BIDDING DOCUMENT

(Two Bid System for Machinery & Equipment)

FOR

NATIONAL CANCER INSTITUTE
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
(JHAJJAR CAMPUS)

NIB Ref: HITES/PCD/NCI-AIIMS/42/19-20

HITES
HLL INFRA TECH SERVICES LTD

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SECTION -I

NOTICE INVITING BIDS (NIB)

ALL INDIA INSTITUTE OF MEDICAL SCIENCES

Ansari Nagar, New Delhi-110 029

NIB Ref: HITES/PCD/NCI-AIIMS/42/19-20 **Dated: 30.08.2019**

Procurement & Consultancy Services Division of **HLL INFRA TECH SERVICES LIMITED** (a fully owned subsidiary of HLL Lifecare Ltd., a Govt. of India Enterprise) for and on behalf of **Director, AIIMS - New Delhi,** invites e-tenders in two bid system (technical and price bid) from the reputed, eligible & qualified firms/ manufacturers for purchase/supply of following goods at **National Cancer Institute-AIIMS, Jhajjar, Haryana.**

Sl. no.	Tender ID	Short Description of goods	Quantity (Nos.)	Bid Security (BS) (Rs.)	Tender Processing Fee incl. GST (Rs.)
1	2019_HLL_31185_1	Blood Bank Equipment – Package 1	01	33,360	590
2	2019_HLL_31185_2	Blood Bank Equipment – Package 2	01	16,48,800	2,950
3	2019_HLL_31185_3	Molecular Immuno-Haematology Lab Equipment	01	5,06,200	2,950
4	2019_HLL_31185_4	Automatic Nucleic Acid Testing System	01	5,00,000	2,950
5	2019_HLL_31185_5	Fully Automated Random Access Chemiluminescence	02	1,60,000	1,770
6	2019_HLL_31185_6	Fully Automated Random Access Immuno-Haematology (IH) Platform	02	1,80,000	1,770
7	2019_HLL_31185_7	Biological X-Ray based Blood Irradiator	01	6,00,000	2,950
8	2019_HLL_31185_8	Mobile Blood Donation Van	01	2,00,000	2,950

	Venue for pre-bid meeting	**Sr. no. of goods**	**Date & Time of pre-bid meeting**
Pre-bid conference meeting with prospective bidders	Committee Room (No. 149), 1st Floor, Dr. BRA IRCH Building, AIIMS, New Delhi-29.	Tenders at sl. no. 1 to 8	17.09.2019 at 02:30 PM
Last date and time of submission of tender			15.10.2019 at 02:00 PM
Date and time of tender opening			16.10.2019 at 02:30 PM
Contact Person		DVP (PCD), HITES Email: hll.ncij@hllhites.com	

2. Interested bidders are advised to download the complete Tender Enquiry document from the websites www.hllhites.com or www.lifecarehll.com or www.eprocure.gov.in/cppp for complete details.

3. Bidders shall ensure that their tender(s), complete in all respects, are submitted online through CPPP website: https://eprocure.gov.in/eprocure/app only**.**

4. The Bidder shall download the Bidding Document directly from the designated websites and shall not tamper/modify it including downloaded Price Bid template in any manner. In case if the same is found to be tempered/modified in any manner, Tender/Bid will be summarily rejected and EMD would be forfeited.

5. Bidders are advised to follow the instructions, for registering and online submission of their bid(s), as provided in the CPPP website and are requested to read them carefully before proceeding for bidding.

6. Bidders should be in possession of valid Digital Signature Certificate (DSC) of class III for online submission of bids. Prior to bidding, DSC need to be registered on the website mentioned above.

7. All prospective bidders (maximum two representative of a firm bearing ID proof issued by their firm) may attend the Pre-bid conference meeting. The venue, date and time indicated above.

8. 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.

9. **Tender Processing Fee and Bid Security (BS) in original** should be deposited, within the scheduled latest date & time of tender submission as mentioned above, in the Tender Box located at: **HLL Infra Tech Services Limited, Procurement and Consultancy Services Division, B-14 A, Sector-62, Noida-201307, Uttar Pradesh,** failing which the bid shall be summarily rejected.

10. Prospective bidders are advised to browse the above websites regularly before submission of their bids as any further amendments will be published in these websites only.

CEO (HITES)

SECTION - II

GENERAL INSTRUCTIONS TO BIDDERS (GIB)
CONTENTS

GENERAL INSTRUCTIONS TO BIDDERS (GIB)

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 HLL INFRA TECH SERVICES LIMITED (HITES) for and on behalf of The Director, AIIMS, New Delhi.
ii. "Bid" means Quotation / Tender received from a Firm / Tenderer / Bidder.
iii. "Bidder" means Tenderer/ the Individual or Firm submitting Bids / Quotation / Tender
iv. "Supplier" means the individual or the firm supplying the goods and services as incorporated in the contract/purchase order.
v. "Goods" means all articles, material, commodity, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, vehicles, medicines, assemblies, sub-assemblies, accessories, intangible products like software, technology transfer, licenses, patents or other intellectual properties purchased or otherwise acquired for the use of Government but excludes books, publications, periodicals, etc. for a library. The term 'goods' also includes works and services which are incidental or consequential to the supply of such goods, such as, transportation, insurance, installation, commissioning, training and maintenance.

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. "Bid Security" (BS) means Earnest Money Deposit / monetary or financial guarantee to be furnished by a bidder along with its tender.
viii. "Contract" means the written agreement entered into between the purchaser 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 bidder for due performance of the contract placed on it. Performance Security is also known as Security Deposit.
x. "Consignee" means the Center/Hospital/Department/Sections /person to whom the goods are required to be delivered as specified in the Contract.
xi. "Specification" also called Technical Specifications 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 mentioned in the contract to determine conformity.
xiii. "Day" means calendar day.

1.3 Abbreviations:

(i) "NIT" means Notice Inviting Tenders.
(ii) "GIB" means General Instructions to Bidders
(iii) "SIT" means Special Instructions to Bidders

(iv) "GCC" means General Conditions of Contract
(v) "SCC" means Special Conditions of Contract
(vi) "LC" means Letter of Credit
(vii) "DP" means Delivery Period
(viii) "BG" means Bank Guarantee
(ix) "GST" means Goods & Service Tax
(x) "CD" means Custom Duty
(xi) "BL" means Bill of Lading
(xii) "FOB" means Free on Board
(xiii) "CIF" means Cost, Insurance and Freight
(xiv) "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.
(xv) "INCOTERMS" means International Commercial Terms as on the date of Bid Opening
(xvi) "CAMC" means Comprehensive Annual Maintenance Contract (labour, spare and preventive maintenance)

2. Introduction

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

2.2 This section (Section II - "General Instructions to Bidders") 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 bidder for receipt and opening as well as scrutiny and evaluation of bids and subsequent placement of contract.

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

2.4 Before formulating the bid and submitting the same to the purchaser, the bidder should read and examine all the terms, conditions, instructions, checklist etc. contained in the Bidding Document. Failure to provide and/or comply with the required information, instructions etc. incorporated in these Bidding Documents may result in rejection of its Bid.

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 Bid

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

5. Eligible Bidders

5.1 This Invitation for Tenders is open to all bidder who fulfil the eligibility criteria specified in these documents.

6. Eligible Goods and Services

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

7. Bid Expense

7.1 The bidder shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its bid including preparation, mailing and submission of its bid 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 bidding process.

B. TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

8.1 In addition to Section I – "Notice Inviting Bid" (NIB), the Bidding Documents include:

Section II – General Instructions to Bidders (GIB)
Section III – Special Instructions to Bidders (SIB)
Section IV – General Conditions of Contract (GCC)
Section V – Special Conditions of Contract (SCC)
Section VI – List of Requirements
Section VII – Technical Specifications& General Points
Section VIII – Qualification Criteria
Section IX – Bid Form
Section X – Price Schedules
Section XI - Check List
Section XII – Bank Guarantee Form for Bid Security
Section XIII – Manufacturer's Authorization Form
Section XIV – Bank Guarantee Form for Performance Security/CAMC Security
Section XV – Contract Forms A & B
Section XVI – Proforma of Consignee Receipt Certificate
Section XVII – Proforma of Consignee Acceptance Certificate by the consignee
Appendix A – Integrity Pact

8.2 The relevant details of the required goods and services, the terms, conditions and procedure for bidding, bid 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 bidders are expected to examine all such details etc to proceed further.

9. Amendments to a Bidding documents

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

9.2 Such an amendment will be notified through CPPP (eprocure.gov.in/cppp) and/or www.hllhites.com and/or www.lifecarehll.com and will be binding on them.

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

10. Clarification of Bid document

10.1 A bidder requiring any clarification or elucidation on any issue of the Bidding Documents may take up the same with the purchaser in writing. The purchaser will respond in writing to such request provided the same is received by the purchaser not later than ten days (unless otherwise specified in the SIB) prior to the prescribed date of submission of Bids.

C. PREPARATION OF BIDS

11. Documents comprising the e-Bid

11.1 The bid(s) shall only be submitted online as mentioned below:

A) Techno-commercial Bid (Un-priced Bid)

(Bidders shall furnish the following information along with technical tender in pdf format):

i) Bid Security furnished in accordance with GIB clause 19.1 alternatively, documentary evidence as per GIB clause 19.2 for claiming exemption from payment of Bid Security.
ii) Bid Form as per Section IX (without indicating any price).
iii) Documentary evidence, as necessary in terms of clauses 5 and 17 of GIB establishing that the bidder is eligible to submit the bid and, also, qualified to perform the contract if its bid is accepted.
iv) Bidder who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form. While giving authorization to agent, to quote on their behalf, manufacturer has to give the reasons for not quoting directly against this bid in the Manufacturer's Authorisation Form.
v) Power of Attorney in favour of the signatory who is digitally signing the bidding documents and signatory of Manufacturer's Authorization Form.
vi) Documents and relevant details to establish in accordance with GIB clause 18 that the goods and the allied services to be supplied by the bidder conform to the requirement of the bidding documents.
vii) Performance Statement as per section VIII along with relevant copies of orders and end users' satisfaction certificate.
viii) Price Schedule(s) as per Section X filled up with all the details including Make, Model etc. of the goods offered with prices blank (without indicating any prices).
ix) Documents confirming to Sole Proprietorship/Partnership/Private Limited Firm in the country of origin as the case may be.

x) Checklist as per Section XI.
xi) Copies of GST registration certificate and PAN Card.
xii) Copies of annual report, audited balance sheet and profit & loss account as per tender requirement.
xiii) Non conviction/no pending conviction certification issued by Notary on non-judicial stamp paper for preceding three years.
xiv) A declaration that bidder 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.
xv) Technical and Commercial Compliance statement in excel format provided in the e-tender portal.
xvi) Product catalogues/original Data Sheets for all quoted items.
xvii) Copies of quality certificates, if applicable, namely, BIS, ISO, FDA, CE, etc.
xviii) The Integrity pact (At Appendix-A) on non-judicial stamp paper shall be a part and parcel of this document and has to be signed by bidder(s) at the pre-tendering stage itself, as a pre-bid obligation and should be submitted along with the Techno-Commercial Bids. All bidders are bound to comply with the integrity pact clauses.

B) Price Tender:

Price Schedule(s) as per format provided in the portal, duly filled in with all the details including Make, Model, HSN Code etc. of the goods offered, is to be uploaded.

The price bid format is provided in excel format along with this Bidding Document at https://eprocure.gov.in/eprocure/app

Bidders are advised to download this Price Bid Format as it is and quote their offer/rates in the permitted column and upload the same in the Price Bid. **Bidder shall not tamper/modify the downloaded price bid template in any manner**. The Instruction given in the Price Bid Format shall strictly be adhered to.

Note:

The tender Processing fee, BID SECURITY and **Integrity Pact (Appendix A) on non-judicial stamp paper** has to be submitted in physical form as per Section – I, Notice Inviting Tender of this tender enquiry.

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

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

Note:

1. In case of (ii) above, a copy of the partnership agreement duly registered with "Registrar of Firm's" or general power of attorney, in either, case, attested by a Notary Public should be furnished, or affidavit on stamped paper of all the partners admitting execution of the partnership agreement or the general power of attorney should be furnished.

2. In case of the partnership firms, where no authority to refer disputes concerning the business of the partnership has been conferred on any partner, the bid and all other related documents must be signed by every partner of the firm.
3. A person signing the bid form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, liable for rejection of bid or cancel of contract and hold the signatory liable for all cost and damages.

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

12. Bid Currencies

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

12.2 For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Yen. As regards price(s) for allied services, if any required with the goods, the same shall be quoted in Indian Rupees only, if such services are to be performed/undertaken in India. Commission for Indian Agent, if any and if payable shall be indicated in the space provided for in the Price Schedule and will be payable in Indian Rupees only after satisfactory supply, installation and acceptance of the goods. The rate of conversion shall be taken as on the date of placement of purchase order.

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

13 Bid Prices

13.1 The Bidder shall indicate on the Price Schedule provided under Section X all the specified components of prices shown therein including the unit prices, applicable taxes and total bid 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 bidder has the option to submit its bid for any one or more schedules and, also, to offer special discount for combined schedules. However, while quoting for a schedule, the bidder shall quote for the complete requirement of goods and services as specified in that particular schedule.

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

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 packing charges and GST and Custom Duty 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 duty, which will be payable on the goods in India if the contract is awarded;
c) Charges towards Inland Transportation, Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;
d) The price of Incidental Services (including installation & commissioning, supervision, demonstration and training), at the consignee site as mentioned in List of Requirements, Technical Specification and Price Schedule;
e) The prices of Turnkey Work (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
f) The price of CAMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

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

a) The price of goods quoted on FOB at port/ FCA at airport of shipment, as mentioned in List of Requirements, Technical Specification and Price Schedule
b) The amount of Freight and Insurance (port of loading to port of entry) and other incidental costs.
c) The price of Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site as mentioned in List of Requirements, Technical Specification and Price Schedule.
d) The price of Extended Insurance (local transportation and storage) from port of entry to the consignee site for a period including 3 months beyond date of delivery.
e) The Unit Price on CIP Name port of Destination + Extended Insurance (local transportation and storage)
f) The price of total Price on CIP Named port of Destination +Insurance (local transportation on and storage)
g) The prices of Turnkey Work (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
h) The price of CAMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.5 Additional information and instruction on Taxes and Duties:

13.5.1 **GST (Goods & Services Tax)**

If the bidder desires to ask for GST (goods and services tax) to be paid extra, the same must be specifically stated. In the absence of any such stipulation, the price will be taken inclusive of GST and no claim for the same will be entertained later.

13.5.2 **Customs Duty**

The Purchaser will pay the Customs duty wherever applicable.

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

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

13.8 Unless otherwise specifically indicated in this Bidding Document, the terms FCA, FOB, CIF, CIP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS - 2010, published by the International Chamber of Commerce, Paris

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

14. Indian Agent

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

a) The complete name and address of the Indian Agent.
b) The details of the services to be rendered by the agent for the subject requirement.
c) Details of Service outlets in India, nearest to the consignee(s), to render services during Warranty and CAMC period.

15. Firm Price

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

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

16. Alternative Models

16.1 Alternative Models are permitted. The Bidder can quote alternate models meeting the specifications of the bidding document of same manufacturer with single Bid Security.

16.2 If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same ATE for the same item/product. In a bid, either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same models in the same ATE.

16.3 One Principal/OEM cannot authorize two agents simultaneously for the same item against same ATE.

17 Documents Establishing Bidder's Eligibility and Qualifications

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

17.2 The documentary evidence needed to establish the bidder's qualifications shall fulfill the following requirements:

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

18. Documents establishing good's Conformity to Bidding Document.

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

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

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

19. Bid Security (BS)

19.1 Pursuant to GIB clauses 8.1 and 11.1 A (i) the bidder shall furnish along with its bid, Bid Security for amount as shown in the Notice Inviting Bids (NIB). The Bid Security is required to protect the purchaser against the risk of the bidder's unwarranted conduct as amplified under sub-clause 19.7 below.

19.2 The bidders who are currently registered with MSME for the specific goods as per bidding document specification shall be eligible for exemption from Bid Security as defined in MSE Procurement Policy issued by the department of MSME. In case the bidder falls in this category, the bidder shall enclose relevant certificate of registration issued by department of MSME.

19.3 The Bid Security shall be denominated in Indian Rupees or equivalent currencies as per GIB clause 12.2. The Bid Security shall be furnished in one of the following forms:

i) Account Payee Demand Draft/ Banker's cheque
ii) Fixed Deposit Receipt
iii) Bank Guarantee

19.4 The **Demand Draft** or **Banker's Cheque** or **Fixed Deposit Receipt** shall be drawn on any commercial bank in India or country of the bidder, in favour of the "……."(as indicated in the NIB) payable at New Delhi. In case of **Bank Guarantee**, the same is to be provided from any commercial bank in India or country of the bidder as per the format specified under Section XII in this document.

19.5 The Bid Security shall be valid for a period of forty-five (45) days beyond the validity period of the bid. As validity period of Bid as per Clause 20 of GIB is 270 days, the Bid Security shall be valid for 315 days from Techno-Commercial Bid opening date.

19.6 The Bid Security of unsuccessful bidders will be returned without any interest, after expiry of the bid validity period, but not later than thirty days after conclusion of the resultant contract. The Bid Security of successful bidder will be returned without any interest, after receipt of performance security from that bidder.

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

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

20. Bid Validity

20.1 If not mentioned otherwise in the SIB, the bid shall remain valid for acceptance for a period of 270 days (Two hundred and Seventy days) after the date of bid opening prescribed in the Bidding Document. Any bid valid for a shorter period shall be treated as unresponsive and rejected.

20.2 In exceptional cases, the bidder may be requested by the purchaser to extend the validity of their bids up to a specified period. Such request(s) and responses thereto shall be conveyed by mail/fax/email. The bidders, who agree to extend the bid validity, are to extend the same without any change or modification of their original bid and they are also to extend the validity period of the Bid Security accordingly. A bidder, who may not agree to extend its bid validity after the expiry of the original validity period, their bid will not be considered further and the Bid Security furnished by them shall be returned.

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

21. Signing and Sealing of Bid

21.1 The bidders shall submit their bids online as per the instructions contained in GIB Clause 11 and any other specific instruction mentioned in the CPPP portal using the digital signature.

21.2 Unless otherwise mentioned in the SIB, a bidder shall submit their bid online only.

21.3 The Bid shall either be typed or written in indelible ink and the same shall be signed by the bidder or by a person(s) who has been duly authorized. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the bid.

21.4 All the documents of the bid shall be duly signed at the appropriate places as indicated in the Bidding Documents and all other pages of the bid including printed literature (if any), shall be initialled and stamped by the same person(s) signing the bid. The bid shall not contain any eraser or overwriting, except as necessary to correct any error made by the bidder and, if there is any such correction; the same shall be initialled and stamped by the person(s) signing the bid.

21.5 The bidder is to seal the bid and writing the address of the purchaser and the bid reference number on the envelopes. The sentence "NOT TO BE OPENED" before _____ (The bidder is to put the date & time of bid opening) are to be written on this envelope. If the envelope is not sealed and marked properly as above, the purchaser will not assume any responsibility for its misplacement, premature opening, late opening etc.

21.6 Bidding Document seeks quotation following "Two Bid System", in two parts. First part will be known as 'Techno-Commercial Bid', and the second part 'Price Bid' as specified in clause 11 of GIB.

D. SUBMISSION OF BIDS

22. Submission of Bids:

22.1 Unless otherwise specified, the bidders are to drop the Bids in the tender box located at **HLL Infra Tech Services Limited, Procurement and Consultancy Division, B-14 A, Sector-62, Noida-201307, Uttar Pradesh** or the same shall be submitted by the bidder by hand to concerned Project Officer dealing hand or his nominee. The necessary entry will be made in the Bid Receipt Register.

22.2 The bidders must ensure that they submit the on-line bids within the scheduled closing date & time. They shall also ensure to submit the original Tender Processing Fee and Bid Security within its scheduled date & time. It is the responsibility of the bidder to ensure that their Bids whether sent by post or by courier or by person, are dropped in the Tender Box by the specified clearing date and time. In the event of the specified date for submission of bid falls on / is subsequently declared a holiday or closed day for the purchaser, the bids will be received up to the appointed time on the next working day.

22.3 Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

22.4 The bidder has to digitally sign and upload the required bid documents one by one as indicated in the Bidding document.

22.5 Bidder has to select the payment option as "offline" to pay the Bid Security/ EMD as applicable and enter details of the instrument.

22.6 Bidder should prepare the Bid Security/EMD as per the instructions specified in the Tender Enquiry Document. The original should be dropped in the Tender Box latest by the last date of bid submission or as specified in the Bidding Document. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

22.8 The server time (which is displayed on the dashboard of the e-tendering portal) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

22.9 Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

22.10 The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

23. Late Bid:

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

24. Alteration and Withdrawal of Bid

24.1 The bidder, after submitting its bid, is permitted to alter/modify its bid, within the deadline for submission of bids. Alterations/modifications to bids received after the prescribed deadline will not be considered.

24.2 No bid should be withdrawn after the deadline for submission of bid and before expiry of the bid validity period. If a bidder withdraws the bid during this period, it will result in forfeiture of the Bid Security furnished by the bidder in its bid.

E. BID OPENING

25. Opening of Bids:

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

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

25.2 Authorized representatives of the bidder, who have submitted bids on time may attend the bid opening provided they bring with them letter of authority from their bidder. The bid opening official(s) will prepare a list of the representatives attending the bid opening. The list will contain the representatives' names & signatures and corresponding bidder's names and addresses.

25.3 Two Bid System as mentioned in Para 21.6 above will be as follows. The "Techno - Commercial Bids" are to be opened in the first instance, at the prescribed time and date as indicated in NIB. These Bids shall be scrutinized and evaluated by the competent committee/authority with reference to parameters prescribed in the Bidding Document. During the Techno-Commercial Bid opening, the bid opening official(s) will read the salient features of the bids like brief description of the goods offered, Bid Security and any other special features of the bids, as deemed fit by the bid opening official(s). Thereafter, in the second stage, the Price Bids 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 Bid. The prices, special discount if any of the goods offered etc., as deemed fit by bid opening official(s) will be read out.

F. SCRUTINY AND EVALUATION OF BIDS

26. Basic Principle

26.1 Bids will be evaluated on the basis of the terms & conditions already incorporated in the Bidding Document, based on which bids have been received and the terms, conditions etc. mentioned by the bidders in their bids. No new condition will be brought in while scrutinizing and evaluating the bids.

27. Scrutiny of Bids

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

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

27.3 The Bids will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the Bidding Documents. The bids, which do not meet the basic requirements, are liable to be treated as non-responsive and will be rejected.

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

(i) Bid form as per Section IX not enclosed.
(ii) Bid is unsigned.
(iii) Bid validity is shorter than the required period.
(iv) Required Bid Security (Amount, validity etc.)/ Exemption documents have not been provided.
(v) Bidder has quoted for goods manufactured by other manufacturer(s) without the desired Manufacturer's Authorization Form as per Section XIII.
(vi) Bidder 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.

(vii) Bidder has not agreed to other essential condition(s) specially incorporated in the bidding document like terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism, and applicable law.

(viii) Poor/unsatisfactory past performance.

(ix) Bidders who stand de-registered/banned/blacklisted by any Central Govt. Ministries/Departments/Hospitals/Institutes.

(x) Bidder is not eligible as per Clauses 5, 6 & 17 of GIB.

(xi) Bidder has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.

(xii) Bidder has not agreed for the delivery terms and delivery schedule.

(xiii) The Integrity pact (At Appendix-A) on non-judicial stamp paper shall be a part and parcel of this document and has to be signed by bidder(s) at the pre-tendering stage itself, as a pre-bid obligation and should be submitted along with the Techno-Commercial Bids. All bidders are bound to comply with the integrity pact clauses.

28. Minor Informality/Irregularity/Non-Conformity

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

29 Discrepancies in Prices

29.1 If, in the price structure quoted by a bidder, 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 bidder 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 judgment of the purchaser, there is any such arithmetical discrepancy in a bid, the same will be suitably conveyed to the bidder by registered/speed post/email. If the bidder does not agree to the observation of the purchaser, the bid is liable to be ignored.

30. Qualification Criteria

30.1 Bids of the bidder, who do not meet the required Qualification Criteria prescribed in Section VIII, will be treated as non-responsive and will not be considered further.

31. Conversion of Bid currencies to Indian Rupees

31.1 In case the Bidding Documents permits the bidder to quote their prices in different currencies, all such quoted prices of the responsive bidder will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the exchange rates established by the Reserve Bank of India for similar transactions, as on the date of 'Price Bid' opening.

32. Schedule-wise Evaluation

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

33. Comparison of Bids

33.1. Unless mentioned otherwise in Section – III – Special Instructions to bidder and Section – VI – List of Requirements, the comparison of the responsive Bids shall be carried out on Free Delivery at consignee site basis. The quoted Turnkey Work prices and CAMC prices will also be added for comparison/ranking purpose for evaluation. "Net Present Value (NPV) of the Comprehensive Annual Maintenance Contract Charges (CAMC) quoted for 5 years after the warranty period shall be added to the bid price for evaluation and will be calculated after discounting the quoted price by a discounting factor of 10% per annum." However the payment of CAMC shall be made to the successful bidder at approved rates.

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

34.1 Further to GIB Clause 33 above, the purchaser's evaluation of a bid 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 which will be contractually payable (to the bidder), on the goods if a contract is awarded on the bidder; and

ii) in the case of goods of foreign origin offered from abroad, customs duty and GST which will be contractually payable (to the bidder) on the goods if the contract is awarded on the bidder.

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

34.3 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 Bids.

35. Bidder's capability to perform the contract

35.1 The purchaser, through the above process of bid scrutiny and bid evaluation will determine to its satisfaction whether the bidder, whose bid has been determined as

the lowest evaluated responsive bid 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.

35.2 The above-mentioned determination will, inter alia, take into account the bidder satisfying all the requirements of the purchaser as incorporated in the Bidding Document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the bidder in its bid as well as such other allied information as deemed appropriate by the purchaser.

36. Contacting the Purchaser

36.1 From the time of submission of bid to the time of awarding the contract, if a bidder needs to contact the purchaser for any reason relating to NIB/Bidding Document and / or its bid, it should do so only in writing.

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

G. AWARD OF CONTRACT

37. Purchaser's Right to accept any bid and to reject any or all bids.

37.1 The purchaser reserves the right to accept in part or in full any bid or reject any or more bid(s) without assigning any reason or to cancel the bidding process and reject all bids at any time prior to award of contract, without incurring any liability, whatsoever to the affected bidder(s).

38. Award Criteria

38.1 Subject to GIB clause 37 above, the contract will be awarded to the lowest evaluated responsive bidder decided by the purchaser in terms of GIB Clause 35.

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

39.1 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 bidder.

39.2 If the quantity has not been increased at the time of the awarding the contract, the purchaser reserves the right to increase by up to twenty five (25) per cent, the quantity of goods and services mentioned in the contract (rounded 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.

40. Notification of Award

40.1 Before expiry of the bid validity period, the purchaser will notify the successful bidder(s) in writing, by registered / speed post or by fax/email (to be confirmed by registered / speed post) that its bid for Goods & Services, which have been selected

by the purchaser, has been accepted, also briefly indicating there in the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful bidder must furnish to the purchaser the required Performance Security within thirty days from the date of dispatch of this notification, failing which the Bid Security will be forfeited and the award will be cancelled. Relevant details about the Performance Security have been provided in clause 5 of GCC under Section IV.

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

41. Issue of Contract

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

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

41.3 The Purchaser reserves the right to issue the Notification of Award consignee wise.

42. Non-receipt of Performance Security and Contract by the Purchaser

42.1 Failure of the successful bidder in providing Performance Security and/or returning contract copy duly signed in terms of GIB clauses 40 and 41 above shall make the bidder liable for forfeiture of its Bid Security and, also, for further actions by the Purchaser it as per the clause 24-Termination of default of GCC under Section IV.

43. Return of Bid Security

43.1 The Bid Security of the successful bidder and the unsuccessful bidder will be returned to them without any interest, whatsoever, in terms of Clause 19 of GIB.

44. Publication of Bid Result

44.1 The name and address of the successful bidder (s) receiving the contract(s) will be mentioned in the Website of AIIMS, CPPP and HITES.

H. CORRUPT OR FRADULENT PRACTICES

45. Corrupt or Fraudulent Practices

45.1 It is required by all concerned namely the Bidder /Suppliers/Purchaser/Consignee/End User 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 bidders (prior to or after Bid submission) designed to establish Bid 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 Bidder 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 BIDDERS (SIB)

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

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

Sl. No.	GIB Clause No.	Topic	SIB Provision	Ref. Page No.
A	1 to 7	Preamble	No Change	
B	8 to 10	Bidding Document	Change in GIB Clause no. 10.1	
	10.1	Clarification of Bid document	Changed as under	10
C	11 to 21	Preparation of Bids	Change in GIB Clause no. 19, 21.1	
	19		Additional para 19.9 as under	15
D	22 to 24	Submission of Bids	No Change	
E	25	Bid Opening	No Change	
F	26 to 36	Scrutiny and Evaluation of Bids	Change in GIB Clause no. 33	
	33	Comparison of Bids	Additional para 33.2 as under	21
G	37 to 44	Award of Contract	No Change	
H	45	Corrupt or Fraudulent Practices	No Change	

10. Clarification of Bid document

10.1 A bidder requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser in writing in their letter head duly signed and scanned through email to hll.ncij@hllhites.com. The purchaser will respond to such request provided the same is received 2 (two) days prior to the Pre-bid Meeting Conference. Any queries/representations received after the pre-bid meeting will not be taken into cognizance.

19. Bid Security (BS)

19.9 HITES Bank details for necessary issuance of 'Structured Financial Messaging System (SFMS)' in case the Bid Security (i.e. EMD) is submitted in the form of Bank Guarantee:

Name of the Beneficiary	Bank Details	IFSC Code
HLL INFRA TECH SERVICES LTD.	HDFC BANK LTD, NOIDA, UTTAR PRADESH	HDFC0000088

33. Comparison of Bids

33.2 Unit Prices for all optional items/accessories/services (if any) asked in the tender specifications must be quoted separately by all the bidders in their price bid. Such unit prices after multiplying by the required quantity shall be added and taken into consideration for comparison and ranking of bids.

Added Para (Ref. GIB Clause 33 & 34):

The comparison of bids will be based on GIB Clause 33, 34 and if any, as specified in the Technical specification(s). However, at the time of award of contract, the value of award (bid value/contract value) shall be limited to the upfront charges payable by the exchequer for Supply, Installation, Testing & Commissioning value only on DDP basis which is inclusive of warranty (for number of years specified at section VI; List of Requirement, Part I) and any other item(s)/services detailed for upfront purchase in the technical specifications. The cost of any other parameters like CAMC price beyond the warranty period, cost of any Consumables, any other recurring expenditure, etc. which have been considered for ranking of bids or for freezing of rates shall not be part of tender/award/bid/contract value.

SECTION - IV

GENERAL CONDITIONS OF CONTRACT (GCC)
TABLE OF CLAUSES

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 Bidding 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 Thirty (30) days from date of the issue of notification of award by the Purchaser, the supplier, shall furnish Performance Security to the Purchaser for an amount equal to ten percent (10%) of the total value of the contract, valid up to

ninety (90) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations.

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

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 XIV of this document in favour of the Purchaser. The validity of the Fixed Deposit Receipt or Bank Guarantee will be for a period up to ninety (90) 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 CAMC security as per Performa in Section XIV, the amount of the performance security is liable to be forfeited. The needful will be done 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 Comprehensive Annual Maintenance Contract as per the 'Contract Form - B' in Section XV with respective consignees, 3 (three) months prior to the completion of Warranty Period. The CAMC will commence from the date of expiry of the Warranty Period.

5.6 Subject to GCC sub – clause 5.3 above, the Purchaser 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 CAMC security in favour of concerned Director AIIMS/Chief of Centres/MS of Hospital/Head of the Department/Dean as per the format in Section XIV.

6. Technical Specifications and Standards

6.1 The Goods & Services to be provided by the supplier under this contract shall conform 'Technical Specification' under Sections VII of this document.

