotion (DIPP) vide No. P-45021/2/2017-BE-II dated 15.06.2017; the purchaser reserves the right to give preference to the local supplier. A copy of this order is enclosed at Appendix-A which will form a part of this TED for evaluation and ranking of bids. A local supplier (definition of ‘local supplier’ is given in clause 2 of the aforesaid order of DIPP) has to submit the following along with their tender(s) failing which their bid will be evaluated without considering such preference mentioned in the DIPP order dated 15.06.2017:

- a. The local supplier at the time of tender, bidding or solicitation shall be required to provide self-certification that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made.
- b. In cases of procurement for a value in excess of Rs. 10 crores. the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

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" (rounded off to next whole number) without any change in the unit price and other terms & conditions quoted by the tenderer.
- 40.2 If the quantity has not been increased to the maximum of 25% of the tendered quantity at the time of awarding the contract, the purchaser reserves the right to increase the quantity further by up to the balance available twenty five (25) per cent of the tendered quantity of goods and services (rounded off to next whole number) without any change in the unit price and other terms & conditions mentioned in the contract during the currency of the contract.

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 email (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/Consignee by registered / speed post. The successful tenderer should also submit Proforma Invoice from the foreign principal (if applicable as per contractual price) within 21 days from the date of NOA.

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

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

43.1 Failure of the successful tenderer in providing performance security, Proforma Invoice 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 namely the Consignee/Tenderers/Suppliers etc to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser: -

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

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

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

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

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

SECTION - III
SPECIAL INSTRUCTIONS TO TENDERERS
(SIT)

Sl. No.	GIT Clause No.	Topic	SIT Provision	Page No.
A	1 to 7	Preamble	No Change	
B	8 to 10	TE documents	No Change	
C	11 to 21	Preparation of Tenders	Change	
D	22 to 24	Submission of Tenders	Change	
E	25	Tender Opening	No Change	
F	26 to 37	Scrutiny and Evaluation of Tenders	No Change	
G	38 to 45	Award of Contract	No Change	

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.

SUBMISSION OF e-TENDERS

- (i) All the necessary documents as prescribed in the NIT shall be prepared and scanned in different files (in PDF format as prescribed) and uploaded for on-line submission of Proposal.
- (ii) Except Tender Processing Fee and EMD, all document(s)/ information(s) including the Financial Proposal (i.e. FORMAT FOR SUBMISSION OF FINANCIAL PROPOSAL) should be uploaded **online only** in the prescribed format given in the website. No other mode of submission shall be acceptable.
 - i) The prospective bidders may **scan the documents in low resolution (75 to 100 DPI)** instead of 200 DPI. The documents may be scanned for further lower resolution (if possible). This would reduce the size of the Cover and would be uploaded faster.
 - ii) The Individual file size of uploading is restricted up to 5 MB. Bidders may upload multiple files (Not exceeding 5 MB individually) & give relevant file name indicating the contents.
 - iii) The file name of price bid should match the file of the price bid format uploaded by the purchaser in the portal. This can be downloaded from the **Notes & Attachment** under **Details** of item when the event is in **Display Mode**.

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

Sl. No.	Topic	Page
1	Application	28
2	Use of contract documents and information	28
3	Patent Rights	28
4	Country of Origin	28
5	Performance Security	28
6	Technical Specifications and Standards	29
7	Packing and Marking	29
8	Inspection, Testing and Quality Control	29
9	Terms of Delivery	30
10	Transportation of Goods	31
11	Insurance	31
12	Spare parts	31
13	Incidental services	32
14	Distribution of Dispatch Documents for Clearance/Receipt of Goods	32
15	Warranty	34
16	Assignment	34
17	Sub Contracts	34
18	Modification of contract	34
19	Prices	35
20	Taxes and Duties	35
21	Terms and mode of Payment	35
22	Delivery	37
23	Liquidated Damages	38
24	Termination for default	38
25	Termination for insolvency	39
26	Force Majeure	39
27	Termination for convenience	39
28	Governing language	40
29	Notices	40
30	Resolution of disputes	40
31	Applicable Law	40
32	Withholding and Lien	40
33	General/Miscellaneous Clauses	40

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, trademarks 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 twenty one (21) days from date of the issue of notification of award by the Purchaser/Consignee, the supplier, shall furnish performance security to the Purchaser/Consignee for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations, initially valid for a period of minimum six months plus number of months under warranty from the date of Notification of Award
- 5.2 The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:
It shall be in any one of the forms namely Account Payee Demand Draft or Fixed Deposit Receipt drawn from any Scheduled bank in India or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in section XV of this document in favour of the Purchaser/Consignee. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to sixty (60) days beyond Warranty Period.
- 5.3 In the event of any failure /default of the supplier with or 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 fifteen (15) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.
- 5.5 The supplier shall enter into Annual Comprehensive Maintenance Contract as per the 'Contract Form – B' in Section XVI with respective consignees, 3 (three) months prior to the completion of Warranty Period. The CMC will commence from the date of expiry of the Warranty Period.
- 5.6 Subject to GCC sub – clause 5.3 above, the Purchaser/Consignee will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CMC security in favour of Head of the Hospital/ Institute/ Medical College of the consignee as per the format in Section XV.

6. Technical Specifications and Standards

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

7. Packing and Marking

- 7.1 The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.
- 7.2 The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications and Quality Control Requirements under Sections VII and VIII and in SCC under Section V. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the supplier accordingly.
- 7.3 Packing instructions:

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

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

8. Inspection, Testing and Quality Control

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

supplier requests for re-inspection, and if same is accepted by purchaser/consignee/PSA/PA, all subsequent inspections shall be at the cost of the supplier. The expense will be to and fro Economy Airfare, Local Conveyance, Boarding and Lodging of the inspection team for the inspection period.”

- 8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser’s inspector at no charge to the purchaser.
- 8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser’s inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser’s inspector for conducting the inspections and tests again.
- 8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier’s premises, the supplier shall put up the goods for such inspection to the purchaser’s inspector well ahead of the contractual delivery period, so that the purchaser’s inspector is able to complete the inspection within the contractual delivery period.
- 8.5 If the supplier tenders the goods to the purchaser’s inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.
- 8.6 The purchaser’s/consignee’s contractual right to inspect, test and, if necessary, reject the goods after the goods’ arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser’s inspector during pre-despatch inspection mentioned above.
 “On rejection, the supplier shall remove such stores within 14 days of the date of intimation of such rejection from the consignee’s premises. If such goods are not removed by the supplier within the period mentioned above, 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 suppliers 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 Deleted..

9. Terms of Delivery

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

10. Transportation of Goods

- 10.1 Deleted.

- 10.2 Instructions for transportation of domestic goods including goods already imported by the supplier under its own arrangement:
In case no instruction is provided in this regard in the SCC, the supplier will arrange transportation of the ordered goods as per its own procedure.

11. Insurance:

- 11.1 Unless otherwise instructed in the SCC, the supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner:
- i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from ware house to ware house (consignee site) on all risk basis. The insurance cover shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.
 - ii) Deleted.

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

12. Spare parts

- 12.1 If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:
- a) The spare parts as selected by the Purchaser/Consignee to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and
 - b) In case the production of the spare parts is discontinued:
 - i) Sufficient advance notice to the Purchaser/Consignee before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and
 - ii) The supplier shall be responsible for undertaking the supply of any such spare part for the proper up keeping of equipment for a period of 10 years including the warranty and CMC periods.
- 12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumables and spares for the goods so that the same are used during warranty and CMC period.

13. Incidental services

- 13.1 Subject to the stipulation, if any, in the SCC (Section – V), List of Requirements (Section – VI) and the Technical Specification (Section – VII), the supplier shall be required to perform the following services.
- a. Installation & commissioning, Supervision and Demonstration of the goods
 - b. Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.

- c. Training of Consignee's Doctors, Staff, operators etc. for operating and maintaining the goods
- d. Supplying required number of operation & maintenance manual for the goods

14. Distribution of dispatch documents for clearance/receipt of goods

The supplier shall send all the relevant despatch documents well in time to the Purchaser/Consignee to enable the Purchaser/Consignee clear or receive (as the case may be) the goods in terms of the contract.

Unless otherwise specified in the SCC, the usual documents involved and the drill to be followed in general for this purpose are as follows.

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

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post / courier (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) Certificate of origin for goods of foreign origin;
- (iv) Insurance Certificate as per GCC Clause 11.
- (v) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

- B) Deleted.

15. Warranty:

- The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (except when the design adopted and/or the material used are as per the Purchaser's/Consignee's specifications) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.
- The warranty shall remain valid for 36 months from the date of installation & commissioning with a regular updates of newer technology as and when evolved followed by a CMC for a period of 5 (Five) Years for all the equipment 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.
- No conditional warranty will be acceptable.
- Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Site Modification work and it will also cover the following wherever applicable:-
 - Any kind of motor.
 - Plastic & Glass Parts against any manufacturing defects.
 - All kind of sensors.
 - All kind of coils, probes and transducers.
 - Printers and imagers including laser and thermal printers with all parts.
 - UPS including the replacement of batteries.

- Air-conditioners
 - a. Replacement and repair will be under taken for the defective goods.
 - All kinds of painting, civil, HVAC and electrical work
 - b. Proper marking has to be made for all spares for identification like printing of installation and repair dates.
- 15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.
- 15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non-rectification will be applicable as per tender conditions
- 15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended till the completion of the original warranty period of the main equipment.
- 15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.
- 15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods
- 15.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.
- 15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipment supplied by them to the purchaser for 10 years from the date of installation and handing over.
- 15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipment /machines/goods etc. and shall always give the most competitive price for its machines/equipment supplied to the Purchaser/Consignee.

16. Assignment

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

17. Sub Contracts

- 17.1 The Supplier shall notify the Purchaser in writing of all sub contracts awarded under the contract if not already specified in its tender. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.
- 17.2 Sub contract shall be only for bought out items and sub-assemblies.
- 17.3 Sub contracts shall also comply with the provisions of GCC Clause 4 ("Country of Origin").

18. Modification Of Contract

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

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

18.2 In the event of any such modification/alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by the Purchaser/Consignee, the supplier shall convey its views to the Purchaser/Consignee within twenty-one days from the date of the supplier's receipt of the Purchaser's/Consignee's amendment / modification of the contract.

19. Prices

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

20. Taxes and Duties

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

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

21. Terms and mode of payment

21.1 Payment Terms

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

TERMS AND MODE OF PAYMENT

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:

Ninety percent (90%) payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents subject to recovery of LD, if any:

- (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) Insurance Certificate as per GCC Clause 11
- (v) Certificate of origin for imported goods
- (vi) Consignee Receipt Certificate as per Section XVII in original issued by the authorized representative of the consignee

b) On Acceptance:

Balance Ten percent (10%) 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. FAC needs to be issued by the designated consignee after installation, commissioning, testing and one to two weeks of successful trail run of the equipment.

B) Payment For Imported Goods: Deleted

C) Payment of Site Modification Work, if any:

Site Modification Work payment will be made to the bidder/ manufacturer's agent to its Indian Office in Indian rupees as indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation. This will be paid on proof of final installation, commission and acceptance of equipment by the consignee

D) Payment for Annual Comprehensive Maintenance Contract Charges:

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

- 21.2 The supplier shall not claim any interest on payments under the contract.
- 21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.
- 21.4 Irrevocable & non – transferable LC shall be opened by the Purchaser. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser/consignee, the charges thereof shall be borne by the supplier.
- 21.5 The payment shall be made in the currency / currencies authorised in the contract.
- 21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.
- 21.7 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.
- 21.8 While claiming reimbursement of duties, taxes etc. (like custom duty and/or GST or any other taxes) 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 received 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 the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the 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 and/or GST 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 and/or GST or any other duty or tax or levy or on account of any other grounds, which takes place after the expiry of the date of delivery stipulated in the contract.
- 22.5 The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the Purchaser/Consignee for extension of delivery period and obtain the same before despatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the purchaser.
- 22.6.1 Passing of Property:
- 22.6.2 The property in the goods shall not pass to the purchaser unless and until the goods have been delivered to the consignee in accordance with the conditions of the contract.

- 22.6.3 Where there is a contract for sale of specific goods and the supplier is bound to do something to the goods for the purpose of putting them into a deliverable state the property does not pass until such thing is done.
- 22.6.4 Unless otherwise agreed, the goods remain at the supplier's risk until the property therein is transferred to the purchaser.

23. Liquidated damages

- 23.1 Subject to GCC clause 26, if the supplier fails to deliver or install /commission any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract including opening of office in India as per the undertaking given in the qualification criteria, 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, installation, commissioning 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. *Since the Liquidated damages are in virtue of non-performance of services, it will attract GST or any other applicable taxes which in turn shall be deducted from the bidder.*

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

24. Termination for default

- 24.1 The Purchaser/Consignee, without prejudice to any other contractual rights and remedies available to it (the Purchaser/Consignee), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser/Consignee pursuant to GCC sub-clauses 22.3 and 22.4.
- 24.2 In the event of the Purchaser/Consignee terminates the contract in whole or in part, pursuant to GCC sub-clause 24.1 above, the Purchaser/Consignee may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the Purchaser/Consignee for the extra expenditure, if any, incurred by the Purchaser/Consignee for arranging such procurement.
- 24.3 Unless otherwise instructed by the Purchaser/Consignee, the supplier shall continue to perform the contract to the extent not terminated.

25. Termination for insolvency

- 25.1 If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Purchaser/Consignee.

26. Force Majeure

- 26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.
- 26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about

at the instance of , the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, and freight embargoes.

- 26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.
- 26.5 In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for convenience

- 27.1 The Purchaser/Consignee reserves the right to terminate the contract, in whole or in part for its (Purchaser's/Consignee 's) convenience, by serving written notice on the supplier at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Purchaser/Consignee. The notice shall also indicate interalia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.
- 27.2 The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by the Purchaser/Consignee following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser/Consignee may decide:
- a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
 - b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing language

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

29. Notices

- 29.1 Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by cable or telex or facsimile and confirmed in writing. The procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.
- 29.2 The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

30. Resolution of disputes

- 30.1 If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.
- 30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India or amendments thereof. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitration appointed by CEO 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 lakhs (Rs. 1,00,000/-)
- 30.3 Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e., New Delhi, India.
- 30.4 Jurisdiction of the court will be from the place where the tender enquiry document has been issued, i.e., New Delhi, India

31. **Applicable Law**

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

32. **Withholding and Lien in respect of sums claimed**

Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other 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 about of or under the contract is determined by the Arbitrator or by the competent court as the case may be, and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

33. **General/ Miscellaneous Clauses**

- 33.1 Nothing contained in this Contract shall be constructed as establishing or creating between the parties, i.e. the Supplier/its Indian Agent/CMC Provider on the one side and the Purchaser on the other side, a relationship of master and servant or principal and agent.
- 33.2 Any failure on the part of any Party to exercise right or power under this Contract shall not operate as waiver thereof.
- 33.3 The Supplier shall notify the Purchaser/Consignee /the Government of India of any material change would impact on performance of its obligations under this Contract.
- 33.4 Each member/constituent of the Supplier/its Indian Agent/CMC Provider, in case of consortium shall be **jointly and severally liable** to and responsible for all obligations towards the Purchaser/Consignee/Government for performance of contract/services including that of its Associates/Sub Contractors under the Contract.
- 33.5 The Supplier/its Indian Agent/CMC Provider shall at all times, indemnify and keep indemnified the Purchaser/Government of India against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while providing its services under CMC or the Contract.
- 33.6 The Supplier/its Agent/CMC Provider shall, at all times, indemnify and keep indemnified the Purchaser/Consignee/Government of India against any claims in respect of any damages or compensation payable in consequences of any accident or injury sustained or suffered by its

employees or agents or by any other third party resulting from or by any action, omission or operation conducted by or on behalf of the supplier/its associate/affiliate etc.

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

33.8 If any provisions of this tender enquiry or a contract formed on the basis of this tender enquiry are invalid or void under any of the existing provisions of Indian law, then such provisions will not affect other provisions of this tender enquiry/ 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.

The warranty and CMC period will be as mentioned in the list of requirement as per section VI of the tender enquiry.

