

GLOBAL TENDER ENQUIRY DOCUMENT

FOR PURCHASE OF MEDICAL EQUIPMENT

FOR & ON BEHALF OF

**Ministry of Health and Quality of Life,
Govt. Of Republic of Mauritius, Mauritius**

On E-Tender Basis

HSCC/Mauritius/ENT Hospital Equipment/2018 Dated 21.09.2018

BY



HSCC (INDIA) LTD

(A GOVERNMENT OF INDIA ENTERPRISE)

Plot No. 6-A, Block-E, Sector-1, NOIDA (U.P.) - 201 301, INDIA

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SECTION- I**NOTICE INVITING TENDERS (NIT)**
For GLOBAL TENDER ENQUIRY DOCUMENT**HSCC (INDIA) LTD****(A GOVERNMENT OF INDIA ENTERPRISE)**

Plot No. 6-A, Block-E, Sector-1, NOIDA (U.P.) – 201 301, INDIA

PHONE: +91-120-2540153**FAX: +91-120-2542447****URL: www.hsccltd.co.in****Ministry of Health and Quality of Life,
Govt. Of Republic of Mauritius, Mauritius****Tender Enquiry No.: HSCC/Mauritius/ENT Equipment Eqpt./2018****Dated 22.09.2018**

Senior Chief Executive, Ministry of Health & Quality of Life, Govt. Of Republic of Mauritius, Mauritius through their Project Management Consultant (PMC) HSCC (India) Ltd. under Ministry of Health & Family Welfare, Govt. of India invites **On-line bids** from eligible bidders, in single stage two bid system for supply, installation, testing, commissioning & handing-over of **Medical Equipment for ENT Hospital in Vacoas, Mauritius**:

S. No.	Name of Equipment	Qty.	Department	EMD (Rs.)
	OT/Surgery			
1	Full HDTV Endoscopic video camera with Recording System, Xenon Light Source (Endoscopic Sinus Surgery Set). Nasal Endoscopes 0 ⁰ , 30 ⁰ , 45 ⁰ , 90 ⁰ and 4mm & 2.9mm	2 Set 5 of each (40)	Operation Theatre	3,60,000/-
2	E.N.T. Operating Microscope	1	Operation Theatre	3,00,000/-
3	Electro Surgical Unit with Vessel Sealing Facility	4	Operation Theatre	1,20,000/-
4	Ceiling Shadow-less Double Dome OT Lights with Recording Camera	2 for Major OTs & 2 for Minor OTs	Operation Theatre	1,28,000/-
5	Operations Table for ENT	2 for Major OTs & 2 for Minor OTs	Operation Theatre	1,60,000/-
6	Anaesthesia Workstation	4	Operation Theatre	1,80,000/-
7	Coblation Unit	1	Operation Theatre	12,000/-
8	Nerve Stimulator Locater & Mapper	1	Operation Theatre	40,000/-
9	Neuro ENT Navigation System	1	Operation Theatre	3,00,000/-
10	Flexible Esophagoscope	1	Operation Theatre	50,000/-

	<u>ENT Surgical Instruments</u>			
11	FESS Instruments Set	2	Operation Theatre	18,000/-
12	Instruments for Microlaryngeal Surgery Set (MLS)	1	Operation Theatre	16,000/-
13	Shaver System Cum Micro Drill	1	Operation Theatre	24,000/-
14	Stapedectomy Set	2	Operation Theatre	20,000/-
15	Esophagoscope Set	2	Operation Theatre	20,000/-
16	Bronchoscopy Set	2	Operation Theatre	20,000/-
17	Tracheostomy set	2	Operation Theatre	20,000/-
18	Rhinoplasty Set	2	Operation Theatre	16,000/-
19	Video-Laryngoscope Set	1	Operation Theatre	12,000/-
20	Mastoidectomy Set + Tympanoplasty Set	2 Each	Operation Theatre	16,000/-
21	Direct Laryngoscope Set	2	Operation Theatre	4,000/-
22	Septoplasty Set	4	Operation Theatre	2,400/-
23	Tonsillectomy & Adenoidectomy Set	4	Operation Theatre	800/-
24	General Instruments Set for Head & Neck (for Minor OT)	1 Set	Minor Operation Theatre	12,000/-
25	Nasal bone fracture set	1	Operation Theatre	400/-
26	Caldwell luc set	1	Operation Theatre	600/-
27	Advanced Dental Chair Unit	3	1 for Endodontics + 1 for Orthodontics + 1 for Oral Surgery	72,000/-
28	Digital Panoramic X-ray machine with cephalometry	1	Orthodontics	30,000/-
29	Digital Apex Locators with graphic display + Endodontic Motor + Instruments Trolley	1 each	Orthodontics	10,000/-
30	Laser Based Optical Dental Cries Detection System	1 No.	Orthodontics	3,500/-
	<u>Radiology</u>			
31	CT Scan (64-Slices)	1	Radiology	24,00,000/-
32	Digital Flat Panel Radiography System	1	Radiology	4,00,000/-
33	Digital Mobile Radiography Unit	1	Radiology	2,00,000/-
34	Ultrasound with Biopsy Attachment	1	Radiology	80,000/-
	<u>ICU, Wards, Post-Op.</u>			
35	ICU Ventilators	4	ICU	2,00,000/-
36	Ventilator (Adult/Ped.)	1	Post-Op.	34,000/-
37	Central Station with 6 no.ICU Monitors	1 + 6	ICU	1,00,000/-
38	Central Station with 6 no. Bedside Ward Monitors + 3	9	6 Wards + 3 Post-Op.	2,40,000/-