7. Packing and Marking

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

7.2 The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications under Section VII 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 under Section VII 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, 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 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 re-submit the same to the purchaser's inspector for conducting the inspections and tests again.

8.4 In case the contract stipulates pre-dispatch 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 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-dispatch 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 Principal/ Foreign supplier shall also have the equipment inspected by recognized/ reputed agency like SGS, Lloyd, Bereau Veritas, TUV etc. prior to dispatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

9. Terms of Delivery

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

10. Transportation of Goods

10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments without the express/prior written consent of the purchaser. The supplier is required under the contract to deliver the goods under CIP (Named port of destination) terms.

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 Free Delivery at Consignee's 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 warehouse to warehouse (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) In case of supply of the imported goods on CIP (named port of Destination Basis), the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 3 months beyond date of delivery for an amount equal to 110% of the overall expenditure to be incurred by the purchaser from warehouse to ware house (consignee site) on all risk basis.

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/End User, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actual 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/End User 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/End User before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and

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

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 CAMC period.

13. Incidental services

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

i) Installation & Commissioning, Supervision, Demonstration, Trial run etc. of the goods.
ii) Turnkey work (if any).
iii) Training of Consignee's/End Users Doctors, Staff, operators etc. for operating and maintaining the goods.
iv) Supplying required number of operation & maintenance manual for the goods.

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

The supplier shall send all the relevant dispatch documents well in time to enable the purchaser 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:

Within 24 hours of dispatch, the supplier shall notify the concerned Store Officer in AIIMS Clearing Agent and others concerned the complete details of dispatch and also supply following documents by air mail/ courier etc. with intimation by e-mail:

a) Commercial Supplier's Invoice giving full details of the goods including quantity, value, etc.;
b) Packing list;
c) Certificate of country of origin;
d) Bill of Lading/Airway Bill;
e) Insurance Certificate; (if applicable)
f) Manufacturer's guarantee and Inspection certificate; (if applicable)
g) Inspection certificate issued by the Purchaser's Inspector; (if applicable)
h) Any other document(s) as and if required in terms of the contract.

15. Warranty and CAMC

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

15.2 The warranty shall include all spares, labour and preventive maintenance from the date of completion of the satisfactory installation and acceptance till warranty period.

15.3 The Comprehensive Annual Maintenance Contract shall include all spares, labour and preventive maintenance from the date of completion of the satisfactory installation and acceptance till warranty period.

15.4 Warranty as well as Comprehensive Annual Maintenance Contract will be inclusive of all accessories and turnkey work and it will also cover the following, wherever applicable:-

- All kinds of Motors.
- Plastic & Glass Parts against any manufacturing defects.
- All kinds of sensors.
- All kinds of coils, probes and transducers.
- Printers and imagers including laser and thermal printers with all parts.
- UPS including the replacement of batteries.
- Air-conditioners

15.5 In case of any claim arising out of this warranty and CAMC period 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 unless revised in SCC in Section V of Bidding Document.

15.6 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 conditions laid down in the Bidding Document.

15.7 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 up to the completion of the original warranty period of the main equipment.

15.8 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.

15.9 During Warranty and CAMC 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.

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

15.11 The supplier along with its Manufacturer, Indian Agent and the CAMC 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.

15.12 The Supplier along with its Manufacturer 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 bid. Such notification, in its original bid 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 dispatch,
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 the supplier shall convey its views to the Purchaser within twenty-one days from the date of the supplier's receipt of the Purchaser'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 bid and incorporated in the contract except for any price adjustment authorized in the SCC.

20. Taxes and Duties

20.1 Supplier shall be entirely responsible for GST 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 through electronic transfer in NEFT/RTGS subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner:

A) Payment for Indigenous Goods (M&E) Or Foreign Origin Located Within India. Payment shall be made in Indian Rupees as specified in the contract in the following manner:

a) **On delivery**: 75% payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents:
   (i) Original copies of supplier's invoice showing contract number, goods description, quantity, packing list, unit price and total amount;

(ii) Consignee Receipt Certificate as per Section XVI of bidding document in original issued by the authorized representative of the consignee;

b) **On Acceptance**: Balance 25% payment would be made against "Installation and Acceptance Certificate" of goods to be issued by the End User subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise. "Installation and Acceptance Certificate" need to be issued by the concerned End User after installation, commissioning, testing and successful trial run (if applicable).

B) Payment for Imported Goods (M&E): Payment for foreign currency portion shall be made in the currency as specified in the contract in the following manner:

a) **On Shipment**: 75% of the net FCA/CIP price (i.e. FCA/CIP price less Indian Agency commission) of the goods despatch by Sea/Air shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of documents specified hereunder:

i) Commercial Supplier's Invoice giving full details of the goods including quantity, value, etc.;
ii) Packing list;
iii) Certificate of country of origin;
iv) Negotiable clean Bill of Lading/Airway Bill;
v) Insurance Certificate; (if applicable)
vi) Manufacturer's guarantee and Inspection certificate; (if applicable)
vii) Inspection certificate issued by the Purchaser's Inspector; (if applicable)
viii) Any other document(s) as and if required in terms of the contract.

b) **On Acceptance**: Balance payment of 25% of net FCA/CIP price of goods would be made against "Installation and Acceptance Certificate" to be issued by the End User through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the Foreign Principal in a bank in his country, subject to recoveries, if any. "Installation and Acceptance Certificate" need to be issued by the concerned End User after installation, commissioning, testing and successful trail run (if applicable).

c) Payment of Consumable Imported Goods/Reagents/Kits would be made 100% against "Installation and Acceptance Certificate" to be issued by the End User through Wire Transfer.

d) **Payment of Incidental Costs:** Incidental costs till consignee site towards Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training),if applicable will be paid in Indian Rupees to the Indian Agent on submission of "Installation and Acceptance Certificate" by the End User.

e) **Payment of Indian Agency Commission**: Indian Agency Commission (IAC) will be paid to the Authorised manufacturer's agent in Indian rupees indicated in the contract (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation/exchange variation. The agency commission payment shall be made on submission of "Installation and Acceptance Certificate" by the End User.

C) Payment of Civil/Electrical Works at site: The payment related to Civil/Electrical Works at site will be made as indicated in the contract (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject

to further escalation/exchange variation. The payment for Civil/Electrical works shall be made on submission of "Installation and Acceptance Certificate" by the End User.

D) Payment for Comprehensive Annual Maintenance Contract Charges: The consignee will enter into CAMC with the supplier at the rates as stipulated in the contract. The payment of CAMC will be made on six monthly basis after satisfactory completion of said period, duly certified by the End User 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 of the bidding document valid till 3 months after expiry of entire CAMC period. The Performance Bank Guarantee for CAMC will be applicable in case of contract value is more than Rs. 10 lakh.

21.2 Terms of payment for imported goods

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

21.2.2 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.

21.2.3 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, the charges thereof shall be borne by the supplier.

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

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

21.2.6 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.

21.2.7 While claiming reimbursement of duties, taxes etc. (like GST, sales tax, excise duty, custom duty) from the Purchaser, 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, the supplier shall refund to the Purchaser forthwith.

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 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 no 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 in writing about the same and its likely duration and make a request to the Purchaser for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

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

(a) The Purchaser 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 GST 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 shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty and GST 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 for extension of delivery period and obtain the same before dispatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and/or any other expense related to such supply shall lie against the purchaser.

22.6 Passing of Property

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

22.6.2 Where there is a contract for sale of specific goods and the supplier is bound to do something to the goods for the purpose of putting them into a deliverable state the property does not pass until such thing is done.

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

23. Liquidated Damages

23.1 Subject to GCC clause 26, if the supplier fails to deliver or install/commission any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the Purchaser shall, without prejudice to other rights and remedies available to the Purchaser 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 may consider termination of the contract as per GCC 24.

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

24. Termination for Default

24.1 The Purchaser without prejudice to any other contractual rights and remedies available to it the Purchaser, 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 pursuant to GCC sub-clauses 22.3 and 22.4.

24.2 The Performance Security in such cases will be forfeited.

24.3 Unless otherwise instructed by the Purchaser, 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.

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 in writing of such conditions and the cause thereof within twenty one days of

occurrence of such event. Unless otherwise directed by the Purchaser 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 is unable to fulfil its contractual commitment and responsibility, the Purchaser 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 reserves the right to terminate the contract, in whole or in part for its Purchaser'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. 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 following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser 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 GIB 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 Facsimile/email 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.

30.3 In the case of a dispute or difference arising between the Purchaser 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 to be appointed by the Director, AIIMS. The award of the arbitrator shall be final and binding on the parties to the contract subject to the provision that the Arbitrator shall give reasoned award in case the value of claim in reference exceeds Rupees One lakh (Rs. 1,00,000/-).

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

30.5 **Jurisdiction of the court** will be from the place where the Bidding 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

32.1 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.

32.2 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. Fall Clause

Fall clause is a price safety mechanism. The fall clause provides that if the contract holder reduces its price or sells or even offers to sell the contracted goods of identical specification and terms & conditions to that of the contract, at a price lower than the contract price, to any person or organization during the currency of the Contract, the Contract price will be automatically reduced with effect from that date for all the subsequent supplies under the Contract and the contract amended accordingly.

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.

Any specific clause, mentioned in the technical specification shall prevail and will supersede the similar clause mentioned anywhere in the Bidding Document.

The applicable period of warranty & CAMC shall be as mentioned in the List of Requirement as per section VI of this Bidding Document.

SECTION- VI

LIST OF REQUIREMENTS

Part I:

Sl. no.	Tender ID	Short Description of goods	Quantity	Warranty Period	CAMC period after warranty
1	2019_HLL_31185_1	Blood Bank Equipment – Package 1	01	05 Years	05 Years
2	2019_HLL_31185_2	Blood Bank Equipment – Package 2	01	05 Years	05 Years
3	2019_HLL_31185_3	Molecular Immuno-Haematology Lab Equipment	01	05 Years	05 Years
4	2019_HLL_31185_4	Automatic Nucleic Acid Testing System	01	05 Years	05 Years
5	2019_HLL_31185_5	Fully Automated Random Access Chemiluminescence	02	05 Years	05 Years
6	2019_HLL_31185_6	Fully Automated Random Access Immuno-Haematology (IH) Platform	02	05 Years	05 Years
7	2019_HLL_31185_7	Biological X-Ray based Blood Irradiator	01	05 Years	05 Years
8	2019_HLL_31185_8	Mobile Blood Donation Van	01	05 Years	05 Years

Part II: Required Delivery Schedule:

For Indigenous and/or Imported goods:
Supply, Installation and Commissioning to be completed within **90 days** from the date of NOA or date of opening of LC or date of approval of layout drawing (if applicable), whichever is later.

[In case of LC opening, necessary documents like valid Performance Security and Proforma Invoice are to be submitted within 30 days from the date of release of NOA. In case layout drawing (if approval is applicable), it should be submitted by the supplier within 21 days from the date of release of NOA]

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

Part III: Scope of Incidental Services:
Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13.

Part IV: Turnkey Work (if any) as per details in Technical Specification.

Part V: Warranty period as per details mentioned in technical specification and as specified in Part I above. Warranty period will start from the date of installation, commissioning and acceptance.

Comprehensive Annual Maintenance Contract (CAMC) as per details in Technical Specification as specified in part I above. Comprehensive Annual Maintenance Contract (CAMC) will start from the date of successful completion of warranty period.

Part VI: Required Terms of Delivery and Destination.

a) For Indigenous goods or for imported goods if supplied from India:
Free Delivery at Consignee's Site(s)

b) For Imported goods directly from abroad:

The foreign bidders are required to quote their rates on CIP (Named Port of Destination Basis) giving breakup of the price as per the Proforma prescribed in the Price Schedule. Purchaser will place the order on CIP (Named Port of Destination basis).

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.

c) The Consignee details are as under but the supplier is required to deliver the goods at the designated site in the floor and building of concerned Centers/Hospital/ Departments:

Consignee	Contact Address	Air Port	Sea Port
The Director, National Cancer Institute – AIIMS (Jhajjar Campus)	Badsha Village Jhajjar, Haryana	New Delhi	ICD Tuglakabad (for containerised shipments) Or ICD Patparganj

Note: The consignee will ensure timely issue of e-LORA, PNDT, CDEC etc., wherever applicable to the supplier.

SECTION - VII

TECHNICAL SPECIFICATION AND GENERAL POINTS

A. TECHNICAL SPECIFICATION:

Item no. 1 (Tender ID: 2019_HLL_31185_1)

Blood Bank Equipment – Package 1

Sl. No.	Name of item	Technical Specifications
1.	Weighing Scale with Height Measurement for Blood Donors	1. Should be accurate and sensitive with graduation of 100 grams. 2. Should be capable of measuring both height and weight with digital display. 3. Should be steady and sturdy. 4. Should have anti rust coated parts. 5. Should have the capacity of weighing up to 150 Kg. 6. Should measure height up to 6.5 feet. 7. Should have provision for the printer that can print date, time, weight, and height. 8. Electrical: The equipment should be able to run on the existing electrical provision.
2.	Tube Stripper	1. Should have completely anti-rust, stainless steel body. 2. Should be lightweight. 3. Should ensure the uniform pressure while pressing to close and automatic recoiling of spring to release handle for opening. 4. Should have Screw- less rollers to avoid loosening of the rollers. 5. Should have extra sharp cutting edges. 6. Should behave ergonomically designed handle for better grip. 7. Should have roller guide to avoid any damage of tube. 8. Should have provision for manual tube sealing by aluminium rings. 9. Original literature of equipment should be submitted.
3.	Blood & Component Balance	1. Should be micro controller based Blood Bank Scale designed for weighing Blood and blood Components. 2. Should have LED/LCD display, displays the weight and volume with an accuracy of 1gm/1ml. 3. Should have weighing range upto 5kg and accuracy of 1mg/1ml. 4. Should have easy conversion of weight to volume. 5. Should display volume and weight of blood components. 6. Should have Auto Calibration and Over load indication features. 7. Should run on 230V ac and should have battery back up of atleast 1hour.
4.	Portable Blood Donor Couch	1. Mobile Foldable Blood Donor Couch designed to fold into a compact 2. Not more than 24”W X 46” LX8”H

		3. Weight should not be more than 20 Kg 4. Should be easily to clean and maintain 5. Should be in durable tubular aluminum frame 6. Should be able to bear the larger donors weight up to 150 Kg 7. Should have padded armrest for extra comfort to the donor, adjustable for proper arm placement. 8. Couch should easily be reclined into a secured shock position 9. Pockets to be provided at the back of each couch for keeping accessories 10. Should be provided with washable linen covers (1 pair) with each couch 11. Should be sturdy and should be able to withstand transportation rigors 12. Original literature of equipment should be submitted. 13. Equipment should have USFDA or CE certification
5.	Domestic Refrigerator	1. Should be 300-350 L capacity, double door type. 2. Should be exclusive protected evaporate to eliminate the risk of ice pick damage. 3. Should be Diagnostic circuitry installed with green and red LED indicator. 4. Should be Face panel is interchangeable 5. Should have Recessed handle providing a small, sleek surface 6. Should be Full width freezer compartment 7. Should have adjustable shelves and racks 8. Should be CFC free and environmental friendly 9. Should be stainless steel fittings 10. Electrical : 220 volt, 50 Hz.
6.	Digital pH Meter	1. It must be microprocessor based for fast and accurate pH measurement with soft touch control panel (3 point) 2. It must measure pH range (0-14) 3. It must have auto-calibration with 2 buffers 4. It must have built-in Auto buffer recognition 5. It must have pH and Temperature display 6. It must have refillable Triode 3-in-1 epoxy body combination pH electrode 7. It must run on 220-240 V: 50/60 Hz, 8. It must have automatic temperature compensation (0-100 deg. C) 9. The firm should supply standard buffers 4,7,10 pH (250 ml each) with the equipment. 10. The firm should supply 1 extra set of electrode. 11. Original literature should be attached 12. Firm will have to supply the stabilizer if required along with the equipment free of cost. 13. Original literature of equipment should be submitted. 14. Equipment should have USFDA or European CE certification. 15. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards.
7.	Water Bath	1.1 Should be rectangular & volume within 20-25 liters 1.2 Should be double walled chamber with inner

		chamber made of stainless steel and the outer is made of thick sheet and duly powder coated. 1.3 The cavity between the two chambers should be filled with high quality mineral glass wool. Dome shaped cover with knob to be provided. 1.4 Temperature should be controlled at increments of 1° C or less and is controlled by thermostat from room temperature to 100° C with an accuracy of ± 1° C. 1.5 Heating should be provided with immersion type heater 100 watts capacity. 1.6 It should be supplied with the drain facility of the bath contents 1.7 LED/LCD display of temperature 1.8 Mercury thermometer to read up 100° C. 1.9 Should have a water circulatory device. 1.10 Should have warning alarm for deviation from the set temperature. 1.11 Should have an inbuilt timer. **2. Acessories,Spares and Consumables** 2.1 Should be supplied with removable stainless trays for accommodating test tubes and flasks to fit the water bath. **3. Standard,Safety and Training** 3.1 Instrument must be accompanied with calibration certificate by NABL-accredited agency 3.2 The manufacturer should have ISO certification. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. 3.3 Manufacturer should have ISO certification. **4. Documentation** 4.1 Two numbers of Complete User/Technical/Maintenance manuals to be supplied in English (Soft copy & Hard copy). 4.2 Service Manual in English 4.3 Certificate of calibration and inspection from factory.
8.	Multichannel Pipette	1. Premium pipette with Quick and secure volume setting, volume lock with single button operation. 2. Adjustment window for adjusting pipette to a specific liquid type. 3. Control Button with very low operating force, Colour indication for pipette volume. 4. Volume Display: 4 Digits with magnifier. 5. To provide thermal, mechanical and chemical stability piston should be madeofFortron/steel material Serial number is printed on multiple components of the pipette. 6. Very easy removable lower part for cleaning pipette. 7. Fully Autoclavable. 8. No discoloration upon UV irradiation. 9. Pipettes should have advanced Radio-Frequency Identification device (RFID chip) to enter all relevant data regarding the pipette (serial no., Certificate of Conformity, article no. etc.). 10. Optional software for read and write in RFID chip. 11. Channel indicator to use pipette the same way

		round. 12. Channels can be removed for adjusting the distance between channels to use it for different format like 24 well plate, 6 well plate, etc. 13. Spring-loaded tip cone for reproducible tip fit and reduced effort with option to be switched on/off. 14. Volume range 0.5 – 10 µl, 10 – 100 µl, 30 – 300 µl. 15. Equipment should have USFDA or European CE certification.
9.	Glucometer	1. Handheld device 2. LED/LCD digital monitor 3. User friendly interface 4. Result in < 10 secs 5. Memory for min. 200 results 6. Must quote for compatible lancets, lancet device and glucose strips
10.	BP apparatus	1. Handheld digital/ aneroid device with user friendly interface 2. Suitable for adults 3. Cuff size (22-42 cm)
11.	Oxygen cylinder and nasal mask	1. Rust free, Aluminium alloy/ SS cylinders 2. Refillable and reusable 3. User friendly valve and regulators, 4. capacity > 1000 liters, and filled weight must be < 25 kgs. 5. Must quote with compatible transport trolley & protective cover, nasal mask and tubings
12.	Tourniquets	1. Manual tourniquets with adjustable crepe or clamp for maintaining pressure. 2. Suitable for adults 3. Non-irritable to skin and smooth textured skin friendly material
13.	X-Ray View box	1. LED Type, 2. Single Panel 3. Facility for Light intensity adjustment
14.	Hand lens	1. Hand held convex lens with battery operated LED light facility
15.	Sample racks and trays	1. Robust make to withstand cold storage at 4 deg. C 2. Plastic racks for sample tubes (2-6 ml EDTA vials) 3. Capacity for > 80 sample tubes per rack 4. Colour coded (Red, Gray, Blue, White etc.)
16.	Neubauer's chamber	1. Neubauer counting Chamber Specialized Microscopic slide 2. A chamber area of 9 Sq. mm (3x3 sq.mm) 3. Central small square is divided by triple lines into 5x5 = 25 smaller squares each with side 1/5 of a mm, Gap between cover: 0.1 mm. Slip and grid area 4. Pipettes: RBC pipettes 5. Cover slips: 22 x 25 mm 6. IVD approved with CE mark
17.	Naegotte's chamber	1. Nageotte’s counting Chamber Specialized Microscopic slide 2. Gap between cover: 0.5 mm. Slip and grid area 3. Pipettes: WBC pipettes 4. Cover slips: 22 x 25 mm 5. IVD approved with CE mark

18.	Hemoglobinometer	1. Point of care spectrophotometry based test method for capillary, venous or arterial whole blood sample 2. Hb test results in < 15 secs 3. Must quote for compatible reagent free microcuvettes to be supplied along with controls and calibrators, 4. User friendly and easy to operate at a temperature range of 10-45 deg C ambient temperature with humidity 10-90%
19.	Transport bags	1. Insulated temp. maintaining PVC coated polyester transport bags with at least 3 compartments and capacity to transport up to 8-10 PRBC bags. 2. Provision of pouches for keeping ice packs for cold chain maintenance. 3. Easy to carry hand bag. 4. Empty bag should not weigh > 500 gms. 5. Provided with a digital thermometer to record the temp inside the bag, 6. Provided with 4 gel packs/ bag. 7. Adjustable shoulder straps.
20.	Trolleys for transportation	1. Dimension (L*W*H=3 ft*2 ft* 3 ft). 2. Made of Stainless Steel (16G). 3. Rubberized Castor wheel with locks for noiseless operations. 4. Weight bearing > 25 kgs.
21.	Transport boxes	1. Polypropylene, sturdy/ heavy duty wheeled base for easy transport. 2. Retractable and height adjustable handle for easy transport. 3. Weight capacity > 45 kgs. 4. Foam or PUF thermal insulation. 5. Leak proof drain at the base for water drainage. 6. Ice packs for cold chain maintenance.

Note:

Bidder has to quote prices of reagent and consumables as per mentioned in **Annexure 2A, 2B & 2C**. These consumables and reagent values shall be included for calculating L1 ranking. The unit rate of consumables and reagents etc as defined in Annexure 2A & 2B shall be valid for the duration of the contract and NCI-AIIMS reserves the right to procure the consumables from the bidders at quoted rates or from any other sources as per requirement.

Annexure - 2A

REAGENT COST (for bid ranking & fixing of year wise rates)						
		A	**Reagent Pack Details**			
	List of Parameters	No. of tests (approximate load over 10 years being factored for bid ranking)	Reagent Pack - make/ brand	Pack Catalogue No.	No. of tests/ pack	Total No. of Reagent packs to be used for No. of tests in column"A"
1	**HB screening**					
	Micro-Cuvettes	4,00,000				

Annexure - 2 B					
Consumable cost other than reagents (for bid ranking & fixing of year wise rates)					
Items/ Pack Details					
Sl. No.	Type of Consumable (Bidder may add additional rows)	Details of Tests / Analyzers/ Equipment, etc. the consumable is being used for	Make/ brand	Catalogue No.	Total No. of Consumable item/packs to be used for cumulative no. of tests as detailed in column"A" of Annexure-2A
1	Calibrators				
2	Quality controls				
3	Additives				
4	Cleaners				
	Important Note: Any reagent, consumables & Essential consumables required for performing tests, calibration, quality control, cleaning the lab system, as per quantities detailed in column "A" of Annexure-2A if not quoted shall be provided free of cost by the bidder during the validity of the contract.				

Annexure - 2 C

Essential consumables to be quoted (for bid ranking & fixing of year wise rates)		
Sl. No	Name of the consumable	Quantity (approximate quantity over 10 years being factored for bid ranking)
1	Slides	500000
2	Tubes (Glass plain) (12*100 mm)	1000000
3	Fistula needles 16'' gauge	50000
4	Pasteur pipettes with rubber teats	10000
5	Beakers (40-100 ml)	5000
6	Conical flasks (100ml)	2
7	Conical flasks (5000 ml)	2
8	Measuring cylinder (glass) (100-1000 ml)	2
9	Lab thermometers	100
10	Micro tips (10-1000 µl)	1000000
11	Micro tips (1 µl)	500000
12	Alcohol swabs	500000
13	Betadine swabs	500000
	Important Note: Any reagent, consumables & Essential consumables required for performing tests, calibration, quality control, cleaning the lab system, as per quantities detailed in column "A" of Annexure-2A, and items quoted in Annexure-2B & 2C if not quoted shall be provided free of cost by the bidder during the validity of the contract.	

Item no. 2 (Tender ID: 2019_HLL_31185_2)

Blood Bank Equipment – Package 2

I	Scope of Work
1	Proposal is for **Plan, Design, Supply, Install, commission and maintenance** of blood bank equipment for 710beds on Turnkey Basis for 10 years.
2	The Planning & designing of the Blood Bank should be strictly as per D & C Act, (Drug and Cosmetic Act) WHO Guidelines (Design Guidelines for Blood Centres), NACO and CDSCO Guidelines.
3	The Blood Bank should be divided into various functional areas Vis: Reception area, Screening area, Blood Donating area, Component area, Apheresis area etc.
4	Planning & Designing of the Blood Bank should be in such a way that the functional flow should be unidirectional. The pressure, temperature, humidity and other physical and functional barriers of various areas in Blood Bank have to be according to D&C Act, WHO, NACO and CDSCO Guidelines.
5	BOQ item's specifications for various areas of Blood Bank are specified in **Annexure -1 and item wise prices asked in the price bid format.** The offered items should be as per BOQ and should match technical specifications mentioned in the tender. In case quantity of items is not mentioned in BOQ the same has to be provided as per the given load for 710 beds.
6	The items like General Furniture and other accessories where if technical specification is not provided, should be of reputed makes and of good quality. All general furniture should be modular and should be of reputed make like Hermen Miller, Godrej, Featherlite, Wipro. All the general furniture items and other accessories should be supplied by the bidder only after approval of NCI-AIIMS authorities.
7	Sufficient storage in Blood Bank has to be provided by the bidder according to D&C Act, WHO, NACO and CDSCO Guidelines. In addition to the above, storages in office areas, seminar room etc. has to be provided by the bidder after the approval of NCI-AIIMS authorities.
8	Bidder has to quote prices of reagent and consumables as per mentioned in **Annexure 2A, 2B & 2C** This consumables and reagent values shall be included for calculating L1 ranking. The unit rate of consumables and reagents etc as defined in Annexure 2A & 2B shall be valid for the duration of the contract and NCI-AIIMS reserves the right to procure the consumables from the bidders at quoted rates or from any other sources as per requirement.
9	All machinery/equipment and furniture etc paid for by NCI-AIIMS under CAPEX shall be the property of NCI-AIIMS from the date of issue of LC/CRC.
10	Proper signages have to be displayed in various sections of the Blood bank and should match aesthetically with the existing signages of other areas.
11	Blood bank will run 24*7 all days. The design layout should be approved by NCI-AIIMS before starting the turnkey works.
12	Authorized personnel of bidder may collect NCI brochure including list of user areas and CAD drawings from room number 160, 1st floor, DR. BRAIRCH, AIIMS, New Delhi for better understanding of area provided for Blood Bank and to study the inter relationship of other areas viz. wards/ICUs/OTs/OPD/etc. with blood bank.
13	The bidders are strongly advised to visit the site before submission of the bid for assessment of work.

14	The bidder has to co-ordinate with Pneumatic Tube System vendor for the installation of Pneumatic Tube front load station in Blood Bank.
15	IQ, OQ, PQ or instrument performance verification (IPV) should be provided by the bidder for all the quoted equipment.
16	Bidder has to post a Technical Staff at site for 24x7 for the technical support and services during warranty period.
17	Comprehensive training (1 Week Off-site and 1 month On-site for all unless specified otherwise) should provide for operations, maintenance and chemistries (if any). Supplier should provide training kits and consumables free of cost during this time. Vendor should arrange for comprehensive training programmes (In case of off-site training: air fare, local logistics and accommodation etc.) for the personnel.
II	**Tentative Peak Load of the Blood Bank for 710 Beds per day**
1	Aphaeresis: 20 per day (Stem Cell 4 per day, Single Platelet donor 15 per day, Plasma Exchange: 6 per Month & Granulocytes: 1 per Day), RBC: 75 Per day, Platelet Rich Plasma = 75 per day, FFP & Plasma = 10 per day.
III	**Payment:** as per GCC clause no. 21
IV	**L1-Ranking**
1	L1-Calculation will be based on the total cost of items with 5 years comprehensive warranty (i.e. upfront bid value) at annexure-1 + Cost of CAMC from 6th to 10th year + Reagents cost as per Annexure 2A + Consumable cost as per Annexure 2B + Consumable cost as per Annexure 2C
V	**PENALTIES**
1	During the Warranty period, desired Uptime of 95% of 365/366 (Leap Year) days (24 hrs), if downtime more than 5%, the warranty period/CAMC period will be extended by double the downtime period.
2	Up time & penalty for delays in repair & maintenance: the firm will ensure uptime of 365 days in a year during warranty period & CMC period.
3	Whenever there is breakdown the firm will carry out the repair within 24 hours of receipt of such information (either by telephone or by any other means).
4	If there is delay beyond 24 hours then the firm will be penalized at the rate of 1% of the cost of product per day. This financial penalty can be waived off on recommendation of the user dept. if the reasons of delay are genuine the same are recorded & endorsed by the concerned dept.
5	If the down time is exceeded in a year from 20 days then the warranty shall stand extended by double the no. of days machine was out of order.
VI	**Turnkey Work - As per Annexure 3.**
VII	**Consumables and Reagents**
1	Bidder should comply to Annexure-2A, 2B and 2C and submit the same with technical bid duly filled in with all required data without showing its prices therein. However, while submitting the price bid, the prices to be shown therein.
2	Bidder should provide list of consumables against Sl. no 1 to 5 as per Annexure - 2B (which may be company specific) along with technical bid.

Annexure-1

(Specification of items)

1.	Blood Collection Monitor	1. Should have facility to preset total volume of blood to be collected and accordingly monitor and display amount collected. It should have facility to clamp to stop the collection of blood as soon as preset volume is collected and not allow over collection. Should have the facility for LIS integration (preferably wireless). 2. Battery backup should be > 8 hours with continuous work load. 3. Battery charger should be inbuilt. 4. Should be portable (Suitable for outdoor blood donation camps). 5. Should have standby / park mode. 6. Should be able to operate at 10 – 50°C. 7. There should be digital display of preset volume, rate of collection and total time taken at the end of collection. 8. Oscillation 12 - 16 rpm 9. Should mix the blood with anti – coagulant solution during collection and ensure that only correct amount of blood is collected. 10. There Should be Visual display and audible alarm: (i) when flow rate goes below 20ml / min or high flow rate above 180 ml / min (ii) at the end of collection (iii) when battery low (iv) during pause function (v) any abnormal condition 11. Every Bio-mixer should be provided with manufacturer provided carry box with handle. 12. Firm should supply the relevant calibration certificate for the equipment from NABL accredited Lab. 13. Original literature of equipment should be submitted. 14. It should have USFDA or European CE certification 15. Manufacturer should be ISO 9001 certified and should have ISO 13485 certification for quality standards. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. 16. The biomixer should be able to integrate with LIS for data management.
2.	Blood Donor Couch	1. Should be based on hemodynamic principles to allow blood volumes to redistribute. 2. Should have armrest suitable for phlebotomy and better blood flow. 3. Should have automatic adjustment of arm-rest to adjust seat width and support for comfortable phlebotomy. Two adjustable arm-rest of length more than 50 cm and width of 15 cm to set the arm position to the donor's comfort. 4. Material should be waterproof with rounded borders and easy to clean. 5. The length of the couch should be 200 cm to 215 cm to accommodate all type of donors. 6. Specially designed for comfort of donor and phlebotomist. 7. Should be able to accommodate Donor weight of up to 150 Kg. 8. Should have electronic remote adjustment for height and

		comfortable sitting position. 9. Should have provision to shift the donor's position from "head high – foot low" to "foot high-head low" or any position in between. 10. Should have only one button to reach shock position within 10-12 secs. of actuation: Head low in case donor reaction. 11. Should have 3 or 4 motors with separate control through remote for positioning of couch. 12. Electric motor should have limit switch and safety circuit. 13. Should have central locking with locking lever. Couch should be movable with wheels with locking facility. 14. Seat height should be adjustable to enable to lower it as low as 50 – 75 cm from the floor level for donor to sit easily. 15. Should have provision to hang I.V. stand. 16. Good quality original company supplied standard trolley with lockable wheels should be provided with each couch for keeping standard Bio mixer and other consumables (like swabs, etc). 17. Good quality couch covers (two sets each for one couch) should be provided along with the couches including cover for handles. 18. Original literature of equipment should be submitted. 19. User's list should be attached along with technical bid with satisfactory report for the last three years from three user licensed Blood Banks associated with Govt Medical Institutes and/or NABH/JCI accredited hospitals with contact details.
3.	Blood Bank Refrigerator - 400 L	1. Storage Capacity: Should be at least 400 Liters capacity and should be able to accommodate 350-400 PRBC units. 2. Set temperature 4°C with temperature range 2°C to 6°C and adjustable with setting accuracy of ± 0.1°C. 3. Refrigeration: Non-CFC cooled refrigeration. 4. Should have good insulation to maintain required temperature. 5. Should have double walled glass door. 6. Microprocessor based temperature controller with integrated audiovisual temperature and power alarm function with digital monitoring display. 7. Safety features: Audio alarm for all the following parameters should be there - temperature fluctuation & power failure, set point alarm, low alarm point, Door opening audio and visual display alarm. 8. Independent safety thermostat to avoid negative temperatures. 9. Should have battery backup for temperature and power alarm. 10. Should have 1000 nos. of seven days graphic temperature recorder along with data logging device. The cost of the temperature recorder chart paper will be included in the total cost of the equipment financial comparison. 11. Internal temperature hold over time in case of power failure should be at least 1.5 hours. 12. Should have fluorescent light inside the Blood Bank Refrigerator with On/Off switch.