SECTION - VI

LIST OF REQUIREMENTS

Part I

Sl No	RFx No	Equipments	Quantity	Warranty	CMC
1	3000002269	Autoclave Horizontal	2	03 Years	05 Years
		a) Autoclave Vertical	4		
		b) Autoclave Vertical	2		
		Egg Incubator	1		
		Hot Air Oven	4		
		Hybridizing Oven	1		
		Incubator - A	2		
		Incubator - B	6		
		Incubator - C	2		
		Lyophilizer	1		
		Routine Water Bath	4		
2	3000002270	Biological Safety Cabinet Level II A 2 Size 5 ft	3	03 Years	05 Years
		Biological Safety Cabinet Level II A 2 Size 4 ft	5		
		Biological Safety Cabinet Level II A 2 Size 3 ft	6		
		Biological Safety Cabinet Level II B 2 Size 4 ft	2		
		Laminar air flow system - Horizontal	6		
3	3000002271	Microcentrifuge	4	03 Years	05 Years
		Microcentrifuge (Refrigerated)	2		
		Refrigerated Centrifuge	3		
		Tabletop Centrifuge	10		
4	3000002272	pH meter	4	03 Years	05 Years
		Vortex with Cup head	8		
		Vortex with Platform	2		
		Water Distillation unit (Quartz)	2		
5	3000002273	Binocular Microscope	20	03 Years	05 Years
		Binocular Microscope with Camera & CCD attachment.	2		
6	3000002274	Beaker Shaker	2	03 Years	05 Years
		Liquid Nitrogen Cylinder	2		
		Liquid Nitrogen Transport Container	2		
		Membrane filters- Stainless steel syringe filter holder with filters (Variable sizes)	10		
		Microwave Laboratory	2		
		Plastic Shredder	1		
7	3000002275	Micropipette Single Channel Variable volume 0.2-2 ul	6	03 Years	05 Years
		Micropipette Single Channel Variable volume 2-20 ul	6		
		Micropipette Single Channel Variable volume 5-50 ul	6		
		Micropipette Single Channel Variable volume 10-100 ul	6		
		Micropipette Single Channel Variable volume 20-200 ul	6		
		Micropipette Single Channel Variable volume 100-1000 ul	6		
		Micropipette Fixed volume Single Channel 5 ul	6		
		Micropipette Fixed volume Single Channel 10 ul	6		
		Micropipette Fixed volume Single Channel 50 ul	6		
		Micropipette Fixed volume Single Channel 100 ul	6		
		Micropipette Fixed volume Single Channel 1000 ul	6		
		Micropipette Multichannel 5-50 ul	5		
		Micropipette Multichannel 30-300 ul	5		
8	3000002276	Electronic pipettes digitally adjustable	1	03 Years	05 Years
9	3000002277	Stepper Pipette Multichannel	1		
10	3000002278	Ice Flaking Machine	1		

Sl No	RFx No	Equipments	Quantity	Warranty	CMC
11	3000002279	Balance Analytical	2	03 Years	05 Years
12	3000002280	Balance Electronic	4		
13	3000002281	Biological Oxygen Demand Incubator (BOD)	2		
14	3000002282	CO2 Incubator with CO2 Cylinders and regulator	6		
15	3000002283	Deep Freezer (-80°C)	2		
16	3000002284	Deep Freezer (-20°C)	8		
17	3000002285	Domestic Refrigerator 230 Ltrs. Capacity with Voltage Stabilizer	25		
18	3000002286	Electrophoresis apparatus (Complete set)	2		
19	3000002287	ELISA Reader and washer	4		
20	3000002288	Fluorescent Microscope	1		
21	3000002289	Fluorometer (Compact Bench top)	1		
22	3000002290	Gel Documentation system (with Chemiluminescence)	1		
23	3000002291	Gel Documentation system	1		
24	3000002292	Inverted Microscope	4		
25	3000002293	PCR machine with PCR Work Station	2		
26	3000002294	Refrigerated Circulating Water Bath	1		
27	3000002295	Two units of Real Time PCR along with one unit automated nucleic Acid Extraction System	1		
28	3000002296	Spectrophotometer	1		
29	3000002297	Ultrapure water purification system	1		
30	3000002298	Lab Refrigerator (400Lit. Capacity)	4		
31	3000003210	Walk in Cooler- 30 cum.	1		

Part II: Required Delivery Schedule:

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

60 days from date of Notification of Award to delivery at consignee site. The date of delivery will be the date of delivery at consignee site. Tenderers may quote earliest delivery period.

Installation and commissioning shall be done within 30 days of receipt of the stores/ goods at site or within 30 days of handing over the site for installation, whichever is later.

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

Note:

- The supplier should get confirmation of site readiness from the purchaser before delivery to the site.

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13

Part IV:

Site Modification Work (if any) as per details in Technical Specification.

Part V:

Warranty period as per details in general technical specification and as specified in Part I above. Warranty period will be 36 months from the date of installation, commissioning and acceptance or 42 months from the date of delivery, whichever is earlier.

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

Part VI:

Required Terms of Delivery and Destination:

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

At Consignee Site(s)

Destination/Consignee details:

A list of Consignee is given in Section XXI.

Section – VII Technical Specifications

SCHEDULE NO:1

Autoclave Horizontal

1. Single door high pressure steam sterilizer with triple wall, steam jacket and separate boiler.
2. Material of construction
 - a. Sterilizer chamber, Door, Loading carriage: SS
 - b. Door Gasket: Silicon or better
 - c. Insulation: fiber glass resin bonded wool or better
 - d. Insulation cover: SS sheets
3. Working chamber capacity: Approx. 300 – 400 liters.
4. Operating temperature 105 deg C - 138 deg C, pressure 5-30 psi of steam pressure.
5. Optional Disinfection / Isothermal Temperature Range 60°C to 105°C
6. Filter replacement notifications based on the number of cycles.
7. Removable plug screen for chamber drain
8. SS baffle for even steam distribution in the chamber
9. Dial Type Thermometer for indicating sterilization temperature.
10. Steam Generator (Boiler) shall be fitted with -
 - a. ISI marked water immersion type industrial heating elements.
 - b. Water inlet & outlet valves.
 - c. Automatic pressure stat switch to control the boiler/jacket pressure.
11. User Interface should have -
 - a) Multi-color display for easier reading
 - b) Easy operation
 - c) Quick access to important information
 - d) Built-in view of historical cycle data
 - e) Graphical display of Temperature and Pressure
12. Cycle Programs
 - a) 10 Fixed cycle programs
 - b) 20 customizable cycle programs
 - c) Cleaning cycle for cleaning piping (optional)
 - d) Material Stress cycle (optional) for testing various materials (multiple cycles and long sterilization time - 24 hours, 48 hours, 72 hours, and longer)
 - e) Enable/disable cycle programs according to user needs
13. Door Safety
 - a) A safety device to prevent the operator from opening the door when the chamber is pressurized
 - b) Steam should not to enter the chamber when the door is open
 - c) A cycle cannot start if the door is open or not properly locked
 - d) The door cannot unlock until liquid temperature reaches the predetermined end temperature
 - e) The door cannot unlock until chamber pressure reaches room pressure.
14. General Safety Features
 - a) Double Independent Monitoring: The combined electronic and mechanical monitoring should ensure that the operator has two independent means to monitor pressure
 - b) Safety Valves: The chamber should be equipped with safety valves – if the pressure exceeds the allowed limit the safety valves should discharge.
 - c) Built-in Steam Generator Safety: A water level monitoring system to maintain a constant water level and ensure safe operation of the heaters.

15. Pressure Control Switch to control the pressure inside the chamber mechanically and cuts-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.
16. Automatic Water Cut-off Device - to ensures that the machine is automatically switched off in case the desired water level falls below the prescribed level.
17. Shall meet IEC-60601-1-2:200 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
18. The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
19. The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%
20. Power input to be 230 +/- 10% V AC, 50Hz,/440 V 3 Phase as appropriate fitted with Indian plug.
21. Resettable over current breaker shall be fitted for protection.
22. With suitable warranty not less than 2yrs. &well established service network.
23. CE (ConformitéEuropéenne)/US FDA certified.
24. Calibration certificate from an accredited calibration laboratory.

Autoclave Vertical (chamber volume 350mm dia x 550 mm depth)

1. Should have a triple walled construction.
2. The working chamber, steam jacket, outer chamber and the lid should be made of stainless steel.
3. Should have water inlet and outlet valves.
4. Should have a water level gauge
5. Should have gauges for measuring inner and outer steam pressure.
6. Should have an inner temperature indicator.
7. Should have automatic pressure control switch, safety valve and eject valve.
8. Should have joint-less silicone gasket.
9. Should have automatic low water protection.
10. Should be supplied along with cord, plug and stainless steel basket.
11. Should have pedal lifting arrangement to lift the lid or handle to lift the lid.
12. Should have an BIS or equivalent certification.
13. Operating temperature range 105 deg C - 138 deg C, pressure range 5- 30 psi of steam pressure.
14. Chamber volume should be 350mm diameter and 550mm depth with minimum 2 bin type.
15. User interface should be designed with: Quick access to important information, Built-in view of historical cycle data, Graphical display of Temperature and Pressure.
16. Cycle Programs :
 - Pre and Post Vacuum control (optional)
 - 10 Fixed cycle programs
 - 20 customizable cycle programs
 - Cleaning cycle for cleaning piping.
17. Should be operated in mains 230 ±10% V AC 50 Hz input power supply.
18. Water inlet and outlet pipe should be provided and connections should be done on a turnkey basis.
19. General Safety Features:-
 - A safety device prevents the operator from opening the door when the chamber is pressurized
 - Steam should not to enter the chamber when the door is open
 - A cycle should not start if the door is open or not properly locked
 - The door should not unlock until liquid temperature reaches the predetermined end temperature
 - The door should not unlock until chamber pressure reaches room pressure
 - Double Independent Monitoring: The combined electronic and mechanical monitoring should ensure that the operator has two independent means to monitor pressure.

- Safety Valves: The chamber should be equipped with safety valves – if the pressure exceeds the allowed limit the safety valves will discharge
- Built-in Steam Generator Safety: A water level monitoring system maintains a constant water level and ensures safe operation of the heaters.

20. Comprehensive warranty at least 3 years, and well established service network.
21. CE (Conformité Européenne)/ US FDA certified.

Autoclave Vertical

(chamber volume 550-600mm dia x 750-800 mm depth)

1. Should have a triple walled construction.
2. The working chamber, steam jacket, outer chamber and the lid should be made of stainless steel.
3. Should have water inlet and outlet valves.
4. Should have a water level gauge
5. Should have gauges for measuring inner and outer steam pressure.
6. Should have an inner temperature indicator.
7. Should have automatic pressure control switch, safety valve and eject valve.
8. Should have joint-less silicone gasket.
9. Should have automatic low water protection.
10. Should be supplied along with cord, plug and stainless steel basket.
11. Should have pedal lifting arrangement to lift the lid or handle to lift the lid.
12. Should have an BIS or equivalent certification.
13. Operating temperature range 105 deg C - 138 deg C, pressure range 5- 30 psi of steam pressure.
14. Chamber volume should be 550-600 mm diameter and 750-800 mm depth with minimum 2 bin type.
15. User interface should be designed with: Quick access to important information, Built-in view of historical cycle data, Graphical display of Temperature and Pressure.
16. Cycle Programs :
 - Pre and Post Vacuum control (optional)
 - 10 Fixed cycle programs
 - 20 customizable cycle programs
 - Cleaning cycle for cleaning piping.
17. Should be operated in mains 230 ±10% V AC 50 Hz input power supply.
18. Water inlet and outlet pipe should be provided and connections should be done on a turnkey basis.
19. General Safety Features:-
 - A safety device prevents the operator from opening the door when the chamber is pressurized
 - Steam should not to enter the chamber when the door is open
 - A cycle should not start if the door is open or not properly locked
 - The door should not unlock until liquid temperature reaches the predetermined end temperature
 - The door should not unlock until chamber pressure reaches room pressure
 - Double Independent Monitoring: The combined electronic and mechanical monitoring should ensure that the operator has two independent means to monitor pressure.
 - Safety Valves: The chamber should be equipped with safety valves – if the pressure exceeds the allowed limit the safety valves will discharge
 - Built-in Steam Generator Safety: A water level monitoring system maintains a constant water level and ensures safe operation of the heaters.
20. Comprehensive warranty at least 3 years, and well established service network.
21. CE (Conformité Européenne)/ US FDA certified.

Egg Incubator

- Egg incubator for incubation of eggs from different bird species such as chickens, quails, turkeys, pheasants, ducks etc.
- Fully Digital Temperature Control
- Easy to regulate Humidity Control
- Automatic Egg Turner. Complete 45 degree turning of eggs in both directions
- Chicken Egg trays should be included.
- Access eggs from the front of the incubator, making it easier to load the incubator
- Built-in Lightning and Surge Protection
- Extra Large Clear-View Observation Window is standard
- Incubator made of Ultra Durable, Water Resistant Duraboard
- Specialized High Volume Incubator Fan
- Energy Saving Incubator Heating System
- Incubator should retain heat for 3 to 6 hours after power outage
- Internal Light for observing the insides of the incubator
- Medical Grade Anti-Bacterial Inner Coating for better hatch rates
- Capacity to incubate not less than 200 eggs
- Easy to clean cabinets (inside and backside)
- High temperature override and temperature alarms
- Direct connection to water source is preferable
- Full Incubation Instructions Included
- Power Usage: 220V Single Phase, 500 Watts
- With 3 years comprehensive warranty & well established service network.
- CE (Conformité Européenne)/US FDA certified.

Hot Air Oven

1. Should be operated on 230V+/- 10%, 50Hz single phase AC supply.
2. Should be made of double walled chamber -Inner made of stainless steel SS 304 grade and powder coated outer surface.
3. Supplied with 2 or 3 removable shelves. Shelves are made of polished SS Sheet or Anodized Aluminium.
4. It is fitted with heavy hinges with a ball catcher, spring loaded door closing device. Door is duly insulated.
5. The gap between the walls is filled up with special grade glass wool for proper insulation to avoid heat losses.
6. Temperature is controlled from 50°C to 250°C \pm 1°C. Temperature control knob is graduated in centigrade degrees.
7. Should provide with three heating elements on three sides of the equipment for uniform temperature on all shelves.
8. Should be provided with air circulating fan.
9. Should provide with a variable microprocessor based digital temperature controller with digital display .
10. Should provide with air ventilations.
11. Gravity convection technology for Gentle drying and heating with low air turbulences.
12. Should have chamber Capacity not less than 250L with 3 to 4 stainless steel trays with holes.
13. Should provide with air ventilations.
14. Heating elements are made of high grade imported nichrome wire which are insulated inside the porcelain beads.

15. Control Panel:– The equipment is provided with a panel having a thermostat control knob. ON/OFF switch, two pilot indication lights and provision for fixing the TIMER.
16. With suitable warranty & well established service network.
17. CE(Conformité Européenne)/US FDA certified.

Hybridization oven

- Capacity 10 medium bottles
- Control Digital Display LED
- Speed 5 to 15rpm
- Shaking Motion Up/Down
- Temperature Range (Metric) Ambient +8° to 85°C
- Temperature Uniformity $\pm 0.25^{\circ}\text{C}$ within bottle
- Voltage 220V
- Power Consumption 250w
- Platform approximately 10-12 X 7-10 inches in.
- Includes Shaker platform,
- 10-bottle capacity rotisserie,
- adjustable feet,
- drip tray,

INCUBATOR

LAB TECHNICAL SPECIFICATIONS (355×355×355 mm).

1. Should be operated on 230V,50Hz 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 outer surface.
3. Inner chamber should be fabricated with ribs for adjusting shelves to convenient height.
4. Should have a minimum of chamber size of (L*B*H) of 355 × 355 × 355 mm.
5. Should be provided with three side heating elements.
6. Should have air circulating fan (Which can be turn ON/OFF on demand) for uniform temperature on all shelves.
7. Should have double door with acrylic transparent door.
8. Should provide with a microprocessor based digital temperature controller with digital display. 9. Should have synthetic rubber gasket at the door.

INCUBATOR LAB TECHNICAL SPECIFICATIONS (455 × 605 × 455 mm)

1. Should be operated on 230V,50Hz 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 outer surface.
3. Inner chamber should be fabricated with ribs for adjusting shelves to convenient height.
4. Should have a minimum of chamber size of (L*B*H) of 455 × 605 × 455 mm.
5. Should be provided with three side heating elements.
6. Should have air circulating fan (Which can be turn ON/OFF on demand) for uniform temperature on all shelves.
7. Should have double door with acrylic transparent door.
8. Should provide with a microprocessor based digital temperature controller with digital display. 9. Should have synthetic rubber gasket at the door.

INCUBATOR LAB TECHNICAL SPECIFICATIONS (605×605 × 605 mm).

1. Should be operated on 230V,50Hz 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 outer surface.
3. Inner chamber should be fabricated with ribs for adjusting shelves to convenient height.
4. Should have a minimum of chamber size of (L*B*H) of 605 × 605 × 605 mm.
5. Should be provided with three side heating elements.
6. Should have air circulating fan (Which can be turn ON/OFF on demand) for uniform temperature on all shelves.
7. Should have double door with acrylic transparent door.
8. Should provide with a microprocessor based digital temperature controller with digital display. 9. Should have synthetic rubber gasket at the door.

Lyophilizer

1. Capacity - Approx. 3.5 ltrs.
2. Used for freeze drying heat sensitive biological materials without affecting their potency.
3. Should be provided with a drawing chamber or manifold in which the container with pre-frozen samples are connected / placed.
4. A high vacuum double stage pumping system with gas ballast to facilitate the vapor flow to the condenser for speedy drying.
5. A low temperature condenser to trap the moisture vapor and allow the non condensable vapor to go to the pump for release.
6. Should have a see through lid, gasket, microprocessor based temperature controller and electronic digital vacuum indicator.
7. Should have hermetically sealed compressor and rotary vane type vacuum pump with air ballast having ultimate vacuum of at least 1×10^{-3} tor on pump head.
8. Proper insulation between outer and inner chamber for minimal thermal loss.
9. Condenser trap should be stainless steel with dished bottom for complete effluent removal.
10. Vacuum drum should have 6 ports made of stainless steel.
11. Should be supplied with 2/3 individually heated racks for accelerated freeze drying of small samples.
12. Should be supplied with good made servo control voltage stabilizer.
13. CE (Conformité Européenne)/ US FDA certified.
14. Comprehensive Warranty 03 years for whole machine (including compressor) and next 04 years for compressor.