	Post-Op. Monitors – (Masimo Technology Product)			
39	Defibrillator Biphasic	2	Wards	28,000/-
40	Syringe Infusion Pump	11	4 ICU + 5 Wards + 2 Post-Op.	14,600/-
41	Volumetric Infusion Pump	11	4 ICU + 2 Wards + 5 Post-Op.	14,600/-
42	Portable Spot Light	2	ICU	12,000/-
43	ECG Machine (6-Channels)	2	ICU	8,000/-
	OPD			
44	ENT Treatment Unit	2	OPD	60,000/-
45	Brainstem Evoked Response Audiometer (BERA) with ASSR	1	OPD	30,000/-
46	Puretone Audiometer	1	OPD	14,000/-
47	Impedance Audiometer	1	OPD	4,000/-
48	OAE- Otoacoustic Emission (Screening unit)	1	OPD	10,000/-
49	Flexible Nasopharyngolaryngoscope	Adult – 2no. & Pediatric – 2 no.	OPD	1,20,000/-
50	Electronystagmograph	1	OPD	8,000/-
51	Video Nystagmographic Machine (VNG)	1	OPD	12,000/-
	Laboratory			
52	Fully Automatic Clinical Chemistry Analyzer	1	Lab.	30,000/-
53	Fully Automatic Blood Count Analyzer (5-part)	1	Lab.	20,000/-
54	Automatic Coagulometer	1	Lab.	20,000/-
55	Automatic Blood Gas Analyzer	1	Lab.	50,000/-
56	Haemoglobinometer (Sahil or hellige)	1	Lab.	1,000/-

The bidders are required to be registered at HSCC e-tender portal www.tenderwizard.com/HSCC. Please log on to www.tenderwizard.com/HSCC only for downloading bid document and for participation through **E-tendering basis**. For submission and other details please refer HSCC e-tender portal www.tenderwizard.com/HSCC. For submission of the bids, the bidders are required to have Type-II Digital Signature Certificate (DSC) from the authorized Certifying Authorities.

Complete set of Bid Documents has been made available at E-Tender portal www.tenderwizard.com/HSCC, www.hsccltd.com, CPPP Portal for downloading from **25.09.2018 to 24.10.2018**. Prospective bidders are advised to regularly scan through HSCC E-tender portal www.tenderwizard.com/HSCC and www.hsccltd.com as corrigendum/modification/amendments, if any, will be notified on this portal only and no separate advertisement will be made for this.

(2) Tender Enquiry No.: HSCC/Mauritius/ENT Hospital Eqpt./2018 Dated 22.09.2018

Sl. No.	Description	Schedule
i.	Dates of sale of tender enquiry documents	25.09.2018 to 24.10.2018 10.00 hrs to 1400 hrs IST

Sl. No.	Description	Schedule
ii.	Place of sale of Tender Enquiry Documents	HSCC (India) Ltd, Plot No. 6-A, Block-E, Sector-1, Noida (U.P)-201301, India.
iii.	Pre Tender Meeting Date & Time	04.10.2018, 14.30 hrs. IST
iv.	Pre Tender Meeting Venue	HSCC (India) Ltd, Plot No. 6-A, Block-E, Sector-1, Noida (U.P)-201301, India.
v.	Closing date & time for receipt of Tender	24.10.2018, 1430 hrs IST
vi.	Time and date of opening of Techno – Commercial tenders	24.10.2018, 1500 hrs IST
vii.	Venue of Opening of Techno Commercial Tender	Same as 2 (ii)

2. Interested tenderers may obtain further information about this requirement from this office inviting the tenders.

3. The prospective bidders who have not registered can register with E-procurement system of NIC by paying necessary registration charges. The bidders may prepare a banker cheque/Draft in favour of HSCC (India) Ltd. Office at Noida, payable at Noida/Delhi and deposit it. In order to submit the bids electronically bidders are required to have type-II Digital Signature Certificate. Digital Signature can be obtained from any of the certifying agency.

The tenderer shall submit all the necessary documents and in physical form (with respect to few documents as mentioned in the SIT) in parts/covers as mentioned below:

Part-I In Original Offline (In separate Envelope) & its scanned Copy Online

- (i) Tender Fee and EMD
- (ii) Affidavit as per Section XIX
- (iii) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
- (iv) Technical compliance for the quoted goods vis-à-vis the Technical specifications and with all related brochures/catalogues in the tender enquiry, technical bid

Part-II Online

- (i) Scanned copy of Tender Fee and EMD
- (ii) Power of Attorney
- (iii) Tender Form as per section X.
- (iv) Manufacturers Authorization Form
- (v) Affidavit as per Section XIX
- (vi) Proforma A
- (vii) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
- (viii) Technical compliance for the quoted goods vis-à-vis the Technical specifications
- (ix) Name, address and details of account with respect to bidder and/or beneficiary of L/C. Copy of PAN. Certificate of Incorporation/Declaration being a proprietary firm.
- (x) Audited Annual report of last 3 completed financial years (Balance sheet and Profit & Loss Account). Certificate of Regn. Issued by Directorate of Industries/NSIC, if SSI unit.
- (xi) Quality Control Requirements as per Section VIII

Price Bid (Only online).

- Price Schedule
- CMC Price Schedule
- Turnkey Price Schedule

4. All prospective tenderers may attend the Pre Tender meeting. For all the above tender IDs, Pre-bid meeting shall be held as mentioned above.

5. To participate in the submission against the tender, it is mandatory for the Applicants to get digital signature and get themselves registered with e-tendering system.

6. Complete set of Bid Documents has been made available at E-Tender portal www.tenderwizard.com/HSCC, www.hsccltd.com for downloading. Tenderer may download the tender enquiry documents from the website and submit its tender online after logging in to their user ID. The bidders are required to be registered at HSCC e-tender portal www.tenderwizard.com/HSCC. Please log on to www.tenderwizard.com/HSCC only for uploading its tender on-line for participation through **E-Tendering basis**. For submission and other details, please refer HSCC e-tender portal www.tenderwizard.com/HSCC.

7. Tenderers shall ensure that their tenders, complete in all respects, are submitted online and desired hard copies in original dropped in the Tender Box located at **HSCC (India) Ltd., E-6A, Sector-1, Noida, U.P.-201301, India** on or before the closing date and time indicated above, failing which the tenders will be treated as late and rejected.

8. In the event of any of the above mentioned dates being declared as a holiday /closed day for the purchase organisation, the physical form of tenders will be received/opened on the next working day at the appointed time. Bidders are requested to regularly visit website www.tenderwizard.com/HSCC & www.hsccltd.com for corrigendum/amendments etc., if any, as these there no separate advertisement for them.

9. Purchaser/HSCC reserves the right to annul the tendering process at any stage without assigning any reason thereof. Further, Client has the right to omit any one or all of the following equipment, namely Flexible Esophagoscope, Nerve Stimulator Locator & Mapper and Neuro ENT Navigation System should their prices be too costly.