		13. Should have castor wheels with locking facility. 14. While in operation, the noise level must not exceed 90 dB. 15. Original literature of equipment should be submitted. 16. Firm should supply the relevant calibration certificate for the equipment from NABL accredited Lab. 17. Firm will have to supply the stabilizer if required along with the equipment free of cost. 18. Should be USFDA or European CE certified. 19. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
4.	Platelet Agitator cum Incubator (Upright Model) (150-200 random donor platelet units)	1. Flat-bed agitator fitted inside a temperature-controlled incubator operating with CFC-free refrigerant gas and CFC-free insulation material. 2. Construction: a. Internal: Stainless steel (min. 304 grade) b. External: Corrosion Resistant sheet, coated with anti-bacterial material. c. Designed to hold a load of random platelet bags or apheresis platelet bags or a mixture of both types. d. Doors: must be made of glass, must be frost free and must enable inspection of contents without opening the door. 3. Design of Shelves: a. Shelves must be made of corrosion resistant material and must have anti-bacterial coating with sufficient space between two shelves. b. Must allow easy loading and withdrawal of platelet bags. c. Shelves must be perforated to ensure good air circulation. d. The shelves must have a provision so that it cannot be pulled out completely from the equipment. e. While in operation, the noise level must not exceed 90 dB. 4. Capacity: 150-200 random donor platelet units 5. Internal Temperature Control: a. Must have fan cooling provision for maintaining uniform air circulation and temperature maintenance. b. Must have electronic temperature control to maintain even temperature at 22 ± 2 °C in all shelves with accuracy of 0.5 °C c. Must have at least 2 temperature sensors with digital temperature (LED) display with 0.1 °C graduation. 6. Integrated audio-visual alarm systems must be there for a. Temperature failure, b. Temperature sensor failure, c. Agitator off, d. Power failure, e. Motion failure and f. Door ajar. 7. Must have Battery backup for temperature recordings which is especially needed during power

		failure/fluctuations. Additional Battery backup for alarm must be there so that alarm will not fail in case of power failure, and must be able to sustain the alarm. 8. Range of External Ambient Temperature and Humidity for optimal equipment performance: An ambient temperature range of up to 10 to +45 ±1 °C and Relative Humidity of 60-90% 9. Performance: Agitation at 1.5 inch (3.6–4 cm) side to side stroke, 65–75 strokes/min. 10. Firm must submit the documentation for qualifications for design, installation, operation and performance. 11. Firm must submit validation and calibration reports which must have traceability to applicable national and international standards. 12. Fully detailed operator manuals must be provided in English. 13. Electrical Requirements: a. Nominal input voltage: AC, 220/240V, 50Hz, Single phase. b. Must have an integrated voltage stabilizer or external servo stabilizer of appropriate ratings as per ISI specifications (Input 160-260 V and output 220-240 V and 50 Hz). c. Equipment meets electrical safety specifications such as that of the IEC 61010-1. 14. Must have seven day chart recorder with a graphic chart recorder with battery backup. The firm should supply charts for free of cost during the entire warranty period. 15. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
5.	Platelet Agitator cum Incubator (Upright Model) (48 random donor platelet units)	1. Flat-bed agitator fitted inside a temperature-controlled incubator operating with CFC-free refrigerant gas and CFC-free insulation material. 2. Construction: a. Internal: Stainless steel (min. 304 grade) b. External: Corrosion Resistant sheet, coated with anti-bacterial material. c. Designed to hold a load of random platelet bags or apheresis platelet bags or a mixture of both types. d. Doors: must be made of glass, must be frost free and must enable inspection of contents without opening the door. 3. Design of Shelves: a. Shelves must be made of corrosion resistant material and must have anti-bacterial coating with sufficient space between two shelves. b. Must allow easy loading and withdrawal of platelet bags. c. Shelves must be perforated to ensure good air circulation. d. The shelves must have a provision so that it cannot be pulled out completely from the equipment. e. The agitator must be noiseless (< 60db) 4. Capacity: 48 random donor platelet units

		5. Internal Temperature Control: a. Must have fan cooling provision for maintaining uniform air circulation and temperature maintenance. b. Must have electronic temperature control to maintain even temperature at 22 ± 2 °C in all shelves with accuracy of 0.5 °C c. Must have at least 2 temperature sensors with digital temperature (LED) display with 0.1 °C graduation. 6. Integrated audio-visual alarm systems must be there for a. Temperature failure, b. Temperature sensor failure, c. Agitator off, d. Power failure, e. Motion failure and f. Door ajar. 7. Must have Battery backup for temperature recordings which is especially needed during power failure/fluctuations. Additional Battery backup for alarm must be there so that alarm will not fail in case of power failure, and must be able to sustain the alarm. 8. Range of External Ambient Temperature and Humidity for optimal equipment performance: An ambient temperature range of up to 10 to +45 ±1 °C and Relative Humidity of 60-90% 9. Performance: Agitation at 1.5 inch (3.6–4 cm) side to side stroke, 65–75 strokes/min. 10. Firm must submit the documentation for qualifications for design, installation, operation and performance. 11. Firm must submit validation and calibration reports which must have traceability to applicable national and international standards. 12. Fully detailed operator manuals must be provided in English. 13. Electrical Requirements: a. Nominal input voltage: AC, 220/240V, 50Hz, Single phase. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. b. Must have an integrated voltage stabilizer or external servo stabilizer of appropriate ratings as per ISI specifications (Input 160-260 V and output 220-240 V and 50 Hz). c. Equipment meets electrical safety specifications such as that of the IEC 61010-1. 14. Must have seven day chart recorder with a graphic chart recorder with battery backup. The firm should supply charts for free of cost during the entire warranty period. 15. Equipment should have USFDA or European CE certification. 16. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards.
6.	Deep Freezer (-40˚C) 400 L	1. Should be suitable for storage of FFP / plasma/cryoprecipitate in blood banks. 2. Operating temperature range should be from –20°C to -40°C at ambient temperature and adjustable with setting accuracy of ±1°C.

		3. Upright model with internal capacity 400 liters or more. 4. Solid outer cabinet of painted steel to prevent corrosion. Inner cabinet of stainless steel. 5. Separate inner doors to prevent temperature loss. 6. System should have 4-6 inner shelves of stainless steel. 7. Automatic closing of front door below an opening angle of 90^{o} 8. It must have microprocessor control for operation with integrated audio/visual temperature alarm function with digital monitoring display. 9. It must have minimum four hours battery backup for temperature display. 10. System must have in-built features to identify any temperature deviation beyond set point. 11. Should be provided with data logger device. 12. System should have operating temperature & high /low limit alarm functions with set point adjustable in steps of 1^{o}C. 13. System should have CFC free refrigerants. 14. System should have automatic voltage boost compensations for low voltage conditions. 15. System should have safety alarms with automatic, continuous charged battery back up to provide alarm functions even in case of power failure. 16. System should have appropriate insulation to maintain temperature. 17. System should have double seal lid gasket to minimize frost build up. 18. System should have minimum vibrations, and noise level should not exceed 90 db. 19. It must have automated defrost or a heating device on frame to avoid condensation 20. It must have seven days graphic temperature recorder along with data logging device. 21. Should have castor wheels with locking facility. 22. Original literature of equipment should be submitted. 23. Should provide the relevant temperature calibration certificate for the equipment from any NABL accredited Lab. 24. Should supply 400 temperature recorder chart papers and 10 ink pens (if the temperature recorder is not inkless) along with the equipment free of cost. 25. Should supply suitable stabilizer if required along with the equipment free of cost. 26. Equipment should have USFDA or European CE certification. 27. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards. 28. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
7.	Deep Freezer (-80˚C) 400 L	1. Should be suitable for blood / plasma storage in blood banks. 2. Operating temperature range should be from –50^{o}C to -80^{o}C at ambient temperature and adjustable with setting accuracy of ±1^{o}C.

		3. Vertical model with internal capacity 400 L or more. 4. Solid outer cabinet of painted steel to prevent corrosion. Inner cabinet of stainless steel. 5. Separate inner doors to prevent cold loss. 6. System should have 5-6 inner shelves of stainless steel. 7. Automatic closing of front door below a opening angle of 90^{o} 8. It must have microprocessor control for operation with integrated audio/visual temperature alarm function with digital monitoring display. 9. It must have minimum four hours battery backup for temperature display. 10. System should have inbuilt features to identify any temperature deviation beyond alarm set point. System should have key operated switch for main power and alarm system. 11. System should have operating temperature & high/low limit alarm functions with set point adjustable in steps of $1^{o}C$. 12. System should have CFC free refrigerants. 13. System should have washable condenser filter to maintain peak cooling efficiency. System should have automatic voltage boost compensations for low voltage conditions. 14. System should have adjustable safety alarms with automatic, continuous charged battery back up to provide alarm functions even in case of power failure. 15. System should have appropriate polyurethane insulation. 16. System should have double seal lid gasket to minimize frost build up. 17. System should have minimum noise and vibration. 18. It must have automated defrost or a heating device on frame to avoid condensation. 19. It must have seven days graphic temperature recorder along with data logging device. 20. Should have castor wheels with locking facility. 21. Original literature of equipment should be submitted. 22. Firm should also provide the relevant temperature calibration certificate for the equipment from any NABL accredited Lab. 23. Should supply 400 temperature recorder chart papers and 10 inkless pens along with the equipment free of cost. 24. Should supply suitable stabilizer if required along with the equipment free of cost. 25. Equipment should have USFDA or European CE certification. 26. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards. 27. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
8.	Dielectric Tube sealer (Bench top)	1. The system should be heavy duty and simple to handle. 2. System should gently seal the blood bag tubing of all manufacturers with no haemolysis.

		3. The sealing time should be within 2 seconds. It should be able to make at least 40 seals/hr. 4. Sealing triggering should be automatic. 5. The sealing length should be of at least 1 mm. 6. The sealing should provide a notch for easy detachment of the sealed tubing. 7. Should have an option of extended portable hand unit with coaxial cable of 1.5-2.0 meter. 8. Should have indication lamps for "Sealing Process" on handle as well as main unit and LED. 9. No warm-up time should be required. 10. Should ensure easy separation of tube segments after the sealing. 11. System should run on mains. 12. Should be light weight not more than 8 Kg. 13. Deleted 14. Power input: 220-240V/ 50 Hz AC. 15. The quoted model should have FDA or CE certificate and copy of the same should be enclosed along with the technical bid. 16. Should have the ISO certification and the copy of the same should be enclosed along with the technical bid. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
9.	Sterile Connecting Device	1. Should accommodate and weld all types of blood bags tubing in use in our country. 2. The welding should be seamless. 3. Should be capable of joining wet-wet/wet-dry/dry-dry tubes. 4. Digital, microprocessor controlled electronic bench top system is required with LED display. 5. Should be compact in size [LxWxH (in ft.) should not be more than 2x2x1.5]. 6. The time taken to make one sterile connection should be less than 1 min. 7. Welding should not affect the quality of the tube in terms of its physical and chemical properties and it should not cause haemolysis. 8. It should have LED indicators/ display to show the actual status of the ongoing procedural steps and audio – visual alarm system for any functional irregularities. 9. The welding accessories should be available with the local agent throughout year. 10. The cost of consumable wafers per 100 pieces will be taken into account during price evaluation. 11. Firm will have to supply compatible UPS with minimum half hr backup along with the equipment free of cost. 12. Original literature of equipment and consumables should be submitted. 13. Certifications: 13.1 European CE class II A or US FDA certified 13.2 Quality certifications: ISO certified. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

10.	Aphaeresis Machine – Type 1	1. Should be Intermittent Flow Blood Cell Separator. 2. Single/Dual Needle operation. (Optional accessory required for Single Needle) 3. Should have the system to monitor the cell harvest of interest. 4. The equipment should perform all therapeutic and donor related aphaeresis procedures, which all should be US-FDA and/or European CE approved 5. Automatic Pump Loading & Priming of disposables sets. 6. Automated Self test to ensure maximum Donor Safety. 7. Built in Leukoreduction (<5 x 10^6) for Platelets & Plasma. 8. Automatic Leukoreduction validation of platelets and plasma at the end of procedure. 9. Adjustable product concentration. 10. Separate Anticoagulation pump with custom programming adjustability 11. Configurable maximum volume depletion levels either by weight or percentage of Total Blood Volume. 12. Extracorporeal volume 150-250ml 13. Inlet & return flow rate upto 20-100ml/minute 14. Built in Access & Return Pressure sensor. 15. Built in air detectors to prevent air embolism. 16. Built in ACD Detector. 17. Built in contamination monitor for monitoring & preventing RBC contaminations in platelet collection and plasma exchange. 18. Audio visual alarms along with the tube sealer 19. Periodic Instrument Calibration certificate for the various parameters and QC of the products should be provided/maintained by the vendor 20. Additional accessories : a. Suitable online UPS for min 1 hr backup with maintenance free batteries b. All consumables required for installation & standardization should be supplied 21. European CE with 4 digit notified body no. or US-FDA approval and necessary approval from the licensing authority in India for the apheresis kit 22. Onsite training should be provided by the technical expert to the users as per requirement 23. The units shall be capable of being stored continuously in ambient temperature of 10 - 40C and relative humidity of 15-90%.
11.	Aphaeresis Machine – Type 2	1. Continuous Flow Blood Cell Separator. 2. Single/Dual Needle operation. (Optional accessory required for Single Needle) 3. Should have the system to monitor the cell harvest of interest . 4. The equipment should perform all therapeutic and donor related apheresis procedures, which all should be US-FDA and/or European CE approved 5. Automatic Pump Loading & Priming of disposables sets. 6. Automated Self test to ensure maximum Donor Safety. 7. Built in Leukoreduction (<5 x 10^6) for Platelets & Plasma.

		8. Automatic Leukoreduction validation of platelets and plasma at the end of procedure. 9. Adjustable product concentration. 10. Separate Anticoagulation pump with custom programming adjustability 11. Configurable maximum volume depletion levels either by weight or percentage of Total Blood Volume. 12. Extracorporeal volume 150-250ml 13. Inlet & return flow rate upto 20-100ml/minute 14. Built in Access & Return Pressure sensor. 15. Built in air detectors to prevent air embolism. 16. Built in ACD Detector. 17. Built in contamination monitor for monitoring & preventing RBC contaminations in platelet collection and plasma exchange. 18. Audio visual alarms along with the tube sealer 19. Periodic Instrument Calibration certificate for the various parameters and QC of the products should be provided/maintained by the vendor 20. Additional accessories : a. Suitable online UPS for min 1 hr backup with maintenance free batteries b. All consumables required for installation & standardization should be supplied 21. European CE with 4 digit notified body no. or US-FDA approval and necessary approval from the licensing authority in India for the apheresis kit 22. Onsite training should be provided by the technical expert to the users as per requirement 23. The units shall be capable of being stored continuously in ambient temperature of 10 - 40C and relative humidity of 15-90%.
12.	Dielectric Tube Sealer - Handheld	1. Purpose of Equipment: Handheld Blood Bag Tube Sealer is a compact handheld equipment to seal the Blood Bag pilot PVC tubing by transient radio frequency heating and sealing, with no hemolysis. 2. Quality Standard: 2.1 Equipment should have ISO 13485 certification and Manufacturer should have ISO 9001 certification. 2.2 Should be compliant with CE Class IIA or US FDA. 2.3 Equipment must meet electrical safety specifications of IEC 60601. 3. Should gently seal tubing with no hemolysis, using radiofrequency heating. 4. Should be capable of making wide seal of at least 2 mm width. 5. Should be rechargeable battery operated compact (less than 3 Kg) hand held type, not bench top type. It should have a portable hand unit with coaxial cable of 1.5 - 2 meter. 6. Sealing time should not be >2 sec 7. Electrodes should be well protected by a cover to prevent blood splutter. 8. Should have indicator lamp for sealing process 9. No warm up time should be required 10. Should have tear-seal feature to make segments that can

		be easily separated by hand 11. No. of seals per charge should be 500-700 continuous seals from a fully charged battery. 12. Charger should be compatible with Input voltage: 240 V 50 Hz Single phase AC. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
13.	Manual Plasma Extractor	1. Should be suitable to manually express blood components (Plasma, Platelets) from collection blood bags. 2. Front panel should be spring loaded to apply uniform pressure on container causing transfer of fluid. 3. Compression plate should be made of durable transparent acrylic 4. Metal used for the apparatus should be non-corrosive and can be cleaned with antiseptics 5. Base portion and vertical surface should be made to have better strength and long lasting performance 6. It should have European CE class IIA or US FDA certification 7. Quality certification: ISO certified
14.	Electronic Double Pan Component Balance	1. Should be two pan balance 2. Should have digital display of weight and other parameters 3. Accuracy ± 1 grams 4. Should have two independent weight sensors, which display individual weight of each bucket with accuracy 5. It should have individual display monitor to display the weight of each bucket with blood bags 6. Visual or audio alarm should get on as soon as the two plates get balanced 7. Weight Measurement: Should be able to measure weight till 3-5 Kgs 8. Should be appropriate to weigh and balance blood holding baskets of standard size 9. Weight of balance should not be more than 6 Kgs 10. Original literature of equipment should be submitted. 11. Firm will have to supply the stabilizer if required along with the equipment free of cost 12. Firm should also provide the relevant calibration certificate for the equipment from any NABL accredited Lab. 13. Equipment should have USFDA or European CE certification. 14. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards.
15.	Plasma thawing bath	1. Digital, microprocessor controlled electronic bench top system is required with LED display and soft touch buttons. 2. Should be compact in size [LxWxH (in ft.) should not be more than 3x1.5x1.5]. 3. Should be able to thaw 12-16 plasma bags within 30-45 mins. 4. Should have separate stainless steel basket/ SS tray assemblies with built-in system for securely holding the plasma bags of all sizes.

		5. Should have water bath based system which should be operational at 4 degree Celsius temperature to 37 degree Celsius. 6. The equipment must have in-built pumping mechanism for uniform thawing of plasma bags. 7. Should have programmable thawing cycles with facilities to set temperature and time duration. 8. Should have alarm systems for over-temperature, cycle completion and any error. 9. Should have a convenient draining system to drain the chamber. The equipment should be strictly leak proof. 10. Chamber material should be made up of non corrosive stainless steel and Exterior should be bacteria-resistant powder coated. 11. The firm must supply a Cover (PVC) to keep the unit covered when not in use. 12. The firm must supply system compatible plastic pouches for holding the plasma bags to be thawed to avoid cross-contamination in case of leakage and direct contact with the water. 13. Power input to be 220-240VAC, 50Hz. 14. UPS of suitable rating should be supplied. 15. Equipment should have USFDA or European CE certification. Manufacturer should be ISO 9001certified 16. Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. 17. Two numbers of Complete User/Technical/Maintenance manuals to be supplied in English (Soft copy & Hard copy). 18. Certificate of calibration and inspection from factory.
16.	Haemostatic Analyzer	1. The equipment should be micro-processor-controlled offering point-of-care testing technique. 2. Measuring technique should be based on **shear elastic modulus** of a coagulating sample. The technique can be thromboelastography or thromboelastometry or coaguloviscometry. 3. The equipment must assess the patient's global haemostasis qualities viz. clot formation, kinetics, strength and breakdown. 4. It should have minimum two channels to simultaneously run two samples with all parameters of coagulation including platelet, fibrinogen and clotting function analysis. 5. It should have individual temperature control for each channel. 6. Cup drive should be line synchronized, with synchronous motor. 7. Initial warm-up time for cups and pins should be less than 5 mins with individual temperature control for each column. 8. It should be able to test both native whole blood as well as citrated whole blood. 9. Sample volume required for testing should be less than 0.5 ml. 10. It should be highly sensitivity to residual heparin

		detection. 11. It should have low molecular weight heparin management. 12. It should have the facility to assess platelet inhibition w.r.t. antiplatelet drugs. 13. It must be able to give real time analysis of the tests. 14. Facility to perform quality check/control should be there. The consumables to perform quality control must be made available by the vendor at agreed cost in tender. 15. The firm must support complete LIS integration of the equipment. 16. The equipment should be portable [L x W x H: 1.5 ft x 1.5 ft x 1.5 ft or less] with weight < 10 kgs. 17. Training of technical staff to be provided at the time of installation. The firm must comply to bear the cost of consumables used during the induction training programmes. 18. Requirements and consumption rates for power (220V, 50 Hz) and drainage must be stated, and installation costs included. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. 19. Proposals must specify the requirement of additional equipment hardware, software and the Un-interruptible Power Supply (UPS) and/or stabiliser and must be provided, if required. 20. The firm must comply to provide consumable test kits for 100 tests for free of cost. All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. 21. Equipment must be capable of automatic recovery in the event of a power failure. The recovery must be complete and without loss of data, except any analysis being carried at the time of power failure. 22. The system must conform to current US-FDA and/or European-CE approved for in vitro diagnostics (IVD) and electrical safety (Category II). 23. Fully detailed operator manuals must be provided. Such manuals must be renewed as and when the instrument software or hardware is updated and must be supplied in English. An on-board trouble-shooting guide should be provided. 24. Certificates of Satisfaction must be submitted by the firm from 3 licensed blood banks associated with any academic institutions and/or accredited hospitals for the last 3 years. 25. Electrical: The equipment must be able to run on the existing electrical provision. Any additional electrical requirements must be specified by the firm.
17.	Refrigerated Blood Bag Centrifuge - 12 bags	1. Design: Stable, sturdy all-steel design with stainless steel rotor chamber. Easy to clean / corrosion resistant paintings & provision of both drain and condense water collection. 2. Max. rcf : 6,000 x g to 6400 x g

		3. Max. speed: At least 4,000 rpm to 4500 rpm. 4. Max. volume: Should be able to accommodate twelve 350 ml and 450 ml single, double, triple, quadruple, quintuple blood bags with SAGM bag and empty satellite bags with 'In Line filter system'. 5. Drive unit: Maintenance free induction drive. 6. Operation: 6.1 Should have 25-30 programming of all parameters 6.2 Should have digital display 7. Programme : Should be tamper proof. 8. Safety of operation : Lid-lock and interlock, imbalance display and cutout, steel-armoured chamber, protection of overheating of rotor and compressor 9. Protection of data: In event of power interruption or complete failure, data should remain stored for 2-3 weeks. 10. Documentation: Should have software which should be compatible with hospital information system of the institute and/or Blood Bank software any interfacing required must be provided by the firm. 11. User-friendly handling: The equipment should be movable on castor wheels however it should have facility to be placed on four solid feet. There should be no need for ground fixing. Digital display should have keys for controlling basic functions located on the front panel of the machine for immediate access. The machine should be equipped with an automatic lid lock. **12. Digital display and adjustment parameters should Include:** a) Acceleration: Different acceleration profiles b) Deceleration: Different deceleration profiles c) RCF value: 4 digit, should be adjustable d) Speed: 4 digit, should be adjustable e) Centrifugal time: Format should be as hour and minutes f) Programme number: Multiple programmes g) Temperature control: Adjustable in 10 intervals h) Temp. range: 4degC to +22degC i) Min. temp. at max. rcf: 4degC j) Error message: Programme error, imbalance, lid open or any other error 13. Refrigerant: CFC-free 14. Warm air Outlet: From sides and rear of the Machine **15. Should be supplied with following Standard Accessories:** 15.1 Swing-out rotor with wind shield, should be able to accommodate twelve-sixteen 350ml and 450ml single, double, triple, quadruple/quintuple blood bags with SAGM bag and empty satellite bags with In Line filter system. 15.2 Eight (6) buckets (one bucket for 2 blood bags) for centrifuging **12 units** of bags. 15.3 Removable Plastic inserts**,** for centrifuging twelve-sixteen 350ml and 450ml single, double, triple, quadruple/quintuple blood bag system with SAGM

		bag and empty satellite bags with In Line filter system for preparing blood components like Red Blood Cells, Plasma /FFP/ Platelets concentrate and Cryoprecipitate. 15.4 One extra set of above Plastic inserts will have to be provided by the firm. 15.5 The firm must supply balancing weights and balancing plates. 15.6 The firm must supply Hook adapter to spin small volume of Cord Blood and Buffy coat. 15.7 Operation and Maintenance manual should be provided in original. 15.8 Firm must supply the stabilizer with the equipment. 16. Noise Level should be less than 60 dB 17. Firm should supply the relevant calibration certificate for the equipment from NABL accredited Lab. 18. Original literature of equipment should be submitted. 19. Should be US-FDA or European CE certified. 20. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
18.	Bio-Safety Cabinet	1. Tabletop model, well lighted, work space, low vibration and noise. Easy to maneuver due to caster wheel provision. Overall dimension of workspace should be approximately 1200 mm x 600 mm x 600 mm. Class 2A type. 2. Construction: a. Cabinet: Stainless steel sheet of 20 SWG lining b. Front panels: Removable transparent scratch resistance sheet of approximately 6 mm thickness c. Side Panels: Fixed transparent scratch resistant sheet of approximately 6 mm thickness. 3. Firm will have to supply the stabilizer with the equipment if required. 4. Electrical: 230 volts 50 Hz, Single Phase. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
19.	Table Top Centrifuge	1. Must perform in wide temperature range (0-45°C) and in humidity of up to 90%. 2. The firm must supply swinging bucket rotor. Swing bucket rotor must accommodate at least 16 tubes of 12x100mm tubes. 3. It must have option of braking system so that the centrifuge stops within 60 ± 10 secs. 4. Noise level must be strictly less than 60 dB and documentary certificate for the same is to be furnished by the firm. 5. Max. Speed: up to 1,000 to 4000 rpm, maximum RCF must be ≥ 2000xg (Swinging bucket rotor) 6. Must have provision for setting the timer. 7. Must have inverter controlled Brushless Induction drive system

		8. Safety features: Lid locking, Emergency lid release, Lid dropping protection, Automatic rotor recognition, Imbalance detector and shut-off, Motor overheating protection, Over speed sensors/detector must be available in the equipment. 9. Display: LED display with user-friendly soft-touch tactile buttons with easy to use User-interface. 10. Dimension: Must be < 20 inch (W) x < 30 inch (D) x < 20 inch (H) mm. 11. Centrifugation chamber must be made up of rust-free stainless steel for better durability. 12. Power Requirement: Single phase, AC 220/240 V, 50Hz. The equipment must be able to run on the existing electrical provision. Any additional electrical requirements must be specified by the firm. 13. Ambient temperature and humidity for operation: from 2 to 45 °C with 10-90% humidity. 14. The firm must supply suitable separate sturdy tables for installing each of the centrifuges. 15. Firm must submit validation and calibration reports for speed, acceleration/deceleration and time which must have traceability to applicable national and international standards. 16. Fully detailed operator manuals must be provided. 17. Equipment should have USFDA or European CE certification. 18. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
20.	Cooling Table	1. Applications: used for temporary storage of blood units for labelling etc. to maintain cold chain. It must maintain temperature between 4- 6°C with stability of± 2°C 2. Must have inclined work space to evacuate the condensation with facility for drainage so that there is no accumulation of water on table. 3. Must have automatic defrost with static cooling / Air condenser 4. Must have a hood over the table working area to stabilize the required temperature 5. Must have independent power supply. 6. Dimensions: 6.1 External: 2000mm(L) x 1000mm(W) x 1000mm (H) 6.2 Working area (Min.): 1500mm x 700mm x 200mm 7. Electrical requirement: 230V / 50Hz, Single phase. The equipment must be able to run on the existing electrical provision. Any additional electrical requirements must be specified by the firm. 8. Must perform at an ambient temperature range of up to +45 ± 1 °C and Relative Humidity of 10-90% 9. Firm must submit the documentation for qualifications for design, installation, operation and performance. 10. Firm must submit validation and calibration reports which must have traceability to applicable national and

		international standards. 11. Fully detailed operator manuals (English) must be provided.
21.	Automated 5-part blood cell counter	1. Should be fully automated 5 Part differential hematology analyzer based on flow cytometry, Light scattering. 2. Should have automatic start-up, shut down and sample analysis facility. 3. Should have five discrete analysis modes CBC, CBC+ DIFF, CBC + Retic, CBC+Retic+Diff & Retic only 4. Should give WBC, RBC, HGB, HCT, MCV, MCH, MCHC, CHCM, RDW, HDW, PLT, MPV, PDW, PCT, % RETIC, # RETIC , Absolute & % values for NEUT, LYMPH, MONO,EOS, BASO 5. Should have an Auto Sampler with capacity of at least 100 tubes at a given time. A single sample rack should be able to accommodate tubes of different sizes. 6. Should have throughput of at least 100 samples per hour in CBC and CBC / Diff. mode & 70 samples per hour in Retics mode. 7. Should have multi-channel analysis for better resolution & reproducibility's like 8. Dual differential count for WBC 9. Platelets – Should have Dual angle Light Scatter 10. RBC – Should have light Scatter 11. HGB – Should have photometric and direct cellular measurement 12. Retics – Should have on board, light scatter for reticulocytes 13. Should have clot detection facility 14. Should have on-board reagents facility and automatic reagent inventory management. 15. Should had have linearity atleast as follows a. WBC - 0.02- 400 x 103 /ul b. RBC - 0 - 7.0 x 106 / ul c. PLT - 5 - 3500 x 103 / ul d. HGB - 0- 22.5 g/d e. RETIC – 0.2- 24.5% 16. Should be free of tubings & pinch valves ensuring minimum maintenance 17. Should have Carryover of < or = to 1 % for all parameters 18. Sample volume required in all modes not to exceed 200 ul. 19. Dead volume required should be < 300 ul. 20. Should have extensive QC features a. 3D Bar & SDI Graphs b. LJ plot c. Table Format d. Delta checks for cumulative review e. Patient moving average f. QC file management 21. Should have comprehensive Data management such as 22. User-friendly Windows 2000 based software 23. Network integration should be possible with lab information system 24. Database storage capacity of atleast10, 000 records

		including graphics 25. UPS required to run the instrument should be provided free of cost by the firm. 26. Should be FDA or European CE certified
22.	Coagulation Analyzer	1. The equipment should be a table top, four channel, and random access open system. 2. The instrument should be able to provide simultaneous measurement of Clotting assays. 3. Principle of clot detection must either be turbidimetric/ turbodensitometric/ mechanical clot detection or LED optical detection methods. 4. Technology should be insensitive to lipaemic, coloured, hemolysed plasma and turbid reagent. 5. It must be able to run minimum tests which should include but not limited to PT, APTT, Fibrinogen, Factor VII and Factor VIII. 6. The instrument must use spun plasma and preferably be able to use primary sample tube. 7. The test analyses must be complete in 6-10 minutes. Throughput/hour should not be less than 30 samples. 8. Instrument should be able to automatically detect sample and reagent positions. 9. Instrument should have data storage capacity of minimum of 100 tests. 10. Multi batch Q.C., Levy- Jennings graphs should be available in the system. 11. Automatic mixing for sample and reagents should be possible. 12. It must be able to integrate with the blood bank software. 13. Must have Battery backup for temperature recordings and alarms which is especially needed during power failure/fluctuations. 14. Must be able to perform in an ambient temperature range of up to +45 ± 1 °C and Relative Humidity of 60-90%. 15. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
23.	Wireless Data Logger	1. Used for Real Time alarms and collection of Data from blood bank equipment. 2. The system should be radio frequency based system and approved in India 3. The system must have provision to cover more than 30 locations on a single receiver and software 4. Software must be 21 CFR part 11 compliant 5. User defined for collection and transmission of Data from 1 minute to 1 day 6. Sensors must be calibrated 7. Accuracy of temperature ± 0.1 °C 8. Digital signaling for no loss of data 9. The alarms are transmitted by landline, mobile phone, email, fax and print out 10. Alarms are generated for any technical fault e.g. physical damage to the sensors. 11. The software is LAN enabled

		12. Repeaters can be used to boost signal between radio receiver and radio module. 13. Wireless for fast and hassle free installation 14. Dual probe for humidity and temperature 15. Temperature range covering from100 C to – 85 C with different modules 16. User friendly software for easy monitoring of parameters 17. Software can be upgraded 18. 3000 internal memory points for temperature module 19. Hardware required should also be provided 20. Original literature of equipment must be submitted. 21. Should have a valid certification specific for the product which must be submitted by the firm. 22. Firm must supply the relevant calibration certificate for the equipment from an accredited agency.
24.	Lab Autoclave	1. Should be a fully automatic micro processor based High pressure, high vacuum autoclave for sterilizing material including blood bags, disinfection of materials and waste decontamination. 2. Should be top loading, have Rectangular, vertical chamber with well insulated jacket, chamber Volume minimum 450 liters or more. 3. Should have single sliding door to have a pass through system. Door should have the following features. a. Electrically controlled having fully automatic function with multiple safety arrangements. b. Sealing system should be based on silicone seal. c. Should have at least 50mm thick insulation materials on jacket and in doors to ensure low thermal losses. Working temp. of the door should be less than 45 deg. C. 4. Should be high grade Stainless steel. 5. Should have preferably a built in Color touch screen. 6. Should have audio visual alarms in case of undesired situations. 7. Should have programmable Operators access level. 8. Should have pre programmed standard cycles and user programmable cycles. 9. Should have temperature adjustable from 121 Deg. C. to 135 Deg. C. 10. Safe Working pressure range should be from 15 to 32 PHI (1.1 bar – 2.2 bar) 11. Should have complete monitoring of cycle operation and provided with at least two pressure sensors and two Temp. Sensors in addition to analog meters for chamber pressure, jacket pressure and steam generator pressure indication. 12. The unit should be equipped with multiple safety mechanisms for Emergency Stop over pressure safety valves for chamber and jacket, over temp safety, steam traps and electrical safety. 13. The unit should include Non fade built in thermo-recorder for step progress values during the cycles with time and date and alarm condition if any. 14. Should have built in feature of Water Saving System for water conservation.