Routine water bath

1. The instrument should be easy-to-maintain, seamless stainless-steel interior chamber and epoxy powder-coated exterior resisting corrosion and chemical damage.
2. It should be a digital water bath with easy to use temperature control and clear to read LED water temperature. Incorporated over temperature protection system that tracks the set temperature and controls the heater in the event of a fault.
3. The heater should be mounted underneath the tank to allow easy cleaning.
4. There should be low level water sensor which cuts power to prevent the bath boiling dry, along with incorporated drain for easy emptying of the bath.
5. Chamber Capacity should be ≥ 20 lit
6. Temperature Display should be digital from 0 to 100°C
7. Maximum Temperature should be 99.9°C
8. Temperature Uniformity should be $\pm 0.2^\circ\text{C}$ at 37°C temperature.
9. Temperature Sensitivity should be $\pm 0.1^\circ\text{C}$ at 37°C temperature.

10. Temperature Range should be ambient +5° to +100°C
11. Calibration certificate from accredited calibration laboratory.
12. CE(Conformité Européenne)/US FDA certified
13. Should have suitable warranty and well established service network.

SCHEDULE NO:2

Class II, Type A2 Biological Safety Cabinet

1. The equipment should meet NSF 49/ EN 12469 standards/ Equivalent
2. Should be microprocessor based.
3. The microprocessor must display the inflow and down flow air velocities in real time on an LED display to ensure that the user knows whether or not the cabinet is working under safe operating conditions.
4. Motor must automatically adjust the air flow speed to ensure continuous safe working condition. Air flow shall be as per requirements of Biosafety regulations in respect of at least BSC II A level cabinet.
5. Inflow air velocity: 0.5 m/sec; Downflow air velocity: 0.3 m/ sec
6. Re-circulation of air: 70%
7. Efficiency of HEPA filter should be > 99%.
8. In order to ensure consistent and reliable down flow velocity across the supply HEPA filter over the life of the cabinet, the cabinet must use a pressure sensor (rather than anemometer) to detect pressure drop across the supply filter, rather than in just one point across the down flow. The pressure sensor must be encased in order to protect the sensor from temperature, humidity and other environmental phenomena that can impact the sensor's performance.
9. The cabinet noise level must be less than 65 decibel.
10. External Dimensions: Nominal 5 ft width.
11. The interior of the cabinet shall be of stainless steel 304 grade or equivalent material and must be smooth to ensure no risk of cuts to the users. Exterior to be of epoxy-coated steel
12. Should be provided with movable stands.
13. Fluorescent lamps for lighting of the interior of the cabinet. Front of the cabinet preferably be angled to help minimize glare.
14. A provision for UV light to disinfect the interior of the cabinet. UV light must be programmable to allow for specific exposure time from 0 to 24 hrs. Automatic UV switch "OFF" on opening of front window.
15. The front window should be made of laminated safety glass to protect against leakage of UV rays and to ensure containment of potential hazardous material.
16. Safety alarm / safety display for: Low air velocity; Faulty exhaust fan etc.
17. Power input to be 220-240 V AC, 50 Hz fitted with Indian plug.
18. Warranty should cover UPS and batteries.
19. Calibration certificate shall be provided at the time of installation in respect of all the parameters that require calibration.
20. Other manuals to be provided: Operation, maintenance & part list with detailed specifications.
21. Accessories if required:
 - a) Universal Piping to top, side and bottom, up to two pre-plumbed penetrations per side
 - b) Floor anchoring brackets

- c) Service valve taps
- d) Adjustable footrest
- 22. With suitable warranty & well established service network.
- 23. CE(Conformité Européenne)/US FDA certified.

Class II, Type A2 Biological Safety Cabinet

1. The equipment should meet NSF 49/ EN 12469 standards/ Equivalent
2. Should be microprocessor based.
3. The microprocessor must display the inflow and down flow air velocities in real time on an LED display to ensure that the user knows whether or not the cabinet is working under safe operating conditions.
4. Motor must automatically adjust the air flow speed to ensure continuous safe working condition. Air flow shall be as per requirements of Biosafety regulations in respect of at least BSC II A level cabinet.
5. Inflow air velocity: 0.5 m/sec; Downflow air velocity: 0.3 m/ sec
6. Re-circulation of air: 70%
7. Efficiency of HEPA filter should be > 99%.
8. In order to ensure consistent and reliable down flow velocity across the supply HEPA filter over the life of the cabinet, the cabinet must use a pressure sensor (rather than anemometer) to detect pressure drop across the supply filter, rather than in just one point across the down flow. The pressure sensor must be encased in order to protect the sensor from temperature, humidity and other environmental phenomena that can impact the sensor's performance.
9. The cabinet noise level must be less than 65 decibel.
10. External Dimensions: Nominal 4 ft width.
11. The interior of the cabinet shall be of stainless steel 304 grade or equivalent material and must be smooth to ensure no risk of cuts to the users. Exterior to be of epoxy-coated steel
12. Should be provided with movable stands.
13. Fluorescent lamps for lighting of the interior of the cabinet. Front of the cabinet preferably be angled to help minimize glare.
14. A provision for UV light to disinfect the interior of the cabinet. UV light must be programmable to allow for specific exposure time from 0 to 24 hrs. Automatic UV switch "OFF" on opening of front window.
15. The front window should be made of laminated safety glass to protect against leakage of UV rays and to ensure containment of potential hazardous material.
16. Safety alarm / safety display for: Low air velocity; Faulty exhaust fan etc.
17. Power input to be 220-240 V AC, 50 Hz fitted with Indian plug.
18. Warranty should cover UPS and batteries.
19. Calibration certificate shall be provided at the time of installation in respect of all the parameters that require calibration.
20. Other manuals to be provided: Operation, maintenance & part list with detailed specifications.
21. Accessories if required:
 - a) Universal Piping to top, side and bottom, up to two pre-plumbed penetrations per side
 - b) Floor anchoring brackets
 - c) Service valve taps

- d) Adjustable footrest
- 22. With suitable warranty & well established service network.
- 23. CE(Conformité Européenne)/US FDA certified.
- 24. All ducting, piping and site modification for installation to be done by the vendor.

Class II, Type A2 Biological Safety Cabinet

1. The equipment should meet NSF 49/ EN 12469 standards/ Equivalent
2. Should be microprocessor based.
3. The microprocessor must display the inflow and down flow air velocities in real time on an LED display to ensure that the user knows whether or not the cabinet is working under safe operating conditions.
4. Motor must automatically adjust the air flow speed to ensure continuous safe working condition. Air flow shall be as per requirements of Biosafety regulations in respect of at least BSC II A level cabinet.
5. Inflow air velocity: 0.5 m/sec; Downflow air velocity: 0.3 m/ sec
6. Re-circulation of air: 70%
7. Efficiency of HEPA filter should be > 99%.
8. In order to ensure consistent and reliable down flow velocity across the supply HEPA filter over the life of the cabinet, the cabinet must use a pressure sensor (rather than anemometer) to detect pressure drop across the supply filter, rather than in just one point across the down flow. The pressure sensor must be encased in order to protect the sensor from temperature, humidity and other environmental phenomena that can impact the sensor's performance.
9. The cabinet noise level must be less than 65 decibel.
10. External Dimensions: Nominal 3 ft width.
11. The interior of the cabinet shall be of stainless steel 304 grade or equivalent material and must be smooth to ensure no risk of cuts to the users. Exterior to be of epoxy-coated steel
12. Should be provided with movable stands.
13. Fluorescent lamps for lighting of the interior of the cabinet. Front of the cabinet preferably be angled to help minimize glare.
14. A provision for UV light to disinfect the interior of the cabinet. UV light must be programmable to allow for specific exposure time from 0 to 24 hrs. Automatic UV switch "OFF" on opening of front window.
15. The front window should be made of laminated safety glass to protect against leakage of UV rays and to ensure containment of potential hazardous material.
16. Safety alarm / safety display for: Low air velocity; Faulty exhaust fan etc.
17. Power input to be 220-240 V AC, 50 Hz fitted with Indian plug.
18. Warranty should cover UPS and batteries.
19. Calibration certificate shall be provided at the time of installation in respect of all the parameters that require calibration.
20. Other manuals to be provided: Operation, maintenance & part list with detailed specifications.
21. Accessories if required:
 - a) Universal Piping to top, side and bottom, up to two pre-plumbed penetrations per side
 - b) Floor anchoring brackets
 - c) Service valve taps

- d) Adjustable footrest
22. With suitable warranty & well established service network.
23. CE(Conformité Européenne)/US FDA certified.
24. All ducting, piping and site modification for installation to be done by the vendor.

Class II, Type B2 Biological Safety Cabinet

1. Class II cabinets shall provide protection of experiment from ambient environment and protection of ambient environment from experiment.
2. Exterior dimensions
 - a. Nominal 4 ft width
 - b. The Bio safety cabinet should incorporate HEPA filter of the class H 14 EN 1822 or better and having minimum efficiency of 99.995% at 0.3 µm particle size.
3. Cabinet shell shall use steel no less than 19 gauge.
4. Dual, long-life HEPA filters for supply and exhaust airflow with a typical efficiency of 99.97% at 0.1 to 0.3 micron sizes.
5. 0% air recirculation
6. Unit shall have all metal plenums designed for easy removal at filter change.
7. Enhanced side-capture zones and negative pressure side walls optimize containment.
8. To facilitate cleaning, the interior sides and rear wall of the work area shall be of one piece no less than 19 gauge Type 304 stainless steel construction.
9. The Bio Safety Cabinet must include two DC motors. High power consuming AC motors should not be used
10. The motor must automatically adjust the airflow speed without the use of a damper to ensure continuous safe working conditions, even without maintenance adjustments.
11. Corrosion resistant ball valve for drain from trough beneath the work surface.
12. Comfortable Ergonomic Design. Ergonomically angled front improves reach and comfort.
13. Approx. 10" diameter exhaust outlet with air-tight damper.
14. Frameless, shatterproof sash for easy cleaning and unobstructed viewing area.
15. LCD Display for inflow velocity, downflow velocity, UV on, sash status, airflow status, and filter life. Digital read-out with alpha-numeric display indicates all input, status and alarm functions.
16. No filter leakage $\geq 0.01\%$ of upstream concentration.
17. Single power cord ≥ 12 ft in length with a NEMA plug 5-15P.
18. A minimum of two replaceable 3 inch cable/tubing ports (at least one on each side)
19. Reduced flow or Night Set-Back mode allowing reduction in airflow and energy consumption while maintaining cleanliness and containment when not in operation.
20. 10° sloped front (the top of the cabinet is slanted away from the operator) to provide operator the space to change position forward and back while working.
21. Externally mounted fluorescent lighting fixture. Work area illumination: No less than 120 footcandles at the work surface
22. Noise: No greater than 50 dB(A)
23. Front and back of window easily cleanable without special tools.
24. Armrests must sit above front air intake grill and be easily removable
25. Available UV disinfection cycle:
 1. adjustable UV exposure time saved in memory to facilitate consistent operation
 2. safety interlock to prevent UV illumination when window is open
26. Each cabinet should be certified by UL for electrical safety and integrity.
27. A factory test for each cabinet validating proper performance including:
 - Cabinet integrity test with pressure decay or soap bubble leak
 - HEPA Filter leak test of downflow and exhaust filters
 - Downflow air velocity and uniformity
 - Inflow air velocity
 - Airflow smoke patterns

28. Accessories:
 1. Universal Piping to top, side and bottom, up to two pre-plumbed penetrations per side
 2. Floor anchoring brackets
 3. Service valve taps
 4. Adjustable footrest
29. With suitable warranty & well established service network.
30. CE(Conformité Européenne)/US FDA certified.
31. All ducting, piping and site modification for installation to be done by the vendor.

Horizontal Laminar Flow Clean Bench

1. The equipment should meet NSF 49/ EN 12469 standards/ Equivalent
2. Dimension of the system should be (W x D x H mm):
 - a. Inner dimension: appx 1200 X 600 X 650 mm
 - b. Outer dimension: appx 1320 X 850 X 1900 mm
3. Should have an approximate air volume capacity of 1350m³/h
4. Should have microprocessor- controlled electronic circuitry
5. Light Intensity :>1960 Lux / >182 foot candles, measured at work surface level.
5. Should have LCD display to show measured parameters like Stage velocity, total using time, UV/FL lamp on/off
6. The air purification should be done through class 100 HEPA filter, with 99.97%, 0.3 µm particle removal
7. Should have a pre-filter of 3-30 µm particle removal, and it should be recyclable
8. The cabinet should give class 100 purity
9. Should have wind velocity of 0.35-0.50 m/sec
10. Should have UV lamp 40 W x 2 EA, FL lamp 40 W x 2 EA
11. Material of construction
 - a. Inner - Stainless steel SS-304
 - b. Outer - Powder coated steel
12. Should have tempered safety glass sliding door or glass wind screen
13. Utility device - air cock, gas cock
14. Electricity Supply - 220 V, 50/60 Hz
15. Ensure noiseless operation and anti-vibration construction
16. Filter replacement warning signal.
17. With suitable warranty & well established service network.
21. CE(Conformité Européenne)/US FDA certified.

SCHEDULE NO: 3**Bench Top Laboratory Micro Centrifuge (non refrigerated)**

1. Centrifuge for small and medium sample sizes.
2. Microcentrifuge tube Rotor 24x1.5ml/2ml with click seal lid with at least 14000 rpm.
3. Dual rotor 18x2 ml plus 18x0.5ml for simultaneous run of two different volumes without using adapters
3. Maintenance Free, Bushless drive motor
4. Time selection: 10sec, 11hr 59min
5. Preselection & Display of speed, RCF as well as RPM & Time, LCD display of run parameters.
6. Facility for short run operation with display of run time in second
7. Soft start, Soft stop function to avoid mixing & sedimentation.
8. Double lid locking system ensuring full protection.
9. 10 Programmable memory
10. Noise level at maximum speed should be ≤ 50 db.
11. Acceleration/deceleration 15/18.
12. Produced as per ISO 9001 & CE certification with IEC 1010 safety regulation
13. Operates on 230V \pm 10%, 50 Hz.
14. Comprehensive warranty atleast 3 years.
15. Certificate of factory calibration and inspection.
16. CE(ConformitéEuropéenne)/US FDA certified

Microcentrifuge (Refrigerated)

1. High- Speed, Compact Micro centrifuge with LCD/LED Display Screen, Microprocessor controlled
2. Max speed: 13,000- 14,000 rpm. Max RCF :approx 20,000- 22,000 x g
3. Temperature range: 0 to 40°C
4. Angle rotor: Polypropylene 24 x 1.5 ml. or Dual row rotor with same capacity/ volume
5. Polysulfone lid or equivalent
6. Adapter for 0.2 ml PCR & 0.5 ml PCR tubes.
7. Fast Pre- cooling and should maintain +40C at maximum speed
8. Time selection: 1 min to 59 min or hold
9. Storage of 10 programs or more
10. CFC - free refrigeration system
11. LCD/LED Display for speed, RCF, Temp. & Time
12. Facility for short run operation
13. Imbalance System & Selectable Acoustic Alarms
14. Auto balancing in situation of minor imbalance
15. Soft, Fast Accelerate, Decelerate and break off mode
16. Simple knob operation, or keypads operation
17. Electrical Requirements: 120V/60Hz and 230V/50 Hz or Suitable electrical supply
18. Comprehensive warranty atleast 3 years.
19. Certificate of factory calibration and inspection.
20. CE(ConformitéEuropéenne)/US FDA certified

Table Top Refrigerated Centrifuge for molecular Biology

1. Programmable microprocessor control system with self-diagnostic feature
2. Bench top Refrigerated Centrifuge machine suitable for Molecular Biology and general purpose.
3. Should be able to accommodate both angle rotors and swing bucket,
4. Should have 24 x 1.5/2 ml angle rotor with 15000RPM, with adaptors for 200/500/800ul.
6. Should be quoted along with all optional accessories and suitable UPS and Stabilizer (with High Low voltage cutoff).
7. Temperature range: -10°C to + 40°C.
8. Digital displays for Programme No., temperature, Speed, RCF & Time.
9. At least 10 program memories
10. Timer 1 - 99 minutes and hold position
11. 10 linear accel&decel curves for Soft start/Soft stop facility to avoid mixing of sedimentation.
12. Maintenance Free, Noiseless motor drive with noise level < 55 dba
13. Totally CFC free refrigerant fluid and insulation
14. The Centrifuge should have a feature to install and remove rotor without tool in less than 5 seconds with just a push of a button for quick and easy change of rotors for different application
15. Simple operation with facility of auto locking to prevent changing of run parameters.
16. All Rotors should be with aerosol prevention biosafe lids.
17. Automatic Magnetic Rotor Identification to prevent rotors from over speeding
18. Double lid locks for additional safety, selectable auto lid opening.
19. Precooling of the rotors during standstill, Minimal temperature increase during run.
20. Guaranteed 4°C temperature at maximum speed.
21. The unit shall be capable of operating continuously in ambient temperature of 10-50oC and relative humidity of 15-90%
22. The unit shall be capable of being stored continuously at temperatures of 10-50oC and relative humidity of 15-90%
23. Power input: 230 V±10% 50 Hz AC Single phase / Three phase.
Fitted with appropriate Indian plugs and sockets.
24. Should incorporate Safety Features for Imbalance detection, lid interlock, over temperature, rotor over speed etc
25. CE (ConformitéEuropéenne)/US FDA, UL,IVD Compliance certified
26. 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.
27. Certificate of calibration and inspection.