**Senior Chief Executive,
Ministry of Health & Quality of Life,
Govt. Of Republic of Mauritius,
Mauritius**

SECTION - II**GENERAL INSTRUCTIONS TO TENDERERS (GIT)
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GENERAL INSTRUCTIONS TO TENDERERS (GIT)

A. PREAMBLE

1. Definitions and Abbreviations

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

1.2. Definitions:

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

1.3 Abbreviations:

- (i) "TE Document" means Tender Enquiry Document
- (ii) "NIT" means Notice Inviting Tenders.
- (iii) "GIT" means General Instructions to Tenderers
- (iv) "SIT" means Special Instructions to Tenderers

- (v) "GCC" means General Conditions of Contract
- (vi) "SCC" means Special Conditions of Contract
- (vii) "LC" means Letter of Credit
- (viii) "DP" means Delivery Period
- (ix) "BG" means Bank Guarantee
- (x) "CD" means Custom Duty
- (xi) "VAT" means Value Added Tax
- (xii) "CST" means Central Sales Tax
- (xiii) "FOB" means Free on Board
- (xiv) "FCA" means Free Carrier
- (xv) "CIF" means Cost, Insurance and Freight
- (xvi) "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.
- (xvii) "INCOTERMS" means International Commercial Terms as on the date of Tender Opening
- (xviii) "CMC" means Comprehensive maintenance Contract (labour, spare and preventive maintenance)
- (xix) "MUR" means Mauritius Rupees

2. Introduction

- 2.1 The Purchaser has issued these TE documents for purchase of goods and related services as mentioned in Section – VI – "List of Requirements", which also indicates, *interalia*, the required delivery schedule, terms and place of delivery.
- 2.2 This section (Section II - "General Instruction Tenderers") provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the purchaser for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.
- 2.3 The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.
- 2.4 Before formulating the tender and submitting the same to the purchaser, the tenderer should read and examine all the terms, conditions, instructions, checklist etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

3. Availability of Funds

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

4. Language of Tender

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

accompanied by an English translation and, for purposes of interpretation of the tender, the English translation shall prevail.

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

5. Eligible Tenderers

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

6. Eligible Goods and Services

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

7. Tendering Expense

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

B. TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

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

- Section II – General Instructions to Tenderers (GIT)
- Section III – Special Instructions to Tenderers (SIT)
- Section IV – General Conditions of Contract (GCC)
- Section V – Special Conditions of Contract (SCC)
- Section VI – List of Requirements
- Section VII – Technical Specifications
- Section VIII – Quality Control Requirements
- Section IX – Qualification Criteria
- Section X – Tender Form
- Section XI – Price Schedules
- Section XII – Questionnaire
- Section XIII – Bank Guarantee Form for EMD
- Section XIV – Manufacturer's Authorisation Form
- Section XV – Bank Guarantee Form for Performance Security/CMC Security
- Section XVI – Contract Forms A & B
- Section XVII – Proforma of Consignee Receipt Certificate
- Section XVIII – Proforma of Final Acceptance Certificate by the consignee
- Section XIX – Affidavit
- Section XX – Check List
- Section XXI – Consignee

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

9. Amendments to TE documents

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

9.2 Such an amendment will be notified in the referred website only.

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

10. Clarification of TE documents

10.1 A tenderer requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser **in writing on or before the due date of pre-bid meeting**. No queries will be entertained later on. The purchaser will respond in writing to such request as per the schedule.

C. PREPARATION OF TENDERS

11. Documents Comprising the Tender

11.1 The bids shall be submitted online and in physical form in three parts/covers as mentioned below:

(i) Tender Fee, EMD, Pre-qualification as per Tender Terms and referred in checklist at section XIX and as mentioned in para A below.

(ii) Technical Bid

(iii) Price Bid (Only online).

Tenderers are requested not to submit the hard copy of Price Bid along with the physical form of tender. In case the hard copy of price bid is submitted in physical form, the tender shall be straightway rejected. Also, uploading of the price bid in prequalification bid or technical bid will result in rejection of the tender.

A) Techno – Commercial Tender (Un priced Tender)

i) Earnest money furnished in accordance with GIT clause 19.1 alternatively, documentary evidence as per GIT clause 19.2 for claiming exemption from payment of earnest money.

ii) Tender Form as per Section X (without indicating any prices).

iii) Documentary evidence, as necessary in terms of clauses 5 and 17 establishing that the tenderer is eligible to submit the tender and, also, qualified to perform the contract if its tender is accepted.

iv) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form.

v) Power of Attorney in favour of signatory of TE documents.

- vi) Documents and relevant details to establish in accordance with GIT clause 18 that the goods and the allied services to be supplied by the tenderer conform to the requirement of the TE documents.
- vii) Performance Statement as per section IX along with relevant copies of orders and end users' satisfaction certificate/Installation Reports.
- viii) Certificate of Incorporation in the country of origin.

B) Price Tender:

1. Prices are to be quoted in the attached Price Bid format online as per the directions on the official website.
2. The price should be quoted for the accounting unit indicated on the website.

The bidder shall not submit hard copy of financial bid otherwise his tender shall be straightway rejected. Also, uploading the price bid in prequalification bid or technical bid will result in rejection of the tender.

Note:

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

- 11.2 A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages
- 11.3 A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.
- 11.4 Tender sent by fax/telex/cable/electronically shall be ignored.

12. Tender currencies

- 12.1 The tenderer supplying indigenous goods or already imported goods shall quote only in MUR.
- 12.2 For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP, CHF or Yen. Commission for Agent, if any and if payable shall be indicated in the space provided for in the price schedule and will be payable in MUR.
- 12.3 Tenders, where prices are quoted in any other way shall be treated as non -responsive and rejected.

13 Tender Prices

- 13.1 The Tenderer shall indicate on the Price Schedule provided under Section XI all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price schedule should be filled up as required. If any column does not apply to a tenderer, same should be clarified as "NA" by the tenderer.
- 13.2 If there is more than one schedule in the List of Requirements, the tenderer has the option to submit its quotation for any one or more schedules and, also, to offer special

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

13.3 The quoted prices for goods offered from within Mauritius and that for goods offered from abroad are to be indicated separately in the applicable Price Schedules attached under Section XI. Bidders must quote the prevailing taxes and duties as applicable.