		15. Should be supplied with complete set of high quality stainless steel trolleys and sterilization baskets: a. External trolley = 01 nos. b. Internal trolley with steel roller c. Shelves = 01 nos. and d. sets of Sterilization baskets. 16. All accessories & electric fitting must be supplied by the firm. 17. Three compulsory visits for calibration and checkup irrespective of complaints in year. 18. The steam Generator should be also be made of Ti steel & the steam generator should be equipped with automatic cleaning facility. 19. The equipment must have Integrated waste water cooling, integrated water saving device and draining facility. 20. The equipment should be having ports (RS 232 or equivalent) for LIS interface. 21. Should be US FDA/European CE certified. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
25.	Reagent Refrigerator	1. Storage Capacity: Should be at least 600 Liters capacity. 2. Set temperature 4°C with temperature range 2°C to 6°C and adjustable with setting accuracy of ± 0.1°C. 3. Refrigeration: Non-CFC cooled refrigeration. 4. Should have good insulation to maintain required temperature. 5. Should have good metallic door. 6. Microprocessor based temperature controller with integrated audiovisual temperature and power alarm function with digital monitoring display. 7. Safety features: Audio alarm for all the following parameters should be there - temperature fluctuation & power failure, set point alarm, low alarm point, Door opening audio and visual display alarm. 8. Independent safety thermostat to avoid negative temperatures. 9. Should have battery backup for temperature display and power alarm. 10. Internal temperature hold over time in case of power failure should be at least 1.5 hours. 11. Should have castor wheels with locking facility. 12. While in operation, the noise level must not exceed 60 dB. 13. Original literature of equipment should be submitted. 14. Firm should supply the relevant calibration certificate for the equipment from NABL accredited Lab. 15. Firm should supply the temperature recorder chart paper (1000 nos.). The cost of the temperature recorder chart paper will be included in the total cost of the equipment financial comparison. 16. Equipment should have USFDA or European CE certification. 17. Manufacturer should be ISO 9001certified and should

		have ISO 13485 certification for quality standards. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
26.	Aggregometer	1. Aggregometer must be working on the principle of Optical turbidimetric and/or Impedance aggregometry with provision to use open or registered manufacturer supplied reagents. 2. It should have 2/4/8 channels for platelet aggregation tests in Platelet Rich Plasma (PRP)/ Whole Blood (WB)/ Washed Platelets (WP). 3. Sample requirement for aggregation in PRP/ WB/ WP should be less than 500 µl. 4. It should have adjustable stirrer speed up to 1200 RPM. 5. It should be provided with electronic pipette with memory. 6. It should enable the user to run standardised test procedures as well as user defined test templates. 7. It should provide information w.r.t. Heater block temperature in °C, Stirring speed in RPM, Operating mode and Warning message 8. Computerised data analysis with appropriate system software with CD-Writer for convenient storage and retrieval of data, colour monitor and colour laser printer must be included. System should include an internal computer interface, Compatible Operating system, and comprehensive software for measuring simultaneous aggregation. 9. Software on-board should provide for real time display of aggregation, Computation of amplitude, slope, log time and area under the curve, Storage of reagent data for tracking test value, demography details, for later recall. 10. It should be US-FDA or European-CE certified product. 11. Manufacturer should be ISO Certified. 12. Firm must provide appropriate stabiliser or UPS (if required) with 1-hour battery backup. 13. The recommended maintenance kit, for trouble free operation and maintenance of the system for a minimum period of five years should be quoted. 14. The Firm should provide price for all the reagents (for ADP, Arachidonic acid, Epinephrine, Collagen and Ristocetin) and consumables (Cuvettes, Magnetic stirrer beads) required for next 10 years. 15. Certificates of Satisfaction must be submitted by the firm from 3 licensed blood banks associated with any academic institutions and/or accredited hospitals for the last 1-3 years. 16. The bidder has to produce a certificate assuring that they have an application specialist based in Delhi & who will be attending any test related problem within reasonable time to ensure zero/ minimal down time.
27.	Bacterial Detection System	1. The system should be non-radiometric assay (Fluorescent or similar Technology) based fully automated Microbial detection system and should be capable of detecting growth of the pathogenic micro-organisms. 2. It should be fully automated, walk-away, and random-

		access system. 3. The system should be able to detect fungal, aerobic and anaerobic organism from the blood. 4. System must have specialized FDA approved Media Bottles for quality control testing of platelets for detecting both aerobic and anaerobic microbes. 5. The system should have a capacity of holding minimum of 30 bottles at a time, modular and upgradeable for future requirements. 6. The system should have the capability of continuous monitoring of the samples. 7. Every cell (bottle position) should have its own optics and detection device. 8. System should have specific algorithms for detection of growing micro-organisms and should be capable of continuous monitoring of all samples for growth of micro-organisms. 9. The system should have the capability of analyzing and detection of delayed entry of specimens at growth, stationary and decline stage (both log & lag Phase). 10. System should be having continuous agitation and incubation facility to provide optimal growth of microorganisms. 11. The bottled media should be capable of neutralizing the effect of antibiotics. 12. System should support for processing Pediatric Samples. 13. The culture bottles should be made of unbreakable plastic with long neck and should be fully compatible with holders without the need for a special adapter. 14. System should have interface for lab/ hospital information system. 15. The system must conform to current US-FDA and/or European-CE approved for in vitro diagnostics (IVD) and electrical safety (Category II). 16. Fully detailed operator manuals must be provided. Such manuals must be renewed as and when the instrument software or hardware is updated and must be supplied in English. An on-board trouble-shooting guide should be provided. 17. Certificates of Satisfaction must be submitted by the firm from 3 licensed blood banks associated with any academic institutions and/or accredited hospitals for the last 3 years. 18. Electrical: The equipment must be able to run on the existing electrical provision. Any additional electrical requirements must be specified by the firm.
28.	Blast Freezer	1. Rapid plasma bag (200 to 1000 ml) freezing to core temperature of -30 °C. Operation temperature of -50°C without rupturing plasma bags. 2. Minimum capacity of 24 bags of 250ml liters. 3. Contact plate shock freezing technology with only bottom contact plate moving upward. Refrigeration for both plates. 4. Rapid freezing to handle several batches in a day without losing freezing temperature.

		5. Able to achieve plasma bags (200 to 500ml) core temperature of -30 °C within 30 minutes at ambient temperature of 32 °C 6. Multi-channel process & controller-with temperature controller, monitor with capacity to produce validation graphs. 7. Solid cabinet casing with high grade stainless steel to prevent corrosion with smooth lockable castors. 8. Easily cleanable working surfaces. 9. Ergonomic design, compact, service- maintenance friendly construction. Trouble free cleaning and disinfection. 10. Castors for mobility with stabilizers/peripherals 11. Integrated colored LCD process automatic controller: 12. Indicating top and bottom plate temperature. 13. Indicating reference dummy bag-sensor temperature. 14. Indicating freezing process. 15. Indicating freezing time. 16. Indicating temperature diagram. 17. Indicating defrosting process. 18. Selector switch freezing / defrosting 19. Selector button table open / close. 20. Emergency switch off button. 21. Main switch on / off. 22. 8 control channel & 4 program channels 23. 50 programs, with 1000 segment under dynamic management. 24. Multi-channel processor with color display. 25. Semi-hermetic (repairable) air cooled compressor with reliable refrigeration and low noise and vibration. 26. Short pre-cooling phase to -50°C in 20 minutes. 27. Refrigerant CFC free 28. The equipment of continuous duty and frost free. 29. Hot Gas Defrosting, with less than 10 minuets 30. Meeting protection class I Safety. 31. Standard package with accessibility for network connection (RS 232, 485, Ethernet/LAN/ or any equivalent) for temperature recoding and monitoring to validation requirements. 32. Conforming to EMI directive /EEC, Low voltage directive. 33. Optional Barcode reader & software 34. Power failure alarm, Phase error alarm, 35. Operational on 3 phase 400 V at 50 Hz. 32 A**.** It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. 36. Max energy consumption of 1500-2000 W per cycle 37. Power rate 4 KW. 38. Equipment should be USFDA or European CE certified.
29.	Electronic Analytical Balance	1. Electronic balance with transparent case. 2. Digital display of weight and other parameters should be there. 3. Readability : 1 mg 4. Capacity : 1 mg – 100g 5. Accuracy : ±1 mg

		6. Stabilization time : less than 10 Sec 7. Should have facility for automatic calibration. 8. Original literature should be attached 9. Firm should supply the relevant calibration certificate for the equipment from NABL accredited Lab. 10. Firm will have to supply the stabilizer if required along with the equipment free of cost 11. Original literature of equipment should be submitted. 12. Firm should also provide the relevant temperature calibration certificate for the equipment from any NABL accredited Lab. 13. Electrical: The equipment should be able to run on the existing electrical provision.
30.	Walk-in modular cold room	1. Purpose of Equipment: Walk in cold room to store blood bags and reagent kits at an appropriate temperature of 4-6°C until specified expiry dates. It should be able to maintain a temperature range of 4 ± 2 °C (Accuracy: 1 °C). 2. Type of Equipment: Should be operating with CFC-free refrigerant gas and must include all insulated walls, ceilings, doors, mechanical refrigeration systems, controls, internal lighting, and other ancillary items required for a completely fabricated and operational walk-in. 3. External Dimension: 11 ft. (D) x 13 ft. (W) x 7.5 ft (H) 4. Wall and ceiling panels must be made up of non-ozone depleting material and Polyurethane Foam (PUF) insulated panels (minimum 6 cm thick). 5. Panels shall consist of CFC-free insulation sandwiched between interior and exterior wall. 6. Panel edges must have air tight vapour proof joint. Edges must be smooth. 7. Construction shall allow disassembly for possible relocation or expansion at a later date. 8. The entire interior surface and front panel of the exterior surface must be made up of stainless steel (Min. 0.5 mm thick) and rest of the exterior surface facing the walls must be made up of pre painted galvanized iron sheets (PPGIS). 9. Door construction: Door construction shall match the insulated panels with sliding doors. 10. Safety features: a. It must have pad lock system and Human safety release knob. b. Safety latch on the inside of door must be provided to allow anyone trapped inside to get out and/or an alarm (panic button). c. Inside the chamber, a glass window of (dimension: min. 1 sq. ft.) must be placed as a safety measure. d. Lighting: LED light fixtures suitable for the environment are to be provided by the supplier. Manual door open lighting system must be present. e. Floor panel must also be insulated by PUF with granite/ Kota stone flooring which must withstand load of up to 5000 kgs. 11. Refrigeration System:

		a. All refrigeration piping required shall be furnished and installed by the manufacturer (turnkey basis). b. Condensing units and evaporator coils should preferably but not mandatorily be from the same manufacturer. The responsibilities of maintaining both the equipment lies with the supplying firm. c. Two air-cooled condensing and evaporating units must be of 10,000 BTU capacities to achieve and maintain the individual room operating temperature requirements and must be sized to handle additional loads appropriate for the application. d. Both refrigeration systems must have back-up and emergency automatic and programmed switch-over of refrigeration systems to ensure uninterrupted cooling. Air cooling system should be split type. e. Refrigeration lines must be insulated to prevent any condensation and insulation exposed to the weather must have additional protection. 12. Must have low noise level (< 60 dB) and minimal vibration. 13. Option of Pre-set alarm at +1.5 °C and +8 °C must be provided. 14. Two separate Temperature Display Units (Digital LED/LCD) at 0.1 °C graduations must be provided for the two cooling units. 15. Audio-visual alarms: Temperature out of range, door open alarm system and power failure warning with battery back-up must be installed. 16. For continuous Temperature Recorder a digital temperature data logger as well as a 31 days chart with battery back-up must be provided with an in built thermal printer. 17. Shelves: Firm must supply suitable stainless steel racks for storage of blood bags and kits according to the design and dimensions required by the department. The racks should have minimum of 6-8 shelves (Depth of 18 inches each). The edges must be smooth and non-traumatic. Hooks for hanging blood bags must be provided on the inner walls as per the requirement of the department. 18. Air Circulation: Forced air circulation to maintain uniformity of temperature of the chamber. 19. Cold-room should be able to function at an ambient external temperature of +20-45 ± 1 °C and in humidity of up to 90%. 20. Separate drain line provision must be installed for the drainage waste water generated from floor cleaning. Condensate drain line must be provided which should run in copper tubing to nearest floor sink. To prevent condensation, drain line is to be insulated where it exits the insulated panels. All this has to be done by the firm. 21. Installation: Supplier must install the cold room as per the requirement. The supplier must test all equipment operation and performance of walk-in cold room and to make all adjustments and repairs as and when

		required. 22. The manufacturer should have ≥ 10 years of documented experience for manufacturing modular cold rooms. Should have installations in atleast three licensed Blood Banks associated with Govt Medical Institutes and/or NABH/JCI accredited hospitals, and proof of the same should be submitted along with technical bid. 23. Supplier shall have the demonstrated ability to produce the specified equipment of the required quality and the proven capacity to complete an installation of this size and type within 1 month of time limit. 24. Firm must submit the documentation for qualifications for design, installation, operation and performance and should take the complete responsibility for commissioning the unit. 25. Firm must submit validation and calibration reports which should have traceability to applicable national and international standards. 26. Fully detailed operator manuals must be provided in English. 27. Electrical: Nominal input voltage: AC, 220/240V, 50Hz, Single phase with 2 MCBs of 32 Amps each. Equipment meets electrical safety specifications such as that of the IEC 61010-1. The equipment must be able to run on the existing electrical provision. Any additional electrical requirements must be specified by the firm. 28. Equipment should have USFDA or European CE certification.
31.	Binocular Microscope	1. Binocular microscope should have universal infinity corrected optical system. 2. Binocular Microscope should have inbuilt light source and high quality imported achromatic optics. 3. It should have LED light source illumination. 4. Equipment should have Rigid frame with ergonomics design. 5. Binocular observation tube should have inclination of 45/30 degrees 6. It should have Built in torque adjustable focusing knob. 7. It should have Square mechanical stage with rigid hand coaxial control. 8. Equipment should have Abbe condenser, Iris diaphragm. 9. Equipment should have Revolving Quintuple nose piece. 10. Equipment should be supplied with Plan achromat objectives 4X , 10X, 40X, 100X (Oil). 11. 40X, 100X objective should be spring loaded. 12. Should have an Eye piece 10X (FOV 20). 13. Antifungal treatment should be applied to the observation tube, eyepiece and objective. 14. Power supply: 230 V,50 Hz AC. 15. System Configuration Accessories, spares and consumables 15.1 Binocular Microscope-1 nos 15.2 Dust Cover 15.3 Power Cord

		16. Standard, Safety and Training 16.1 The manufacturer should have ISO certification. 16.2 Equipment should have US FDA or European CE certification. 17. Documentation 17.1 User/Technical/Maintenance manuals to be supplied in English (Soft copy & Hard copy). 17.2 Certificate of calibration and inspection from factory.
32.	Micro pipette set (Manual adjustable)	1. Should be manual adjustable micropipette set having the following capacities a. 1 – 2.5 µl b. 0.5 – 10 µl c. 2-20ul d. 10-100ul e. 20 – 200 µl f. 100- 1000ul 2. Fully autoclavable. 3. Must show accuracy in measurement 4. Ejector should ensure safe eject contaminated tips, positioned for perfect ergonomics. 5. Must have precision in control, spring loaded tip cone. 6. One-button operation for aspiration, dispensing and tip ejection. 7. Volume setting automatically locks. 8. Chemically resistant. 9. 4-digit display. 10. Accuracy: +/- 1% for all. 11. Calibration certificate should be provided with the supply. 12. Disposable tips 5000 each volume. 13. Should be supplied with tips holder rack & pipettes stand. 14. Equipment should have USFDA or European CE certification.
33.	Whole Blood Automation Device	1. The Centrifuge System should be able to automate the following process steps for up to 4 units of Whole blood within a cycle- balancing, centrifugation, sedimentation, expression, and tube sealing. 2. The system should provide plasma and platelet volume as well as platelet content determination. 3. The system should provide procedure and process data– per unit and per cycle. 4. The centrifuge device should have software (both embedded and external) to transfer procedure and process data to and from the device. Should be able to interface with the existing Blood Bank management software for seamless data transfer and management. 5. System should be a Fixed bucket (4/device) technology for Whole Blood sedimentation and separation 6. System should be able to provide a single spin preparation of a platelet from Whole blood. 7. The system should have integrated sealing heads (3/bucket) to seal the components during the processing cycle. 8. The device should have a Touch Screen Display with Graphical User Interface and barcode scanner.

		9. Should be provided with a Temperature Controller system (external Chiller) which can support multiple devices of similar nature 10. Processing buckets should be equipped with a bucket sensor to detect the component interface. 11. The device should have a line/tubing sensor to detect the component interface for each WB processed 12. The device should have a built-in expression system (hydraulic) which allows for consistent component expression during processing. 13. Should have an inbuilt balancing system which would eliminate the need for a manual balancing device. 14. Should be able to process the following components from each unit of Whole Blood, in one centrifuge cycle- Red Blood Cells, Leukoreduced Plasma, Residual Leukocytes and Platelets. 15. System should work on an integrated processing set which should be able to be used for collection and processing of whole blood. 16. The system should have a pooling set that is designed to allow the pooling, leukoreduction and storage for 3-6 platelet units for transfusion. 17. Comprehensive (1 Week Off-site and 1 month On-site) training should provide for operations, maintenance. Supplier must provide training kits and consumables free of cost during this time. 18. The vendor must quote for all the consumables and reagents required for operations and maintenance for the equipment for a comprehensive workload of approximately 20000 units/ 10 years.
34.	Blood Bank Software	**A. General specifications** 1. A **Web based** software that fulfils all the requirements starting from registration of the donors to the transfusion of blood components to the patients including all the investigations that are carried out in the blood bank. 2. The software must be provided with security features against any virus, malware attack etc. The data will not be shared with any other organization/institution. 3. At the time of demonstration for technical evaluation, the required standard features must be available in software. 4. Provision of biometric fingerprint/ iris scanning, AADHAR integration, capturing of donor photograph, donor registration through web/mobile self-registration, self-registration at kiosk, and option for other biometric methods must be provided. 5. Data encryption for data security must be in-built in the software. The data shall be property of NCI-AIIMS and at no cost be allowed to be shared by any organization/institution in India or Abroad. 6. Basic requirements must be fully incorporated in the software at the time of installation and time bound customization within a given time frame of 6 months. 7. Must have different customized modules as per the

		requirement of each laboratory/section and must provide integration of all blood bank equipment with main software. 8. The firm must support for developing any new module in future for any new tests and/or procedures that may be chargeable. The heads of charges for the same should be written in the technical bid. 9. Administrative right to access server, cloud server, application modules to modify certain specified field and values to be given to the designated blood bank authority. 10. Must have option to send SMS and email alerts for donors that can be auto generated, custom or manual to multiple number of blood donors. 11. Must provide interfacing with various blood bank equipment with the software by instant/pool consumption of the data received through interfacing of equipment. 12. Inventory management with facility of verification of physical stock tallying with barcode scanning. Facility to send alert system via email or SMS to officer In-charge in case of shortage of blood units with pre-defined stock limits for each element must be provided. 13. Must be integrated with HIS system of NCI-AIIMS. 14. Store management modules for accepting and releasing bulk store supply to allow user consumption and must have an alert system via SMS, email if stock is low. 15. Biomedical waste management modules from generation of waste to the discard of reactive, expired blood product or any other hospital waste material according to guidelines that are issued from time to time. 16. Flash pop-up messages for various alerts in the software to notify all active users for quick information. 17. Provision of various reports of generated data in multiple formats (pdf/xls/html). 18. The software must unambiguously provide system generated unique identification number series to the patients and unique registration number series to the donors. 19. Software must follow a defined transfusion chain management path and **must not** allow by-passing of any steps. a. Blood collection Chain [Donor Registration → Screening → Medical Examination → Blood Collection(Bag generation, Donation and Donor Card printing) → (TTI Markers, Component Preparation and Blood Grouping) → Stock(only after successful completion of TTI (sero negative)] b. Transfusion Chain [Patient Blood Request {Patient Requests → Patient grouping cross-matching(in available stock only and matrix compatible) → Issuing → Return to Stock if not transfused}] **B. Specification for various lab modules in Blood Banking Software** **1. Donor Registration**

		a. Registration facility for the donors should be available online and/or registration desk and/or locally installed Kiosks. If registration is made online or on Kiosk, then donor questionnaire must be filled by the user with the facility for taking printouts by oneself or else at the registration desk. b. Unique Donor registration number that must remain same regardless of donor encounters. c. Registration of donors at blood bank registration desk capturing with their photograph and various biometric identification and through AADHAR. If donor has done his online/kiosk registration then only biometric identification and photograph to be taken at registration desk to create donor encounter for the donation. Immediate retrieval of data regarding the previous visits of the donor must be available. d. Provisions of donor self-registration by locally installed self-registration touch screen kiosk; online registration for In-house donation or for a particular scheduled camp or a simple voluntary donor registration must be provided. Unique registration number at registration desk along with a printable barcode must be generated. e. Unique registration numbers for donors in outdoor camps, in-house, apheresis and blood units from external sources must be separately and unambiguously generated by the software. **2. Donor demographic (screening) and Medical Examination** a. Must have provision of donor questionnaire with demographic details and questions w.r.t. different medical, surgical, drug intake and life style behaviors as per the Drugs and Cosmetics (D&C) Act, 1940 and rules therein as well as recent guidelines. b. Pre-defined brief medical examination module must be incorporated. c. Reason of deferral with date and deferral duration for donors must be user definable. d. Pre-donation counseling module must be provided. **3. Blood donation** a. Modules for the following elements must be incorporated: b. Bag generation with a unique bag no., provision of segment no. of allotted bag and bag type, generation of bag barcode with collection date etc. c. Printing of donor card(preferably smart card type) d. Post donation counselling module. **4. Blood donation camps** a. Separate simplified module for managing the camp related activities must be provided. **5. Aphaeresis** a. Separate modules for the aphaeresis procedures along with screening, medical examination. Modules for collection details and post donation counselling remain the same as that in whole blood donation.

		6. Transfusion Transmitted Infectious Marker Investigation a. Single, multiple and interfaced reporting of various infection markers with validation and secondary confirmation for both serology (ELISA and/or Chemiluminescence) and NAT. **7. Blood Grouping** a. Grouping of donors, IPD and OPD patients by specified techniques (example QWALYS, micro-plate, tube etc.)by single, multiple and interfaced reporting and secondary validation facilities must be provided. **8. Component Separation, Inventory and issue** a. Single, multiple and bulk component separation modules and issuing of components to patient and/or bulk issue to other organization or a centre must be provided. b. The software must provide a module for hassle free incorporation of units received in bulk from external sources to the inventory. **9. Blood Requisition** a. Generation of blood/blood component request forms from the wards in a pre-defined format must be made available. b. The user must have options to choose from a list of options in relation to the urgency, type of components, and special requirements and/or modifications (if any) of required components. c. With the unique hospital identification number (UHID) of the patient, the software must flash a pop-up message on the screen with the information regarding the Blood group and details of previous history of blood component transfusions. This information must be provided in the printed request form as well. d. The software must provide the option to approve the generated request forms at the blood bank so as to keep track of the timeline from generation of the forms at the ward to reception of the printed forms at the blood bank. **10. Cross-match** a. Cross-matching of required PRBC and/or whole blood units with available blood stock (matching matrix) must be provided. Module for platelet cross-matching should be there. b. On entering the UHID of the patient, the software must flash a pop-up message on the screen with the information regarding the Blood group and details of previous Transfusion history of patient. **11. Issue** a. Module for issue of cross-matched blood and/or blood components to patient and bulk issue to centres/ organization must be defined. b. While issuing, with the UHID of the patient, the software must flash a pop-up message on the screen with the information regarding the Blood group and details of previous history of blood component

		transfusions. c. Option for unit discard/bulk discard must be provided. **12. Immuno-haematology Investigation** a. Carrying various investigations which come to blood bank and reporting modules as defined by the department must be provided. b. This includes ICT, DCT, Antibody Screening, antibody identification, titrations for different antibodies (e.g. Anti A, Anti B etc.) etc. **13. Supply Store Module** a. Building stock and inventory for store. b. Raising of requirement requests from various labs and issuing supply from store. c. Alert system for define limit stock for store as well as labs. **14. Special modifications of blood components** a. Separate check-boxes must be provide against components to indicate leukodepletion and irradiation, b. Software must provide modules for special modifications for blood components such as i. paediatric unit preparations with provisions for part issue of units (e.g. 2017B/2000 P1 (70 mL), 2017B/2000 P2 (70 mL), 2017B/2000 P3(70 ml) and ii. Intra-uterine transfusions etc. **15. Reports** a. Various reports those are mandatory as per D&C Act and are required on day to day basis in blood bank and a master register as per regulations must be provided. **16. Hardware requirements :** a. The firm must provide one local server for the database and application at the blood bank with provision of automatic real-time syncing facility in a secured cloud service for both application and database at a remote (server) location (in India only) with dynamic DR and automatic failover. Servers must be provided to run the software efficiently. b. 20 All-in-One PCs (Intel core 8th Generation i5 processors, 4GB RAM (DDR 4), 1 TB HDD, Latest Windows 10, 19" LCD/LED, Wireless keyboard and mouse) along with all other required peripherals must be provided. c. The software must run on 200 nodes/users and the data will be the property of the department. d. All the licensure required for running the software and hardware must be procured by the firm and the respective costs must be indicated as a part of the tender. e. Bar-code printers and scanners (10 Nos. each) must be provided. f. Digital signature pads, Webcams, Biometric scanners and iris scanners (3 Nos. each) must be provided. g. Up time & penalty for delays in repair &

		maintenance: the firm will ensure uptime of 365 days in a year during warranty period & CMC period. h. Whenever there is breakdown the firm will carry out the repair within 24 hours of receipt of such information (either by telephone or by any other means). i. If there is delay beyond 24 hours then the firm will be penalized at the rate of 1% of the cost of product per day. This financial penalty can be waived off on recommendation of the user dept. if the reasons of delay are genuine the same are recorded & endorsed by the concerned dept. j. If the down time is exceeded in a year from 20 days then the warranty shall stand extended by double the no. of days machine was out of order.
35.	Turnkey as per Annexure-3	Bidder has to do turnkey as per Turnkey Annexure-3. Any Civil, Electrical & HVAC modifications, (if required) for installation of any of the offered item would be the responsibility of the bidder. Turnkey works of Blood Bank have been executed to a large extent. The bidders are required to visit the site and conduct a detailed assessment with regard to any Civil, Electrical & HVAC changes required in Blood Bank area as per tender requirements. The bidder should quote for turnkey works only for the additional/differential works required in the blood bank area to meet the tender requirements. Any makes and models given in the tender are to be used by the bidder while executing turnkey works identified after site visit. However, no additional turnkey work should be quoted for on account of a different make and model already used at the existing Blood Bank site.