Table Top Centrifuge for serology

1. It should be available for a wide range of tubes from micro-tubes up to 24x15mL and interchangeable tubes of various sizes.
2. It should have sealing cap for biohazard proof operating condition.
3. It should be easy-to-operate and convenient; Rotor shall be installed and removed with no tools in less than 5 seconds
4. There should be 10 program memories (3 channels) for repeated routine operations.
5. There should be a buzzer with different buzzer sounds to allow recognition of the end of a centrifugal operation from across the room.
6. It should be equipped with a tachometer port.
7. It should be possible to switch Rapid/slow acceleration and rapid/slow deceleration to the type of sample and experimental conditions.
8. Maximum speed ≥ 4000 rpm.
9. Size of tubes (depth x length) 9.5-11x 36-60 (mm) along with adapters for tube rack.
10. Maximum Capacity should be ≥ 400 mL
11. Control system should be micro-processor control (Brushless motor) for speed, RCF, time, acceleration & deceleration, with 3 channel memories.
12. Produced as per ISO 9001 & CE certification with IEC 1010 safety regulation
13. Operates on $230V \pm 10\%$, 50 Hz.
14. Comprehensive warranty at least 3 years.
15. Certificate of calibration and inspection.
16. CE(Conformité Européenne)/US FDA certified

SCHEDULE NO: 4**pH Meter**

1. Portable digital system is required
2. pH range should be 0-14
3. Milli volt range should be 0-1999+/- mv
4. Resolution 0.01 pH
5. Repeatability +/- 0.01pH +/- 1 digit
6. Standardization range +/- 2 pH
7. Temp. compensation 0-100 degree C
8. Display 4 digit LED with automatic polarity
9. Polarizing current 10 micro ampere
10. Weight approx 2 kg
11. Accessories to be supplied –part of glass and reference electrodes, electrode holder
12. All consumables required for installation and standardization of system to be given free of cost.
13. System should be quoted with complete accessories and probes to make it functional as per technical specifications
14. Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. or should comply with 89/366/EEC; EMC-directive.
15. The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
16. Should work on 220-240V AC as well as rechargeable batteries. Mains adaptor to be supplied
17. CE (Conformité Européenne)/ US FDA certified.
18. Should comply with IEC 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements
19. Calibration certificate from an accredited calibration laboratory.
20. List of Equipments available for providing calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.
21. With suitable warranty & well established service network.

Vortex Mixer with cup head

1. Variable speed, analog control that allows low rpm start-up for gentle shaking or high-speed mixing for vigorous vortexing of samples
2. Two modes of operation: continuous mode when using accessory attachments or touch mode which activates mixing when depressing the cup head.
3. Mixer should include both cup head and 3 in. head with cover
4. Speed Range: 300-2500rpm
5. Controls: 3-way power switch
6. Speed knob: Variable 1 to 10 dial marks
7. Electrical supply : 230V, 50/60Hz
8. Comprehensive warranty at least 3 years, and well established service network.
9. CE (Conformité Européenne)/ US FDA certified.

Vortex Mixer with platform

1. Platform made of silicone rubber
2. Speed Range (RPM) 0 - 3,000
3. selection from a suitable mixing mode among three (Touch, Continuous, and High-continuous)
4. Low profile design and highly touch sensitive sensor reduce wrist stress when pushing and holding experiment tools resulting in less fatigue and unpleasant feeling
5. Well-balanced design and optimized safety features.
6. Safety Device - Self-resetting / Current limit protection
7. Permissible environmental conditions: temperature (5-40°C) and relative humidity (up to 80%)
8. Waterproof.
9. Low-profile with small footprint ideal for use on lab benches and within fume hoods or clean benches.
10. Real-time mixing due to highly touch sensitive switch.
11. Built-in LED lamps for easy recognition of mixing mode selected.
12. Spark less motor adopted for safety, quick acceleration, and low maintenance.
13. Built-in safety features against overload and over current.
14. Chemically resistant PP (polypropylene) molded exterior.
15. Accessories available :
 - Tube Holder with Insert Retainer
 - Micro plate Tray Holder
16. Electrical Requirements - 230 +/- 10% V AC , 50 Hz.
17. Comprehensive warranty at least 3 years, and well established service network.
18. CE (Conformité Européenne)/ US FDA certified.

Water Distillation unit (Type 2 water)

1. Purpose – For laboratory work like autoclaving, media and reagent preparation, sample dilution, ELISA, preparation of buffer solutions, purification of feed water for laboratory instruments, such as autoclaves, glassware dishwashers, humidifiers, water baths, etc.
2. Portable design, whole unit mounted on a sturdy stand, and high system flexibility to meet our specific needs.
3. Bottom vent for cleaning and maintenance
4. Unit should provide High purity, low conductivity, pyrogen free distillate, with guaranteed longer life of downstream ultrapure water.
5. Water output/capacity should be minimum 2-3 ltr/hr.
6. Distillation stages should be double, providing the highest Type 2 water quality at all times.
7. The pH should be 5.5 to 6.
8. Power supply should be 230 +/- 10% V AC, 50Hz.
9. Heating element should be Ceramic bobbin heater with Nichrome heating wire or of better quality.
10. Distillate Temperature should be 60-70°C ± 5°C.
11. Ions resistivity should be >0.05 (MΩ•cm @ 25°C)
12. Total Organic Content (TOC) should be <200 ppb
13. Silica should be <10 ppb
14. It should have Display with Touch Function to navigate easily and intuitively using the clearly structured menu.
15. With suitable warranty & well established service network.
16. CE(Conformité Européenne)/US FDA certified.

SCHEDULE NO: 5**Binocular Microscope**

1. System complete with illumination system is required.
2. Body: Binocular, sturdy, stable base body with focus adjustment controls
3. Eye piece: Paired, high quality, (the image of the object as seen through the binocular eyepiece should be well defined centrally in at least 2/3 field of view), achromatic, widefield, 10x without inbuilt pointer. The eyepiece should be aplanatic and have a minimum field number of 18. Diopter adjustment must be present on one/ both eye pieces or on the eye piece tube. Compatible with an optionally available eyepiece micrometer.
4. Objective : Three objectives 10x,40x,100x,10x and 40x objectives should have numerical apertures of 0.25 and 0.65 respectively and should be of spring loaded type or otherwise. 100x should have numerical aperture of 1.25 and should be of oil immersion and spring loaded type. Unbreakable containers to be provided for storing the objectives. All objectives should be wide field, achromatic and parfocal. Parfocal & Centered objective to minimize use of the fine focusing and stage control knobs during objectives change-over.
5. Nose piece: Revolving nose piece to accommodate a minimum of three/ four objectives with click stops. It should be provided with ribbed grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment.
6. Stage: Uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm) with fine vernier graduations (minimum reading accuracy of 0.1 mm). The stage should be provided with spring loaded slide holder for exact positioning of specimen/ slide. The stage should have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5mm) and front to back direction, 50mm (+/-5mm)
7. Sub-stage condenser: Abbe-type condenser, numerical aperture (N.A.) 1.25 focusable with rack and pinion arrangement incorporating an aspherical lens and an iris-diaphragm. The condenser should have a filter holder and removable/ swing in/ out blue filter (suitable for bright field Microscopy).
8. Sub-stage illuminator:
 1. LED illumination to provide cool white light with a life time of over 20 years of average use. 6000 K temp. The system should be provided with a step down transformer and an on-off switch and intensity control.
 2. Power Supply
 - a. Voltage 230 V \pm 10%, 50 Hz AC
 - b. Should have one on-off power switch, 3 core power cord with a 3 point male plug.
 3. The system should have an inbuilt protective/ safety device to withstand fluctuations of voltage from 140 V to 280 V.
 4. A plano-concave mirror in fork mounting should be supplied which would be attachable to the base for field use.
 5. The fuse for the halogen lamp should be easily accessible to the operator.
 6. The Illuminator should have a built-in field diaphragm for Kohler illumination
9. Eye piece tubes: Binocular eye piece tubes, inclined at 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range
10. Focusing knob: Co-axial coarse and fine focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. The fine focusing movement should have sensitivity of two microns or less (finer) over the entire coarse focusing
11. General
 1. All optical parts including objectives, eye pieces and prisms should have anti-reflective coating which also gives anti-fungal property.
 2. All metallic parts should be corrosion-proof, acid-proof and stain-proof.
 3. One number of anti static cleaning brush should be provided with each Microscope for cleaning purpose.

4. Each Microscope should be supplied with Blue filters. The Blue filter should be packed in the box and not fixed on the Microscopes.
12. Each microscope should be supplied with spare parts as under:
 - 100x oil immersion objective – one.
 - LED bulb– 6 Nos.
 - Fuses – 6 Nos.
 13. The unit shall be capable of being stored continuously in ambient temperature 10-50°C and relative humidity of 15-90%
 14. The unit shall be capable of operating continuously in ambient temperature of 10-50°C and relative humidity of 15-90%
 15. Power input to be 230 ±10% V AC, 50Hz fitted with Indian plug
 16. Accessories : Dust cover and possibility to upgrade with digital imaging.
 17. Suitable voltage corrector/stabilizer.
 18. CE (Conformité Européenne)/US FDA certified.
 19. Certificate of calibration and inspection from factory.
 20. List of important spare parts and accessories with their part number and costing.
 21. Comprehensive warranty at least 3 years.

Binocular Microscope with a suitable camera & CCTV attachment.

1. System complete with illumination system is required.
2. Body: Binocular, sturdy, stable base body with focus adjustment controls
3. Eye piece: Paired, high quality, (the image of the object as seen through the binocular eyepiece should be well defined centrally in at least 2/3 field of view), achromatic, widefield, 10x without inbuilt pointer. The eyepiece should be aplanatic and have a minimum field number of 18. Diopter adjustment must be present on one/ both eye pieces or on the eye piece tube. Compatible with an optionally available eyepiece micrometer.
4. Objective : Three objectives 10x, 40x, 100x, 10x and 40x objectives should have numerical apertures of 0.25 and 0.65 respectively and should be of spring loaded type or otherwise. 100x should have numerical aperture of 1.25 and should be of oil immersion and spring loaded type. Unbreakable containers to be provided for storing the objectives. All objectives should be wide field, achromatic and parfocal. Parfocal & Centered objective to minimize use of the fine focusing and stage control knobs during objectives change-over.
5. Nose piece: Revolving nose piece to accommodate a minimum of three/ four objectives with click stops. It should be provided with ribbed grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment.
6. Stage: Uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm) with fine vernier graduations (minimum reading accuracy of 0.1 mm). The stage should be provided with spring loaded slide holder for exact positioning of specimen/ slide. The stage should have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5mm) and front to back direction, 50mm (+/-5mm)
7. Sub-stage condenser: Abbe-type condenser, numerical aperture (N.A.) 1.25 focusable with rack and pinion arrangement incorporating an aspherical lens and an iris-diaphragm. The condenser should have a filter holder and removable/ swing in/ out blue filter (suitable for bright field Microscopy).
8. Sub-stage illuminator:
 1. LED illumination to provide cool white light with a life time of over 20 years of average use. 6000 K temp. The system should be provided with a step down transformer and an on-off switch and intensity control.
 2. Power Supply
 - a. Voltage 230 V ± 10%, 50 Hz AC
 - b. Should have one on-off power switch, 3 core power cord with a 3 point male plug.
 3. The system should have an inbuilt protective/ safety device to withstand fluctuations of voltage from 140 V to 280 V.

4. A plano-concave mirror in fork mounting should be supplied which would be attachable to the base for field use.
5. The fuse for the halogen lamp should be easily accessible to the operator.
6. The Illuminator should have a built-in field diaphragm for Kohler illumination
9. Eye piece tubes: Binocular eye piece tubes, inclined at 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range
10. Focusing knob: Co-axial coarse and fine focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. The fine focusing movement should have sensitivity of two microns or less (finer) over the entire coarse focusing
11. General
 1. All optical parts including objectives, eye pieces and prisms should have anti-reflective coating which also gives anti-fungal property.
 2. All metallic parts should be corrosion-proof, acid-proof and stain-proof.
 3. One number of anti static cleaning brush should be provided with each Microscope for cleaning purpose.
 4. Each Microscope should be supplied with Blue filters. The Blue filter should be packed in the box and not fixed on the Microscopes.
12. Each microscope should be supplied with spare parts as under:
 - 100x oil immersion objective – one.
 - LED bulb – 6 Nos.
 - Fuses – 6 Nos.
13. The unit shall be capable of being stored continuously in ambient temperature 10-50°C and relative humidity of 15-90%
14. The unit shall be capable of operating continuously in ambient temperature of 10-50°C and relative humidity of 15-90%
15. Power input to be 230 \pm 10% V AC, 50Hz fitted with Indian plug
16. Accessories : Dust cover and possibility to upgrade with digital imaging.
17. Suitable voltage corrector/stabilizer.
18. CE (Conformité Européenne)/US FDA certified.
19. Certificate of calibration and inspection from factory.
20. List of important spare parts and accessories with their part number and costing.
21. Comprehensive warranty at least 3 years.
22. HD camera, computer attachment & LED Monitor 14 inch.

SCHEDULE NO:6

Beaker Shaker

1. Ideal for shaking suspension cell culture and media preparation.
2. Speed range RPM 15-1500 \pm 1
3. Fixed-speed Shaker 400 oscillations per minute.
4. Variable-speed Shaker 0-450 oscillations per minute
5. Orbital diameter 1.9cm
6. Temperature uniformity \pm 0.5°C at 37°C in flask.
7. Continuous or timed operation 0-60 min.
8. Cold room compatible (4-25°C)
9. Comprehensive warranty at least 3 years, and well established service network.
10. CE (Conformité Européenne)/ US FDA certified.

Liquid Nitrogen Cylinder (as Standard)

Liquid Nitrogen Transport Container with dispenser

1. The vessel should be lightweight, ideal for laboratory and medical applications. Standard dimensions & shape for ease of handling pouring and use within laboratory.
2. Should be compatible with transport/ pouring trolley, tipping stand & roller base.
3. Should have a capacity of 30-35 Litres.
4. Static Hold Time (days): 120 (minimum)
5. Evaporation Rate: 0.2 L/day (or) approx. Neck Tube: 50 mm dia
6. Should be supplied with dispenser.
7. Liquid Withdrawal device should be available.
8. Accessories, spares and consumables as required for running the system
9. Should be CE or FDA or BIS approved product.

Membrane filters- Stainless steel syringe filter holder with filters (Variable sizes)

Laboratory Microwave

1. Ideal for general laboratory heating tasks.
2. The user can program the process controller for a temperature profile for the sample.
3. Corrosion resistant stainless steel cavity and housing.
4. A powered cavity exhaust to remove obnoxious or corrosive fumes and prevent their build-up inside of the cavity.
5. Good heating uniformity.
6. The process controller should be programmable for a sample temperature ramp rate, process temperature and process time.
7. Output power: 1,000 watts maximum variable by turning on and off to maintain sample temperature
8. Temperature probe: long stainless steel probe.
9. 230 \pm 10% volt AC, 50 Hertz operation
10. Temperature probe configurations and Infrared temperature sensor available.
11. Microwave safe gas feed through ports
12. High volume fan to pulls fresh air into the microwave cavity, and then sweeps the fumes into a ducted exhaust plenum that can be connected directly into fume hood system or house air handling system,
13. Corrosion resistant treatment which significantly extends the life of the microwave.
14. Addition of an optional temperature probe to monitor sample temperature during processing.
15. Electronics cooling : High volume for long life
16. Fully safety tested for microwave leakage, electrical safety and operation.

Plastic Shredder

1. Suitable for shredding of plastic hospital waste like bags, barrels/pistons of disposable plastic syringes, etc.
2. Made of heavy duty frame with powder coated M.S. sheet.
3. Should permit easy & safe loading material through sturdy hopper and collection of shredded material in containers avoiding spill over & prevent flying particles and aerosols, the shredding process being in a closed system.
4. Cutter made of noncorrosive alloy steel of appropriate size and are designed to the latest technology for longer life and higher output.
5. Power Supply :-

- Suitable to work on 230 V/440V $\pm 10\%$
 - Single/Three Phase
 - 50 Hz. AC supply.
6. Grinding Capacity ranging from 10 Kg./Hr.
 7. Easy & safe to operate.
 8. Low noise.
 9. Heavy & sturdy construction.
 10. Easy to clean & maintain.
 11. Shock proof & insulated as per safety norms.
 12. Auto switch off against electrical accidents and overloading/jamming of cutting.
 13. Automatic shut down for idle running.