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 Mauritius, the prices in the corresponding price schedule shall be entered separately in the following manner:

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

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

- a) The price of goods quoted FOB/FCA port of shipment, as indicated in the List of Requirements and Price Schedule;
- b) the price of goods quoted CIP (name port of destination) as indicated in the List of Requirements, Price Schedule and Consignee List;
- c) the charges for Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;
- d) the charges for Incidental Services, as in the List of Requirements and Price Schedule;
- e) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
- f) the Total tender price of goods quoted CIP basis at consignee site in Mauritius as indicated in the List of Requirements, Price Schedule and Consignee + Insurance + Local Transportation & Storage + quoted custom duty
- g) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.5 **Additional information and instruction on Duties and Taxes:**

13.5.1 The need for indication of all such price components by the tenderers, as required in this clause (viz., GIT clause 13) is for the purpose of comparison of the tenders by the

purchaser and will no way restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

14. Agent

- 14.1 If a foreign tenderer has engaged an agent in India in connection with its tender, the foreign tenderer, in addition to indicating Agent's commission, if any, in a manner described under GIT sub clause 12.2 above, shall also furnish the following information:
- a) The complete name and address of the 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 CMC period.
 - d) Copy of the agreement between Agent & their principal detailing the scope of work/services during warranty & after sales periods.

15. Firm Price

- 15.1 Unless otherwise specified in the SIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account.
- 15.2 However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated in GIT clause 13 will apply.

16. Alternative Tenders

- 16.1 Alternative Tenders are not permitted.
- 16.2 However the Tenderers can quote alternate models meeting the tender specifications of same manufacturer with single EMD.

17 Documents Establishing Tenderer's Eligibility and Qualifications

- 17.1 Pursuant to GIT clause 11, the tenderer shall furnish, as part of its tender, relevant details and documents establishing its eligibility to quote and its qualifications to perform the contract if its tender is accepted.
- 17.2 The documentary evidence needed to establish the tenderer's qualifications shall fulfil the following requirements:
- a) in case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The tenderer shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIV in this document.
 - b) the tenderer has the required financial, technical and production capability necessary to perform the contract and, further, it meets the qualification criteria incorporated in the Section IX in these documents.
 - c) in case the tenderer is not doing business in Mauritius, it is duly represented by an agent stationed in Mauritius fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.

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

- 18.1 The tenderer shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully conform to the goods and services specified by the purchaser in the TE documents. For this purpose the tenderer shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the purchaser in the TE documents to establish technical responsiveness of the goods and services offered in its tender.
- 18.2 In case there is any variation and/or deviation between the goods & services prescribed by the purchaser and that offered by the tenderer, the tenderer shall list out the same in a chart form without ambiguity and provide the same along with its tender.
- 18.3 If a tenderer furnishes wrong and/or misleading data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition to other remedies available to the purchaser in this regard.

19. Earnest Money Deposit (EMD)

- 19.1 Pursuant to GIT clauses 8.1 and 11.1 the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 19.7 below.
- 19.2 The earnest money shall be denominated in Indian Rupees as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:
- i) Account Payee Demand Draft
 - ii) Banker's cheque and
 - iii) Bank Guarantee
 - iv) FDR
- 19.3 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the tenderer, in favour of the "**HSCC (India) Ltd**" payable at New Delhi/Noida. In case of bank guarantee, the same is to be provided from any commercial bank in India or country of the tenderer as per the format specified under Section XIII in these documents.
- 19.4 The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 20 of GIT is 120 days, the EMD shall be valid for 165 days from the **original last date** for submission of the tender/bid.
- 19.5 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.
- 19.6 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of

Purchaser if it fails to furnish the required performance security within the specified period.

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

20. Tender Validity

- 20.1 If not mentioned otherwise in the SIT, the tenders shall remain valid for acceptance for a period of 120 days (One hundred and twenty days) after the date of tender opening prescribed in the TE document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.
- 20.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/ telex/cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, however, may not agree to extend its tender validity without forfeiting its EMD.
- 20.3 In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

21. Signing and Sealing of Tender

- 21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11.
- 21.2 The original and other copies of the tender shall either be typed or written in indelible ink and the same shall be signed by the tenderer or by a person(s) who has been duly authorized to bind the tenderer to the contract. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the tender.
- 21.3 The tender shall be duly signed at the appropriate places as indicated in the TE documents and all other pages of the tender including printed literature, if any shall be initialled by the same person(s) signing the tender. The tender shall not contain any erasure or overwriting, except as necessary to correct any error made by the tenderer and, if there is any such correction; the same shall be initialled by the person(s) signing the tender.

D. SUBMISSION OF TENDERS

22. Submission of Tenders

- 22.1 The tender shall be submitted online and in physical form (except price bid) in three parts/covers as mentioned below:
- (i) Tender Fee and EMD (Both online and physical)
 - (ii) Pre-qualification and Technical compliance as per following documents (Online submissions for all the documents and physical submission only for affidavit as per point i) below and original Technical brochures/catalogues against point j):
 - a) Manufacturer's authorization in case bid is submitted by an agent (A declaration must be attached here in case quoted by an agent).
 - b) Tender Form as per section X.

- c) Certificate of Incorporation/Declaration being a proprietary firm.
- d) Annual report of last 3 years (Balance sheet and Profit & Loss Account)
- e) Name, address and details of account with respect to bidder and/or beneficiary of L/C.
- f) Quality Control Requirements as per Section VIII
- g) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
- h) Affidavit as per Section XIX
- i) Technical Bid along with clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications in the tender enquiry (Both online and physical)

(iii) Price Bid (Only online).

Bidders are requested not to submit the hard copy of Price Bid along with the physical form of tender. Uploading of the price bid in prequalification bid or technical bid will result in rejection of the tender.

Unless otherwise specified, the tenderers are to submit its tender online and deposit the physical form of tenders in the tender box kept for this purpose at **HSCC (India) Ltd., E-6A, Sector-1, Noida-201301, ((UP), India.**

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

23. Late Tender

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

24. Alteration and Withdrawal of Tender

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

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

E. TENDER OPENING

25. Opening of Tenders

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

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

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

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

- 25.3 The **Techno - Commercial Tenders** are to be opened in the first instance, at the prescribed time and date as indicated in NIT. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document.