Annexure - 2A

REAGENT COST (for bid ranking & fixing of year wise rates)						
		A	**Reagent Pack Details**			
	List of Parameters	No. of tests (approximate load over 10 years being factored for bid ranking)	Reagent Pack - make/ brand	Pack Catalogue No.	No. of tests/ pack	Total No. of Reagent packs to be used for No. of tests in column"A"
1	**5-Part Hematology**					
	CBC	7,30,000				
	CBC + Diff	7,30,000				
	CBC + Diff + Retic	3,65,000				

Annexure - 2 B

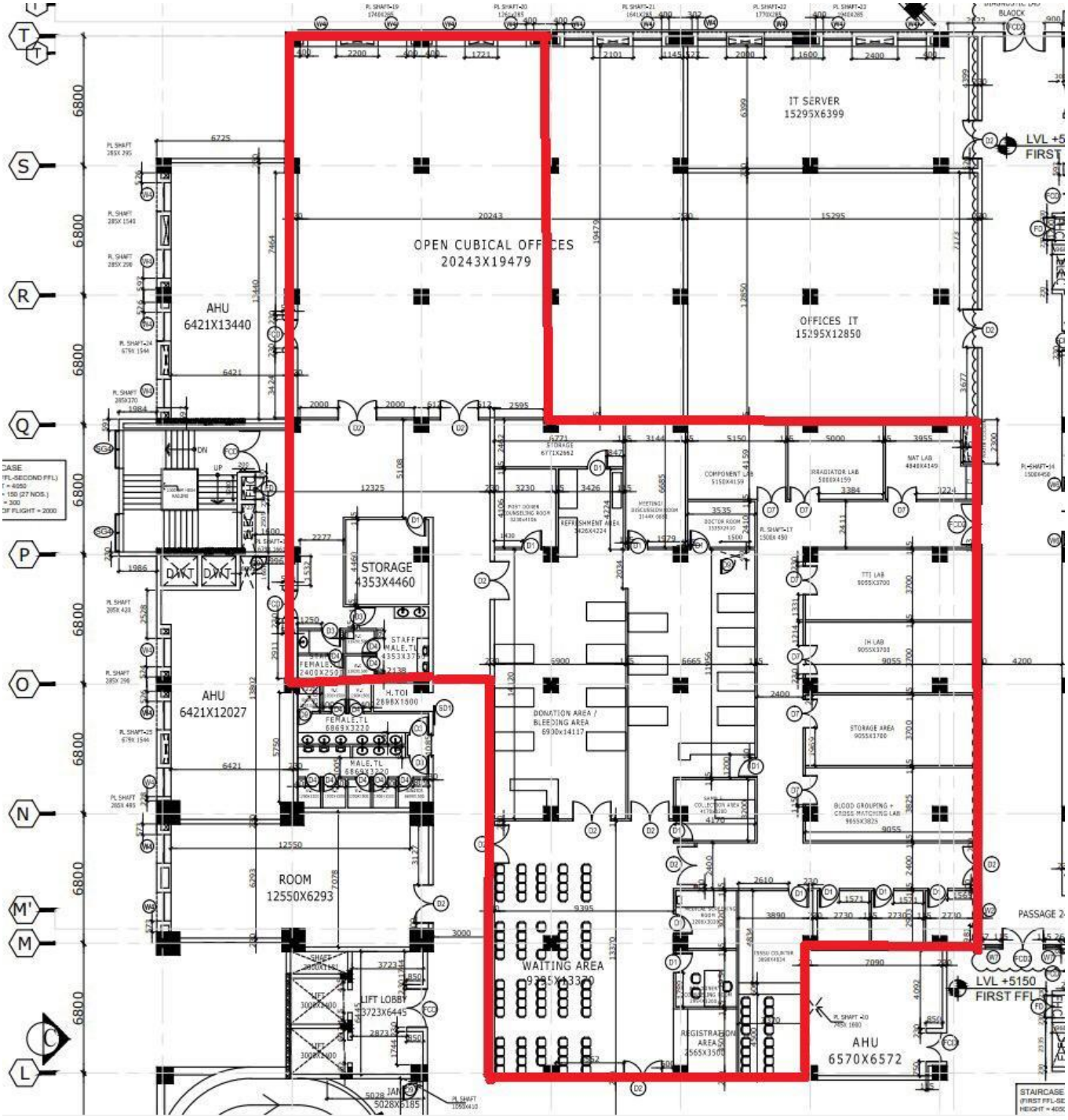
Consumable cost other than reagents (for bid ranking & fixing of year wise rates)					
Items/ Pack Details					
Sl. No.	Type of Consumable (Bidder may add additional rows)	Details of Tests / Analyzers/ Equipment, etc. the consumable is being used for	Make/ brand	Catalogue No.	Total No. of Consumable item/ packs to be used for cumulative no. of tests as detailed in column"A" of Annexure-2A
1	Calibrators				
2	Quality controls				
3	Additives				
4	Cleaners				
	Important Note: Any reagent, consumables & Essential consumables required for performing tests, calibration, quality control, cleaning the lab system, as per quantities detailed in column "A" of Annexure-2A if not quoted shall be provided free of cost by the bidder during the validity of the contract.				

Annexure - 2 C		
Essential consumables to be quoted (for bid ranking & fixing of year wise rates)		
		H
Sl.No	Name of the consumable	Quantity (approximate quantity over 10 years being factored for bid ranking only)
1	Triple Blood Bags 350 ml	100000
2	Quadruple Blood Bags 450 ml	100000
3	Top & bottom Blood Bags 450ml with Integral filters	200000
4	Transfer bags 300 ml with Spike Ports	50000
5	Platelet Filter	100000
6	Apheresis Kits platelets	50000
7	Apheresis Kits stem cell harvest / All other procedures	20000
8	RBC filter	100000
	Important Note: Any reagent, consumables & Essential consumables required for performing tests, calibration, quality control, cleaning the lab system, as per quantities detailed in column "A" of Annexure-2A, and items quoted in Annexure-2B & 2C if not quoted shall be provided free of cost by the bidder during the validity of the contract.	

Annexure – 3

Turnkey works under Package-2

The existing area layout of Blood Bank is given below.



1. Bidder has to do all required turnkey as defined in the specifications. Institute will provide shell structure of approx. **8500 sq feet** with one point electrical, water & drain supply. Bidder has to do rest of all from planning, designing, supply, installation and commissioning of all equipment on turnkey basis.

2. The cost of Turnkey for the area of **8500 sq feet** will be considered for Ranking / Evaluation purpose however payment shall be made at actual on pro-rata basis.

3. Bidders are strongly advised to visit the site and carry out the assessment of works. **All demolition, construction, & site modification shall be the sole responsibility of the bidder.** Total area dedicated for Blood Bank is approx. **8500 sq feet**. **Bidder can modify the allocated area as per requirement.** Only those vendors who offer the entire range of state of the art equipment comprehensively as a package deal will be considered. While designing the Blood Bank, bidder has to keep provision for future expansion of Blood Bank. This provision should be made without disrupting the zoning of the Blood Bank. All ancillary services like (electricity, water points, plumbing, R.O, HVAC/AHU, WiFi internet etc.) required for future expansion has to be built in while designing and furnishing the Blood Bank.

4. Bidder has to submit the layout design proposed with material used for construction/civil works to NCI –AIIMS for approval, Bidder can start the execution of civil works after getting approval from NCI-AIIMS.

5. Civil works includes construction of brick wall, plastering, painting, etc required as per the approved lay out plan, laying of tiles on walls & floors, provision of doors & windows as per approved lay out plan. Leveling of floor (if required) before lying of suitable anti-slippery floor and strengthening of floor should be bidder's responsibility (if required). All the items should be of suggested makes.

6. Bidder has to construct toilets, rest room, change room (Male & Female) eye-shower and shower facilities for workers as specified. All floors and walls in processing areas must be smooth, impervious to fluids and easily cleaned.

7. Any other necessary work not mentioned in BOQ/technical specifications/turnkey but required for successful completion of Installation, Commissioning, and maintenance of Blood Bank should be carried out by the bidder.

8. Bidder has to install CCTV cameras covering all major areas with recording of 60 days.

9. Bidder has to install portable PA system (microphones and speakers) in the following area :

    1. Donation Area/Bleeding Area
    2. Component Lab
    3. Irradiation Lab
    4. NAT Lab
    5. TTI Lab (Chemiluminescence Lab)
    6. IH, Blood grouping Lab and Issue Counter
    7. Apheresis Lab
    8. QC Lab
    9. Office, examination, sampling and counselling Rooms
       (Preferred Makes for PA System: Bosch, Bose, JVC, Phillips)

10. Bidder has to plan following rooms as per cGMP guidelines.

    1. Component Lab
    2. NAT Lab
    3. TTI Lab (Chemiluminescence Lab)

11. Bidder has to provide Intercom telephones and related wirings for each lab where telephone connection is unavailable.
12. Bidder has to provide centralized UPS (at least 40 KVA) facility with batteries, suitable for the blood bank equipment for at least 30mins backup. Bidder has to do all required wiring and other associated works for centralized UPS.
13. Bidder has to provide 2 Nos. of Centralized Printing Stations (1 in the Donation Area and 1 in the Lab Area. It should be able to do Print, Scan & Copy functions. Suggested Makes: Epson/HP/Ricoh.
14. Bidder has to provide Poster Printer with suitable specification that can print posters for Camp purposes.
15. Bidder must provide suitable and aesthetically designed Mural paintings for the interior and exterior (walls, pillars, glass partitions, doors and windows) of the department as per the custom designs and custom size so as to give a state-of-the-art look to the department.
16. Bidder has to provide Glass/Aluminum/Ply partitions wherever required.
17. Bidder should provide DI water plant (Supply and Distribution) (TTI + Cross match + Blood Grouping labs + Immuno-Hematology Lab) or should provide a centralized DI water supply plant.

18. **List of items and suggested manufacturers**:

    i. Vitrified Tiles for flooring - Somany, Kajaria , H&R Johnson, RAK India

    ii. Paint - Dulux, Asian Paints , Nerolac

    iii. Electrical:
        a. Cables - Finolex, Havells ,V-Guard.
        b. Switches - Legrand, L&T, Crabtree , Roma.
        c. Distribution Box , MCB - Legrand, L&T, Siemens, Havells.
        d. Light Fittings - Philips / Crompton / Kesselec-Schreder / Wipro.
        e. Electrical panel - ABB/ L&T/ Legrand/ Snider/ Siemens.
        f. Centralised UPS – APC/Hitachi/Luminous

    iv. Air Conditioning - Daikin, Hitachi, Blue Star, Voltas.

    v. Furniture - Hermen Miller, Godrej, Featherlite, Wipro.

19. **Electrical works** :

    i. Institute will provide three phase supply at one point in Blood Bank area and further distribution within the blood bank area will be responsibility of bidder as per approved layout. All remaining work has to be done by the bidder including Electrical Isolators, MCBs, Electrical boards, Switches, Sockets and any other thing which are required for smooth running of blood bank equipment

    ii. All electrical work required for commissioning and installation of equipment like cable wire, electrical outlets, switches, cable trenches, trays, railings, etc. should be fire proof, of reputed make, certified for electrical safety.

    iii. The suggested makes of electrical panel are ABB/ L&T/ Legrand/ Snider/ Siemens. Panel fabricator should be CPRI approved.

20. **Lighting & Ventilation:**

a. Provision of 2ft x 2ft LED lights to provide illumination of 300-350 lux in all areas. LED lights to be flush mounted to the false ceiling.

b. Toughened glass sealed windows to be provided to allow natural sun light wherever possible.

c. Exhaust air fans to be provided wherever required.

21. **Plumbing & Drainage Works** :

i. Institute will provide one point water & drain supply and further distribution will be responsibility of bidder as per approved layout.

ii. All plumbing work associated with proper functioning of Equipment has to be carried out by the vendor.

iii. Drain should be such that there is safe disposal of solid & liquid waste generated during the process of the work.

iv. Any other plumbing works associated with proper functioning of blood bank has to be carried out by the vendor.

22. **Fire safety** :

i. Fire safety equipment shall be installed as per the norms and requirements of the fire department regulations applicable to NCI-AIIMS in Jhajjar (Haryana).

ii. Fire detection and alarm system with conventional optical type smoke detectors, RIs/ MCP, fire control panel and its wiring with copper conductor FRLS wire shall be provided as per CPWD specifications.

iii. Make of smoke detectors as suggested shall be Apollo/ Edward/ Siemens/ Honeywell.

iv. Suggested make of RI, Hooters, MCP, Fire control panel shall be of Agni/ Safex/ Minimax.

v. Fire fighting system shall be installed comprising of Hose reels, fire hydrants, landing valve, hose pipes, branch pipe, nozzles, valves as per CPWD specifications. The hosing and internal pipeline needs to be laid down by the vendor. However the water connection will be provided by the institute.

vi. Automatic sprinkler system with adequate size of pressurization pump with pressure gauge, flow switch, annunciation panel etc shall be installed by the vendor, as per CPWD specifications. In case automatic sprinkler is not suitable for certain areas of Blood Bank, other alternative shall be installed as per the applicable norms.

vii. Vendor shall provide adequate fire extinguishers of required type. (According to Fire safety rules).

23. **Air-conditioning** :

a) Bidder has to do Air conditioning requirement as per zoning concept and as per D & C Act, (Drug and Cosmetic Act) WHO Guidelines (Design Guidelines for Blood Centres), NACO and CDSCO Guidelines. The bidder has to provide extra Air Conditioning facility (if required) over and above the existing one to match the requirement of produced heat load.
b) NCI-AIIMS will provide chilled water supply at one point outside the Blood Bank.

24. All necessary work & accessories required to install and complete functioning of equipment should be included in offer.

25. General Furniture and other items as per Table should be supplied as part of turnkey

Note:

Turnkey works of Blood Bank have been executed to a large extend. The bidders are required to visit the site and conduct a detailed assessment with regard to any Civil, Electrical & HVAC changes required in Blood Bank area as per tender requirements. The bidder should quote for turnkey works only for the additional/differential works required in the blood bank area to meet the tender requirements.

Any makes and models given in the tender are to be used by the bidder while executing turnkey works identified after site visit. However, no additional turnkey work should be quoted for, on account of a different make and model already used at the existing Blood Bank site.

Table showing detail loading of General Furniture and other items as part of Turnkey work

Sl. No.	Area/Room Description	Item	Minimum required Quantity	Short Description of item
1	Waiting Area	Waiting Chair 3 Seater	20	As per technical specification
		Modular Table	4	Modular table made of MDF material with suitable size for designed room/area.
		Drinking water facility	1	As required
		Audio visual system	1	Television system with LED display with latest technology. Screen size : 55 Inch
				Suggested Makes: Sony/Samsung/LG
		Magazine Rack	2	As required
2	Reception/ Registration Area	Modular Workstation with storage facility	1	Modular Workstation-2-seater with storage facility made up of Stainless Steel or MDF with suitable size for designed room/area.
		Staff Chair	4	As per technical specification

3	Pre donor Counselling Room	Modular Workstation with storage facility	1	Modular Workstation-2-seater with storage facility made up of Stainless Steel or MDF with suitable size for designed room/area.
		Staff Chair	1	As per technical specification
		Visitor Chair	2	As per technical specification
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
4	Medical Screening Room	Modular Workstation with storage facility	1	Modular Workstation-2-seater with storage facility made up of Stainless Steel or MDF with suitable size for designed room/area.
		Staff Chair	4	As per technical specification
		Waste Bins set	1	As per technical specification
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
		Patient stool with back rest	2	As per technical specification
5	Sample Collection Room	Patient stool with back rest	2	As per technical specification
		Staff Chair	1	As per technical specification
		Waste Bins set	1	As per technical specification
		Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
6	Donation Area/Bleeding Area	Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
		Staff Chair	6	As per technical specification
		Waste Bins set	1	As per technical specification
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
		Audio visual system	2	Television system with LED display with latest technology. Screen size : 55 Inch
				Suggested Makes: Sony/Samsung/LG
7	Post donor Counseling Room	Modular Table	1	Modular table made of MDF material with suitable size for designed room/area.
		Staff Chair	1	As per technical specification
		Visitor Chair	2	As per technical specification
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
8	Store Room (Donation Area)	Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
9	Refreshmen	Sofa set - 8	1	As per technical specification

	t Room	seater		
		Tea Table	2	As per technical specification
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
10	Meeting/Discussion Room/ seminar hall	Conference Table (10 seater) with chairs	1	High quality 10 seater wooden conference table with 10nos of cushioned conference chairs with castors and backrest.
		Interactive screen for display	1	Screen size suitable for designed room/area.
		Projector	1	As required.
				Suggested makes: Barco/NEC/Canon/Epson/HP
		Audio visual system	1	Television system with LED display with latest technology. Screen size : 55-65 Inch
				Suggested Makes: Sony/Samsung/LG
		Book Rack	1	As required
		Journal Rack	1	As required
11	Resident Room	Staff Table	1	As per technical specification
		Staff Chair	1	As per technical specification
		Visitor Chair	2	As per technical specification
		Storage Cupboard	1	As per technical specification
12	Office for MSSO	Staff Table	1	As per technical specification
		Staff Chair	1	As per technical specification
		Visitor Chair	2	As per technical specification
		Storage Cupboard	1	As per technical specification
13	Component Lab	Laminar Air Flow	1	As per requirement of as per D & C Act, (Drug and Cosmetic Act) WHO Guidelines (Design Guidelines for Blood Centres), NACO and CDISCO Guidelines.
		Height Adjustable Stools	4	Height Adjustable Stools of Cushion type, matching height with working table.
		Central Working Table	1	Central working table made of SS 304 grade with suitable size (minimum 7ft length x 5ft width) for designed room/area.
		Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
14	Irradiation Lab	Modular Table	1	Modular table made od MDF material with suitable size for designed room/area.
		Staff Chair	1	As per technical specification
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
15	TTI Lab	Waste Bins set	1	As per technical specification
		Modular	1	Modular Workstation-4-seater with

		Workstation with storage facility		storage facility made up of Stainless Steel or MDF with suitable size for designed room/area.
		Staff Chair	4	As per technical specification
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
		Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
16	IH Lab	Staff Chair	4	As per technical specification
		Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
		Staff Table	4	As per technical specification
		Reagent rack	1	As required
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
		Waste Bins set	1	As per technical specification
17	Storage Area (Record)	Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
18	Blood Grouping Room	Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
		Lab Chair	6	With backrest, height adjustable, cushioned, with castors. With suitable dimension matching to modular table of the lab/room.
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.
		Waste Bins set	1	As per technical specification
19	Cross Matching	Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
		Staff Chair	2	As per technical specification
		Lab Chair	2	With backrest, height adjustable, cushioned, with castors. With suitable dimension matching to modular table of the lab/room.
		Central Working Table	1	Central working table made of GraniteTop with suitable size for designed room/area.
		Waste Bins set	1	As per technical specification
20	Issue Counter	L-Shaped Modular Table	1	L-Shaped Modular Table with granite top and storage facility with suitable size for designed room/area.
		Staff Chair	2	As per technical specification
		Waste Bins set	1	As per technical specification
		SS/Wooden Top	1	2*2 ft size
		Overhead Modular Storage Cabinets	1	Set of 8 individual cabinets, made of SS/MS 16gauge plates.

21	Apheresis Lab	Modular Table	1	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
		Lab Chair	5	With backrest, height adjustable, cushioned, with castors. With suitable dimention matching to modular table of the lab/room.
		Storage Cupboard	2	As per technical specification
		Waste Bins set	1	As per technical specification
		Audio visual system	2	Television system with LED display with latest technology. Screen size : 55 Inch
				Suggested Makes: Sony/Samsung/LG
22	Discard room	Refrigerators	2	Refrigerators of capacity >300Litres, double door
		Staff Table	1	As per technical specification
		Staff Chair	1	As per technical specification
		Waste Bins set	1	As per technical specification
23	Dept.al store facility	Staff Table	1	As per technical specification
		Staff Chair	4	As per technical specification
		Storage racks	12	Wall mounted storage racks with locking facility. As required as per room dimension.
		Storage Cupboard	2	As per technical specification
24	QC lab	Modular Table	2	Modular table made of GraniteTop with storage facility having suitable size for designed room/area.
		Lab Chair	4	With backrest, height adjustable, cushioned, with castors. With suitable dimension matching to modular table of the lab/room.
		Storage Cupboard	1	As per technical specification
		Waste Bins set		As per technical specification
25	Office Room	Staff Chair	4	As per technical specification
		Modular Table	1	Modular table made of MDF material with suitable size for designed room/area.
		Mobile file compactor	1	As required
		Storage Cupboard	1	As per technical specification
26	Faculty office	Modular Table	1	Modular table made of MDF material with suitable size for designed room/area.
		Staff Chair	4	As per technical specification
27	Other Requirements (for each lab)	Air Curtains for Labs	As required	As required
		Air Purifiers for Labs	As required	As required
		Carpet Dry Vacuum cleaner	1	Suggested Make: Eureka Forbes/ Kent/ Philips/ Dyson/ LG

		Mobile compactor file storage	2	(L*D*H: 2 ft*4 ft*10 ft) (5 racks each) with mechanical/ motorized lever)
		Centralized Print Station	2	To be installed at Donation area and Lab area) (Having Print/ Scan/ Copy, Wi-Fi Connectivity, Suggested Make: Epson, HP, Ricoh)
		Temp. & Humidity monitors	1 for every room/lab	As required
		Emergency Lights	1	As required
		Microwave Oven	1	25L capacity Suggested Manufacturer: LG/Sony/Samsung
		Shoe cover dispensers	As required	As required
		UV Based Fly/ mosquito Repellent	As required	As required
28	Staff common room	Dining table (10 Seater) with chairs	1	High quality 10 seater wooden dining table with 10nos of cushioned dining chairs with backrest.
		water purifier	1	As required
		Lounge chairs	4	High quality cushioned lounge chairs .
		Modular lockers	1	Modular lockers made of wooden material to accommodate 30 individual lockers with individual locking facility.
		Audio visual system	1	Television system with LED display with latest technology. Screen size : 55 Inch

Technical Specifications of major furniture items mentioned above

I. Modular Lab Furniture

1. All workbenches (Wall and/or Island) are to be constructed with pre-treated (degreased, Zinc Phosphated) and epoxy powder coated stainless steel (Cold Rolled Cold Annealed) frames (12-14 Gauge), of dimensions as required (900 mm high and 900/1200/1500 mm deep, of various lengths).
2. All legs to be made of powder coated pipe framework with stainless steel height adjustors & Nylon base with a load carrying capacity of no less than 50 kgs each. Legs with levellers would be able take unevenness of the floor. It should have at least 20-50 mm adjustability. Bottom ends of all legs/levellers to be welded closed with 3-5 mm SS plates and protective rubber guards.
3. Table tops should be of jet black polished granite tops 20 ± 2 mm thick, with edges rounded and polished.
4. Storage units under the table tops are to be constructed of SS/ Mild steel sheets.
5. All storage units are to be lockable.
6. All storage units will consist of smooth operating pull out drawer (Load bearing: > 20 kgs).
7. All drawers shall be on telescopic sliding arms, with smooth, heavy duty rollers/ bearing and Shelf support clips shall be nickel-plated steel.
8. Door Pulls: Flush pulls of PVC, providing a recessed finger grip should be used.

9. Hinges shall be made of SS, spring loaded. Hinges to door should be fixed with machine screws and rivet Nuts. The hinges should close the doors, once left at a certain angle.
10. Reagent Shelves
    a. Reagent Shelves to be made of complete modular design consisting of horizontal 2 stage storage shelves (with provision to adjust inter-shelf gap).
    b. Each vertical panel shall be assembled either to the wall or on the island workbench with corrosion resistance fasteners.
    c. The shelves should be made of pre-treated (degreased, Zinc Phosphated) and epoxy powder coated stainless steel (Cold Rolled Cold Annealed) frames (14-16 Gauge).
    d. Each shelf should have a load carrying capacity of 50 kgs/ shelf/ m2.

II. Waiting Chair 3 Seater

c) Chair should be a combination of three seats.
d) The chair should be of stainless steel 304 grade.
e) Seat, handles, legs, and beam should be made Stainless Steel 304 grade material.
f) Approximate Overall Dimension (+/- 10%) : 180 cm (W) x 75 cm (H) x 65 cm (D)
g) Should be of high quality.

III. Staff Chair

1. Should be medium back revolving type with height adjustable facility.
2. Seamlessly upholstered seat and backrest, with poly foam cushion.
3. Padded and upholstered arm rests and comfortable back rest.
4. Should be available in blue/red/meroon/brown/grey colours and should be supplied in colour scheme approved by NCI-AIIMS authorities.
5. Staff chair should be ergonomically designed, sturdy and of good quality.

IV. Visitor Chair

1. Should be low back non-revolving type with fixed height.
2. Seamlessly upholstered seat and backrest, with poly foam cushion.
3. Padded and upholstered arm rests and comfortable back rest.
4. Should be available in blue/red/meroon/brown/grey colours and should be supplied in colour scheme approved by NCI-AIIMS authorities.
5. Visitor chair should be ergonomically designed, sturdy and of good quality.

V. Storage Cupboard

1. Over all Size : 180 cmH x 90 cmL x 45 cmD (+/-10%).
2. Should be made up of wooden material
3. With 4 shelves.
4. With high quality hinges and overlapping two doors with locking facility and interlocking design.

VI. Patient stool with back rest

1. Should be height adjustable cushioned stool with backrest and wheels for easy movement.
2. Height adjustable with pneumatic mechanism.
3. Should have five-leg castor base.

VII. Sofa Set - 8 seater

1. Should be sofa set of 8 seater capacity (Two nos of 3 seater and two nos of single seater).
2. Legs, base and other supporting structure should be made of solid wooden

material.
3. Seat and back section should be made of high quality upholstery.
4. Should be supplied in colour scheme approved by NCI-AIIMS authorities.

VIII. Tea Table

1. Approximate Dimensions: 90cm Length x 60cm Width x 45cm Height
2. Made of solid wooden material and top made of high quality glass.
3. Should have under storage space.

IX. Waste Bins Set

1. Should be supplied and colour coded as per Bio Medical Waste Rules 2016.
2. Should be supplied with black, blue, red, yellow coloured plastic puncture proof wastebins as required as per Bio Medical Waste Rules 2016.
3. Small Size : 2 Nos each (with all required colour coding)
4. Big Size : 1 No each (with all required colour coding)

Technical Specification of Consumable items mentioned above

I. General Specifications for all Blood Bags

1. Manufacturer must comply with ISO 9002 quality system certification and provide proof of same. Plastic Blood Bags should meet all the standards as laid down in ISO 3826, for the manufacturers have to produce documentary evidence from the laboratories approved by Government of India. Blood Bags must conform to ISO 3826 for container, design, plastic (physical, chemical, biological) anticoagulant, labels and needles. Needle must conform to ISO 1135-3. Proof of compliance with ISO 3826 and ISO 1135-3 should be submitted by company.
2. Bio-compatibility of the material of the plastics blood bags must be certified by the manufacturer and must be supplied by the test reports of the following:
   a. Cell culture cytotoxicity
   b. Haemolysis
   c. Systemic infections (acute toxicity)
   d. Sensitization
   e. Intra-cutaneous injection (irritation)
   f. Pyrogen test
   g. Sterility
3. To assess quality of stored blood, manufacturer should provide documented evidence of following biochemical parameters of blood stored in CPDA-1/CPDA-1-SAGM containing DEHP plasticized PVC blood bags manufactured by the company on 28th, 35th and 42nd day of storage. The parameters are:
   a. Plasma pH (6-7)
   b. ATP (3-4mmol/gm of Hb).
   c. 2,3-DPG (% of initial volume)(0-9mmol/gm Hb)
   d. Plasma K+ (70-80 mEq/l)
   e. % of viable red cells (>70% in 24 hrs post transfusion)
   f. DEHP leaching(5-7 mg/dl)
   g. DEHP should not be more than 0.01% w/v in the PVC
4. The platelet storage bag material should have good gas permeability to allow maintaining an optimum pH balance (not <6) during storage of platelets for 5 days.
5. The plastic blood bag should have a shelf-life of minimum 2 years. Stability reports from an accredited laboratory must be produced.
6. Slit present at the bottom of the bag should be “adequate to hang the blood bag during transfusion”.
7. Packing: Individual plastic blood bags should be packed in a plastic pack and

such 3-6 bags should be packed in aluminium foil pack. Aluminium foiled packs should be packed in the corrugated boxes which should indicate clearly and legibly the name of the manufacturer, name of the product, batch number, quantity, date of manufacturing, date of expiry, gross and net weight and consignee's name and address and other particulars as required.

8. External sterility of the plastic blood bags should be ensured and respective sterility reports of each lot should be provided along with.
9. Quality assessment of all the components shall be done and shall be a part of the technical evaluation.
10. Manufacturer must provide satisfactory user's list/ supply order of last two years from any three blood banks having facility of component separation in Delhi/ NCR.
11. Samples of each type of bag and filters need to be provided for technical evaluation.
12. The firm must qualify other general tender terms and conditions of AIIMS.

NOTE:
All types of blood bags must qualify the general specifications in line with the given specifications.

II. Triple Blood Bags (350 ml)

1. Blood collection bag made up of DEHP (Di-2-ethylhexyl phthalate) plasticized PVC, collapsible non-vented sterile containers complete with collecting tube for completely closed system to avoid the chances of contamination.
2. Capacity: 350 ml
3. **Design and shapes:**
   a. Flexible pre-sterilized
   b. Pyrogen free
   c. Non-toxic, non-haemolytic, biocompatible material
   d. No risk of contamination and air embolism (closed system) with all leak proof seals (Disposable Bags)
   e. Slit on the both sides of the bags should be enough to accommodate 2-6 ml volume test tubes
   f. The capacity of the bag should be enough to prevent any ballooning/rupture of the bag from the seam when it is filled up with the requisite volume of blood
4. **Tubing of bag:**
   a. Flexible non-kinking
   b. Non-sticking
   c. Transparent
   d. Leak-proof
   e. Multiple printed segment numbers (13-15 segments)
5. **Needle:**
   a. 16 gauge ultra-thin walled and straight and rust proof
   b. Sharp regular margins and bevelled tip (A visible or tactile means of indicating the position of the needle bevel)
   c. The design of the needle and the needle guard assembly must not significantly interfere with the venepuncture process and Design of the donor line and integral needle must incorporate a needle guard which can be permanently sleeved over the needle once removed from the venepuncture site and prior to disposal
   d. Tightly fixed with hub covered with sterile guard
   e. Hermetically sealed
6. **External Port:**
   a. Easily accessible, tamper proof and shouldn't be re-capped

7. **Package:**
   a. Protective dual packaging (Individual & Aluminium) eliminating microbial contamination on surface maintaining the contents of the bag
   b. Easy to handle
8. **Anticoagulant and preservative solution:**
   a. CPDA-1 (49 ml/63 ml i.e. 14 ml/100 ml of blood) and 80 ml/100 ml SAGM solution for extended storage of red cells (up to 42 days)
   b. Clear & colourless
   c. No discolouration on storage at room temperature
   d. Manufacturer to supply anticoagulant quality check certificate
9. **Label:**
   a. Non peel off
   b. Heat sealed labels
   c. Remain attached between room temperature to -80^{o}C with a transparent adhesive
   d. Date of manufacturing, date of expiry and lot number must be mentioned on each bag legibly with indelible ink
   e. The expiry date should be at least 2 years from the date of supply of blood bags to the institute
10. **Resistance to distortion:**
   a. Filled to normal capacity shall withstand a maximum acceleration of 5000g for 30 min at temperature 37^{o}C to 240oC without becoming permanently distorted and should withstand temperature up to -80^{o}C without breakage.
11. **Diversion pouch and Luer adapter holder (LAH)**
   a. Integrated with the primary collection tube for maintaining sterility of the collected blood and sample collection
12. **Automated component extractor**
   a. To be provided by the manufacturer along with all the required documentations
13. **QC parameters of component(s)**
   a. Detailed QC parameters of the components are to be provided for technical evaluation

III. Transfer bags 300 ml with Spike Ports

1. Capacity of Transfer bags : 300ml
2. Must comply to the general specifications.
3. Manufacturer must comply with ISO 9002 quality system certification and provide proof of same.
4. Blood Bags must conform to ISO 3826 for container, design, plastic (physical, chemical, biological,) anticoagulant, labels, needle. Needle must conform to ISO 1135-3. Proof of compliance with ISO 3826 and ISO 1135-3 should be submitted by company.
5. External sterility of the blood bag must be assured.
6. RBC – Values for ATP % , 2,3 DGP, DEHP leaching , % hemolysis, and pH must be furnished for 28/35 days.

IV. Quadruple Blood Bags 450 ml

1. Blood collection bag made up of DEHP (Di-2-ethylhexyl phthalate) plasticised PVC, collapsible non-vented sterile containers complete with collecting tube for completely closed system to avoid the chances of contamination.
2. Capacity: 450 ml (4 bags including the primary bag with top and bottom outlets)
3. **Design and shapes:**
   a. Flexible pre-sterilized
   b. Pyrogen free
   c. Non-toxic, non-haemolytic, biocompatible material

d. No risk of contamination and air embolism (closed system) with all leak proof seals (Disposable Bags)
e. Slit on the both sides of the bags should be enough to accommodate 2-6 ml volume test tubes
f. The capacity of the bag should be enough to prevent any ballooning/rupture of the bag from the seam when it is filled up with the requisite volume of blood

4. Tubing of bag:
a. Flexible, non-kinking and Leak-proof
b. Non-sticking
c. Transparent
d. Tubes should have multiple printed segment nos. (13-15 segments)

5. Needle:
a. 16 G ultra-thin walled ,straight, non traumatic and rust proof
b. Sharp regular margins and bevelled tip (A visible or tactile means of indicating the position of the needle bevel)
c. The design of the needle and the needle guard assembly must not significantly interfere with the venepuncture process and Design of the donor line and integral needle must incorporate a needle guard which can be permanently sleeved over the needle once removed from the venepuncture site and prior to disposal
d. Tightly fixed with hub covered with sterile guard
e. Hermetically sealed

6. External Port: Easily accessible, tamper proof and shouldn't be re-capped

7. Package:
a. Protective dual packaging (Individual & Aluminium) eliminating microbial contamination on surface maintaining the contents of the bag
b. Easy to handle

8. Anticoagulant and preservative solution:
a. CPDA-1 (63 ml i.e. 14 ml/100 ml of blood) and 100 ml SAGM solution for extended storage of red cells (up to 42 days)
b. Clear & colourless
c. No discolouration on storage at room temperature
d. Manufacturer to supply anticoagulant quality check certificate

9. Label:
a. Non peel off
b. Heat sealed labels
c. Remain attached between room temperature to -80^{o}C with a transparent adhesive
d. Date of manufacturing, date of expiry and lot number must be mentioned on each bag legibly with indelible ink
e. The expiry date should be at least 2 years from the date of supply of blood bags to the institute

10. Resistance to distortion:
a. Filled to normal capacity shall withstand a maximum acceleration of 5000g for 30 min at temperature 40^{o}C to 240^{o}C without becoming permanently distorted and should withstand temperature up to -80^{o}C without breakage.