SCHEDULE NO:7

Micropipette Single Channel Variable Volume (0.2 - 2 μ l)

1. Number of Channels - 1
2. Range - 0.2 - 2 μ l
3. Increment - $\leq 0.01 \mu$ l
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Should be supplied with 5000 tips, holder rack & pipettes stand.
17. Comprehensive warranty at least 3 years, and well established service network.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Micropipette Single Channel Variable Volume (2-20 μ l)

1. Number of Channels - 1
2. Range - 2-20 μ l
3. Increment - $\leq 0.1 \mu$ l
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully auto clavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Should be supplied with 5000 tips, holder rack & pipettes stand.
17. Comprehensive warranty at least 3 years, and well established service network.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Micropipette Single Channel Variable Volume (5-50 µl)

1. Number of Channels - 1
2. Range - 5-50 µl
3. Increment - $\leq 0.1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully auto clavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of micro size drops
16. Should be supplied with 5000 tips, holder rack & pipettes stand.
17. Comprehensive warranty at least 3 years, and well established service network.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Micropipette Single Channel Variable Volume (10-100 µl)

1. Number of Channels - 1
2. Range - 10-100 µl
3. Increment - $\leq 0.1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Should be supplied with 5000 tips, holder rack & pipettes stand.
17. Comprehensive warranty at least 3 years, and well established service network.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Micropipette Single Channel Variable Volume (20-200 µl)

1. Number of Channels - 1
2. Range - 20-200 µl
3. Increment - $\leq 1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.

10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Should be supplied with 5000 tips, holder rack & pipettes stand.
17. Comprehensive warranty at least 3 years, and well established service network.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Micropipette Single Channel Variable Volume (100-1000 µl)

1. Number of Channels - 1
2. Range - 100-1000 µl
3. Increment - $\leq 1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy & precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops.
16. Comprehensive warranty at least 3 years, and well established service network.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Single Channel Fixed Volume Micropipette (5µl)

1. Number of Channels - 1
2. Range - 5 µl
3. Increment - $\leq 0.1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Comprehensive warranty at least 3 years, and well established service network.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Single Channel Fixed Volume Micropipette (10µl)

1. Number of Channels - 1
2. Range - 10µl
3. Increment - $\leq 0.1 \mu\text{l}$

4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Comprehensive warranty at least 3 years, and well established service network.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Single Channel Fixed Volume Micropipette (50 μ l)

1. Number of Channels - 1
2. Range - 50 μ l
3. Increment - $\leq 0.1 \mu$ l
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Comprehensive warranty at least 3 years, and well established service network.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
18. CE (ConformitéEuropéenne)/ US FDA certified.

Single Channel Fixed Volume Micropipette (100 μ l)

1. Number of Channels - 1
2. Range - 100 μ l
3. Increment - $\leq 0.1 \mu$ l
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops

16. Comprehensive warranty at least 3 years, and well established service network.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
18. CE (Conformité Européenne)/ US FDA certified.

Single Channel Fixed Volume Micropipette (1000 µl)

1. Number of Channels - 1
2. Range - 1000µl
3. Increment - $\leq 0.1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector are fully autoclavable to avoid cross contamination.
7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. Comprehensive warranty at least 3 years, and well established service network.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
17. CE (Conformité Européenne)/ US FDA certified.

Multi Channel Variable Volume Micropipette (5-50 µl)

1. Number of Channels - 8
2. Range - 5-50 µl
3. Increment - $\leq 0.1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector fully autoclavable to avoid cross contamination.
7. Light volume adjustment.
8. Light pipetting action.
9. Soft touch tip ejection.
10. Antimicrobial surface coating.
11. Advanced volume gearing mechanism for great accuracy and precision.
12. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops.
16. The eight channels are calibrated to simultaneously dispense exactly the same amount of liquid.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
18. Calibration certificate from an accredited calibration laboratory
19. CE(Conformité Européenne)/US FDA certified.
20. Comprehensive warranty at least 3 years.

Multi Channel Variable Volume Micropipette (30-300 µl)

1. Number of Channels - 8
2. Range - 30-300 µl
3. Increment - $\leq 1 \mu\text{l}$
4. Accuracy - $\geq 95\%$
5. Ideal for molecular biology techniques
6. Tip holder and tip ejector fully autoclavable to avoid cross contamination.

7. Calibration certificate from an accredited calibration laboratory.
8. Light volume adjustment.
9. Light pipetting action.
10. Soft touch tip ejection.
11. Antimicrobial surface coating.
12. Advanced volume gearing mechanism for great accuracy and precision.
13. Large easy to read display
14. Durable handle material
15. Super blow-out for effective delivery of microsize drops
16. The eight channels are calibrated to simultaneously dispense exactly the same amount of liquid.
17. Should be supplied with 5000 tips, holder rack & pipettes stand.
18. Calibration certificate from an accredited calibration laboratory
19. CE(ConformitéEuropéenne)/US FDA certified.

SCHEDULE NO:8

<u>Electronic pipettes digitally adjustable</u>	
	Specifications:
1	Routine pipetting; Optimal ergonomics, light weight
2	It should be precision and reproducibility, which means no more delays due to complicated programming or inflexible processes, maximum reproducible results.
3	It should be able to work on 220-240 volt, power supply
4	Fatigue-free work and consistent, full control over the pipetting processes
5	Multi-function rocker
6	Function control softkeys; Selection dial
7	It should have Separate power socket; Practical charging contacts
8	Should have standard display with simple menu navigation
9	Rechargeable battery
10	Ergonomic display angle
11	After tip ejection, the piston automatically returns to zero position
12	Volume range : 0.5- 10 ul, 10-50 ul, 10-100ul, 100-1000ul.
	All functions at a glance and easily selectable and Optimal readability in every position
13	Accuracy: +/- 1%
14	Should be supplied with 5000 tips, holder rack & pipettes stand.
15	Calibration certificate should be provided with the supply
16	Should be US FDA/European CE approved.

SCHEDULE NO:9**Stepper Pipettes (Multichannel)**

1. Adjustable mechanical repetitive pipette.
2. Works on positive air displacement principle.
3. Number of channels 08 (eight)
4. The eight channels should be calibrated to simultaneously dispense exactly the same amount of liquid.
5. Dispensing range $\leq 10 \mu\text{l}$ to $\geq 1000 \mu\text{l}$.
6. It should be light weight, easy to use.
7. It should allow rapid repeat dispensing in succession without refilling.
8. Handle should be adapted for various tip sizes.
9. Should have a dial to select the desired dispensing volume
10. Ergonomic design of the handle.
11. Light one handed operation.
12. Works on positive air displacement principle.
13. Should be supplied with adapters for higher volume if required.
14. CE(Conformité Européenne)/US FDA certified.
15. Calibration certificate from an accredited calibration laboratory.
16. Comprehensive warranty at least 3 years.

SCHEDULE NO:10**Ice Flaking Machine**

1. Stainless steel body, Ergonomic design leakage free operation and easy accessibility to ice.
2. Stainless steel cabinet properly insulated.
3. Maximum production approximately 200kg/day.
4. Quality compressor and Air Cooled condensation CFC/HCFC Free.
5. Storage capacity of bin ≥ 50 kg.
6. Type of ice: flakes.
7. Interior and exterior should be made of corrosion resistant material.
8. Easy extraction system.
9. Energy efficient.
10. Automatic low water and full storage cut off system.
11. Should be provided with geared motor with overheating and overvoltage protection.
12. Production start time : approx. 10-15 minutes.
13. Provided with castor wheels for easy movement.
14. Microprocessor based temperature control.
15. Safety protection, auto cutoff and Alarm for interruption in water supply.
16. Power Supply: 230 Volts $\pm 10\%$, 50Hz.
17. Comprehensive Warranty 03 years for whole machine (including compressor) and next 04 years for compressor.
18. CE(ConformitéEuropéenne)/US FDA certified

SCHEDULE NO: 11**Balance Analytical**

1. Maximum weighing Capacity approx. 2000 mg
2. Readability 0.001 mg
3. Repeatability $\leq \pm 0.001$ mg
4. Linearity $\leq \pm 0.002$ mg
5. Weighing Pan Diameter approx. 20 mm
6. Response Time ≤ 10 Sec.
7. Allowable ambient operating Temperature upto 50°C
8. Multifunction Weighing units
9. External protective cover.
10. Overload Protection Design
11. Auto zero tracking
12. Low Battery Indicator
13. Auto Calibration with External Weight
14. Easy to read LCD Display with backlight
15. Stainless Steel Pan, Level indicator, Adjustable Fit
16. Built in rechargeable battery for continuous use for atleast 10 - 15 hrs.
17. AC Power source / requirement: suitable AC adapter, 230 $\pm 10\%$ Volts 50 Hz.
18. CE (ConformitéEuropéenne)/US FDA certified.
19. 03 years comprehensive warranty & well established service network .

SCHEDULE NO: 12**Balance Electronic**

1. Maximum weighing Capacity approx 200 gms.
2. Readability 0.001 g
3. Repeatability $\leq \pm 0.001$ g
4. Linearity $\leq \pm 0.002$ g
5. Pan Size approx. 100 mm diameter.
6. Response Time ≤ 4 Sec.
7. Allowable ambient operating Temperature upto 50°C
8. Multifunction Weighing units
9. Overload Protection Design
10. External protective cover.
11. Auto zero tracking
12. Low Battery Indicator
13. Auto Calibration with External Weight
14. Easy to read LCD Display with backlight
15. Stainless Steel Pan, Level indicator, Adjustable Fit
16. Built in rechargeable battery for continuous use for atleast 10 - 15 hrs.
17. AC Power source / requirement: suitable AC adapter, 230 \pm 10% Volts 50 Hz.
18. CE (Conformité Européenne)/US FDA certified.
19. 03 years comprehensive warranty & well established service network

SCHEDULE NO: 13**Specifications for BOD incubator**

1. It is a low temperature incubator, to make Biochemical Oxygen Demand (BOD) determinations and for various purposes of storage and incubation.
2. It should be a digitally controlled equipment, ideal for microbiological use preferably microprocessor based
3. It should be a double walled construction, inner chamber stainless steel, and with inner glass/transparent door for monitoring, with chamber capacity 300 to 400 lit.
4. There should be a facility for adjustable shelves to convenient heights, with ≥ 6 removable shelves of stainless steel/ anodized aluminum to be supplied.
5. Interior lighting facility, insulated door fitted with heavy hinges handle locking, mechanical door lock.
6. Temperature range should be 5°C above ambient to 105°C with accuracy of ± 0.50 °C.
7. There should be a high quality, independent temperature measuring sensor with Florescent Display.
8. The air circulation inside the chamber should be Mechanical convection
9. interiors surface should be made from **AISI 304 / 1.4301 grade** Stainless Steel
10. Digital safety thermostat
11. Adjustable ventilation rate 10 – 100% thin form air circulation
12. The unit should be capable of being stored continuously in ambient temperature of up to 50°C and relative humidity of 15-90%
13. The unit should be capable of operating continuously in ambient temperature of up to 40deg C and relative humidity of 15-90%
14. Should be operated on 230V +/- 10%, 50Hz single phase AC supply.
15. With suitable warranty & well established service network.
16. CE(Conformité Européenne)/US FDA certified.

SCHEDULE NO: 14**CO2 incubator**

1. Air heated/Direct Heat with internal capacity 150 L to 200 L
2. The unit shall be capable of operating continuously in ambient temperature of 10 -45°C and relative humidity of 15-90%.
3. Minimum of 4 adjustable shelves (or as per user requirement) with separate air tight doors should be available.
4. Interior chamber: Stainless steel for easy cleaning and decontamination
5. Stable temperature control, excellent uniformity, and rapid recovery with no overshoot.
6. Convection circulation to provide chamber homogeneity, eliminate vibration & reduce sample evaporation.
7. Temperature range: +5° C above ambient to +80°C
8. Temp Accuracy $\pm 0.5^{\circ}\text{C}$ of required temp, with inbuilt Temperature Sensor.
9. Alarm to Indicate when temperature deviates more than 0.5°C from set point, and when program or time has finished, Alarm may be muted.
10. HEPA Filters (99.98% efficient) at the inlet to minimize contamination.
11. 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.
12. Internal glass door for the observation
13. CO2 Range- 0-20%; CO2 Accuracy: 1- 0.5%; CO2 Inlet pressure 1.5 bars (app) and fast recovery after opening door.
14. Compensation: Temperature compensation @ $0.5^{\circ}\text{C}/\text{min}$ and CO2 Compensation up to $5\% \pm 0.5\%$ in 5 minutes.
15. High Humidity Chamber to achieve 95% RH, minimizing sample evaporation.
16. Independent door heater to eliminate condensation on inner glass surfaces should be available.
17. 72-Hour Data Storage or External data logger for continuous data monitoring for CO2 concentration, temperature alarms and door openings should be automatically recorded for on-screen display.
18. Data output for data acquisition and printing.
19. PC Connectivity through RS232C
20. Communication protocols HL-7 for Networked environments to HIS
21. Interior lighting facility, insulated door fitted with heavy hinges handles locking, mechanical door lock.
22. Low water alarm indication
23. Castors for easy movements
24. Power input to be 220-240VAC; 50Hz fitted with plug, compatible with local electrical socket. Resettable over current breaker shall be fitted for protection. Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
25. Standards and Safety:-
 - I. Should be compliant to ISO 13485/ISO 9001 quality systems or equivalent
 - II. Should be compliant with IEC 61010 covering safety requirements for electrical equipment for measurement control and laboratory use.
26. Documentation to be provided:
 - I. Certificate of calibration and inspection from factory.
 - II. List of important spare parts and accessories with their part number and costing
 - III. User / technical / maintenance manuals
 - IV. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
27. With suitable warranty & well established service network.
28. CE(Conformité Européenne)/US FDA certified.
29. Essential accessories - CO2 cylinders 2 nos. (capacity at least 30 kg) and regulator 1 no. to be provided with each incubator at the time of installation.

SCHEDULE NO: 15**Deep Freezer (-80°C)**

1. Upright Freezer, with at least 5 Compartments with adjustable height stainless steel shelves.
2. Not less than 800 Liters Capacity.
3. Operating temperature, Programmable from -50°C upto-86°C with 1°C increment, should work at ambient temperature of 25-40°C \pm 5°C.
4. Fully programmable microprocessor controlled with membrane keypad and eye level control panel.
5. Construction should be of Ultra 1'thin Vacuum Insulation Nanogel panel or of equivalent efficiency.
6. System should have premium grade stainless steel interior and tough; powder coated exterior finish constructed on heavy steel gauge.
7. Freezer should have proper Compartmentalization for easy accessibility and organized storage.
8. Heavy duty lockable castors and lockable outer doors and lids.
9. 4 PIN security lock for unauthorized tampering.
10. Audible and visible alarms for temperature, power failure, system failure, battery low etc. and it should also have remote alarm port for connection to an auto dialer.
11. Freezer must use CFC-FREE, HCFC-FREE non flammable refrigerants, and refrigeration system must be energy efficient and hermetically sealed cascade refrigeration system.
12. Compressor should be capable to run on any voltage between 190-270V.
13. Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE & UL certified.
14. Freezer should be quoted with CO2 Backup along with CO2 cylinder.
15. Compressor warranty - atleast 5 years and Vaccum Insulation Panel warranty - atleast 10 years.
16. Freezer should be supplied with 5KVA voltage stabilizer II Servo type with Hi- Low Volt cut.
17. UPS backup atleast 30 minutes.
18. Power Supply: 230 Volts \pm 10% 50Hz.
19. Noise level should be <50 dB.
20. Software to control and monitor multiple freezers simultaneously, single computer system.
21. Freezer shall have an on-board data logger that allows for a minimum of 3G of data storage
22. Freezer shall record all door openings and log the time the door was open and door was closed. Data must be available from the display for a minimum of 10 days. Data must also be downloadable via a USB port
23. CE(ConformitéEuropéenne)/US FDA certified.

SCHEDULE NO: 16**Deep Freezer (-20°C)**

1. An Upright, Vertical freezer of approx. 350 liters capacity with digital temperature display.
2. Should work at ambient temperature of 25-40°C \pm 5°C.
3. Door should be lockable.
4. Appropriate easy to use rust free shelves.
5. Supplied with appropriate KVA stabilizer (Servo type) with HI-LO Voltage Cut. Should be supplied with suitable UPS for atleast 30 minutes backup.
6. Freezer must use CFC-FREE, HCFC-FREE non-flammable refrigerants.
7. System should have premium grade stainless steel SS-304 interior and tough; powder coated exterior finish constructed on heavy steel gauge.
8. Freezer should have proper Compartmentalization for easy accessibility and organized storage.
9. Audible and visible alarms for temperature, power failure, system failure, battery low etc. and it should also have remote alarm port for connection to an auto dialer.
10. Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE & UL certified.

11. Double door with 4-5, thick epoxy plastic coated shelves. Each shelf to be provided with an inner door to prevent unnecessary temperature fluctuations
12. Provided with Castor Wheels with front two wheels having brakes.
13. Environment friendly; cyclopentene- foaming; PUF insulation.
14. Temperature Range -20⁰C to -40⁰C
15. Low noise operation
16. Accuracy $\pm 1^{\circ}\text{C}$
17. Microprocessor control
18. No condensation of stored materials on defrosting
19. Desirable: Temperature date logger, temperature chart recorder
20. Compressor warranty - atleast 5 years and Vaccum Insulation Panel warranty - atleast 10 years.
21. Power supply: 230 Volts $\pm 10\%$ 50 Hz.
22. Interior fluorescent lighting
23. CE(ConformitéEuropéenne)/US FDA certified

SCHEDULE NO: 17

Domestic Refrigerator

1. Double Door refrigerator
2. Capacity - not less than 300 lts.
3. Power supply: 230 Volt $\pm 10\%$ 50Hz.
4. Build in stabilizer
5. Automatic defrost only.
6. Powder coated steel exterior.
7. Good quality plastic interiors
8. Adjustable shelves
9. Explosion proof model.
10. Temperature range 2 – 8 °C
11. The freezer compartment has room for eight standard ice trays or for a supply of biologicals or chemicals of comparable volume.
12. With suitable warranty & well established service network.