F. SCRUTINY AND EVALUATION OF TENDERS

26. Basic Principle

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

27. Scrutiny of Tenders

- 27.1 The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed stamped and whether the Tenders are generally in order.
- 27.2 Purchaser will determine the responsiveness of each Tender to the TE Document without recourse to extrinsic evidence.
- 27.3 The tenders will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the TE document. The tenders, which do not meet the basic requirements, are liable to be treated as non – responsive and will be summarily ignored.
- 27.4 **The following are some of the important aspects, for which a tender shall be declared non – responsive and will be summarily ignored;**
- (i) Tender form as per Section IX (signed and stamped) not enclosed
 - (ii) Tender is unsigned.
 - (iii) Tender validity is shorter than the required period.
 - (iv) Required EMD (Amount, validity etc.)/ exemption documents have not been provided.
 - (v) Tenderer has quoted for goods manufactured by other manufacturer(s) without enclosing the required Manufacturer's Authorisation Form as per Section XIV.
 - (vi) Tenderer has not agreed to give the required performance security.
 - (vii) Goods offered are not meeting the tender enquiry specification.

- (viii) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry like terms of payment, liquidated damages clause, warranty clause, delivery, dispute resolution mechanism applicable law.
- (ix) Poor/ unsatisfactory past performance.
- (x) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
- (xi) Tenderer is not eligible as per GIT Clauses 5.1 & 17.1.
- (xii) Tenderer has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.

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

- (i) The bidder has submitted hard copy of financial bid (only online submission price bids are allowed).
- (ii) Tender validity is shorter than the required period.
- (iii) Required EMD (Amount, validity etc.)/ exemption documents have not been provided.
- (iv) Tenderer has quoted for goods manufactured by other manufacturer(s) without enclosing the required Manufacturer's Authorisation Form as per Section XIV.
- (v) Tenderer has not agreed to give the required performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – "Special Conditions of Contract", for due performance of the contract.
- (vi) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry like terms of payment, liquidated damages clause, warranty clause, delivery, dispute resolution mechanism applicable law.
- (vii) Poor/ unsatisfactory past performance.
- (viii) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
- (ix) Tenderer is not eligible as per GIT Clauses 5 & 17.1.
- (x) Tenderer has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.
- (xi) Tenderer has not agreed for the delivery terms and delivery schedule.

28. Minor Infirmary/Irregularity/Non-Conformity

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

29 Discrepancies in Prices

29.1 If, in the price structure quoted by a tenderer, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the purchaser feels that the tenderer has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.

29.2 If there is an error in a total price, which has been worked out through addition and/or subtraction of subtotals, the subtotals shall prevail and the total corrected; and

- 29.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 29.1 and 29.2 above.
- 29.4 If, as per the judgement of the purchaser, there is any such arithmetical discrepancy in a tender, the same will be suitably conveyed to the tenderer by registered / speed post. If the tenderer does not agree to the observation of the purchaser, the tender is liable to be ignored.
- 30. Discrepancy between original and copies of Tender**
- 30.1 In case any discrepancy is observed between the text etc. of the original copy and that in the other copies of the same tender set, the text etc. of the original copy shall prevail. Here also, the purchaser will convey its observation suitably to the tenderer by register/speed post/e-mail and, if the tenderer does not accept the purchaser's observation, that tender will be liable to be ignored.
- 31. Qualification Criteria**
- 31.1 Tenders of the tenderers, who do not meet the required Qualification Criteria prescribed in Section IX, will be treated as non - responsive and will not be considered further.
- 32. Conversion of tender currencies to Mauritius Rupees**
- 32.1 In case the TE document permits the tenderers to quote their prices in different currencies, all such quoted prices of the responsive tenderers will be converted to a single currency viz., Mauritius Rupees for the purpose of equitable comparison and evaluation, as per the exchange rates for similar transactions, as on the date of '**Techno-commercial Tender**' opening.
- 33. Equipment-wise Evaluation**
- 33.1 The tenders will be evaluated and compared separately for each equipment. The tender for a schedule will not be considered if the complete requirements prescribed in that schedule are not included in the tender.
- 34. Comparison of Tenders**
- 34.1 Unless mentioned otherwise in Section - III - Special Instructions to Tenderers and Section - VI - List of Requirements, the comparison of the responsive tenders shall be carried out on Delivery on CIP basis + Insurance + Local Transportation & Storage at Consignee site basis, inclusive of applicable taxes, duties, incidental services. The quoted Turnkey prices (if applicable) and CMC prices will also be added for comparison/ranking purpose for evaluation.
- 35. Additional Factors and Parameters for Evaluation & Ranking of Responsive Tenders**
- 35.1 Further to GIT Clause 34 above, the purchaser's evaluation of a tender will include and take into account the following:
- i) Government of Mauritius exempts payment of VAT, Legal Taxes, Levies etc.
 - ii) Government of Mauritius shall provide exemption of Custom Duties and other fees payable to Custom officials.
- 35.2 The purchaser's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.

36. Tenderer's capability to perform the contract

- 36.1 The purchaser, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.
- 36.2 The above-mentioned determination will, inter alia, take into account the tenderer's financial, technical and production capabilities for satisfying all the requirements of the purchaser as incorporated in the TE document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by the purchaser.

37. Contacting the Purchaser

- 37.1 From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact the purchaser for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.
- 37.2 In case a tenderer attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by the purchaser.

G. AWARD OF CONTRACT

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

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

39. Award Criteria

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

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

- 40.1 At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to twenty five (25) per cent, the quantity of goods and services mentioned in the schedule (s) in the "List of Requirements" (rounded of to next whole number) without any change in the unit price and other terms & conditions quoted by the tenderer.
- 40.2 If the quantity has not been increased at the time of the awarding the contract, the purchaser reserves the right to increase by up to twenty five (25) per cent, the quantity of goods and services mentioned in the contract (rounded of to next whole number) without any change in the unit price and other terms & conditions mentioned in the contract, during the currency of the contract after one year from the Date of Notification of Award.
- Further, Purchaser reserves the rights to delete any of the tendered items without assigning any reason whatsoever. Purchaser as deemed fit, out of the total tendered

quantity for the tendered items may place Notification of Award for the quantity as per the requirements and may defer the balance quantity of the item(s) to be supplied later.