11. Diversion pouch and Luer adapter holder (LAH)
a. Integrated with the primary collection tube for maintaining sterility of the collected blood and sample collection

12. Automated component extractor
a. To be provided by the manufacturer along with AMC/CMC and all the required documentations

13. Sterile connecting device with consumables
a. To be provided by the manufacturer to use filters in a closed system

14. QC parameters of component(s)

a. Detailed QC parameters of the components are to be provided for evaluation

V. Top & bottom Blood Bags 450ml with Integral filters

1. Blood collection bag made up of DEHP (Di-2-ethylhexyl phthalate) plasticized PVC, collapsible non-vented sterile containers complete with collecting tube for completely closed system to avoid the chances of contamination.
2. Capacity: 450 ml Quadruple bags with inline integral filters
3. **Design and shapes:**
   a. Flexible pre-sterilized
   b. Pyrogen free
   c. Non-toxic, non-haemolytic, biocompatible material
   d. No risk of contamination and air embolism (closed system) with all leak proof seals (Disposable Bags)
   e. Slit on the both sides of the bags should be enough to accommodate 2-6 ml volume test tubes
   f. The capacity of the bag should be enough to prevent any ballooning/rupture of the bag from the seam when it is filled up with the requisite volume of blood
4. **Tubing of bag:**
   a. Flexible, non-kinking and leak-proof
   b. Non-sticking
   c. Transparent
   d. The tubes should have multiple printed segment numbers (13-15 segments)
5. **Needle:**
   a. 16 G ultra-thin walled, straight, non traumatic and rust proof
   b. Sharp regular margins and bevelled tip (A visible or tactile means of indicating the position of the needle bevel)
   c. The design of the needle and the needle guard assembly must not significantly interfere with the venepuncture process and Design of the donor line and integral needle must incorporate a needle guard which can be permanently sleeved over the needle once removed from the venepuncture site and prior to disposal
   d. Tightly fixed with hub covered with sterile guard
   e. Hermetically sealed
6. External Port: Easily accessible, tamper proof and shouldn't be re-capped
7. **Package:**
   a. Protective dual packaging (Individual & Aluminium) eliminating microbial contamination on surface maintaining the contents of the bag
   b. Easy to handle
8. **Anticoagulant and preservative solution:**
   a. CPDA-1 (63 ml i.e. 14 ml/100 ml of blood) and 100 ml SAGM solution for extended storage of red cells (up to 42 days)
   b. Clear & colourless and No discolouration on storage at room temperature
   c. Manufacturer to supply anticoagulant quality check certificate
9. **Label:**
   a. Non peel off
   b. Heat sealed labels
   c. Remain attached between room temperature to -80^{o}C with a transparent adhesive
   d. Date of manufacturing, date of expiry and lot number must be mentioned on each bag legibly with indelible ink
   e. The expiry date should be at least 2 years from the date of supply of blood bags to the institute
10. Resistance to distortion:
    a. Filled to normal capacity shall withstand a maximum acceleration of 5000g for 30 min at temperature 40^{o}C to 240^{o}C without becoming permanently distorted

and should withstand temperature up to -80oC without breakage.

11. Diversion pouch and Luer adapter holder (LAH) : Integrated with the primary collection tube for maintaining sterility of the collected blood and sample collection
12. Inline filter for RBC
    a. Residual WBC count should be less than 5 X 10^6 after filtration
    b. Percentage of haemolysis: < 1%
    c. Housing Volume: 30 to 40 ml
    d. Should have 500-600 ml capacity transfer bag attached.
    e. Usable with blood of core temperatures in the range 4°C - 30°C

13. Automated component extractor

a. To be provided by the manufacturer along with all the required documentations

14. QC parameters of component(s)

a. Detailed QC parameters of the components are to be provided for evaluation

VI. Specification for Leukocyte Filters

a. Leukocyte Removal Filter for Red Blood Cell (Lab-side)

1. Biocompatible material with unique porous structure for improved leukocyte removal and less damage to RBC. RBC recovery should be more than 90%.
2. Housing Volume: 30-40 ml
3. Residual WBC count: < $5x10^6$ after filtration and Percentage of haemolysis: < 1%
4. Must not have any open air vent in the filter
5. Should have 500-600 ml capacity transfer bag attached
6. Sterile connecting device with the cost of consumables/disposables should be provided by the firm to use filters in a closed system. One for each filter.

b. Leukocyte Removal Filter for Platelets With Storage Bag

1. Biocompatible material with unique porous structure (2-10 micron) for improved leukocyte removal and less damage to platelet
2. Filter housing of small size (priming volume of 15-20 ml)
3. Capable of yielding more than 90% recovery of platelet with residual leukocyte count below $5x10^6$/unit
4. Small priming volume (15-20 ml) to reduce the platelet loss
5. Filtration procedure should not predispose to platelet activation.
6. Integrated with 1000 ml transfer bag for storage of pooled platelets
7. Platelet storage bag with special plasticizer material to have high gas permeability and to ensure shelf life of 5 days
8. Filter housing should not have any air vent
9. The device is with a by-pass line to remove air inside the bag and thereby to ensure high platelet recovery
10. Sterile and should have minimum 24 months of shelf life
11. The device can be used with an automatic component extractor, a plasma stand or just by using gravity.
12. Sterile connecting device including the cost of consumables should be provided by the firm. 4-5 per filter to be provided by the firm.

VII. Specification for EDTA Vacutainer

1. Sterile, PET blood collection tube 6 ml (Vacuum) containing spray coated K_2 EDTA as recommended by CLSI and/or ICSH.
2. Each tube should have clean label and must contain information like name, age, sex, Date, ID etc.
3. CE certified marked for IVD use
4. The firm must provide two mixers along with the vacuum tube.

VIII. Specification for Disposable Blood Lancet

1. Each unit must be a sealed unit.
2. Tip should be sharp with length 3-4 mm with bevelled tip.

3. Should be mounted on a plastic handle of not less than 2.5 cm in length
4. Tamper evident sealed tip, which breaks easily for use.
5. Firm must submit certificate of sterility.

IX. Specifications for Glass Slide

1. Made from selected optical flat sheet glass
2. Size 70 mm long x 20 mm wide thickness should be 1-1.5 mm

X. Specifications for micro tips

1. Should be made of good quality plastic, sterile.
2. Variable Volume =10 to 1000 microlitre
3. Should fix on the pipette properly and eject easily by ejector/manual from the pipette.

XI. Specification for Glass Tube Plain

1. The tubes should be of very good and smooth quality glass for both inside and outside so that cell pellet does not stick to the tube and the agglutination is clearly visible.
2. Size 12X100 mm with smooth rim, volume = 6-8ml, with good thermal resistance.
3. Should withstand centrifugal force at 4000 RPM centrifugation
4. Good quality permanent black marker should be provided by the supplier in the ratio of 1 marker for 500 tubes

XII. Specification for Alcohol Swab

1. The swab should be made of non woven cellulose. It should be lint free.
2. Each swab measuring not less than 25x25 mm
3. Should contain 450 mg (approx.) of a mixture of isopropyl alcohol I.P. and purified Water I.P. (70:30).
4. There should be no dry swabs.
5. Should have one fold and appropriate packing material to ensure its shelf life for as long as the sachet is not opened/damaged.
6. The packing must have proper indication/serrations for peeling so that the swab is not damaged.

XIII. Specification for Betadine Swab

1. The swab should be made of non woven cellulose. It must be lint free also.
2. Each swab measuring not less than 25 x 25 mm
3. Should contain 1% povidone Iodine.
4. There should be no dry swabs.
5. Should have one fold and appropriate packing material to ensure its shelf life for as long as the sachet is not opened/damaged.
6. The packing must have proper indication/serrations for peeling so that the swab is not damaged.

Item no. 3 (Tender ID: 2019_HLL_31185_3)

Molecular Immuno-Haematology Lab Equipment
(on Turnkey basis)

I. Standard clauses for all equipment for molecular IH lab

a) The vendor will have to do this on a turn-key basis w.r.t. any further requirement of civil, electrical, air-conditioning, plumbing, telecommunication and internet related works. Internal designing (Mural paintings, decorative plants, furniture and illumination) should be made to give a state-of-the-art look to the facility. The entire lab should be based on GCLP (Good Clinical Lab Practices) guidelines and the proposal (Lab layout to maintain unidirectional workflow) must be approved by the department before commencement of the project.
b) All equipment to be supplied, must be new and non-re-furbished.
c) All quoted equipment must be factory calibrated and software updation if any should be provided free of cost till 10 years from date of installation.
d) All the quoted systems should operate on 220 V, 50Hz.
e) The system should be US-FDA and/or European-CE.
f) Spare availability should be available till 10 years from date of installation.
g) Comprehensive training should be provided for operations, maintenance and chemistries. Supplier must provide training kits, reagents and consumables free of cost. Training for the staff must happen for at least 5 years.
   (i) Off-site training: The firm must provide such training for a period of 2 weeks (including travel, local logistics and accommodation etc.) for a total of 6 persons (2 persons/ year). Additionally, the Dept. reserves the right to increase or decrease the number of persons who will be sent for training.

   (ii) On-site training: The vendor should provide onsite training for user department/s for at least 4 weeks after successful installation of the equipment.

h) The supplier must agree to provide test kits, reagents and consumables used for invalid tests at no extra cost.
i) Supplier must quote the price of all required consumables for 10 years and reagents (if specified) for 10 years.
j) The vendor or supplier must provide the technical support to the lab for initial 5 years and afterwards as and when required for the entire life cycle.

II. Technical Specification for Items

1. Bead-based Array system for Blood group Genotyping: (1 No.)

1. An online bead-based array system should perform HEA, HPA, RHCE, RHD Variant typing by DNA analysis and all other test available for the platform.
2. It should be a 96-bead based plate reader and 8 well bead-based strip reader system.
3. The instrument should have automatic plate & strip (8-wells) reading procedure once initiated and capacity to analyze 96 wells per batch (Maximum).
4. Automatic calibration, hands free start up, shut down is required.
5. The accuracy or precision of the instrument should be good & the equipment should be provided with a hybridizer (Boekel Oven).

6. The acquisition and analysis software provided should be compatible for all applications like HEA Typing, HPA Typing, RHCE, RHD Typing and its variants etc.
7. Instrument should come with computer with latest version of operating and analyzing software and suitable laser color printer. Computer to be provided should have the compatible configuration with the AIS equipment.
8. The software should be capable of providing reports in a batch and individual reports of the sample in a fixed array-based reporting format.
9. Software should be cable of giving the phenotype as well as the genotype for HEA, HPA, RHCE, RHD Variants.
10. Calibration kit, all consumables and reagents should be quoted separately for 10 years.
11. In combination with compatible plastic wares all the suitable consumables should be supplied through the vendor.
12. Kits (HEA by DNA analysis Assay, HPA by DNA analysis Assay, RHCE & RHD Variants typing by DNA analysis Assay) should be quoted separately for 10000 tests/ 10 years.
13. Operative temperature range of 15-30°C is required.
14. The supplier must provide an UPS with 30 mins back-up time.
15. The supplier must provide 96 test kits free of cost each for HEA, HPA, RHCE and RHD typing.

2. Fully Automated Nucleic Acid Extraction System with compatible Automated Liquid Handler: (1 No)

1. The system should be based on magnetic particle separation and must be fast, fully automated sample preparation system in a compact benchtop instrument.
2. The system should be capable to do reliable and reproducible results for any biological samples like blood, body fluids, viral total nucleic acid (RNA and DNA) from serum, plasma, fresh or frozen, EDTA or citrate stabilized blood samples etc.
3. The system should realize cost effectiveness through automated dispensing of buffers into standard plastic devices instead of using expensive prefilled cartridges.
4. The system should be able to function standalone and should have the capability to avoid any cross contamination, to avoid sample loss, and better quality of nucleic acid.
5. The run time of the bench to system per batch should be within 60 mins.
6. The system should capable to do the sample volumes 10 µl – 10 ml and 1-16 samples or better in a batch.
7. Kit should be able to run various sample material in one run.
8. System should be provided with a compatible automated, bench-top liquid handling platform offering complete enclosure, pipetting volume (1-1000 µl), HEPA filter, UV light, heater, shaker etc. (Make: Hamilton, Beckman Coulter, Promega, PE or equivalent) for smooth integration and workflow automation.
9. In combination with compatible plastic wares all the suitable consumables, accessories should be supplied through the vendor for the entire system.
10. Instrument should be US-FDA and/or CE-IVD approved and ISO certificate for the service.

11. The system should have the bar code reading facility, USB port and LIMS compatible.
12. The vendor should support with maintenance, application training and regular update with new protocols.

3. Real Time PCR: (1 No)

1. Dye compatibility - FAM, SYBR Green, VIC, JOE, HEX, TET, TAMRA, ROX, Texas Red, Cy5, and Quasar 705
2. Applications: Gene expression, miRNA profiling, SNP genotyping, Copy number variation, Protein thermal shift, High resolution melt, Pathogen detection
3. Multiplexing channels five plus FRET
4. Dynamic range 10 logarithmic units
5. Sensitivity (resolution): Detect changes as little as 1.5-fold in target quantities in a single plex reaction and Sensitivity (No. of copies): 1 copy
6. Ramp rate 5°C/sec or more and Average ramp rate 3.3°C/sec
7. Temperature uniformity 0.4°C with Minimum six different temperatures maintained by 96-well block
8. Reaction volume 10 – 50 µl
9. Temperature range 4–99.9°C
10. Range of excitation/emission wavelength nm 450-730 (nm)
11. Heating/cooling method Peltier system
12. Factory calibrated and software updation if any should be free of cost till 10 years from date of installation.
13. Spare availability should be available till 10 years from date of installation.
14. Excitation/emission detection range 96-well: 450–680/500–730 nm
15. Data acquisition Whole-plate imaging
16. **Comprehensive training should be provided for operations, maintenance and chemistries.**
17. **Supplier must provide a starter kit free of cost.**
18. In combination with compatible plastic wares all the suitable consumables should be supplied through the vendor.
19. Instrument should be US-FDA and/or CE-IVD approved

4. PCR: (2 Nos)

1. 96 well 0.2 ml format
2. Gradient Feature minimum six different temperature should be programmable
3. Sample Volume 10-50 microlit (96 well block)
4. Accuracy: ± 0.25°C and Uniformity: ± 0.4°C well-to well
5. Gradient Temperature 1-24°C and Gradient Temperature Range 30-100°C
6. Ramp rate 5°C or more
7. Touch Screen
8. **Supplier must provide a starter kit free of cost.**
9. In combination with compatible plastic wares all the suitable consumables should be supplied through the vendor.
10. Instrument should be US-FDA and/or CE-IVD approved

5. Multiplexing System Specifications: (1 Nos.)

1. Multiplexing: Up to 100 biomarkers per sample volume
2. Sensitivity < 1000 fluorochromes per microsphere

3. Sample injection rates 60 µl/sec
4. Dynamic range ≥ 3.5 logs
5. Reporter Laser 532 nm
6. Classification laser 635 nm
7. Sheath flow rate 90 µl/sec
8. Reporter channel detection PMT, A/D resolutions 14 bits
9. Classification and double discriminator channel detection avalanche photodiodes with temperature compensation, A/D resolutions 12 bits
10. Read time 96 well plate in in ≤ 45 min
11. Daily start- up /shut down ≤ 30 min
12. Benchtop model with footprint requirement < 10 Sq. ft.
13. Power Supply: 200-240 V/ 50-60 Hz
14. In combination with compatible plastic wares all the suitable consumables should be supplied through the vendor.
15. **Supplier must provide a starter kit for 96 test samples (Consumables + Reagents) free of cost.**

6. UV-Visible spectrophotometer (1 No)

1. Benchtop spectrophotometer designed to accurately measure DNA, RNA, and protein quality and quantity.
2. **Processing time ≤ 10 seconds/sample**
3. **Absorbance Range:** 0 - 550 Abs and **Absorbance Accuracy:** 3% (at 0.97A, 302 nm)
4. **Certifications/Compliance:** UL/CSA and CE
5. **Detection Range: >** 2 ng/µL and <28,000 ng/µL (dsDNA), 0.03 - 400mg/mL (BSA)
6. **Detector Type:** 2048-element linear silicon CCD array with a Xenon flash lamp
7. **Sample Volume:** 0.5-2.0µL
8. **Spectral Resolution:** ≤1.8nm (FWHM at Hg 254 nm)
9. **Wavelength Range:** 190 - 850 nm
10. **Wavelength Accuracy:** ±1nm
11. Supplier must provide 1 starter kit for free of cost.
12. Supplier must provide training on-site of installation. The consumables must be provided free of cost during training.

7. Automated Cell Counter: (1 No)

1. A benchtop/ handheld assay platform
2. Principle: Impedance-based cell detection or Automated vision-based system
3. System should have optics capable of autofocus, and image analysis software.
4. Must allow cell counting, assessment of cell viability in less than 30 secs in manual or auto mode with or without staining.
5. Should enable use of disposable or reusable slides
6. Should be able to assess Cell Size of 4-60 µm at a concentration of $1x10^4$-$1x10^7$ cells/mL or better.
7. Should have user friendly Display Interface and software
8. Vendor must quote to provide Trypan Blue stain for the said purpose throughout the lifecycle of the equipment.
9. In combination with compatible plastic wares all the suitable consumables should be supplied through the vendor.

10. Supplier must provide 100 disposable slides for free of cost
11. Supplier must provide training on-site of installation. The consumables must be provided free of cost during training.
12. Electric requirement: 220-240 V/ 50-60 Hz

8. Gel-documentation System: (1 No)

1. The system should have different mode of operational options for fluorescence, protein gel, or nucleic acid gel.
2. The system should have UV and/ or white/ green light trans-illuminator
3. The system should have transilluminator that excites ethidium bromide and/or SYBR Green.
4. The system should have cooled CCD camera with options for.
    i. Auto/ manual focusing.
    ii. Zoom option
    iii. Automatic/ manual exposure.
    iv. Image file format: JPG or equivalent
5. The system should be supplied with all the accessories/ consumables/ reagents required for calibration/ maintenance of the instrument.
6. The system should have facility for USB and Network connectivity.
7. It must be supplied with required software and touch display/ Laptop/ AIO for image analysis.

9. Gel-Electrophoresis System

1. **Vertical Electrophoresis System: (1 No)**
    i. No of gel compatible 1 or 2
    ii. Gel Size (WxL) 8X7 or more
    iii. Total buffer volume for 2 gels is 500-800 ml
    iv. Typical run times for SDS-PAGE 30- 50 minutes
    v. Dimensions (W x L x H) 12x16x18 cm
    vi. System compatible with hand cast and precast gel
    vii. Vendor must provide all required system and casting accessories
2. **Horizontal Electrophoresis System: (1 No)**
    i. Gel tray sizes (OD) (W x L) 14 x 7 cm or more
    ii. Sample throughput 10–50
    iii. Bromophenol Blue migration rate 4.4 cm/hr. at (70 V)
    iv. System compatible with hand cast and precast gel
    v. Vendor must provide all required system and casting accessories
3. **Power Supply for Electrophoresis**

    Output voltage range 2-250V
        1. Output current Range 4-400 mA
        2. Watts 75-90 W or more
        3. Display LED
        4. Type of output Constant voltage or constant current

10. Water Purification System Centrifuge (1 No.)

1. Daily Product Water Usage: 40 L/Day
2. Feed water: Potable tap water (Pressure: < 6 bar)
3. Water Quality: Type 1 and Type 3
4. Ionic rejection by RO ≥ 96%

5. Organic rejection by RO ≥ 99% for MW ≥ 200
6. Product Water Particulate < 1 unit/mL
7. Particulate rejection by RO ≥ 99%
8. Product Water Microorganisms < 0.1 CFU/ml and Product Water Pyrogens < 0.001 EU/mL
9. Product Water RNase < 5 pg/mL and Product Water DNase < 5 pg/mL
10. Flow Rate > 2 L/h
11. Product Water Resistivity at 25 °C - Pure Water: Type 3 and Ultrapure Water: 18.2 MΩ•cm
12. Product Water TOC < 5 ppb
13. Voltage: 220–240 V / 50–60 Hz

11. Centrifuge (2 Nos.)

1. Wide variety of rotors support 0.2, 0.5, 1.5/ 2.0mL, PCR strip tubes, and 5-50mL tubes
2. Max RCF: 17,000 x or better
3. Max speed: 13000 rpm or better
4. Temperature range Set from –9°C to +40°C in 1°C increments
5. Electrical Requirements: 220-240V 50/60Hz
6. Certifications: CSA certified, CE marked UL listed and IVD Compliant

12. Mini-centrifuge (4 Nos.)

1. Non-refrigerated, Benchtop Centrifuge
2. Capacity: 6 x 2mL
3. Max. Speed/ RCF: 6,000 rpm/ 2,000 x g or better
4. Noise Level: < 60 dBA
5. Certifications/Compliance: CSA, CE, UL. Must be compliant to IEC 61010-1, IEC 61010-2-020
6. Must provide: 6 x 1.5/2.0mL tube rotor, 16 x 0.2mL tube rotor (singles or 2 x 8 strip), 6 tube adapters 0.2mL, 6 tube adapters 0.5mL, storage case for rotors and adapters, tube rack,
7. Electrical Requirements: 220-240V 50/60Hz

13. Orbital shaker (1 No.)

1. Orbital type of movement with Brushless motor
2. Speed range 0-1000 rpm
3. Timer yes (0-999 mins)
4. Operating mode timer and continuous operation
5. Allow Touch function
6. Allow working with microtiter plates

14. Vortex: (4 Nos.)

1. Orbital type of movement with provision of speed control
2. Speed min (adjustable) 1000 rpm
3. Speed range 0-2800 rpm or more
4. Must have Touch function

15. Hot plate stirrer: (2 No.)

1. Magnetic and/or brushless motor based stirrer

2. Temperature Range: Ambient to 100°C or better
3. Voltage: 220-240V/50-60 Hz
4. RPM: 1000 or more
5. Top Plate Material: Ceramic coated aluminum or SS and Body Material: Cast aluminum
6. Certifications/Compliance: CE
7. LED digital display: 0.1 Deg. C resolution
8. Feedback Control with PID

16. Ice Flaker system: (1 No.)

1. Fully automatic system; Benchtop or with Castor wheels for easy mobility
2. Ice Flake output: > 10 kg / day or more with Flake ice thickness: < 3 mm
3. Temperature: -5°C to -8°C
4. Construction: Corrosion resistant stainless Steel with PU foam Insulation
5. Refrigerant: CFC Free, R22A / R 404A
6. Cooling system: Forced air cooling
7. Collecting Bin Capacity: Not less than 20 KG
8. Noise level: < 70 dBA
9. Heat emission: < 3 kw
10. Safety features for Over loading and water shortage auto detection
11. Certification: US-FDA and/ or European-CE marked
12. Electrical Requirements: 220-240V 50/60Hz

17. Water bath: (2 No.)

1. General type, Min 5 lit capacity,
2. Microprocessor controlled and Digital Display
3. Temp range of operation: Ambient to 99.9 deg C
4. Temperature Stability: ± 0.1 °C
5. Auto-on and auto-off timers to allow operation schedules
6. Cabinet Material: Epoxy powder-coated steel and Chamber Material: Stainless steel
7. Certifications/Compliance: UL, CE

18. Multichannel Pipettes: 4 Quantity each along with suitable racks

1. Volume (Metric) Range 10 to 100µL; Number of Channels 8; Increments 0.2 µL
2. Volume (Metric) Range 30 to 300µL; Number of Channels 8; Increments 1 µL

19. Variable Volume Single-Channel Pipettes: **Each 4 Quantity along with suitable racks**

1. Volume (Metric) Range 0.2 to 2µL and Increments 0.002 µL
2. Volume (Metric) Range 0.5 to 5µL and Increments 0.01 µL
3. Volume (Metric) Range 2 to 20µL and Increments 0.02 µL
4. Volume (Metric) Range 10 to 100µL and Increments 0.2 µL
5. Volume (Metric) Range 20 to 200µL and Increments 0.2 µL
6. Volume (Metric) Range 100 to 1000µL and Increments 1 µL
7. Volume (Metric) Range 1 to 10 mL and Increments 0.02 mL
8. Volume (Metric) Range 5 to 50µL and Increments 0.02 µL
9. Volume (Metric) Range 0.5 to 10µL and Increments 0.02 µL
10. Stepper Pipettor 10 to 5,000µL

20. Consumables

Compatible/ suitable as per the quoted models of the equipment) [Need based staggered delivery: For 10,000 samples/ 10 years to be offered as detailed in Annexure- 2A & 2B below:

Annexure - 2A

REAGENT COST (for bid ranking & fixing of year wise rates)						
		A	**Reagent Pack Details**			
Sl. no.	List of Parameters	No. of tests (approximate load over 10 years being factored for bid ranking)	Reagent Pack - make/ brand	Pack Catalogue No.	No. of tests/ pack	Total No. of Reagent packs to be used for No. of tests in column"A"
1	SYBR Green super mix	10,000				
2	Ethidium bromide	10,000				
3	PCR mix	10,000				
4	RT PCR Plate seal	10,000				
5	8 tube strip (0.2 ml) thermal cycler tubes and tube caps both for PCR and RT PCR	10,000				
6	96-welled PCR plates	10,000				
7	96-welled PCR plate seals and applicator	10,000				
8	PCR Coolant trays, racks	10,000				
9	Cotton tipped applicators (lint free)	10,000				
10	Cryo-racks, Reagent tube racks	10,000				
11	Test tube racks and 4-way tube racks	10,000				
12	Digital Lab timers (5 Nos.)	10,000				
13	Wash bottles (20 Nos.)	10,000				
14	Bottle Dispensers (2-10 mL, 0.4-2.0 mL, 0.2-1.0 mL, 1-5 mL, 5-30 mL) (1 Each)	10,000				
15	Filtered tips (0.1-10 microlit)	10,000				
16	Filtered tips (2-100 microlit)	10,000				
17	Filtered tips (50-1000 microlit)	10,000				
18	Unfiltered tips (0.1-10 microlit)	10,000				
19	Unfiltered tips (2-100 microlit)	10,000				
20	Unfiltered tips (50-	10,000				

	1000 microlit)					
21	Ethanol absolute	10,000				
22	50 ml polypropylene conical tubes	10,000				
23	15 ml polypropylene conical tubes	10,000				
24	MCTs (0.5-2 ml)	10,000				
25	DEPC treated nuclease free water	10,000				
26	Nuclease free water	10,000				
27	DNA extraction kit from blood (compatible with Automated platform)	10,000				
28	Taq Polymerase	10,000				
29	Glassware (Beakers, flasks, measuring cylinders, Bottles) (Capacity: 100-1000 ml each) [Need based]	10,000				
30	Water bath floaters for MCTs	10,000				
31	Reagents and consumables for SDS_PAGE	10,000				
32	Reagents and consumables for Agar gel preparation	10,000				
33	Gel-electrophoresis consumables and reagents	10,000				
34	Bromophenol Blue	10,000				
35	Trypan Blue	10,000				
36	Kits for HEA by bead array-based DNA analysis Assay	10,000				
37	Kits for HPA by bead array-based DNA analysis Assay	10,000				
38	Kits for RHCE & RHD Variants typing by bead array-based DNA analysis Assay	10,000				
39	Multiplex RT-PCR based typing for HLA (A, B, C, DP, DQ, DR)	10,000				
40	Multiplex bead-based typing for HLA (A, B, C, DP, DQ, DR)	10,000				
41	RT PCR based assay for all available Blood group antigens (SSO/ SSP)	10,000				
42	RT PCR based assay for HIV-1 & 2	10,000				

43	RT PCR based assay for HCV	10,000				
44	RT PCR based assay for HBV	10,000				
45	DNA Ladder (10-15000 bp)	10,000				
46	Loading Buffer	10,000				
47	Agar Gel (Pre-cast): 0.8%-4%	10,000				

Annexure - 2 B

Consumable cost other than reagents (for bid ranking & fixing of year wise rates)					
Items/ Pack Details					
Sl. No.	Type of Consumable (Bidder may add additional rows)	Details of Tests /Analyzers/ Equipment, etc. the consumable is being used for	Make/ brand	Catalogue No.	Total No. of Consumable item/ packs to be used for cumulative no. of tests as detailed in column"A" of Annexure-2A
1	Calibrators				
2	Quality controls				
3	Additives				
4	Cleaners				
	Important Note: Any reagent, consumables & Essential consumables required for performing tests, calibration, quality control, cleaning the lab system, as per quantities detailed in column "A" of Annexure-2A if not quoted shall be provided free of cost by the bidder during the validity of the contract.				

Item no. 4 (Tender ID: 2019_HLL_31185_4)

Automatic Nucleic Acid Testing System

1. Donor NAT System must be an automated compact system.
2. Test Assay must be able to detect HIV 1 & 2, HBV and HCV in Donor Nucleic acid testing format in initial screening as well as repeat testing by using Polymerase Chain Reaction (PCR)/ Real Time Polymerase Chain Reaction (RT-PCR)/Transcription Medicated Amplification (TMA) based method.
3. Amplification process must not be inhibited by commonly used anticoagulants in blood bank.
4. The platform should be capable to test samples individually.
5. System must perform automated nucleic acid target capture or nucleic acid extraction, amplification, and detection all in a single tube to minimize sample handling and any chances of contamination.
6. Multiplex Assay to detect HIV 1 & 2, HBV and HCV in plasma by running Nucleic Acid Amplification Test.
7. Test procedure must be able to target & amplify two separate regions of HIV-1 genome.
8. Internal control is added to each specimen in the first step of the assay to ensure assay integrity is maintained throughout the process.
9. The system must have throughput of minimum 300 samples in 8 hours and can be upgradable with addition of test platform units with increase in workload.
10. Test kit must consist of ready-to-use reagents and chemicals necessary for the whole nucleic acid amplification testing procedure. Each kit contain positive and negative calibrators, internal control samples, primers, probes, enzymes, reagent buffers and all other reagents needed for the target capture, amplification and detection of HBV DNA, HCV RNA and HIV RNA.
11. Firm must supply the relevant calibration certificate for the equipment from NABL accredited Lab.
12. The system must offer at least 8 hour calibrator stability at ambient temperature.
13. The system must perform continuous processing of samples and continuous access of result with random access capability.
14. The system must have built-in process controls for sample and results integrity.
15. The system must have full sample traceability with positive sample identification through barcode and manual options.
16. Donor nucleic acid amplification testing procedure must be validated for highest available accuracy and precision of detection of HBV, HCV and HIV 1 & 2 Nucleic acid in donor plasma or serum either through European CE/IVD approved and/or US FDA approved and/or CDSCO, India approved nucleic acid amplification testing method licensed for blood donor screening.
17. Waste capacity of machine must be at least 100 tests.
18. The bidder is required to provide proven data on analytical sensitivity, specificity, reproducibility, repeatability and other relevant parameter of assay performance.
19. Quoted nucleic acid amplification testing machine must have proven installation base in India & must have installations in at least 3 blood banks in India. The service support must be available within Delhi/NCR.
20. The sensitivity of assay at 95% LOD must be at least:
    (i) HIV: 50 IU/ml or better
    (ii) HCV: 8 IU/ml or better

(iii) HBV: 5 IU/ml or better

21. The specificity of the tests must be 100%
22. The firm must quote the cost of consumables in the form of cost per test and the same shall be included as a part of the financial bid before deciding upon the lowest bidder.
23. Original literature of equipment must be submitted.
24. European CE and/or FDA certification specific for the product must be mandatory.
25. Invalid test results will not be charged by the firm and in such case the firm has to bear the cost of tests and the kits as well.
26. Firm will have to supply the suitable UPS (with voltage stabilizing capability and back up supply for at least 4 hour with full load).
27. Electrical: The equipment must be able to run on the existing electrical provision. Any additional electrical requirement for the equipment must be supplied by the firm.
28. **Turnkey works:**

    Any Civil, Electrical, HVAC, internet & telephone related modifications, (if required) for installation of any of the offered item would be the responsibility of the bidder.