SCHEDULE NO: 18

Electrophoresis apparatus (Complete set)

1. It will be utilized for in vitro diagnostic and research purpose for separation of nucleic acids, using an electric current applied to a gel matrix.
2. Horizontal Electrophoresis Unit is required along with the power pack supply.
3. Buffer tank single moulding casted.
4. Inner tank acrylic, dimensions: 385 x 143 x 70 mm or better. Additional tanks to be connected to same unit to be quoted separately.
5. Gel tray should be UV Transparent gel tray with an integrated fluorescent ruler, gel casting tray should be adjustable with minimum dimensions of 250 mm x 130 mm. Trays of various capacities to be quoted separately.
6. Combs of various no. of wells both analytical and preparative to be quoted separately.
7. Sample capacity run up to 30 samples or more.
8. Connecting Cord: red and black (1 each).
9. Platinum electrodes: red and black (1 each).
10. Spare Electrodes (red & black) (1 each).
11. With suitable warranty & well established service network.
12. CE(ConformitéEuropéenne)/US FDA certified.

SCHEDULE NO: 19**Elisa Reader And Washer****Elisa Reader**

1. Detection method: absorbance
2. Read method: end point, kinetic and area scanning under computer control.
3. Should have 96 wells and should have reading capability of 1 to 96 wells individually.
4. Wavelength range: 400-750nm.
5. Photometric accuracy of + 3% or better.
6. Plate reading and data analysis software.
7. Dynamic range: 0-3.0 OD.
8. Resolution: 0.001 OD.
9. Should have easy access 8 position filter wheel
10. Machine should be supplied with 4 standard filters.
11. Should have automatic filter selection.
12. Should have automatic calibration before each reading.
13. Should have different types of blanking facility like air wise and well wise.
14. Should be capable of reading U, V and flat type wells.
15. Capable of reading 8 or 12 well strip plates.
16. Light source: tungsten halogen.
17. Internal thermal printer and 5 rolls of thermal should be supplied along with the unit.
18. Suitable external printer with analysis software should be provided.
19. Should have external computer connectivity option and the analysis software can be loaded on computer for analysis.
20. OD accuracy : <1% at 2.0 OD typical
21. OD repeatability : < 0.5% at 2.0 OD typical
22. Reading speed : 96 wells/ 30 seconds
23. Should work with input 230+/-10% Volt AC, 50 Hz supply.
24. Calibration certificate from an accredited calibration laboratory.
25. 3 years comprehensive warranty & well established service network
AMC/CMC rates for next 7 years to be provided separately along with rates of Elisa Reader.
26. CE (Conformité Européenne)/US FDA certified.

Elisa Washer

1. Microplate types : 96 well plates and strips
Standard height and low profile, Solid and filter
bottom
Filter pore sizes: 0.45 µM to 1.2 µM
2. Should have capability to wash flat. U or V bottomed micro plates.
3. Should have 8 or 12 way manifold.
4. Should have 25 wash program memory or more.
5. Should have programmable washing time, volume and soaking time.
6. Wash cycles : 1 to ≥ 6
7. Fluid delivery : Internal positive displacement syringe pump
8. Buffer selection : Automatic switching for up to three wash buffers
9. Should have continuous operating cycle.
10. Should have removable and autoclavable plate carrier.
11. Residual volume : Solid bottom plate washing: ≤ 2µl / well.
12. Should use non-pressurized bottles to minimize the risk of spillage and also choice for user to substitute bottles of different sizes
13. Should have waste bottle with full bottle alarm or sufficient mechanism to avoid spillage and damage to equipment.
14. Should provide aerosol cover to prevent aerosols of infectious diseases from spreading

15. Should work with input 200 to 240 Volt A.C. 50 Hz supply.
16. Should be supplied with online pure sinewave UPS of sufficient capacity with minimum 30 minutes back up time and dust cover.
17. CE (Conformité Européenne)/US FDA certified.
18. Electrical and functional safety certificate from competent authorities.
19. Calibration certificate from an accredited calibration laboratory.

SCHEDULE NO: 20

Fluorescent Microscope

1. Stand : Microscope stand with antifungal treatment - Touch points treated to Inhibit the growth of Microbial contaminant for healthier laboratory environment.
2. Nose piece: Minimum 5 position.
3. Trinocular tube: Trinocular Phototube with fixed photo tube, with tube lens oo/lx, with 30° viewing angle, with Interpupillary adjustment 55-75 mm, with constant focus and beamsplitter positions vis/phot:50/50%,fixed.
4. Illumination Transmitted : LED Illumination to provide cool white light with a life time of over 20years of average use. & 6000K temp.
5. Objectives: Objective PLAN 4x/0.10 Free working distance: 18.0 mm For use with and without Cover glass,
Objective PLAN 10x/0.25 Free working distance: 12.0 mm For use with and without Cover glass,
Objective PLAN 20x/0.40 Free working distance: 0.9 mm For use with a 0.17 mm Cover glass (DIN/ISO) not suitable for Incident Light, except Fluorescence,
Objective PLAN40x/0.65 Free working distance: 0.36 mm For use with a 0.17 mm Cover Glass (DIN/ISO),
Objective PLAN 100x/1.25 OIL Free working distance: 0.10 mm For use with a 0.17 mm Cover Glass (DIN/ISO) Not suitable for Incident Light, except Fluorescence.
6. Eyepiece: 10x /22 with eye guard
7. Auto off: Auto Switch Off If microscope remains untouched
8. Fluorescence Attachment: (Solid State Fluorescence Light Source), complete LED illumination device for fluorescence applications. One excitation wavelength, 470 nm (blue), optimized for FITC analyses, including power supply, to be used with 13 fluorescence filter set.
9. Digital Camera:
FIRE WIRE CAMERA-
Digital color camera with CMOS sensor (1/2")
- Max scaled resolution 7 M pixels, 3072x2304
- Fast live image Min 22 fps at 1024x768
- Live Image stream to PC
- Pixel size 3.2µm x 3.2µm
- Dynamic range >55dB/600:1
- Complete camera kit including Software for Camera Control, Fire wire B-B cable 2.5m, HDMI-cable 3m, PCI-express card (low profile)
- Supported Operating systems Win XP/Win7
- recommended c-mount adapter 0.5x
Software : Automatic calibration , point to point measurement , annotation etc.
Microscope, camera and software should be from same manufacturer
10. Computer:Branded PC HP i5 with low profile PCI express slot, 4 GB RAM,320 GH HDD,DVDRW, 18.5" HD Monitor, Original Win 8 professional 9370587312
11. UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.
12. CE (Conformité Européenne)/US FDA certified.
13. Certified to be compliant with Electrical Safety Standard for Medical Equipments- IEC- 60601-1-1 OR equivalent BIS OR international standard for electrical safety.
14. User/Technical/Maintenance manuals to be supplied in English.

15. Calibration certificate from an accredited calibration laboratory.
16. List of Equipments available for providing calibration and routine preventive Maintenance Support.

SCHEDULE NO: 21

Fluorometer (Compact Bench top)

1. It should have a powerful processor to quickly and accurately quantify DNA, RNA, and protein in less than 5 seconds per sample.
2. It should use as little as 1µl of sample.
3. It should be capable of storing up to 1000 sample results.
4. The system should have large colour touch screen for easy workflow navigation.
5. ability to personalize the fluorometer with assays mostly used, add new assays, or create new ones with the software and web tool.
6. should have android based operating system.
7. the fluorometer should also be possible to be used to directly measure the fluorescence of samples.
8. there should be provision of independent wavelength selection from at least two wavelengths.
9. The system should be ideal for following crucial quantification of dsDNA, oligos, RNA (including microRNA), or protein.
10. Reagents for DNA, RNA and proteins should be provided along with the instrument and demonstrated.
11. Vendor should be able to supply all the reagents needed to run the system.
12. CE(ConformitéEuropéenne)/US FDA certified.

SCHEDULE NO: 22

Gel documentation system (with Chemiluminescence)

The complete system is required with necessary hardware including camera, software and printer.

1. Camera Specifications:
 - 16-bit, 4.2 megapixel; thermoelectrically regulated at -25°C (±0.1),
 - Pixel resolution : 2048 x 2048 or better,
 - lens of 50mm, *f*/0.95,
 - field of view 15.0cm x 15.0cm or better,
 - ports 3 USB, and one network,
 - Image capture modes - Chemiluminescence, UV transilluminator, epi- white light
 - Image exposure modes - Automatic and manual
 - Image file format - TIFF and others
 - Touchscreen display - 10 inch LCD or better.
2. Should have approximately 200 GB for storage of acquired images, providing storage for more than 200,000 image files captured using the default image acquisition setting (3 x 3 binning).
3. CE(ConformitéEuropéenne)/US FDA certified.
4. Documentation system should include User/Technical/Maintenance manuals, List of important spares and accessories with their part number and costing, List of Equipments available for providing calibration and routine maintenance support, and Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
5. Should have One-touch image acquisition – press any one of several optimized presets in each mode and the imager does all the rest;
6. Should automatically capture a series of images using up to five different preset or user-defined exposure times.
7. Multiuser licenses for software and lifetime upgradations of software free of cost.
8. Shoot-and-preview convenience – imager keeps the last five captured images immediately available in on-screen tabs so you can quickly review, compare, choose and make adjustments to results

9. Should automatically calculate the exposure time of a Western blot with maximum dynamic range and minimal pixel saturation
10. Should copy, delete, export and edit image information of one or more image files in multiple gallery folders
11. Create new dark and bias master files to compensate for noise coming from the CCD camera during image acquisition
12. Facility to adjust the black, white and gamma levels of acquired images to increase sample visibility
13. Facility to Select a point of interest on the acquired image to view the pixel intensity and pixel coordinates of the corresponding region.
14. With suitable warranty & well established service network.
15. Accessories: Transilluminators.

SCHEDULE NO: 23
Gel documentation system

The complete system is required with necessary hardware including camera, software and printer.

1. Camera Specifications:
 - 16-bit, 4.2 megapixel; thermoelectrically regulated at -25°C (±0.1),
 - Pixel resolution: 2048 x 2048 or better,
 - Lens of 50mm, *f*/0.95,
 - Field of view 15.0cm x 15.0cm or better,
 - Ports 3 USB, and one network,
 - Image capture modes - UV transilluminator, epi-white light
 - Image exposure modes - Automatic and manual
 - Image file format - TIFF and others
 - Touchscreen display - 10 inch LCD or better.
2. Should have approximately 200 GB for storage of acquired images, providing storage for more than 200,000 image files captured using the default image acquisition setting (3 x 3 binning).
3. CE(Conformité Européenne)/US FDA certified.
4. Documentation system should include User/Technical/Maintenance manuals, List of important spares and accessories with their part number and costing, List of Equipments available for providing calibration and routine maintenance support, and Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
5. Should have One-touch image acquisition – press any one of several optimized presets in each mode and the imager does all the rest;
6. Should automatically capture a series of images using up to five different preset or user-defined exposure times
7. Multiuser licenses for software and lifetime upgradations of software free of cost.
8. Shoot-and-preview convenience – imager keeps the last five captured images immediately available in on-screen tabs so you can quickly review, compare, choose and make adjustments to results
9. Should automatically calculate the exposure time of a Western blot with maximum dynamic range and minimal pixel saturation
10. Should copy, delete, export and edit image information of one or more image files in multiple gallery folders
11. Create new dark and bias master files to compensate for noise coming from the CCD camera during image acquisition
12. Facility to adjust the black, white and gamma levels of acquired images to increase sample visibility
13. Facility to select a point of interest on the acquired image to view the pixel intensity and pixel coordinates of the corresponding region.

14. With suitable warranty & well established service network.
15. Accessories: Transilluminators.

SCHEDULE NO: 24

Inverted Microscope

1. Stand: A scratch-resistant stage
2. High quality optical components including minimum of 5 W Cool LED illumination with 2 hour auto switch-off function. Up to 20 years life cycle (40 working hrs / week) per lamp under regular conditions, as shown in product document.
3. Auto intensity for switching between Brightfield and Phase contrast.
4. Object guide – Should have object guide with 3 object holders for slide, petridish and 96-well tissue culture plates.
5. Condenser – with min 0.45 N.A. and 40 – 50 mm working distance from the sample, for both Bright field and Phase contrast.
6. Eyepiece – Exchangeable; 10x/20 mm Field of vision or better
With antifungus coating.
7. Objective Turret – 4 fold revolving nosepiece.
8. Objectives to be provided: Objective PLAN 5x/0.12 PH0
Objective PLAN L 10x/0.22 PH1
Objective PLAN L 20x/0.30 PH1
Objective PLAN L 40x/0.50 PH2
Objective PLAN 63x/0.65
All objectives with antifungus coating.
9. 24” HD Monitor for Camera
10. High Definition Digital Camera: Digital color camera with CMOS sensor; stand- alone operation without PC should be possible. High definition live image 1920 x 1080p, 30fps - JPG capture images with 2.5 M pixels or better. Remote and SD card to capture vibration free operation. Should provide direct image on HD monitor without PC.
11. Software for PC-. Facility for both Monochrome and color images should be possible. Facility to invert the images both vertically and horizontally should be possible. If the details of objective, eyepiece, magnification changer and C-mount is fed in the software, it should do automatic calibration. Facility for manual calibration with stage micrometer should be possible. Facility to compare live image and stored image side by side on the screen should be possible. Stitching the individual images manually for getting the mosaic image of the sample should be possible. Micron marker, point to point length measurement, Annotation should be possible.
12. Compliance with the specifications should be supported by product documents.
13. CE (Conformité Européenne)/US FDA certified.
14. With suitable warranty & well established service network.

SCHEDULE NO: 25

Conventional PCR with Dry heating block for PCR and work station

a- Thermal cycler -

1. Should be suitable for In vitro diagnostic use and for research purpose.
2. Programmable with storage capacity of ≥ 1000 programmes.
3. With 96 well blocks with superior heating and cooling rates.
4. Temp range of 4-990C.
5. It should have fast ramping (heating 3.500C/sec or better and cooling 2.50C or better), high accuracy, and intelligent block/well control. High temperature uniformity, maximum reproducibility, no over or undershooting of the programmed target temperature.
6. It should have automated system diagnosis and documentation of PCR runs.

7. Portable, user friendly safe and easy to use.
8. Graphical programming and easy spreadsheet programming.
9. Comfortable ≥ 7 inch color touch screen display.
9. Should have gradient: simple optimization of new primer pairs.
10. High performance smart lid technology (HPSL): fast heating, constant pressure and easy use.
11. Quiet operation with minimum noising.
12. Temperature uniformity: Better than $\pm 0.4^{\circ}\text{C}$.
13. USB port and LAN based networking software should be available (PC based).
14. Electrical supply: Universal power supply (110 V - 240 V) as per UL, CE standards.
15. CE (ConformitéEuropéenne)/US FDA certified.
16. Electrical and functional safety certificate from competent authorities.
17. With 03 year warranty & well established service network.

b- Heating Block For PCR

- 1 Safe dry heat mode blocks with modular design
- 2 Removable heating blocks
- 3 Uniform heat distribution
- 4 Chemical resistant powder coated steel body
- 5 Precise temperature control [Precision of 0.1 deg C]
- 6 Temperature control –ambient to 130 deg C
- 7 The temperature control should consist of
Digital heater unit Interchangeable heating block modules to accommodate of variety of sample tube size requirements.
Blocks with multiple tube size 1.5ml and 2 ml.

PCR workstation

1. PCR prep station should be a bench-top compact laminar flow enclosure that reduce the risk of sample contamination while performing polymerase chain reaction experiments.
2. A constant positive pressure HEPA filter is required to prevent airborne contaminants.
3. PCR prep station should be equipped with a built-in 254 nanometer shortwave lamp to effectively decontaminate the work area between amplifications. Safety interlocks should be included to prevent operator exposure to potentially harmful UV radiation.
4. It should have clear polycarbonate construction with chemically impervious polypropylene work surface.
5. It should have flat polypropylene base for ease of use during manual pipetting.
6. It should have vertical laminar flow air with variable digital timer for exposure with at least 5 min to 120 min.
7. It should have built-in safety switch to prevent exposure to UV light and allow automatic operation of workstation.
8. It should have sash position switch and overlap to prevent UV light exposure
9. Dimensions should be (width x depth x height) 48 x24x30 inches or more.
10. Noise level should be <50dB.