41. Notification of Award

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

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

42. Issue of Contract

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

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

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

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

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

44. Return of E M D

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

45. Publication of Tender Result

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

46. Corrupt or Fraudulent Practices

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

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

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

- (ii) “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;
- (b) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by the purchaser if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

SECTION - III
SPECIAL INSTRUCTIONS TO TENDERERS
(SIT)

Sl. No.	GIT Clause No.	Topic	SIT Provision	Page No.
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B	8 to 10	TE documents	No Change	26
C	11 to 21	Preparation of Tenders	No Change	26
D	22 to 24	Submission of Tenders	No Change	26
E	25	Tender Opening	No Change	26
F	26 to 27	Scrutiny and Evaluation of Tenders	No Change	26
G	36 to 46	Award of Contract	No Change	26

The following Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/substitute/supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below: In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

Submission of Tenders

(i) All the necessary documents as prescribed in the NIT shall be prepared and scanned in different files (in PDF or JPEG format as prescribed) and uploaded for on-line submission of Proposal. However, physical documents as per NIT to be submitted in “**ORIGINAL**” to HSCC (India) Ltd. before the prescribed date & time for submission of physical tender restricted to the following documents only.

- a) Demand Draft towards Tender Fee in favour of HSCC (India) Ltd.
- b) EMD in the prescribed format in favour of HSCC (India) Ltd.
- c) Technical Data Sheet and original technical literature/ Brochure (if any)
- d) Affidavit as per Section XIX

(ii) All document(s)/ information(s) other than above including the Financial Proposal (i.e. **FORMAT FOR SUBMISSION OF PRICE BID/FINANCIAL PROPOSAL**) should be **uploaded online only** in the prescribed format given in the website. No other mode of submission shall be acceptable.

(iii) The prospective bidders may scan the documents in low resolution (**75 to 100 DPI**) instead of 200 DPI. The documents may be scanned for further lower resolution (if possible). This would reduce the size of the Cover and would be uploaded faster.

(iv) The prospective bidders may upload Drawing files, if any, in “**.dwf**” format so that the size of document is less. This is a generic format and all software supports this format.

(v) At the time of cover content creation, the prospective bidders would have to define the document type as “**.rar**” format.

(vi) The prospective bidders should be asked to zip all the .dwf files to a .rar file & upload it

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

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GENERAL CONDITIONS OF CONTRACT (GCC)

1. Application

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

All documents submitted physically or uploaded as scanned copies must be self-attested, legible and numbered.

2. Use of contract documents and information

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

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

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

3. Patent Rights

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

4. Country of Origin

4.1 All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of Mauritius 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 fifteen (15) days from date of the issue of notification of award by the Purchaser/Consignee, the supplier, shall furnish performance security to the Purchaser/Consignee for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations of 1 year, from the date of Notification of Award.

- 5.2 The Performance security shall be denominated in Mauritius Rupees or in the currency of the contract as detailed below:
- a) It shall be in any one of the forms namely Account Payee Demand Draft or Fixed Deposit Receipt drawn from any Scheduled bank in Mauritius or Bank Guarantee issued by a Scheduled bank in Mauritius, in the prescribed form as provided in section XV of this document in favour of the Purchaser/Consignee. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to sixty (60) days beyond Warranty Period.
- 5.3 In the event of any failure /default of the supplier with or with out any quantifiable loss to the government including furnishing of consignee wise Bank Guarantee for CMC security as per Proforma in Section XV, the amount of the performance security is liable to be forfeited. The Administration Department may do the needful to cover any failure/default of the supplier with or without any quantifiable loss to the Government.
- 5.4 In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.
- 5.5 The supplier shall enter into Annual Comprehensive Maintenance Contract as per the 'Contract Form - B' in Section XVI with consignee, 3 (three) months prior to the completion of Warranty Period. The CMC will commence from the date of expiry of the Warranty Period.
- 5.6 Subject to GCC sub - clause 5.3 above, the Purchaser/Consignee will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CMC security in favour of Head of the Purchaser/consignee as per the format in Section XV.

6. Technical Specifications and Standards

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

Please ensure the following compliances are met for the Medical equipment:

1. For Radiology equipment i.e. X-Ray, Ultrasound, MRI & CT-Scan etc.
 - a. Equipment should be DICOM (Digital Imaging and Communications in Medicine) enabled DICOM provides reliable protocols for integration of image data between imaging, non-imaging modalities, devices and systems.
 - b. Equipment complied with HL7 (Health Level Seven) standards
 - c. Capable to link with PACS & HMIS. Any Hardware/lock/software license required for interfacing with PACS & HMIS should be supplied with the equipment/device.

2. For Laboratory Equipment/device:

- a. Equipment communicates in one of the following ways:

- A. TCP/IP
- B RS-232
- C. USB

Any type of cable/hardware/lock/software/license required for integration with HMIS system should be provided.

Please provide configuration parameters to connect with HMIS successfully.

- b. Data accepted/send by the device/equipment should be readable as standard data Type in ANSI C/C++.
- c. Comprehensive list of all data structures imported and exported by the device should be documented with examples.
- d. API of equipment should be provided.
- e. Technical interface specification should be provided.

Above standards are required for interfacing of equipment with PACS (Picture Archiving & Communication System) & HMIS (Hospital Management & Information System) during the computerization of the Hospital.

7. Packing and Marking

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

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

7.3 Packing instructions:

Unless otherwise mentioned in the Technical Specification and Quality Control Requirements under Sections VII and VIII and in SCC under Section V, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following-g 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 pre-dispatch inspections, inspections and, also the identity of the officials to be deputed for this purpose. The cost towards the transportation, boarding & lodging will be borne by the purchaser and/or its nominated representative(s).
- 8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.
- 8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser's inspector for conducting the inspections and tests again.
- 8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.
- 8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.
- 8.6 The purchaser's/consignee's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-despatch inspection mentioned above.
- 8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.
- 8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognised/ reputed agency like SGS, Lloyd, Bureau Veritas, TUV prior to despatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.
- 8.9 Third Party Inspection to include only Physical & Relevant records Inspection of the Ordered Goods. However, Dispatch Clearance Certificate is issued without prejudice to the Purchaser's right to accept/reject the Ordered Goods after it's arrival at site/destination, if not found in

accordance with the Purchase Order during the installation and testing at site and during the performance guarantee period. This dispatch clearance certificate will not absolve manufacturer from his responsibility to ensure that the Ordered Goods supplied are totally in accordance with the Purchase Order/Notification of Award.