    Turnkey works of Blood Bank have been executed to a large extent. The bidders are required to visit the site and conduct a detailed assessment with regard to any Civil, Electrical & HVAC changes required in Blood Bank area as per tender requirements. The bidder should quote for turnkey works only for the additional/differential works required in the blood bank area to meet the tender requirements.

    Any makes and models given in the tender are to be used by the bidder while executing turnkey works identified after site visit. However, no additional turnkey work should be quoted for, on account of a different make and model already used at the existing Blood Bank site.

Item no. 5 (Tender ID: 2019_HLL_31185_5)

Fully Automated Random Access Chemiluminescence

1. The Instrument should be floor/ bench top model with castor wheels with locking facility, Random Access Chemiluminescence based with facility of continuous loading of samples.
2. The instrument should have throughput of at least 40 tests/hr.
3. The sample carrier should be capable of taking different sizes of tubes for collection of blood and instrument should be capable of automatic sampling from different sizes of tubes.
4. The instrument should be capable of loading minimum of 50 samples at a time with customized on-site priority positions and continuous access for reagent and sample should be possible during run.
5. The system should have liquid stable ready to use reagents including control, calibrator.
6. The instrument should have the facility of performing following tests -
   (i) Fourth generation test for HIV 1 and 2 including P24 Ag/Ab (both essential)
   (ii) Anti HCV
   (iii) HBsAg
   (iv) Syphilis.
7. The instrument should have minimum contamination with carryover of as low as 0.1 ppm.
8. The instrument should have a facility of lot calibration, auto loading & unloading of reagents while instrument is in running mode.
9. The instrument should have bar code as well as bi-directional facility.
10. Firm should supply compatible UPS with minimum one hr backup along with the equipment free of cost. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
11. The bidder should also quote separately the running cost of the machine (without any exclusion) and the cost of kits/consumables/reagents for each quoted test for a period of 5 years.
12. The firm should also supply 500 tests for each TTI markers i.e. fourth generation HIV including P24 Ag/Ab, Anti HCV, HBsAg and Syphilis, free of cost along with the equipment.
13. Original literature of equipment and consumables should be submitted.
14. Equipment should be European CE or USFDA certified.
15. **Turnkey works :**
    Any Civil, Electrical, HVAC, internet & telephone related modifications, (if required) for installation of any of the offered item would be the responsibility of the bidder.

    Turnkey works of Blood Bank have been executed to a large extent. The bidders are required to visit the site and conduct a detailed assessment with regard to any Civil, Electrical & HVAC changes required in Blood Bank area as per tender requirements. The bidder should quote for turnkey works only for the additional/differential works required in the blood bank area to meet the tender requirements.

    Any makes and models given in the tender are to be used by the bidder while executing turnkey works identified after site visit. However, no additional turnkey

work should be quoted for, on account of a different make and model already used at the existing Blood Bank site.

Annexure - 2A

REAGENT COST (for bid ranking & fixing of year wise rates)						
		A	**Reagent Pack Details**			
	List of Parameters	No. of tests (approximate load over 10 years being factored for bid ranking)	Reagent Pack - make/ brand	Pack Catalogue No.	No. of tests/ pack	Total No. of Reagent packs to be used for No. of tests in column"A"
1	**Screening cost HIV**					
	HIV 1 & 2	4,00,000				
2	**Screening cost HBsAG**					
	HBsAG	4,00,000				
3	**Screening cost HCV**					
	HCV	4,00,000				
4	**Screening cost Syphillis**					
	Syphillis	4,00,000				
5	**Screening cost Malaria**					
	IC Cards for Rapid Testing	4,00,000				

Annexure - 2 B

Consumable cost other than reagents (for bid ranking & fixing of year wise rates)					
Items/ Pack Details					
Sl. No.	Type of Consumable (Bidder may add additional rows)	Details of Tests / Analyzers/ Equipment, etc. the consumable is being used for	Make/ brand	Catalogue No.	Total No. of Consumable item/ packs to be used for cumulative no. of tests from serial no. 1 to 10 as detailed in column"A" of Annexure-2A
1	Calibrators				
2	Quality controls				
3	Additives				
4	Cleaners				
	Important Note: Any reagent, consumables & Essential consumables required for performing tests, calibration, quality control, cleaning the lab system, as per quantities detailed in column "A" of Annexure-2A if not quoted shall be provided free of cost by the bidder during the validity of the contract.				

Item no. 6 (Tender ID: 2019_HLL_31185_6)

Fully Automated Random Access Immuno-Haematology (IH) Platform

1. It must be a complete automated walk away system. Must be capable of doing blood grouping, cross matching, antibody screening and/or platelet serology in a completely automated manner with latest model.
2. All necessary requirements for installation and proper functioning should be provided by company along with UPS.
3. The platform may be based on principles of SPRCA or EM technology or CAT.
4. All operations should be monitored by appropriate software. The software should be user friendly in operation, complete traceability of tests, samples, results and operators.
5. It should be easy to use and have safety and traceability of the reports.
6. The machine should be compact with inbuilt processor and reader.
7. Should have through-put of 80 or more samples per hour or should be able to do 80 or more Blood Groupings and hundred or more cross matching in one hour.
8. It must have provision for distinguishing serum from plasma before centrifugation
9. It must have provision for sample clot detection and low volume level notification (at least 0.5 ml of serum).
10. It must have facility for LIS integration of the instrument.
11. Firm will have to supply the UPS with 1 Hr back along with the equipment free of cost
12. Original literature of equipment should be submitted.
13. Equipment should have USFDA or European CE certification.
14. Manufacturer should be ISO 9001certified and should have ISO 13485 certification for quality standards. It shall meet IEC-60601-1-2 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

15. **Turnkey works:**

    Any Civil, Electrical, HVAC, internet & telephone related modifications, (if required) for installation of any of the offered item would be the responsibility of the bidder.

    Turnkey works of Blood Bank have been executed to a large extent. The bidders are required to visit the site and conduct a detailed assessment with regard to any Civil, Electrical & HVAC changes required in Blood Bank area as per tender requirements. The bidder should quote for turnkey works only for the additional/differential works required in the blood bank area to meet the tender requirements.

    Any makes and models given in the tender are to be used by the bidder while executing turnkey works identified after site visit. However, no additional turnkey work should be quoted for, on account of a different make and model already used at the existing Blood Bank site.

Annexure - 2A

REAGENT COST (for bid ranking & fixing of year wise rates)						
		A	**Reagent Pack Details**			
	List of Parameters	No. of tests (approximate load over 10 years being factored for bid ranking)	Reagent Pack - make/ brand	Pack Catalogue No.	No. of tests/ pack	Total No. of Reagent packs to be used for No. of tests in column"A"
1	**Blood Grouping**					
	Anti A	5,00,000				
	Anti B	5,00,000				
	Anti D (IgM)	5,00,000				
	Anti D (IgM+IgG)	5,00,000				
	Anti AB	5,00,000				
	Anti H	1,00,000				
	Anti A1 Lectin	1,00,000				
2	**Blood Crossmatching**					
	AHG	15,00,000				
	Gel Cards	15,00,000				
3	**Blood Antibody Screening**					
	Screen Cells (3 cells)	2,00,000				
	ID Panels (11 Cells)	2,00,000				
	ID Panels (6 Cells)	2,00,000				
	CAT (K)	1,00,000				
	CAT (k/Celino)	50,000				
	CAT (Le^a)	50,000				
	CAT (Le^b)	50,000				
	CAT (Duffy a)	50,000				
	CAT (Duffy b)	50,000				
	CAT (Kidd a)	50,000				
	CAT (Kidd b)	50,000				
	CAT (M)	50,000				
	CAT (N)	50,000				
	CAT (S)	50,000				
	CAT (s)	50,000				
	CAT (C^w)	50,000				
	CAT (P1)	50,000				
	CAT (U)	50,000				
	Antisera (K)	1,00,000				
	Antisera (k/Celino)	50,000				
	Antisera (Lea)	50,000				
	Antisera (Leb)	50,000				
	Antisera (Duffy a)	50,000				
	Antisera (Duffy b)	50,000				
	Antisera (Kidd a)	50,000				
	Antisera (Kidd b)	50,000				
	Antisera (M)	50,000				

	Antisera (N)	50,000				
	Antisera (S)	50,000				
	Antisera (s)	50,000				
	Antisera (CW)	50,000				
	Antisera (P1)	50,000				
	Antisera (U)	50,000				
	Anti-E	2,00,000				
	Anti-e	2,00,000				
	Anti-C	2,00,000				
	Anti-c	2,00,000				
	CAT (NaCl Type)	3,00,000				
	CAT (Extended DCT)	1,00,000				
	Enzymes Papain	1,00,000				
	LISS	15,00,000				
	Bromelin	5,00,000				
	Bovine serum albumin (22%)	50,000				
	Glycine	50,000				
	EDTA	50,000				
	Sulphuric acid	50,000				
	HCl	50,000				
	Sodium Dihydrogen phosphate	50,000				
	DiSodium hydrogen diphosphate	50,000				
	PEG	50,000				
	Xylene	50,000				
	Glacial acetic acid	50,000				
	Sodium chloride	50,000				
	Potassium chloride	50,000				
	Potassium dihydrogen phosphate	50,000				
	Buffer capsules (pH variants)	50,000				
	pH strips	50,000				
	Enzymes Ficin	50,000				
	DTT	50,000				
	Eosin	5,00,000				
	2-mercaptoethanol	50,000				
	Formaldehyde	50,000				
	Ammonia	50,000				
	Glycerol	50,000				
	Kit for cold autoantibody removal	50,000				
	Kit for warm autoantibody removal	50,000				

	Kit for Red Cell Cryo Preservation (IH)	5,000				

Annexure - 2 B

Consumable cost other than reagents (for bid ranking & fixing of year wise rates)					
Items/ Pack Details					
Sl. No.	Type of Consumable (Bidder may add additional rows)	Details of Tests / Analyzers/ Equipment, etc. the consumable is being used for	Make/ brand	Catalogue No.	Total No. of Consumable item/ packs to be used for cumulative no. of tests from serial no. 1 to 10 as detailed in column"A" of Annexure-2A
1	Calibrators				
2	Quality controls				
3	Additives				
4	Cleaners				
	Important Note: Any reagent, consumables & Essential consumables required for performing tests, calibration, quality control, cleaning the lab system, as per quantities detailed in column "A" of Annexure-2A if not quoted shall be provided free of cost by the bidder during the validity of the contract.				

Item no. 7 (Tender ID: 2019_HLL_31185_7)

Biological X-Ray based Blood Irradiator

1. All goods supplied in accordance with the Contract MUST be new and of good construction, sound materially, of adequate strength and free of defects in design materials and workmanship so as to be safe and without risk to health when properly used. If there are manufacturing defects known to the firm, then it MUST identify such defects and state their policy regarding the repair of known defects.
2. Radiation Source should be X-ray based with minimum 1-2 X-ray tubes.
3. The system MUST have X-ray tube output limits up to 160 kV, 26 mA and/or 3 kW.
4. The X-ray tubes should have life span of at least 5 years.
5. It should be able to provide uniform and controlled dose of irradiation to blood and blood products with a central dose of min. 25 Gy and Max. up to 50 Gy at the periphery during the full cycle.
6. Centre dose rate should be between 2.5-5 Gys per min
7. It should have self-contained / external cooling system with or without requirement of external water supply.
8. Canister volume should be able to accommodate a minimum of 3 to 6 blood bags each of 300 ml at a time.
9. The system MUST be self-contained with respect to the irradiation chamber and electronics, and MUST NOT exceed a physical foot print of 1.5 x 1.5 m, height 3 m and weight 1,200 kg.
10. The system may include a positioning function for beam and specimen alignment.
11. The system MUST have software in place requiring operators to login using a designated user ID and password for secured operations.
12. The system MUST have storage facility (on-board) for min. 40,000 components. The system MUST enable user to export the data onto an external storage device for archives.
13. The system should include integrated touch screen panel/controller.
14. The supplier MUST be able to provide software updates, if applicable. All software/hardware upgrades to the system, which become available during the life of the contract, MUST be provided free of charge.
15. The system MUST be accompanied by a calibrated dosimeter, for dose and dose rate measurements within the irradiation chamber. The firm will also have to supply the radiation tags along with any other quality control requirements. The rates for the same must be quoted in the tender.
16. Firm MUST submit copies of certificates of all relevant testing or compliance certificates (AERB and/or IAEA).
17. The firm MUST provide certificates of satisfaction from 3 institutions of repute (Indian/ International)for similar systems.
18. The system MUST be fully physics commissioned and dose calibrated within the irradiation chamber.
19. The equipment must be able to run on the existing electrical provision. Any additional electrical requirements must be specified by the firm. The installation of all electrical items MUST be in accordance with, but not limited to, the existing guidelines in India.
20. A stabilizer (if required) and UPS (with 30 min power back up) MUST be provided to temporarily power the unit in the event of a power cut.

21. The firm MUST state details of timeline for lead time to installation, commissioning and training.
22. The commissioning of the equipment MUST be successfully carried out by Supplier trained engineers.
23. The firm MUST have dedicated X-ray irradiator specialists at their disposal and fully qualified service personnel who can respond to service calls within the stated response times residing in Delhi/ NCR.
24. The firm MUST provide confirmation of the availability of service and replacement parts & kits for at least 5 years after commissioning.
25. Firms are asked to provide details of a training programme to include but not limited to the following:
    a. The firm MUST provide on-site training after commissioning, to include use of instrument, system familiarization, operation, dosimeter-based calibration, maintenance and troubleshooting.
    b. All operators' system manuals, Service and maintenance manuals and any other relevant documentation MUST be supplied in English language.
26. Equipment should be USFDA or European CE certified.

27. **Turnkey works:**

Any Civil, Electrical, HVAC, internet & telephone related modifications, (if required) for installation of any of the offered item would be the responsibility of the bidder.

Turnkey works of Blood Bank have been executed to a large extent. The bidders are required to visit the site and conduct a detailed assessment with regard to any Civil, Electrical & HVAC changes required in Blood Bank area as per tender requirements. The bidder should quote for turnkey works only for the additional/differential works required in the blood bank area to meet the tender requirements.

Any makes and models given in the tender are to be used by the bidder while executing turnkey works identified after site visit. However, no additional turnkey work should be quoted for, on account of a different make and model already used at the existing Blood Bank site.

Item no. 8 (Tender ID: 2019_HLL_31185_8)

Mobile Blood Donation Van

1. The bidder must submit detailed designs and plans in line with the specified requirements.
2. The net interior dimensions of MBDV body (blood collection area excluding the driver cabin) shall be min. 2000 mm. in width, 2000 mm. in height and min.9500 mm. in length.

3. BASE VEHICLE:

i. It should be of Central Motor Vehicle Rules (CMVR) approved 'M' Category bus chassis with Original Equipment Manufacturer (OEM) approved fabricated driver compartment.

ii. The design of the vehicle and the specified requirements shall permit accessibility for servicing / replacement and adjustment of components / parts and accessories, with minimum disturbance to other components and systems and optimum safety and comfort of occupants.

iii. The base vehicle with all accessories should be brand new (non-re-furbished) standard commercial products, tested and certified to meet the requirements. The bidder should enclose all necessary brochures, certifications and proofs in this regard along with the bid.

iv. The base vehicle should fully comply with all requirements of CMVR (as per the latest amended applicable on the date of submission of bid). A copy of the certificate to this effect should be enclosed with the technical bid.

v. The base vehicle should be able to accommodate the Mobile Blood Donation Van without violating any of the statutory requirements of the CMVR including the rear overhang and side extensions beyond the width of the vehicle as well as the safety requirements like rear view mirror positions with the complete width of the Mobile Blood Donation Van (MBDV) loaded onto the chassis.

vi. The vehicle should have >150 HP,4/6-cylinder diesel/ electric engine (Volvo Eicher/ Bharat Benz/ Tata/ Ashok Leyland/ Equivalent), 6 speed manual transmission, power assisted steering, Fuel tank of capacity > 300 litres, Leaf/ Air front suspensions, Rear Air suspensions, all CAM/ disc brakes and the driver cabin should be air conditioned with OEM fitted engine driven air conditioning system.The vehicle should comply with BS IV emission standards or above.

4. MBDV COMPARTMENT:

The following compartments are to be made in the MBDV:

a. Driver Compartment
b. Registration cum Storage compartment for phlebotomy related articles
c. Donation compartment
    (i) Donation Area (6 Couches)
    (ii) Sampling, Blood storage area
    (iii) Refreshment Area

(iv) Biomedical Waste Area

d. Underneath Dickey for Storage, Electrical equipment, Generators, UPS, etc.

5. Inter-frame Work

i. Inter-framework should be made of minimum 1.5 mm thick steel (Stainless or mild) and/or aluminium.
ii. The inter-frame work should be connected to the chassis frame in such a manner as to prevent any shifting and separation under extreme operating conditions.
iii. Inter-framework should be designed to support the MBDV body rigidly and withstand tensional loads under full dynamic conditions.

6. Body

i. The body should be made from sandwich construction bolted to inter-framework, which shall be connected to the chassis.

ii. The walls should be made up of joint less sandwich elements with
   a. Outer and Inner Skin: Minimum 1.5 mm thick, white dyed Glass fibrelaminate or Aluminium sheet.
   b. CFC free, high performance, rigid Polyurethane block foam, 30-50 mm thick.

iii. The walls and floor should be connected using one piece aluminium, powder coated and joined together with polyurethane adhesive and sealant to provide extreme torsion strength to the walls and floor.

7. Floor

i. The top layer of the floor should be water proof and top layer must be made from minimum 1.5 mm. thick Anti-skidPVC vinylmatting or equivalent.
ii. The rear wheel must be covered with 1 mm thick PPGI sheet for extra protection and durability.
iii. The floor should withstand a distributed load of minimum 150-250Kg/m^2.
iv. The floor should be completely free from any openings to access any parts of engine or chassis parts and to facilitate easy cleaning.

8. Roof

i. The construction of the roof should be the same as those of the body walls as specified above but must be with additional reinforcement for mounting air conditioning unit, ceiling lamps and other devices.
ii. All the cables and conduits in the ceiling should be completely concealed in its manufacturing and should not be visible either on the inside surface or on the outside surface of the ceiling.

9. Entrance Door

i. There should be 2 entrance doors (Front & Back) on the left side of the MBDV.
ii. The doors should be minimum single leaf door.
iii. The door should be designed as to afford easy release and prevent accidental opening.
iv. The door should permit loading and unloading of the stretcher.
v. It should have effective compression or overlapping seals to prevent leakage.
vi. It should be minimum 180 degree revolving outward opening and laterally supported by rust resistant high-grade stainless-steel hinges.

vii. The door hinges should be completely concealed in construction so that when the door is closed it is not possible to open the fastening hinges from any direction with any tool.

viii. The door should have flush pull latch lock to allow operation from inside.

ix. The door should be provided with a retractable handle to open it from outside. On releasing the handle, it should be flushed with the outer surface of the door.

10. Window

i. It should have 2 windows with sliding glasses, at the driver andco-driver positions.

ii. The donation compartment must have glass windows (fixed) made of toughened glass (without any sharp edges) on each side,with retractable rolling curatins.

11. Seats

i. The MBDV area will have automotive transport grade aesthetically pleasing and ergonomically designed seats for min.8 persons.

ii. The seats should be comfortable, with complete back support, and a retractable or foldable writing board attached to the side wall of the compartment.

iii. The backrest should have integrated/ detachable head rest. The seats should have retractable/ foldable armrest.

iv. Padding should be furnished with polyester urethane foam.

v. The upholstery should be of vinyl / polyurethanes / leatherette.

vi. The padding and upholstery should be fire retarded, non-absorbent, cleanable and impervious to disinfectants.

12. Interior Storage Compartments & Furniture

i. Storage compartments should be furnished to accommodate essential equipment / accessories / consumables as required in the van.

ii. All storage compartments shall be aesthetically and ergonomically well designed.

iii. To preclude injury in the event of an accident all cabinet shall be firmly anchored to the base structure of the MBDV.

iv. Storage compartments shall be further furnished to accommodate the equipment for optimum space utilisation.

v. Any vertical flap in the furniture console opening towards top/ bottom side shall be latched at its fully open position using adequate capacity roller / friction/ pneumatic supports at both ends to ensure proper load distribution of the flap.

vi. A vertical storage rack (Stainless steel) with 3-4 raacks must be placed securly at the back of the bus for storing cello boxes of 22-25 liters (Weight bearing capacity of approxmatley 50 Kgs.). Suitable fastening belts or a suitable system must be in place to keep the boxes securily while the vehicle is in transit.

13. AC System

i. The MBDV must be provided with a transport grade, engine-driven, split air conditioning system (Autoclima/ Eberspächer/ Subros/ Sidwals/ Equivalent) of minimum 6 KW with matching condenser capacity for the driver cabin and seating area.

ii. There should be a separate air conditioning system for the blood collection area. This system (Autoclima/ Eberspaecher/ Subros/Sidwals/ Equivalent) should be minimum 9 KW cooling capacity with matching compressor and roof mounted condenser. The cooling system should be operated with a stand-alone petrol generator provided with the MBDV.
iii. There should be provision of AC ducting at all the donor couchesand registration desk.
iv. All hoses shall be machine crimped to avoid the leakages.

14. Wiring

i. All wires shall be concealed (channels to be provided in the walls), color coded, with defined service points so that they can be readily inspected and renewed without affecting the finish of the vehicle.
ii. The wires shall be PVC insulated wires confirming to BIS specification and enough size to carry the required load without excessive voltage drop.
iii. Wires shall be of enough length to provide a loop at terminals so as to permit ample slack for directional positioning. The length shall allow replacement of end terminals twice, without pulling, stretching or replacing the wire.
iv. All terminals and connectors exposed to the ambient must be corrosion resistant.

15. Electrical Distribution Points& Lighting

i. There shall be adequate number of lighting elements with seamless construction and installed in a flushed manner in the roof of the van.
ii. All the lights should be operated on 12V DCand/or 220 V AC.
iii. There should be one 12V DC operated and minimum 6-inch wall mounted fans for each collection couch.
iv. The donation compartment should have minimum 3 numbers of power sockets at each donor station for various blood collection and general equipment in the MBDV.

16. Power Supply & Management Solution

i. The MBDV shall be supplied with a petrol generator of min. 7 KVA placed underneath on a trolley support to easily pull out and in, during fueling and with suitable muffling/ canopy system to reduce the noise.
ii. The generator will be used to run all electrical items of the vehicle including air conditions, room lighting, medical equipment with pure sine wave output.
iii. The system must also include an adequate UPS battery backup with inverter (min. 5 KVA) ensuring at least 30 minutes of power back up for all essential devices including the donor couch & blood storing refrigerator but excluding the air conditioning system in case of no generator power output.
iv. There must be an external charging socket for connecting the van to an ext. power grid.
v. The scope of supply must include a minimum 30 mtrs. long connecting cable with matching adapters at both ends.

17. Service Area

i. The service area (in dickey underneath) should accommodate the generator, control systems, battery and other general as well as special utility devices,

which are necessary for running the MBDV but can be segregated separately as service utilities.

18. Staircase

i. The side entrance door for the MBDV will have a foldable/ retractable stair case with non-slippery steps.
ii. The staircase should be easy to handle while opening and closing.
iii. The staircase must have locks to keep it in folded condition when not in use and fully protected from any accidental opening when the MBDV is in motion.

19. Security Surveillance, GPS and LED TV Display

i. The firm must provide 4 roof mounted surveillance CCTV cameras (Full HD 1020p) placed strategically in the Driver Area, Front and Rear part of Donation Area and Front and Rear part of vehicle on outside along with the required DVR and storage facility for recordings of up to 24 hrs.
ii. The firm must provide an on-board GPS navigation system.
iii. The firm must provide 3 LED displays (Full HD, 1020p, 32 Inch, Make: Sony/ LG /Samsung/ Panasonic) for entertainment of the donors, in the donation compartment and for public awareness outside the vehicle in such a way so as not to violate any statutory requirements.

20. Emergency equipment-Fire Extinguisher

i. The MBDV should have3 standard fire extinguishers (Driver, Registration and Donation areas) of 1-2 Kg capacity each.
ii. The fire extinguisher should be secured in an extinguisher manufacturer bracket of automotive type and located in full view and in an accessible place.
iii. They must bear a label of ISI / CE / UL / NFPA showing a rating of ABC.

21. Awning

i. There mustbe 2 sturdy and retractable awning with suitable lightweight white-coated aluminium structure one on the driver side and one on the co-driver side.
ii. The awning shall be motorised in operation based on 12V DC allowing one touch operation for opening and closing of the awnings.
iii. The awning must have manual override in case of any fault with motor operation.
iv. Fabric shall be Vinyl, UV resistant, waterproof and washable.
v. Dimensions:Breadth = 500 ± 100 cm. Expansion length = 200 ± 100 cm.

22. Miscellaneous:

Sr. No.	The firm must provide the following	The firm must provide dedicated storage spaces for the following
1	Sun visor for driver seat,	• Gloves • Latex-Free Tourniquet • Antiseptics • Disinfectants • Hand Sanitiser
2	Mud flaps,	
3	Wipers,	
4	First Aid Box,	
5	Public Address System,	
6	LED display panel on front and rear	

	side with Display message customisable as per requirement,	• Gauze Pads/Cotton Balls • Bandages • Needles • Vacutainers • Syringes • Anticoagulants • Hand Sanitiser Stand: Donation area (4 Nos.) and Registration area (1 No.). • Wall Mounted Digital Clock
7	Sticker and Branding work as per requirement of the end-user.	
8	Quotations for Registration and Insurance for the entire MBDV (On-road price)	
9	3 Dustbins slots (Steel or Aluminium), with colour coded ABS plastic closed lid containers (Red, Yellow, Black) which are firmly supported in the rear part of MBDV to hold at least 50 litre capacity BMW poly bags.	

23. Equipment Specifications

1. BLOOD DONOR COUCH (6 nos.) (Suggestive Make: Fresenius, Terumo Penpol)

a. Variable positioning for arm rests should have swinging out as well as up and down moving facility.
b. Reclining and upright body positions with a smooth shifting to any position.
c. Comfortable chair type with or without separate section for backrest.
d. Should be a single upholstery unit with soft padding for cushioning and rexine cover.
e. It should have step less electric remote-controlled backrest & leg rest adjustment.
f. Adjustable arm rest for donor's comfort and phlebotomist friendly
g. Easily tilted to head low position, electrically operated.
h. Weight bearing capacity - Approx. 150 kg.
i. Storage Drawers/trays and back side pouches for storing consumables & Blood Collection Monitors.
j. Should have provision to fix on mobile collection van on base with support clamps.

2. BLOOD COLLECTION MONITOR (6 nos.) (Suggestive Make: Fresenius, Terumo Penpol, Macopharma)

a. Volume Setting: Pre-selection of volume to be collected. Tarring of bag volume before collection. Tarring range: 0 to 600 gm. Easy provision to change preset volume.
b. Automatic storage and recall of set volume. Measure volume with best accuracy.
c. Indications and Alarms for Commencement & end of collection, time taken for collection, blood flow rate with audio alarm, Main power failure.
d. Should have continuous notification of completed collection including gentle mixing to avoid coagulation.
e. Automatic clamping at termination of preset volume collection.
f. Continuous agitation of blood bags during collection: 12±2 rpm.
g. Should operate on mains as well as rechargeable battery. On battery it should operate for a min. of 8 hours or minimum 60 continuous blood collections.

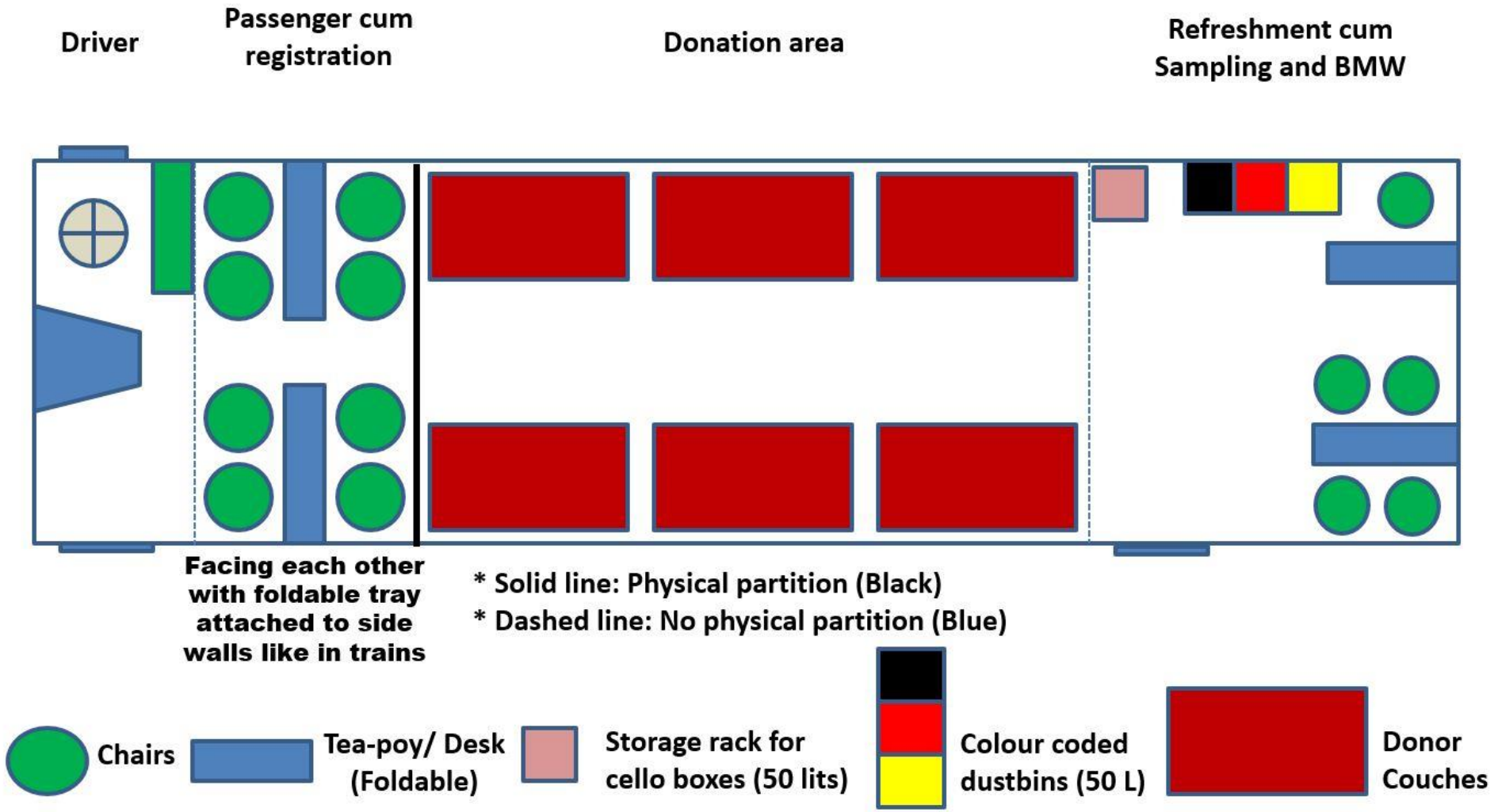
3. TUBE SEALER (1no.)(Suggestive Make: Fresenius, Terumo Penpol)

a. It should be radio frequency hermetic sealing with no requirement of warm-up time.
b. Sealing time: Less than 2 sec.
c. It should have sealing gun along with coaxial cable length at least 2 mtrs.