11. It should have 99.97% efficient HEPA filter and disposable prefilter with constant HEPA filter monitoring.

SCHEDULE NO: 26

Refrigerated Circulating Water Bath

- 1- Powerful bath circulators with a stainless-steel reservoir can be configured with different cooling capacities, temperature ranges and volumes
- 2- Temperature range: ≤ 0 to $\geq 100^{\circ}\text{C}$ with Maximum bath volume of 12 liters.
- 3- Superior cooling power, expansive temperature ranges, powerful force/suction pumps, and sophisticated digital control to ensure accuracy and reproducibility.
- 4- Energy-saving feature to limit power consumption: tight control of cooling capacity dependent on application needs.
- 5- Small footprint and low noise level.
- 6- Thermostat can be indexed 90° on all sides of the bath for easy viewing
- 7- Suitable external circulation set should included for plumbing connection.
- 8- Three-side ventilation facility: up to two sides can be blocked with full refrigeration performance and no degradation of equipment.
- 9- Draining port at the front.
- 10- Integrated handles
- 11- CFC-free refrigerant
- 12- Pump Capacity: Flow rate ~ 15 litre/min, Pressure ~ 0.35 bar.
- 13- Pump capacity electronically adjustable.
14. Having early warning system for low liquid level and high/low temperature.
- 15- Should include: Control cables, bridge with gasket and thumbscrews, fittings, clamps, pump plug for external circulation, 6ft. power cord.
16. Cables and power supply should conform the Indian standard.
- 17- CE (ConformitéEuropéenne)/ US FDA certified.
- 18- Should have suitable warranty and well established service network.

SCHEDULE NO: 27

TWO UNITS Real Time PCR Machine for Diagnostics and Research with ONE UNIT of Automated Extraction System;

- The system should be approved for in-vitro diagnostic (CE-IVD) and also serve an open Real time PCR system for in house diagnostics and research applications.
- The system should be a high end and compact with latest, fast and high throughput features for Real time PCR applications.
- The system should have a 0.2 ml capacity 96 well based Heating Block with peltier elements to ensure uniform temperature measurement across the plate with no edge effect.
- The system should have ≥ 4 $^{\circ}\text{C}/\text{sec}$ heating ramp rate and ≥ 2 $^{\circ}\text{C}/\text{sec}$ cooling ramp rates.
- The system Thermal block should provide temperature homogeneity of $\pm 0.8^{\circ}\text{C}$ and temperature accuracy of $\pm 0.2^{\circ}\text{C}$.
- The system should use high intensity LED lamp or Xenon lamp (400 to 710nm) an Excitation source with a cooled CCD camera to detect fluorescence from all kind of dyes that are commercially available
- The System should have minimum of five Excitation and Six Emission filters, with minimum true 5 plex Multiplexing assay compatibility, without any need of reference dye.
- The system should be Flexible for developing chemistries like SYBR Green I and based assays like Hybridization probes, Hydrolysis probes, Simple probe assays etc.

- The system should provide on line Cycle by Cycle monitoring with continuous communication display of the Fluorescence, Temperature changes and progression of amplification without the scanning movement of detector.
- The system should allow reaction volumes between 10 – 100ul.
- The system should be programmable between temperature ranges of 40 - 99°C, and should also come with heating lid to avoid sample evaporation at high temperatures without the need of any overlay of oil / wax.
- The system Application software should include latest Real Time PCR applications like Melting curve analysis for Tm calling, Melt curve based genotyping and High Resolution melting [HRM], Absolute and Advanced Relative quantification assays and End Point Genotyping analysis.
- The System software should have the provision to use Fit point method and second derivative maxima method for calculating the concentrations.
- The system should be provided with compatible HP Pentium Desktop PC data workstation for A all type of Real time applications

Essential Accessories:

- fully Automated Nucleic Acid Extraction System with CE IVD certified compatible and suitable for Two Real Time PCR System (as per above specification of Real Time PCR) from **same manufacture**. Should have sample throughput of at least 24 Isolations per run, system should be based on the magnetic glass particle technology. On-board barcode scanning for inventory & sample tracking, UV light, Primary sample tube handling, Post elution handling. All the reagents should Pre-filled and ready-to-use; no user intervention is required, Regulatory Label for in vitro diagnostic use. Compliant with IVD directive
- The manufacturer should be provided with compatible UPS and 2 Hr battery backup to support all the individual system.

SCHEDULE NO: 28

Spectrophotometer (DNA/RNA):

- A UV-visible spectrophotometer for microplate reading option.
- A monochromator based UV/Vis spectrophotometer with Xenon Flash lamp as light source and photo multiplier tube (PMT) as detector, for better performance.
- The system is able to read 96 & 384 well plates and
- Instrument is able to provide the wavelength range from 200nm to 1000nm with 1 nm steps. (200 to 400 or above)
- Reader has spectral scanning option for standardizing new assays.
- The applications include nucleic acid quantification, protein assays, enzyme kinetic assays, immunoassays (ELISA), cell toxicity assays, apoptosis and reporter gene assays.
- The instrument has inbuilt linear shaking options for ELISA, enzyme kinetic assays etc.
- Incubation temperature: from ambient +4°C to +45 °C.
- Measurement speed should be 6 sec. for 96 well and 10 sec. for 384 well plate
- an open system and able to accommodate any consumables from any manufacturer.
- Instrument has an option for pathlength corrections to correlate the microplate data to cuvette, in case of nucleic acid quantification performed on microplate.
- It has Power Save function for reduced energy consumption when the instrument is 'on' but not in use.
- can run in stand-alone mode OR with computer & software controlled.
- The instrument has a memory of 100 inbuilt protocols in stand-alone mode and has color display for better visualization.
- Analysis software SkanIt is supplied with the instrument and has unlimited user system license.
- The instrument has USB port for the easy data transfer.

- Self diagnostics option to give a guaranteed high quality data.
- Quick and easy measurement of low sample volumes down to 2 µL or less.
- An ideal tool for photometric DNA or RNA quantitation and purity analysis.
- dsDNA detection limit of 0.1 microgram or less.
- 16 sample positions for quick and easy measurement of sample volumes down to 2 µL or less.
- Quick and easy to wipe off the samples in serial measurements
- Ready-made Software sessions for nucleic acid analysis
- Measurement slot for a disposable cuvette or capillary.
- The low-volume measurement area consists of two quartz slides: the top clear quartz and the bottom Teflon-coated quartz slide.
- Sample positions are arranged in a 2 x 8 matrix, providing a straightforward way of analyzing up to 16 samples simultaneously.
- The fixed light path of the Plate allows direct calculation of the nucleic acid concentrations of the samples.

Analysis software should have :

- The calculation, performed in compliance with the European Pharmacopoeia guidelines.
- Spectral scanning measurement and calculations
- Cuvette layout
- Pathlength correction
- Possibility to import results from internal software
- Compatible with Windows XP, Vista and Windows 7 or higher version.
- Language versions (at least 8 language)
- Parallel Line Analysis (PLA)
- Improved Quality Control calculation
- Improved User-equation calculation

Layout, protocol, calculations and reports can be edited freely

SCHEDULE NO: 29

Ultrapure water purification system

A. Ultra pure Water System: - Water quality required for Molecular biology, Tissue culture/HPLC applications. The system should contain pre filtration unit, Type 2 RO filtration equipment, Reservoir 30L and Type 1 filtration equipment. B. Pre filter Unit:

1. A prefilter unit with 1 & 5 micron filter to remove particulate
2. Motor and booster pump for feed pressure.
3. R O grade water system
4. Prefilter with anti scaling and activated carbon reverse osmosis
5. Conductivity cell before and after RO stage
6. Feed water handling of conductivity up to 2000microns/cm.

C. TYPE 2 RO Stage Water Quality:

1. Flow rate: 2L/hr
2. Organic ion removal up to 99%
3. Resistivity: 5-15 cm.,
4. TOC < 30 ppb,
5. Colloidal index SDI < 3
6. Feed water pressure bar: 0 -5
7. Reservoir of 50 L capacity.
8. Electrical feed voltage 90 – 230V ± 10%

9. One pair of extra cartridge.

D. Ultra pure water machine producing water of the following quality:

1. Output/flow rate up to: 1 litre/min.
2. Conductivity of 0.055 microns/cm
3. Resistivity of 18.2 mega ohm. Cm
4. Bacteria cfu/ml < 1
5. Particles :<1/ml @0.1um
6. TOC: < 5 ppb
7. Endo toxin: < 0.001EU/ml

E. Should be FDA or CE or BIS approved product Accessories: One complete set for additional filters.

SCHEDULE NO: 30

Lab Refrigerator (400Lit. Capacity)

Microprocessor / Micro-controller based temperature controller with Minimum capacity of 400 Liters
Temperature Display should be Digital LED/LCD

High & Low Alarm

Audio-visual high & low temperature alarm

Construction

Outer panels are made of MS with powder coated exterior finish.

Interior panels are made of Stainless Steel

Door

Standard hinged door with Double gasket seal between the door and the cabinet increases system efficiency. Option includes dual door system or vacuum insulated glass door.

Insulation

Polyurethane foam insulation with a thickness of 50mm

Trays

Adjustable stainless steel trays with perforated design

Interior lighting

Interior fluorescent lighting.

Castors

Castors for minimal effort mobility with breaks on minimum 2.

Refrigeration system

Superior refrigeration system with optional Backup refrigeration system.

Compressor

Heavy duty Air-cooled compressor. The compressor is distinguished by its excellent performance, low noise level (<60dB) and minimal vibration.

Condenser

Highly efficient condenser with automatic condensate evaporating system.

Evaporator

Internal evaporator system forced draught

Refrigerant

Non-CFC/HCFC environmental friendly based on compressor capacity.

Air Circulation

Forced air circulation to maintain chamber uniformity.

Alarms

Audio-video alarm system to warn of high or low temperature. Optional alarm systems like door ajar, condenser faults etc. Optional Alarm system with Rechargeable battery backup.

Temperature Controls

Micro-processor based Temperature controller cum indicator.

Alarm system for various parameters with rechargeable battery backup; Voltage Safety System; Backup refrigeration system etc.

Power Supply

220-240 volts, 50Hz / 60Hz.

Should be FDA or CE or BIS approved product.

SCHEDULE NO: 31

Walk in Cooler			
Clause	Description	Sub-clause	Technical Particulars
1	Description of Function and capacity	1.1	Walk in Cold rooms are required to store for long term duration of large quantity of vaccines at a temperature between +2 deg to +8 deg C.
		1.2	Typical gross internal volume should be 30 cum
2	Operational Requirements	2.1	To be constructed of prefabricated, modular complete with floor and ceiling panels, mounted on a flat, solid concrete base.
		2.2	The cold room should be equipped with two completely independent refrigeration systems. One of these will remain as standby.
		2.3	Each refrigeration system must be provided with it respective separate :
			· condensing unit,
			· evaporator unit,
			· refrigeration unit,
			· electronic controls,
			· pipe work and
		to ensure proper operation of each respective Refrigeration system.	
		2.4	Provide additional control which permits simultaneous operation of both refrigeration systems in case of emergency.
2.5	There should be manual & automatic switchover to the standby system by thermostatic or electrical control.		
2.6	There should be programmable automatic operational duty cycle for the switch over to the standby refrigeration system.		
	Depending upon the internal room layout and the room location, refrigeration units may be one of the following types:		
2.7	· Wall-mounted with the condenser unit discharging inside the building that houses the cold room (monobloc system);		
	· Wall-mounted with weatherproof condenser units located externally as close as possible to the evaporator units (weatherproof split system);		
	· Wall-mounted with condenser units located in a separate ventilated enclosure mounted as		

			close as possible to the evaporator units (split system).	
3. Technical Specifications				
3.1	Internal Temperature:	3.1.1	+2 deg to +8 deg C adjustable	
			(i) during 43 deg C continuous ambient	
			(ii) 32 deg continuous ambient	
			(iii) 45/05 deg C day/night cycling temperatures	
3.2	Panels:	3.2.1	wall and roof panel skins can be made from stainless steel of Grade 304	
		3.2.2	Outer and inner Panels:	
			Powder coated, made of galvanized steel panels, double wall having minimum thickness 22 SWG each.	
		3.2.3	Panels must be fully insulated and without internal structural members or stiffeners between the skins.	
		3.2.4	Tongued and grooved joints between panels must be designed to minimize cold-bridging.	
		3.2.5	Gaskets must be resistant to damage from oil, fats, water and detergents.	
		3.2.6	After assembly, all joints must be mastic sealed on the interior side to ensure air-tightness.	
		3.2.7	Roof panels with an overall length of 6 metres or less must be self-supporting.	
		3.2.8	Modular panel-Easily assembled and dissembled.	
		3.2.9	Double action cam-lock assembly/panel interlocking, for perfect seal.	
		3.2.10	No screws or panel cover strips.	
		3.2.11	Have airtight seals between condensing unit and wall.	
3.2.12	Have airtight seals around all pipe and cable penetrations through wall and/or roof panels.			
3.3	Insulation	3.3.1	CFC-Free Urethane foam or extruded polystyrene foam core bonded sandwiched between two galvanized steel sheets.	
		3.3.2	Minimum thickness: 100 mm	
		3.3.3	Density: not less than 40 kg/m ³	
		3.3.4	Thermal conductivity of 0.17 w/m2k or better for hot zone climate.	
		3.3.5	Thermal insulation foaming agents: Any gas complying with limitations and deadlines set by the Montreal Protocol on the elimination of ozone-depleting chemicals.	
3.4	Flooring:	3.4.1	Base - 1st layer: 75 mm thick cement concrete (dimensions suitable to the size of cold room);	
			3.4.2	2nd layer of specified insulation as specified in para 3.3 · Extruded polystyrene slabs laid with the joints staggered to achieve a 'U' value of 0.17 W/m.K or better. · 250 micron polythene vapor barrier. · Reinforced granolithic concrete topping trowel led smooth.
		3.4.3		3rd layer of 6mm (minimum) non-slip finish Aluminium checker plate.
		3.4.4		The floor should be capable to support load of 1500 kg/m ² .
		3.4.5	Concrete floors must be designed and constructed to allow Shallow ramped access entry to the cold room or freezer room.	
		3.5	Door	3.5.1
3.5.2	Plastic curtains on the door way.			
3.5.3	Door should be flush type with kick plate at bottom and fitted with door closer.			
3.5.4	Examination Window (View port).			
3.5.5	Seal closer mechanism which cushions the closing movement of the door, shuts the door silently and keeps it seal-closed preventing loss of cooling.			
	3.5.6			An incandescent vapour-proof light mounted on the interior of the vaccine chamber.
3.5.7	Dimensions: 34" to 40" (W) x72" to 80" (H).			
3.5.8	Additional alarm switch to be fitted inside the cold room close to the door latch.			
3.6	Lighting	3.6.1	Internal ceiling-mounted low energy fluorescent or LED luminaries with an external switch with pilot light.	
			3.6.2	The external light and light switch must be fixed to the wall of the cold room enclosure near to the entrance door.
		3.6.3	The minimum illumination level on the vertical face of the lowest shelves must be 150 lux.	
		3.6.4	The lighting should be evenly distributed inside the cold room.	

3.7	Refrigeration System:	3.7.1	Dual Refrigeration system (100% standby)
		3.7.2	The refrigeration system should have 3.5 to 4 KW compressor for 16.5 cum to 20 cum Walk-in-Coolers and 5.5 to 6.0 KW compressor for 32 to 40 Cum Walk-in-cooler.
		3.7.3	Cooled refrigeration units, preferably Mono-block type
		3.7.4	Automating defrosting (electric or hot gas)
		3.7.5	CFC-free refrigerant.
		3.7.6	Tropicalized units suitable for ambient temperature up to 45 deg C.
		3.7.7	In case of a split system, the condensing Unit should be mounted in a weather proof enclosure with proper canopy so as to get protection from rain and hard weather and prevent any vandalism or injury to people upon accidental access.
		3.7.8	Condensing unit (s) to comprise compressor with:
			(a) Forced air condenser,
			(b) Oil level glass,
			(c) Oil separator,
			(d) liquid receiver to carry full charge,
			(e) Filter/dryer with flare connections,
(f) Isolating stop valves.			
(g) Fixed high and low pressure dial gauges.			
(h) Fitted with high and low pressure cut-outs,			
(i) Time-operated electric defrost control			
(j) It should have run hour meter.			
(k) Where cold climate freeze prevention is specified provide a low temperature protection system to prevent the temperature protection system to prevent the temperature of the cold room dropping below +2°C under low ambient conditions.			
3.8	Evaporator:	3.8.1	Evaporators to be forced air, wall or - ceiling-mounted units with a condenser unit discharging inside the building that houses the cold room.
		3.8.2	There must be a timer operated electric defrosting system and a condensate drip tray and drain connection.
		3.8.3	Size and position the evaporator units so that the plume of discharged air at a temperature below +2°C does not reach areas where vaccine is stored. If necessary provide a removable mesh cage or deflector shield around the evaporator so as to maintain the safe storage zone.
4. Temperature Control , monitoring & Recording:			
4.1	Temperature Control	4.1.1	Room temperature must be controlled by a thermostat within the tolerances specified.
		4.1.2	The thermostat must be calibrated to ITS-90 and be accurate to $\pm 0.5^{\circ}\text{C}$ or better.
		4.1.3	All parts of the room designated for vaccine storage must remain between 2°C to 8°C when measured under any loading condition between empty and full and over the full ambient temperature range of the required temperature zone.
		4.1.4	The control supply relay carrying the compressor running current should be rated twice the running current, or provide additional contactor to be provided in the control circuit to sustain the running current, without causing overheating of the control boards.
4.2	Temperature Monitoring and recording	4.2.1	Provide a digital temperature recording system with display controlling indicating logging facility : for example • _A programmable electronic temperature and event data logger system with minimum 10,000 data storage capacity, auto-dialler complying with PQS E006/TR03 linked to the alarm system.
		4.2.2	Wall mounted seven days graphic temperature recorder not using thermal paper.
		4.2.3	Provide a backup gas or vapour pressure dial thermometer complying with PQS E006/TH02, mounted on the wall of the cold room in an accessible position.
4.3	Alarm & Buzzer	4.3.1	Provide a mains-operated audible and visible loud alarm with battery backup and automatic recharge, which is triggered in the event of mains failure or when the cold room temperatures are outside set limits.
		4.3.2	In case of a triggered event, the acoustic alarm unit must comply as per specification WHO/PQS/E06/AL01-01 or with E006/TR03
		4.3.3	Alarm sounders are to be located adjacent to the cold room.
		4.3.4	Buzzer system : Visual indicator along with buzzer alarm system should be provided to alert the user in the following events :
			(a) Power failure alarm
	(b) High pressure (dirty condenser) alarm		
	(c) Open door alarm		