- 8.10. The stores (both Indian & Import origin goods) should be dispatched only after the equipment inspected by recognized/reputed agency like SGS, Lloyd, TUV & Bureau Veritas prior to dispatch at the supplier's cost and furnish necessary Certificate from the said agency in support of their claim.

To enable HSCC to issue Dispatch Clearance Certificate, supplier/manufacturer is to furnish following documents:

1. Copy of supplier's invoice showing contract number, goods description, quantity, unit price & total amount.
2. Country of Origin Certificate
3. Quality & Quantity Certificate
4. Packing List with Complete contents.
5. Internal Factory Inspection Report
6. Warranty Certificate
7. Inspection certificate for the dispatched equipments issued by recognized/reputed agency like SGS, Lloyd, TUV & Bureau Veritas, prior to dispatch.

All such Invoice/Documents/Certificates/Reports mentioned above shall be addressed as:

**Senior Chief Executive,
Ministry of Health & Quality of Life,
Govt. Of Republic of Mauritius,
Mauritius
through HSCC (I) Ltd., Noida, UP, India.**

After scrutiny, if the documents found in order, **Dispatch Clearance Certificate** shall be issued to the supplier.

No goods (both Indians & Import origin goods) shall be dispatched before issue of Dispatch Clearance Certificate by HSCC.

9. Terms of Delivery

- 9.1 Goods shall be delivered by the supplier in accordance with the terms of delivery specified in the contract.

10. Transportation of Goods

- 10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments and/or transshipment 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; the shipment shall be made by Indian flag vessel or by vessels belonging to the conference lines in which India is a member country through India's forwarding agents/coordinators. In case the forwarding agent/coordinators are unable to provide timely adequate space in Indian flag

vessel or by vessels belonging to the conference lines, the supplier shall arrange shipment through any available vessel to adhere to the delivery schedule given in the contract.

In case of airlifting of imported goods offered from abroad, the same will be done only through the National Carrier i.e. Air India wherever applicable. In case the National Carrier is not available, any other airlines available for early delivery may be arranged.

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

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

11. Insurance:

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

- i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from ware house to ware house (consignee site) on all risk basis. The insurance cover shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.
- ii) 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 ware house 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 be got extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actuals will be reimbursed.

12. Spare parts

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

- a) The spare parts as selected by the Purchaser/Consignee to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and
- b) In case the production of the spare parts is discontinued:
 - i) Sufficient advance notice to the Purchaser/Consignee before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and

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

12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the goods so that the same are supplied to the Purchaser/Consignee promptly on receipt of order from the Purchaser/Consignee.

13. Incidental services

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

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

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

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

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

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

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

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Consignee Receipt Certificate as per Section XVI in original issued by the authorized representative of the consignee;
- (iii) Two copies of packing list identifying contents of each package;
- (iv) Inspection certificate issued by the nominated Inspection agency, if any.
- (v) Certificate of origin;
- (vi) Insurance Certificate as per GCC Clause 11.
- (vii) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

B) For goods imported from abroad

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

contract). Any delay or demurrage occurred during the customs clearance on account of the non-availability of technical support/ clarifications /documents from the supplier shall be borne by the supplier:

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

15. Warranty

- 15.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (*except when the design adopted and / or the material used are as per the Purchaser's/Consignee's specifications*) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.
- 15.2 The **warranty** shall remain valid for **12 months** from the date of installation & commissioning followed by a **CMC for a period of 3 (Three) Years** for all the equipments after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the purchaser/CONSIGNEE in terms of the contract, unless specified otherwise in the SCC.
- a. No conditional warranty will be acceptable.
 - b. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work and it will also cover the following:-
 - X-ray and CT tubes and high-tension cables.
 - Helium replacement
 - Any kind of motor.
 - Plastic & Glass Parts against any manufacturing defects.
 - All kind of sensors including oxygen sensors.
 - All kind of coils, probes and transducers
 - All kind of flat panel sensors and cassettes for DR & CR systems and patients handling trolleys etc
 - Printers and imagers including laser and thermal printers with all parts.
 - UPS including the replacement of batteries.
 - Air-conditioners

- c. Replacement and repair will be under taken for the defective goods.
- d. Proper marking has to be made for all spares for identification like printing of installation and repair dates.

- 15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.
- 15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non rectification will be applicable as per tender conditions
- 15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended to a further period of twelve **(12) months** from the date such rectified / replaced goods starts functioning to the satisfaction of the purchaser.
- 15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.
- 15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 3 months commencing from the date of the installation for preventive maintenance of the goods
- 15.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.
- 15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years from the date of installation and handing over.
- 15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipments/machines/goods etc. and shall always give the most competitive price for its machines/equipments supplied to the Purchaser/Consignee.

16. Assignment

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

17. Sub Contracts

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

18. Modification of contract

- 18.1 If necessary, the purchaser may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:
- a) Specifications, drawings, designs etc. where goods to be supplied under the contract are to be specially manufactured for the purchaser,
 - b) Mode of packing,
 - c) Incidental services to be provided by the supplier
 - d) Mode of despatch,
 - e) Place of delivery, and
 - f) Any other area(s) of the contract, as felt necessary by the purchaser depending on the merits of the case.
- 18.2 In the event of any such modification/alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by the Purchaser/Consignee, the supplier shall convey its views to the Purchaser/Consignee within twenty-one days from the date of the supplier's receipt of the Purchaser's/Consignee's amendment / modification of the contract.

19. Prices

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

20. Taxes and Duties

- 20.1 Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until final acceptance of the contracted goods to the purchaser. However, for goods directly imported shall be guided by the INCOTERM.
- 20.2 Further instruction, if any, shall be as provided in the SCC.

21. Terms and Mode of Payment

21.1 Payment Terms

All Payments shall be released by the Purchaser. All such Invoice/Documents/Certificates/Reports as mentioned above shall be addressed as stipulated in Clause GCC8.10. Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner.

A) Payment for Domestic Goods or Foreign Goods Located within India

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

a) On delivery:

80% payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents:

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;

- (ii) Consignee Receipt Certificate as per Section XVI in original issued by the authorized representative of the consignee;
- (iii) Two copies of packing list identifying contents of each package;
- (iv) Inspection certificate issued by the nominated Inspection agency, if any.
- (v) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
- (vi) Certificate of origin.
- (vii) Dispatch Clearance Certificate issued by HSCC.

b) On Acceptance:

Balance 20% payment would be made against 'Final Acceptance Certificate' as per Section XVIII of goods to be issued by the consignees subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise. Final acceptance certificate will be released by the consignee on completion of installation, commissioning, training, successful running of equipment (at least 2-3 weeks) and handing over the equipment to the consignee.