4. WEIGHING SCALE/ STADIOMETER (1no.)

a. Digital or Analog scale – 1 no. (Ranges: Weight: 40-150 Kgs.and Height: up to 6.5 ft)

Tentative Schematic Layout of the Mobile Blood Donation Van (not as per scale)



B. GENERAL POINTS:

1. Warranty:

a) The bidders must quote for Comprehensive Warranty as per Conditions of Contract of the bidding document for complete equipment (Including all spares, labour and third party items) and Turnkey Work (if required) from the date of satisfactory installation, commissioning, trial run, handing over and acceptance of the goods by the User Department.

b) The warranty charges shall not be quoted separately.

c) All software updates should be provided free of cost during Comprehensive Warranty period.

d) During the Warranty period, desired Uptime of 95% of 365/366 (Leap Year) days (24 hrs), if downtime more than 5%, the warranty period/CAMC period will be extended by double the downtime period. Complaints should be attended properly, maximum within 8 hrs.

2. After Sales Service:

After sales service centre should be available at the city of Institution 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 Bidder/Indian Agent. Undertaking by the Principals in the "Manufacturer Authorisation Form" that the spares for the equipment shall be available for at least 10 years from the date of supply of equipment.

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 User Department.

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

a) The cost of Comprehensive Annual Maintenance Contract (CAMC) which shall include preventive maintenance including testing & calibration as per technical/service/ operational manual of the manufacturer, labour and all spares, after satisfactory completion of Warranty period may be quoted for next five years on yearly basis for complete equipment including third party items as per Price Schedule.

b) The cost of CAMC may be quoted along with GST applicable on the date of Bid Opening.

c) Cost of CAMC will be added for Ranking/Evaluation purpose on NPB basis.

d) Before commencement of CAMC period, the suppliers shall furnish a Performance Bank Guarantee for 2.5% of the cost of the equipment (as per Performa given in bidding document) valid till 3 months extra after expiry of entire CAMC period. The Performance Bank Guarantee for CAMC will be applicable in case of equipment cost is more than Rs.10 lakh.

e) All software updates should be provided free of cost during CAMC. In case of failure by the supplier, the Bank Guarantee of CAMC will be forfeited.

f) The payment of CAMC will be made on half yearly basis after satisfactory completion of said period duly certified by end User.

g) During the CAMC period, desired Uptime of 95% of 365/366 (Leap Year) days (24 hrs), if downtime more than 5%, the warranty period/CAMC period will be extended by double the downtime period. Complaints should be attended properly, maximum within 8 hrs.

5. Uptime & Downtime Penalty Clause:

a) The firm should provide uptime guarantee of 95% during warranty period and CAMC period.

b) During the Warranty period and CAMC period, desired Uptime of 95% of 365/366 (Leap Year) days (24 hrs), if downtime more than 5%, the warranty period/CAMC period will be extended by double the downtime period Complaints should be attended properly, maximum within 8 hrs.

6. Turnkey Work:

Turnkey Work is to be indicated in the Technical Specification wherever required. The Bidder shall examine the existing site where the equipment is to be installed, in consultation with User Department. The Bidders are required to quote separately for the equipment and Turnkey Work as per Price Schedule. The Turnkey Work costs may be quoted in Indian Rupee and the same will be added for Ranking Purpose.

The Turnkey Work should completely comply with AERB requirement, wherever required.

SECTION - VIII

QUALIFICATION CRITERIA

A. APPLICABLE FOR ITEM AT SL. NO. 1 (i.e. Blood Bank Equipment – Package 1; Tender ID- 2019_HLL_31185_1).

1. **Status of Bidder:**

   The bidder should be a manufacturer or supplier for Blood Bank equipment with experience in supply, installation, etc. of Blood Bank equipment. Manufacturer Authorisation is not applicable for these package.

2. **Minimum Work of Similar Nature:**

   Eligible bidder(s) should have in the past 7 (Seven) years prior to closing of bid submission, successfully supplied and executed order(s)** to hospital(s) (with minimum 200 bed), like any Govt. hospitals/institutes of national importance or at any other reputed hospitals/institutes globally as detailed below.

   **The order(s) individually or in combination should include at least 10 (ten) similar line items of the package meeting major parameters of technical specifications.

   The copies of aforesaid order(s) along with its completion certificate(s), indicating that the specified order(s) have been successfully delivered and installed, are to be submitted with technical bid. In case the bidder is a 100% owned Indian Subsidiary of an International firm, the Global experience of the parent international firm shall also be considered.

3. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment after giving reasonable time to the bidder at a pre-determined place acceptable to the purchaser or at site (in case of non-portable and heavy equipment) for technical acceptability as per the bidding document specifications, before the opening of the Price Bid.

B. APPLICABLE FOR ITEM AT SL. NO. 2 (i.e. Blood Bank Equipment – Package 2; Tender ID- 2019_HLL_31185_2).

1. **Status of Bidder:**
   The bidder should be a manufacturer or supplier for Blood Bank equipment with experince in supply, installation, etc. of Blood Bank equipment. In case the manufacturer does not quote directly, they may authorise an Indian agent as per proforma of "Manufacturer Authorization Form" as given in the bidding document at **Section XIII-B** to quote and enter into a contractual obligation. The manufacturer Authorization for agent is applicable only for items mentioned at Para 2 below.

2. **Minimum Work of Similar Nature:**

   Eligible bidder(s) should have in the past 7 (Seven) years prior to closing of bid submission, successfully supplied and executed order(s)** to hospital(s) (with minimum 200 bed), like any Govt. hospitals/institutes of national importance or at any other reputed hospitals/institutes globally as detailed below.

   **The order(s) individually or in combination should include the following:
   a. Apheresis machine- at least 2 (two) nos.
   b. Blood donor couch- at least 4 (four) nos.
   c. Blood Bank Refrigerator- at least 1 (one) no.

   The copies of aforesaid order(s) along with its completion certificate(s), indicating that the specified order(s) have been successfully delivered and installed, are to be submitted with technical bid. In case the bidder is a 100% owned Indian Subsidiary of an International firm, the Global experience of the parent international firm shall also be considered.

3. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment after giving reasonable time to the bidder at a pre-determined place acceptable to the purchaser or at site (in case of non-portable and heavy equipment) for technical acceptability as per the bidding document specifications, before the opening of the Price Bid.

C. APPLICABLE FOR ITEM AT SL. NO. 3 (i.e. Molecular Immuno-Haematology Lab Equipment; Tender ID- 2019_HLL_31185_3).

1. **Status of Bidder:**
   The bidder should be a manufacturer or supplier for Blood Bank equipment with experince in supply, installation, etc. of Blood Bank equipment. In case the manufacturer does not quote directly, they may authorise an Indian agent as per proforma of "Manufacturer Authorization Form" as given in the bidding document at **Section XIII-B** to quote and enter into a contractual obligation. The manufacturer Authorization for agent is applicable only for items mentioned at Para 2 below.

2. **Minimum Work of Similar Nature:**

   Eligible bidder(s) should have in the past 7 (Seven) years prior to closing of bid submission, successfully supplied and executed order(s)** to hospital(s) (with minimum 200 bed), like any Govt. hospitals/institutes of national importance or at any other reputed hospitals/institutes globally as detailed below.

   **The order(s) individually or in combination should include the following:
   a. Fully Automated Nucleic Acid Extraction System - at least 1 (one) no.
   b. Real Time PCR - at least 1 (one) no.
   c. PCR - at least 1 (one) no.

   The copies of aforesaid order(s) along with its completion certificate(s), indicating that the specified order(s) have been successfully delivered and installed, are to be submitted with technical bid. In case the bidder is a 100% owned Indian Subsidiary of an International firm, the Global experience of the parent international firm shall also be considered.

3. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment after giving reasonable time to the bidder at a pre-determined place acceptable to the purchaser or at site (in case of non-portable and heavy equipment) for technical acceptability as per the bidding document specifications, before the opening of the Price Bid.

D. APPLICABLE FOR ITEM AT SL. NO. 4 to 8, i.e. for following items:

Sl. no.	Tender ID	Short Description of goods
4	2019_HLL_31185_4	Automatic Nucleic Acid Testing System
5	2019_HLL_31185_5	Fully Automated Random Access Chemiluminescence
6	2019_HLL_31185_6	Fully Automated Random Access Immuno-Haematology (IH) Platform
7	2019_HLL_31185_7	Biological X-Ray based Blood Irradiator
8	2019_HLL_31185_8	Mobile Blood Donation Van

1. The bidders must be a manufacturer. In case the foreign manufacturer does not quote directly, they may authorise an Indian agent as per proforma of "Manufacturer Authorization Form" as given in the bidding document at **Section XIII-A** to quote and enter into a contractual obligation.

2. The Bidder should have supplied and installed at least 1 (one) unit in the past 7 (Seven) years prior to closing of bid submission, similar equipment meeting major parameters of technical specification which is functioning satisfactorily.

3. In support of 2, the Bidder shall furnish Performance statement in the enclosed Proforma 'A'. The Bidder shall furnish Satisfactory Performance Certificate in respect of above, duly translated in English and duly signed alongwith the bid.

4. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment after giving reasonable time to the bidder at a pre-determined place acceptable to the purchaser or at site (in case of non-portable and heavy equipment) for technical acceptability as per the bidding document specifications, before the opening of the Price Bid.

PROFORMA 'A'

PROFORMA FOR PERFORMANCE STATEMENT
(For the period of last five/seven years, as applicable)

TE No. : _____

Date of Bid Opening : _____

Name and address of the Bidder : _____

Name and address of the Manufacturer : _____

Order placed by (full address)	Order no. and date ##	Description (Model no.) and quantity	Value of order (Rs.)	Consignee	Date of Delivery Period			Have the goods been functioning satisfactorily (attach documentary proof)**
					Contract	Actual	Reasons for Delay if Any	
1	2	3	4	5	6	7	8	9

We hereby certify that the details of all orders received in last 5 or 7 years, as applicable, of quoted equipment (including AIIMS, PGIMER, JIPMER, RML Hospital, Safdarjung Hospital, Institute of National importance) has been furnished. We hereby further 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 Bid Security.

Name_____

Business Address_____

Signature of Bidder_____

Place: _____ Seal of the Bidder_____

** The documentary proof will be a latest certificate from the consignee/end user with cross-reference of order no. and date

The bidders are requested to submit the purchase order copies for the specific model quoted along with the Techno-commercial Bid.

SECTION – IX

BID FORM

To
CEO
HLL Infra Tech Services Limited
B-14A, Sector-62
Noida – 201 307

Ref. Your TE No. _____due for opening on _____

We, the undersigned have examined the above mentioned bidding document, including amendment/corrigendum (*if any*), the receipt of which is hereby confirmed. We now offer to supply and deliver _____ in conformity with your above referred document for the sum as shown in the Price Schedules attached herewith and made part of this bid. If our bid is accepted, we undertake to supply the goods and perform the services as mentioned in the bidding documents, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our bid is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of "General Conditions Contract", Section - IV read with modification, if any "Special Conditions of Contract", in Section - V, for due performance of the contract.

We agree to keep our bid valid for acceptance as required in the "General Instruction to Bidders", read with modification, if any in "Special Instructions to Bidders", Section – III or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this bid up to the aforesaid period and this bid may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this bid 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 bid you may receive against your above-referred advertised tender enquiry.

We confirm that we do not stand deregistered/banned/blacklisted by any Central Govt. Ministries/Departments/Hospitals/Institutes.

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

"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 bid security."

Name_____

Business Address_____

Place: _____ Signature of Bidder_____

Date: _____ Seal of the Bidder_____

SECTION - X

PRICE SCHEDULE

Price to be filled in the relevant field strictly as per the Price Bid Format provided in the e-tender portal 'https://eprocure.gov.in/eprocure/app' under the Tender ID as per terms of the tender enquiry.

SECTION – XI

CHECK LIST

The bidders should furnish specific answers to all the questions/issues mentioned in the Checklist detailed below:

Name of Bidder: _____

Name of Manufacturer: _____

Sl. No.	Activity	Yes/ No/ NA	Page No. of the Bids submitted	Remarks
1. a.	Have you enclosed Bid Security of required amount for the quoted schedules?			
b.	In case Bid Security is furnished in the form of Bank Guarantee, has it been furnished as per standard format of the bidding document?			
c.	In case Bank Guarantee is furnished, have you kept its validity 45 days beyond the validity of Techno Commercial Bid?			
2.a.	Are you exempted for furnishing bid security being MSE as defined in MSE procurement policy issued by department of MSME.			
b.	If yes, have you enclosed certificate of registration issued by department of MSME.			
c.	Does such certificate clearly mention the quoted item?			
3. a.	Have you enclosed duly filled bid form as per bidding document?			
b.	Have you enclosed Power of Attorney in favour of the signatory?			
4. a.	Have you enclosed clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications?			
b.	In case of Technical deviations in the compliance statement, have you identified and marked the deviations?			
5. a.	Have you submitted satisfactory performance certificate as per the Proforma for performance statement given in the bidding document?			
b.	Have you submitted the documentary proof that goods have been functioning Satisfactorily?			
c.	Have you submitted latest purchase order copies?			

Sl. No.	Activity	Yes/ No/ NA	Page No. of the Bids submitted	Remarks
6.	Have you submitted Manufacturer's Authorization Certificate as per bidding document?			
7.a.	Have you quoted prices of goods, turnkey (if any), CAMC etc. in the Price Schedule as per bidding document?			
b.	If the ATE calls for buy back, have you quoted buy back prices along with applicable GST?			
8.	Have you kept validity of 270 days from the Techno Commercial Bid Opening date as per the bidding document?			
9. a.	In case of Indian Bidder, have you furnished GST No.?			
b.	In case of Foreign Bidder, have you furnished GST No. of your Indian Agent?			
10.	Have you intimated the name and full address of your Banker (s) along with your Account Number, IFSC Code etc.?			
11.	Have you furnished documents establishing your eligibility & qualification criteria as per bidding documents?			
12	Have you accepted all the terms and conditions of this bidding document?			
13	Have you submitted the duly signed copy of **Integrity pact** (at Appendix-A) on non-judicial stamp paper?			

N.B.

1. All pages of the Bid should be page numbered and indexed.
2. The Bidder may go through the checklist and ensure that all the documents/ confirmations listed above are enclosed in the bid and no column is left blank. If any column is not applicable, it may be filled up as NA.
2. It is the responsibility of bidder to go through the bidding document to ensure furnishing all required documents in addition to above, if any.
3. Wherever necessary and applicable, the bidders shall enclose certified copy as documentary proof/ evidence to substantiate the corresponding statement.
4. In case a bidders furnishes a wrong or evasive answer against any of the question/issues mentioned in the Checklist, its bids will be liable to be ignored.

Name_____

Business Address_____

Place: _____ Signature of Bidder_____

Date: _____ Seal of the Bidder_____

SECTION – XII

BANK GUARANTEE FORM FOR BID SECURITY

Whereas _____ (Name and address of the Bidder)
(*Hereinafter called the "Bidders"*)
Has submitted its Bid dated _____ for the supply of _____
(Hereinafter called the "Bid")
Against the purchaser's ATE No. _____

Know all persons by these presents that we _____ having our registered office at _____
(Hereinafter called the "Bank")
Are bound unto HLL Infra Tech Services Ltd., Noida (for and on behalf of AIIMS)
(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 Bidder withdraws or amends, impairs or derogates from the bid in any respect within the period of validity of this Bid.
2) If the Bidder having been notified of the acceptance of his Bid by the Purchaser during the period of its validity:-

    a. if the bidder fails or refuses to furnish the performance security for the due performance of the contract or
    b. if the bidder fails or refuses to accept/execute the contract or
    c. if it comes to notice at any time, that the information/documents furnished in its Bid are false or incorrect or 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 more the three conditions, specifying the occurred condition(s).

This guarantee will remain in force upto _____ *(insert date of additional forty-five days after Bid validity)* and any demand in respect thereof should reach the Bank not later than the above date.

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

SECTION XIII-A

MANUFACTURER'S AUTHORISATION FORM

The CEO
HLL Infra Tech Services Limited
B-14A Sector-62
Noida, Uttar Pradesh-201307

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 bid*) having factories at_____, hereby authorise Messrs_____(*name and address of the agent*) to submit a bid, 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 bid 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 bid, 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, CAMC 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 authorized agent and the spares for the equipment shall be available for at least 10 years from the date of supply of equipment.

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 and designation*]
for and on behalf of Messrs_____
[*Name & address of the manufacturers*]

Note:

1. *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.*
2. *Original letter may be sent.*

SECTION XIII-B

MANUFACTURER'S AUTHORISATION FORM

The CEO
HLL Infra Tech Services Limited
B-14A Sector-62
Noida, Uttar Pradesh-201307

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 bid*) having factories at_____, hereby authorise Messrs_____(*name and address of the agent*) to submit a bid, 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 bid for the following reason(s):
_____*(please provide reason here).*

We also hereby extend our full warranty, CAMC 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 authorized agent and the spares for the equipment shall be available for at least 10 years from the date of supply of equipment.

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 and designation*]
for and on behalf of Messrs_____
[*Name & address of the manufacturers*]

Note:

1. *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.*
2. *Original letter may be sent.*

SECTION – XIV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/CAMC SECURITY

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier")

has undertaken, in pursuance of Purchase Order/ Contract no_____ dated _____ to supply _____ (*insert description of goods and services*) (Hereinafter 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 recognized 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 _____ (insert *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 will remain in force upto _____*(insert date of additional Ninety days after completion of satisfactorily warranty period in case of Performance Security and additional Ninety days after completion of satisfactorily CAMC period in case of CAMC security)* 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 – XV

CONTRACT FORM - A

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

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
(Insert Name of concerned Centre/ Hospital/ Department/ Section)
ANSARI NAGAR, NEW DELHI-110 029

Contract No_____ dated_____

To _____
(*insert name of Supplier with address*)

This is in continuation to this office's Notification of Award No_____ dated _____

1. Name & address of the Supplier: _____
2. ATE No of Bidding Documents: _____and subsequent Amendment No_____, dated_____ (if any), issued by the Purchaser
3. Supplier's Bid No_____ dated_____ and subsequent communication(s) No_____ dated _____ (if any), exchanged between the supplier and the purchaser in connection with this Bidding Document.
4. In addition to this Contract Form, the following documents etc, which are included in the Bidding 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) Bid Form furnished by the supplier;
   (vii) Price Schedule(s) furnished by the supplier in its Bid;
   (viii) Manufacturers' Authorisation Form (if applicable);
   (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 Bidders" of the Bidding 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 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 required:_____

(v) Destination and despatch instructions:_____

(vi) Consignee: _____

6. Warranty clause:

7. Payment terms:

_____
(Signature, name and designation of the Purchaser authorised official**)**
For and on behalf of Director, AIIMS

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 _____
(*Insert Name and address of the supplier*)

(Seal of the Supplier)
Date: _____
Place: _____

CONTRACT FORM – B

CONTRACT FORM FOR COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (CAMC)

Comprehensive Annual Maintenance Contract No._____
Dated_____

Between

Director, AIIMS

And

(*insert Name & Address of the Supplier*)

Reference: Contract/ Purchase Order No_____ dated_____ for supply, installation& commissioning, Training and CAMC of goods& services.

In continuation to the above referred Contract/Purchase Order, the Contract of Comprehensive Annual Maintenance Contract is hereby concluded as under: -

1	2	3	4					5	6
Items Sr. No./ RFx no.	Brief description of goods	Quantity (Nos.)	CAMC Cost for Each Unit year wise in Rs					GST Value in Rs (___ %)	Total CAMC Cost for 5 Years with GST (3) X[(4a+4b+4c+4d+4e) + (5)]
			1st	2nd	3rd	4th	5th		
			a	b	c	d	e		

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

b) The CAMC 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 CAMC)

c) The cost of Comprehensive Annual Maintenance Contract (CAMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period as contained in the above referred contract on yearly basis for complete equipment as per contract including Turnkey Work(if any).

d) There will be 95% uptime warranty during CAMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CAMC period by double the downtime period and other penalty as per contract.

e) During CAMC 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 3 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.

f) All software updates should be provided free of cost during CAMC period.

g) The Bank Guarantee valid till _____ [(fill the date) 3 months after expiry of entire CAMC 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 XIV of the Bidding Document, along with the signed copy of CAMC within a period of 21 (twenty one) days of start of CAMC failing which the Performance Security (10% of the contract value) submitted shall be en-cashed payable to the Purchaser/Consignee.

h) If there is any lapse in the performance of the CAMC as per contract, the proceeds Annual CAMC Bank Guarantee shall be forfeited and their bad performance will be considered while awarding future contracts.

i) Payment terms: The payment of CAMC will be made against the bills raised by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the concerned User Department. The payment will be made in Indian Rupees.

_____
(Signature, name and designation of the Store Officer/ASO of the Purchaser**)**

_____
(Signature, name and designation of the F&CAO of the Purchaser)
For and on behalf of Director, AIIMS

(Seal of the Purchaser)
Date: _____
Place: _____

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 _____
(*Insert Name and address of the supplier*)

(Seal of the Supplier)
Date: _____
Place: _____

Note:- The contract will be prepared on Non-judicial Stamp paper(currently of value of Rs. 100).

SECTION – XVI

CONSIGNEE RECEIPT CERTIFICATE

(To be given by consignee's authorized representative)

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

1) Contract/Purchase Order No. & date: _____

2) Supplier's Name: _____

3) Consignee's Name & Address: _____

4) Name of the item supplied: _____

5) Quantity Supplied: _____

6) Date of Receipt by the Consignee: _____

7) Signature of Authorized Representative of Consignee with date:_____

8) Name and designation of Authorized Representative of Consignee:_____

9) Seal of the Consignee:_____

SECTION – XVII

CONSIGNEE ACCEPTANCE CERTIFICATE

(To be given by consignee's authorized representative)

This is to certify that the goods as detailed below have been received in good conditions along with all the standard and special accessories in accordance with the contract. The same has been installed and accepted.

1) Contract/Purchase Order No. & date:_____

2) Supplier's Name:_____

3) Consignee's Name & Address: _____

4) Name of the item Supplied :_____

5) Quantity Supplied :_____

6) Date of Receipt by the Consignee :_____

7) Date of Installation/Commissioning and Acceptance of Equipment: _____

8) The supplier has fulfilled its contractual obligations satisfactorily

OR

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

i)
ii)
iii)
iv)

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

10) Signature of Authorized Representative of Consignee with date:_____

11) Name and designation of Authorized Representative of Consignee:_____

12) Seal of the Consignee:_____

APPENDIX-A

INTEGRITY PACT

PRE-CONTRACT INTEGRITY PACT

This Pre-Contract Integrity Pact (herein after called the Integrity Pact) is made on _____ day of the month of _____ Year _____

Between

HLL Infra Tech Services Ltd. [HITES], a wholly owned subsidiary company of M/s. HLL Lifecare Ltd. a Government of India Enterprise with registered office at HLL Bhavan, Poojappura, Thiruvananthapuram 695 012, Kerala, India. (Hereinafter called "HITES", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Party.

And

M/s._____, with office at _____ represented by Shri _____ , _____(*Designation*) (hereinafter called the "BIDDER/Seller"/Contractor which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Party.

Preamble

[Both HITES and BIDDER referred above are jointly referred to as the Parties]

HITES intends to award, under laid down organizational procedures, Purchase orders / contract/s against Tender /Work Order /Purchase Order No.
HITES desires full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

1. Enable HITES to obtain the desired materials/ stores/equipment/ work/ project done at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement; and

2. Enable the BIDDER to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and HITES will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Clause.1. Commitments of HITES

1.1 HITES undertakes that HITES and/or its Associates (i.e. employees, agents, consultants, advisors, etc.) will not demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

1.2 HITES will, during the tender process / pre-contract stage, treat all BIDDERs with equity and reason, and will provide to all BIDDERs the same information and will not provide any such information or additional information, which is confidential in any manner, to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERs in relation to tendering process or during the contract execution.

1.3 All the officials of HITES regarding this Integrity Pact will report to IEM, any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach shall not be permitted.

1.4 HITES will exclude from the process all known prejudiced persons and persons who would be known to have a connection or nexus with the prospective bidder.

1.5 If the BIDDER reports to HITES with full and verifiable facts any misconduct on the part of HITES's Associates (i.e. employees, agents, consultants, advisors, etc.) and the same is prima facie found to be correct by HITES, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by HITES. Further, such an Associate may be debarred from further dealings related to the contract process. In such a case, while an enquiry is being conducted by HITES the proceedings under the contract would not be stalled.

Clause 2. Commitments of BIDDERs/ CONTRACTORs

2.0 The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

2.1 The BIDDER will not offer, directly or indirectly (i.e. employees, agents, consultants, advisors, etc.) any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of HITES, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

2.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of HITES or otherwise in procuring the contract or forbearing to do or having done any act in relation to obtaining or execution of the contract or any other contract with HITES for showing or forbearing to show

favour or disfavor to any person in relation to the contract or any other contract with HITES.

2.3 The BIDDER will not engage in collusion, price fixing, cartelization, etc. with other counterparty(s).

2.4 The Bidder(s) will not pass to any third party any confidential information entrusted to it, unless duly authorized by HITES.

2.5 The Bidder(s) will promote and observe ethical practices within its Organization and its affiliates.

2.6 BIDDER shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.

2.7 The Bidder(s) will not make any false or misleading allegations against HITES or its Associates.

2.8 BIDDER(s) shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.

2.9 The BIDDER further confirms and declares to HITES that the BIDDER is the original manufacture or its authorised agent/integrator and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to HITES or any of its functionaries, whether officially or unofficially to award the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

2.10 The BIDDER while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of HITES or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

2.11 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

2.12 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

2.13 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of HITES, or alternatively, if any relative of an officer of HITES has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender.

The term 'relative' for this purpose would be as defined in Section 2(77) of the Companies Act 2013

2.14 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of HITES.

2.15 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract, and will not enter into any undisclosed agreement or understanding with other Bidders, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.16 The BIDDER will not commit any offence under the relevant Indian Penal Code, 1860 or Prevention of Corruption Act, 1988; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the HITES as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

2.17 The BIDDER will not instigate third persons to commit offences outlined above or be an accessory to such offences.

2.18 The Bidder(s)/Contractors(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)/ Contractors(s) of Indian Nationality shall furnish the name and address of the foreign Principal(s), if any.

2.19 The Bidder(s) shall not approach the courts while representing the matters to IEM and the Bidder(s) will await their decision in the matter.

Clause.3. Previous contravention and Disqualification from tender process and exclusion from future contracts

3.1 The BIDDER declares that no previous contravention occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process

3.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

If BIDDER before award or during execution has committed a contravention through a violation of Clause 2, above or in any other form such as to put his reliability or credibility in question, t HITES is entitled to disqualify the BIDDER from the tender process.

Clause.4. Equal treatment of all Bidders/Contractors / Subcontractors

4.1 The Bidder(s)/Contractor(s) undertake(s) to demand from his Subcontractors a commitment in conformity with this Integrity Pact.

4.2 HITES will enter into agreements with identical conditions as this one with all Bidders and Contractors.

4.3 HITES will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Clause.5. Consequences of Violation / Breach

5.1 Any breach of the aforesaid provision by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle HITES to take all or any one of the following action, wherever required:-

i. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

ii. If BIDDER commits violation of Integrity Pact Policy during bidding process, he shall be liable to compensate HITES by way of liquidated damages amounting to a sum equivalent to 5% to the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.

iii. In case of violation of the Integrity Pact after award of the contract, HITES will be entitled to terminate the contract. HITES shall also be entitled to recover from the contractor liquidated damages equivalent to 10% of the contract value or the amount equivalent to security deposit/ performance guarantee, whichever is higher.

iv. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

v. To recover all sums already paid by HITES, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from HITES in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid amount.

vi. To encash the advance bank guarantee and performance guarantee /warranty bond, if furnished by the BIDDER, in order to recover the payments already made by HITES, along with interest.

vii. To cancel all or any other contract with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to HITES resulting from such cancellation/recession and HITES shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

viii. To debar the BIDDER from participating in future bidding processes of HITES for a minimum period of five (5) years, which may be further extended at the discretion of HITES or until Independent External Monitors is satisfied that the Bidder (s) will not commit any future violation.

ix. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

x. In cases where irrevocable Letters of credit have been received in respect of any contract signed by HITES with the BIDDER, the same shall not be opened.

xi. Forfeiture of performance guarantee in case of a decision by HITES to forfeit the same without assigning any reason for imposing sanction for violation of the pact.

5.2 HITES will be entitled to all or any of the actions mentioned in para 5.1(i) to (x) of this pact also on the commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

5.3 The decision of HITES to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent External Monitor(s) appointed for the purposes of this Pact.

Clause.6. Fall Clause

The BIDDER undertakes that it has not supplied/is not supplying similar product /systems or subsystems OR providing similar services at a price/charge lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found any stage that similar product/systems or sub systems was supplied by the BIDDER to any to the Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to HITES, if the contract has already been concluded.

Clause .7. Independent External Monitor(s)

7.1 HITES has appointed Sh. A.K. Arora, EX-DG, Indian Defense Service of Engineers as Independent External Monitor(s) (hereinafter referred to as IEM(s)) for this Pact in consultation with the Central Vigilance Commission. Contact details of IEM is as below:

Sh. A.K. Arora
Independent External Monitor (IEM)

Office: HLL Infra Tech Services Ltd
B-14-A, sector 62, Noida 201307, U.P
Tel: 0120 4071500

Residence: B-333, Chittaranjan Park
New Delhi – 110019
Tel: 011 26273406

Mobile: +91 8130588577
Email: iem@hllhites.com

7.2 The responsibility of the IEM(s) shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

7.3 The IEM(s) shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.

7.4 Both the parties accept that the IEM(s) have the right to access all the documents relating to the project/ procurement, including minutes of meetings.

7.5 As soon as the IEM(s) notices, or has reason to believe, a violation of this pact, he will so inform the CEO/CMD.

7.6 The BIDDER(S) accepts that the IEM(s) have the right to access without restriction to all project documentation of HITES including that provided by the BIDDER. The BIDDER will also grant the IEM(s), upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to subcontractors engaged by the BIDDER. The IEM(s) shall be under contractual obligation to treat the information and documents of the BIDDER/ Subcontractor(s) with confidentiality.

7.7 HITES will provide to the IEM(s) sufficient information about all meetings among the parties related to the Project provided such meeting could have an impact on the contractual relation between the parties. The parties will offer to the IEM(s) option to participate in such meetings.

7.8 The IEM(s) will submit a written report to the CEO/CMD of HITES within 3 to 5 weeks from the date of reference or intimation to him by HITES/BIDDER.

Clause.8. Criminal charges against violating Bidder(s)/Contractor(s)/Subcontractor(s)

If HITES obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if HITES has substantive suspicion in this regard, HITES will inform the same to the Chief Vigilance Officer, HLL

Clause.9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, HITES or its agencies shall be entitled to examine all the documents, including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

Clause.10. Law and Place of Jurisdiction

Both the Parties agree that this Pact is subject to Indian Law. The place of performance and hence this Pact shall be subject to Delhi/ NCR Jurisdiction.

Clause.11. Other legal Actions

The actions stipulated in the Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

Clause.12. Validity and Duration of the Agreement

This Pact begins when both parties have legally signed it. It expires for the Contractor/Successful bidder 12 months after the last payment under the contract or the complete execution of the contract to the satisfaction of the both HITES/Consignee and the BIDDER/Seller, including warranty period, whichever is later, and for all other Bidders/unsuccessful bidders 6 months after the contract has been awarded.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairman and Managing Director/ CEO of HITES.

Clause. 13. Other provisions

13.1 Changes and supplements as well as termination notices need to be made in writing. Both the Parties declare that no side agreements have been made to this Integrity Pact.

13.1 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

13.1 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions

IN WITNESS THEREOF the parties have signed and executed this pact at the place and date first above mentioned in the presents of following witnesses:

HLL Infra Tech Services Ltd.	**Bidder**
_____	_____
Witness	Witness
1…….	1…….
2…….	2…….

* Provisions of these clauses would be amended /deleted in line with the policy of the HITES in regard to involvement of Indian agents of foreign suppliers.