			(d) Probe failure alarm
		4.3.5	It should have back-up battery for control its panel
5	Storage Condition	5.1	Storage conditions to be maintained at + 5 deg C \pm 3 deg C continuously, control by thermostat on each cold room.
6	Shelves	6.1	Cold room(s) to be fitted with locally made/manufactured, running height adjustable perforated shelves (slotted shelves will be preferred)
		6.2	600 mm wide at 600 mm spacing;
		6.3	Four shelves above the ground all around the wall and intermediate shelves should be placed suitably.
		6.4	The total area covered by shelves should be at least 42% of the ground area.
		6.5	There should be a minimum 900 mm distance in between two intermediate racks, to facilitate the movement of men and material.
		6.6	The final drawing of the room with shelves will have to be got approved from the authorities after placement of NOA.
		6.7	The material of the shelves should be non corrosive 304 grade stainless steel to take load of at least 0.075kg/cm ² .
		6.8	The top face of the lowest shelf must be mounted 200 mm above the floor.
		6.9	Shelving must be washable.
8	Environmental factors	8.1	The unit shall be capable of operating continuously in ambient temperature of 5 to 45°C and relative humidity of 95%
9	Installation:	9.1	Complete installation, testing and commissioning is to be done by the supplier inclusive of:
			(a) Installation of stabilizer,
			(b) Drainage system
			(c) Assembly of the panels
			(d) Refrigerator units,
			(e) Data logger
			(f) Adequate smoke evacuation system, Generator as per CPCB.
			(g) All other related work required for installation as per WHO PQS and guidelines.
			(h) Separate earthing must be provided respectively for Genset and WIC
			The installation and commissioning should be done by supplier
10	Power Supply	10.1	Power input: 220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz, three phase.
		10.2	Fitted with ISI marked, 15 ampere, Indian M-plugs and sockets.
		10.3	Diesel Generating set of 15 KVA should be supplied.
		10.4	Suitable automatic voltage regulator/stabilizer meeting IS 9815, IEC 60335-1 & IEC 60364-1 specifications should be supplied.
		10.5	Voltage regulator should have capacity to take load of both refrigeration units (main as well as standby).
11	Standards, Safety Training and	11.1	Electrical and refrigeration components and the panels should have:
		11.2	National or international approvals like UL, IEC 60335 -1 2006
		11.3	Safety of household & similar electrical appliances. / IEC 60364-1,/ ISO 20282-1:2006
		11.4	Ease of operation of every day products ./ Electrical safety rating: meet IEC 60335-1, IEC 60364-1- Voltage, frequency & phasing: single phase, three-phase - voltage stabilizers and surge protections.
		11.5	All operational and maintenance training by trained personal of manufacturer to the end users after successful installation and commissioning.
12	Warrantee:	12.1	Provide Comprehensive warranty for 5 years, ensure provision of consumables including spares and accessories within the warranty period excluding batteries(warranty as per manufacture norm, minimum of two years) and diesel for DG set.
		12.2	Provide commitment and quote for Comprehensive Maintenance Contract (CMC) for 5 years after the 5 years
		12.3	Guarantee for availability of spares for 10 years after warrantee.
13	After Service: Sales	13.1	Should have local / regional authorized service facility.
		13.2	The service provider should have the necessary equipments and spares recommended by the manufacturer to carry out preventive maintenance and repair as per guidelines provided in the service/maintenance manual.
14	On-site	14.1	All minor repairs should be attended to and completed within 24 hours of the intimation.

	maintenance:	14.2	Any major break down (e.g. compressor failure, gas leakage, control panel burn-out) must be attended to and put back into functional condition within seven days following first intimation.
		14.3	If both refrigeration system have failed, at least one refrigeration system must be repaired or replaced within 24 hrs.
15	Documentation: Certification and Manuals	15.1	Test certificate of inspection should be submitted at the time of prototype inspection along with :
			(a) Cool down time, (b) Running test , as per WHO quality Assurance Protocol WHO/PQS/E001/CR-FR01-VP2 of any capacity from an independent laboratory approved /recognized by WHO/UNICEF/National Accreditation board/ILAC/STQC lab is essential, should be submitted at the time of prototype inspection.
		15.2	Separate Certificate of inspection for tendered item from an independent laboratory approved/recognized by WHO/UNICEF/National Accreditation Board/ ILAC/ STQC Labs or third party inspection agency as mentioned in the NOA is essential and is required to be submitted at the time of delivery.
		15.3	List of important spare parts, and accessories with their part number and costing.
16	Installation instructions:	16.1	Provide a comprehensive, illustrated (including all wiring diagrams) with step-by-step installation manual suitable for use by the installer, covering the unpacking, assembly, testing and commissioning of all the system components, including safe working procedures to be observed.
		16.2	The manual must be supplied in triplicate - one copy for the employer, one for the installer and one for the maintenance contractor.
17	Service instructions:	17.1	Provide a comprehensive, illustrated service and workshop manual, suitable for use by the maintenance contractor, covering all the system components, including safe working procedures to be observed.
		17.2	The manual must be supplied in duplicate - one copy for the employer and one for the maintenance contractor.
18	User instructions:	18.1	Provide a comprehensive, illustrated maintenance manual suitable for the user and covering all aspects of safe operation and routine non-specialist maintenance of the cold room.
		18.2	The manual must be supplied in duplicate - one copy for the employer and one for the maintenance contractor.
		18.3	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
19	Post commissioning certifications:	19.1	Test certificate of inspection for all test, as per WHO quality Assurance Protocol WHO/PQS/E001/CR-FR01-VP2 of installed cold room from an independent laboratory approved /recognized by WHO/UNICEF/National Accreditation board/ ILAC/STQC lab or third party inspection agency specified in the NOA after installation and commissioning of cold room to be submitted along with Final Acceptance Certificate.

PRE-INSTALLATION INSTRUCTIONS FOR WIC.**General**

Please ensure that the goods will be on the actual installation site within carrying distance from the final location before the arrival of the engineer (if supplier will carry out the installation)

Storing of the goods should be done in a covered and secured area

Please ensure that the intended installation site is cleared and ready for immediate installation to start

The installation space should be with adequate ventilation or windows which can be opened on the top of the existing wall(s) with netting/burglar proof grills

The crates will be opened by engineers from the supplier to verify that all pieces of equipment have arrived as packed by the supplier

Please ensure that there is local unskilled labour available for carrying the materials and doing minor installation work such as installation of the floors, walls and ceiling panels as well as doors and shelving under the supervision of supplier engineer

For the electrical installation it would be good to have a local electrician present to assist in the installation and final connection to the local supply network

During installation it is preferred that all technical personnel who will be responsible for the future daily operation, maintenance and service of the room(s) will be present and participating in the installation work thereby getting a thorough understanding of the equipment.

Concrete platform size should be according to make and model of WIC-WIF, as they are all different.

Ensure that there is water drainage facility available from concrete platform to outside.

Prefabricated rooms

The doors of the WIC are located in the middle of one of the long walls

There should be a free space of preferably 2.5 – 3 metres in the front of the door wall for easy access to the room as well as handling and possible repacking of the stored goods
Preferably installation is to be done on a levelled concrete floor
As the rooms are made of prefabricated insulation panels the levelling / base evenness requirement is +/- 3 mm / 3 m and +/- 5 mm / 5 m
The entrance door to the space where the installation of the room(s) is to be done should be about 900 mm wide so that panels and other pieces of equipment can be easily carried through the door opening
Electrical supply and power consumption for WICs and WIFs
Please ensure that Grid Power supply is available in the installation premises.
i.e. A.C., 3-phase, 380-400V, 50 Hz, with proper switch box/distribution board with fuses and a main switch for the local national grid.

GENERAL TECHNICAL SPECIFICATIONS

GENERAL POINTS:

1. Warranty:
 - a) Three years Comprehensive Warranty as per Conditions of Contract of the TE document for complete equipment (including Batteries for UPS, other vacuumatic parts wherever applicable) Warranty period will be 3 years from the date of installation, commissioning and Site Modification Work from the date of satisfactory installation, commissioning, trial run & handing over of equipment to Hospital/Institution/Medical College.
 - b) 95% 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 Hospital/Institution/Medical College on 24 (hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 8 hrs. The service should be provided directly 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 Principal/ Indian Agents (if they have the requisite know-how) for operation and maintenance of the equipment to the satisfaction of the consignee. The same will be in line with the training modalities as specified in general technical specification.

4. Annual Comprehensive Maintenance Contract (CMC) of subject equipment with Site Modification Work:

- a) The cost of 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 may be quoted for next 5 years on yearly basis for complete equipment (including Batteries for UPS, other vacuumatic parts wherever applicable) and Site Modification Work (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 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.
- c) Cost of CMC will be added for Ranking/Evaluation purpose. The same will be taken at Net Present Value with a 10% discounting factor each year.
- 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.

5. Site Modification Work:

Site Modification Work is indicated in the technical specification of the respective items, wherever required. The Tenderer shall examine the existing site where the equipment is to be installed, in consultation with HOD of Hospital/Institution/Medical College concerned. Site Modification Work details of each Hospital/Institution/Medical College are given at the end of Technical Specification. The Tenderer to quote prices indicating break-up of prices of the Machine and Site Modification Work of each Hospital/Institution/Medical College. The Site Modification Work costs to be quoted in Indian Rupee will be added for Ranking Purpose.

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 duties and taxes and no claim for the same will be entertained later.

The Site Modification Work should completely comply with AERB requirement, if any.

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

Note 2: General: Bidders are requested to make sure that they should attach the list of equipment for carrying out routine and preventive maintenance wherever asked for and should make sure that Electrical Safety Analyzer / Tester for Medical equipment to periodically check the electrical safety aspects as per BIS Safety Standards IS-13540 which is also equivalent to IEC electrical safety standard IEC-60601 is a part of the equipment s. If the Electrical Safety Analyzer/Tester is not available they should provide a commitment to get the equipment checked for electrical safety compliance with Electronic Regional Test Labs / Electronics Test and Development Centres across the country on every preventive maintenance call.

Note 3: Adequate training of personnel and non-locked open software and standard interface interoperability conditions for networked equipment in hospital management information system (HMIS)

The successful tenderer will be required to undertake to provide at his cost technical training for personnel involved in the use and handling of the equipment on site at the institute immediately after its installation. The company shall be required to train the institute personnel onsite for a minimum period of 1 month

All software updates should be provided free of cost during warranty period and CMC period

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. telegraphic address
 - d. telex number
 - e. telephone number
 - f. 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

1. The tenderer must be a manufacturer. In case the manufacturer does not quote directly, they may authorize an agent as per proforma of Manufacturer authorization form as given in the tender enquiry document to quote and enter into a contractual obligation. **For grouped events having multiple items, Manufacturer authorization form must mention all the equipment separately.**

- 2(a) The Manufacturer should have supplied and installed in last **Five** years from the date of Tender Opening, at least 25% of the quoted quantity (rounded off to next whole number) of the similar equipment meeting major parameters of technical specification which is functioning satisfactorily. **For grouped events having multiple items, the Manufacturer should have supplied and installed at least 25% of similar equipment in that group in last Five years from the date of Tender Opening.**

- 2(b) The Tenderers quoting as authorized representative of the manufacturer meeting the above criteria should have executed at least one contract of supplying such medical equipment in the last five years from the date of tender opening anywhere in India.

3. The start-ups claiming exemption on the required prior experience, and complying the condition of GIT Clause 35.3 (iv), should furnish along with the bid
 - (i) All necessary documents in support of the claim regarding exemption on prior experience as mandated by concerned Ministry/ Board of Govt. of India.

Notwithstanding anything stated above, the Purchaser reserves the right to verify/consider, whether the firm/entity is eligible for exemption regarding prior experience requirement.

NOTE:

1. The tenderer shall give an affidavit as under:
“We hereby certify that if at any time, information furnished by us is proved to be false or incorrect, we are liable for any action as deemed fit by the purchaser in addition to forfeiture of the earnest money.”
2. In support of 2 (a) & 2 (b), the Tenderer shall furnish Performance statement in the enclosed Proforma ‘A’.
 The manufacturer (Tenderer) / Indian Agent shall furnish Satisfactory Performance Certificate in respect of above, duly translated in English and duly notarized in the country of origin, alongwith the tender.
3. 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.
4. 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.
5. 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 and quantity of ordered goods and services	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

We hereby certify that if at any time, information furnished by us is proved to be false or incorrect, we are liable for any action as deemed fit by the purchaser in addition to forfeiture of the earnest money.

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 along with a notarized certification authenticating the correctness of the information furnished.**

**** The bidders are requested to submit the latest purchase order copies supplied to AIIMS, PGIMER, JIPMER, Institute of National importance for the specific model quoted along with the price bid.**

Section – X
TENDER FORM

Date _____

To
CEO
HLL Infra Tech Services Limited
Procurement and Consultancy Division
B-14 A, Sector -62, Noida -201307, Uttar Pradesh.

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 **for the sum as shown in the price schedules 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 Govt. Authorities.

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

Price to be filled in the relevant field of Price Format in Excel provided in the e-tendering portal.

SECTION – XII
QUESTIONNAIRE

Fill up the Techno-Commercial Compliance Sheet Bid provided in spreadsheet (Excel file) and upload in the C-Folder

1. The tenderer should furnish specific answers to all the questions/issues mentioned in the Techno-Commercial Compliance Sheet. 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 scanned 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, their tender is liable to be ignored.

Note: *The documents like Priced Proforma Invoice (Single Proforma Invoice from Manufacturer’s indicating uniform unit rates) and List of Consumables with prices can be uploaded in the Notes & Attachment under Rfx information (Please note, in the separate Notes & Attachment provided under Rfx information and not in the C-Folder Notes & Attachments).*

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:-

fails or refuses to furnish the performance security for the due performance of the contract
or
fails or refuses to accept/execute the contract or
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 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 – XIV

MANUFACTURER’S AUTHORISATION FORM

CEO
HLL Infra Tech Services Limited
Procurement and Consultancy Division
B-14 A, Sector -62, Noida -201307, Uttar Pradesh.

Dear Sir,

Ref: Your TE document No _____ dated _____

We, _____ who are proven and reputable manufacturers of _____ (*name and description of the goods offered in the tender*) having factories at _____, hereby authorise Messrs _____ (*name and address of the agent*) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also state that we are not participating directly in this tender for the following reason(s):

(*please provide reason here*).

We further confirm that no supplier or firm or individual other than Messrs. _____ (*name and address of the above agent*) is authorised to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also hereby extend our full warranty, CMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorised agent

We also confirm that the price quoted by our agent shall not exceed the price which we would have quoted directly”

Yours faithfully,

[*Signature with date, name, designation and Email*]
for and on behalf of Messrs _____
[*Name & address of the manufacturers*]

Note:

- (2) This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.
- (3) Original letter may be sent.
- (4) The purchaser reserves the right to verify this document with its signatory.

SECTION – XV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/ CMC SECURITY

CEO
HLL Infra Tech Services Limited
Procurement and Consultancy Division
B-14 A, Sector -62, Noida -201307, Uttar Pradesh.

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 till such time to cover two months beyond the warranty period 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/Consignee
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) _____

- (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)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

1. 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) _____

- 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)
- 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 X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts, _____ & _____) and Site Modification Work (if any).
- 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.
- 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.
- All software updates should be provided free of cost during CMC.

7. 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 of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the Purchaser/Consignee.
8. 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.
9. **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.
10. **Paying authority:** _____ (name of the consignee i.e. Hospitalauthorised official)

(Signature, name and address
of Hospital 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 _____

To

M/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/Transporters: _____
- (g) Name of the Consignee: _____
- (h) Date of site hand-over to the supplier by consignee: : _____
- (i) 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	Quantity	Amount to be recovered

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:

- a) He has not adhered to the time schedule specified in the contract in dispatching the documents/ drawings pursuant to ‘Technical Specifications’.
- b) 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).
- c) The supplier as specified in the contract has not done training of personnel.

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:

- i) He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specification'.
- ii) 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).
- iii) Training of personnel has been done by the supplier as specified in the contract.
- iv) 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 – XIX**Consignee List**

Sl. No.	Name of Hospital and Address	State
1	The Dean, Gandhi Medical College Sultania Rd, Royal Market, Near Hamidia Hospital, Bhopal, Madhya Pradesh 462001	Madhya Pradesh