B) Payment for Imported Goods:

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

a) On Shipment:

80% of the net CIP price (CIP price less Indian Agency commission) of the goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of documents specified hereunder:

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

b) On Acceptance:

Balance payment of 20% of net CIP price of goods would be made against 'Final Acceptance Certificate' as per Section XVII to be issued by the consignees 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. Final acceptance

certificate will be released by the consignee on completion of installation, commissioning, training, successful running of equipment (at least 2-3 weeks) and handing over the equipment to the consignee.

- c) **Payment of Incidental Costs** till consignee site & Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) will be paid in Indian Rupees to the Indian Agent on proof of final installation, commission and acceptance of equipment by the consignee.
- d) **Payment of Indian Agency Commission:** Indian Agency commission will be paid to the manufacturer's agent in the local currency for an amount in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation.

C) Payment of Turnkey, if any:

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

D) Payment for Annual Comprehensive Maintenance Contract Charges:

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

- 21.2 The supplier shall not claim any interest on payments under the contract.
- 21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.
- 21.4 Irrevocable & non – transferable LC shall be opened by the respective consignees. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser/consignee, the charges thereof shall be borne by the supplier.
- 21.5 The payment shall be made in the currency / currencies authorised in the contract.
- 21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.
- 21.7 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.
- 21.8 While claiming reimbursement of duties, taxes etc. (like sales tax, excise duty, custom duty) from the Purchaser/Consignee, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the supplier) shall refund to the Purchaser/Consignee forthwith.
- 21.9 In case where the supplier is not in a position to submit its bill for the balance payment for want of receipted copies of Inspection Note from the consignee and the consignee has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the paying authority without consignee's receipt certificate after three months from the date of the preceding part payment for the goods in question, subject to the following conditions:

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

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

22. Delivery/Delay in the supplier's performance

- 22.1 The supplier shall deliver of the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the contract.
- 22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:
 - (i) imposition of liquidated damages,
 - (ii) forfeiture of its performance security and
 - (iii) termination of the contract for default.
- 22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.
- 22.4 When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, inter alia contain the following conditions:
 - (a) The Purchaser/Consignee shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.
 - (b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.
 - (c) But nevertheless, the Purchaser/Consignee shall be entitled to the benefit of any decrease in price on account of reduction which takes place after the expiry of the date of delivery stipulated in the contract.

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

22.6 Passing of Property:

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

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

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

23. Liquidated damages

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

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

23.2 In the event of delay in submission of Proforma Invoice beyond 7 working days from the date of notification of award, the delay shall be to the account of supplier & Purchaser shall deduct Liquidated damages, as per clause 23.1. Proforma Invoice should be strictly as per the terms & conditions mentioned in Notification of Award / Tender Conditions.

23.3 Proforma Invoice submitted by supplier is found to be deficient, because of which purchaser is unable to open the letter of credit, delay shall be to the account of supplier & purchaser shall deduct liquidated damages as per clause 23.1.

24. Termination for default

24.1 The Purchaser/Consignee, without prejudice to any other contractual rights and remedies available to it (the Purchaser/Consignee), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser/Consignee pursuant to GCC sub-clauses 22.3 and 22.4.

24.2 In the event of the Purchaser/Consignee terminates the contract in whole or in part, pursuant to GCC sub-clause 24.1 above, the Purchaser/Consignee may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the Purchaser/Consignee for the extra expenditure, if any, incurred by the Purchaser/Consignee for arranging such procurement.

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

25. Termination for insolvency

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

26. Force Majeure

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

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

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

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

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

27. Termination for convenience

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

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

- a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
- b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing language

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

29. Notices

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

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

30. Resolution of disputes

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

30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier of Mauritius relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to arbitration in accordance with Laws of Government of Mauritius. In case of a dispute or difference arising between the Purchaser/consignee and a foreign supplier it shall be settled by arbitration in accordance with UNCITRAL Arbitration Rules. The award of the arbitrator shall be final and binding on the parties to the contract.

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

30.4 **Jurisdiction of the court shall be Mauritius.**

31. Applicable Law

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

32. Withholding and Lien in respect of sums claimed

Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other contract made by the supplier with the purchaser, pending finalization or adjudication of any such claim. It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred to above, by the purchaser, will be kept withheld or retained till the claim arising about of or under the contract is determined by the Arbitrator or by the competent court as the case may be, and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

33. General/ Miscellaneous Clauses

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

SECTION - V

SPECIAL CONDITIONS OF CONTRACT (SCC)

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

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

SECTION - VI
LIST OF REQUIREMENTS

Part I

S. No.	Name of Equipment	Qty.	Department	EMD (Rs.)
	OT/Surgery			
1	Full HDTV Endoscopic video camera with Recording System, Xenon Light Source (Endoscopic Sinus Surgery Set). Nasal Endoscopes 0°, 30°, 45°, 90° and 4mm & 2.9mm	2 Set 5 of each (40)	Operation Theatre	3,60,000/-
2	E.N.T. Operating Microscope	1	Operation Theatre	3,00,000/-
3	Electro Surgical Unit with Vessel Sealing Facility	4	Operation Theatre	1,20,000/-
4	Ceiling Shadow-less Double Dome OT Lights with Recording Camera	2 for Major OTs & 2 for Minor OTs	Operation Theatre	1,28,000/-
5	Operations Table for ENT	2 for Major OTs & 2 for Minor OTs	Operation Theatre	1,60,000/-
6	Anaesthesia Workstation	4	Operation Theatre	1,80,000/-
7	Coblation Unit	1	Operation Theatre	12,000/-
8	Nerve Stimulator Locater & Mapper	1	Operation Theatre	40,000/-
9	Neuro ENT Navigation System	1	Operation Theatre	3,00,000/-
10	Flexible Esophagoscope	1	Operation Theatre	50,000/-
	ENT Surgical Instruments			
11	FESS Instruments Set	2	Operation Theatre	18,000/-
12	Instruments for Microlaryngeal Surgery Set (MLS)	1	Operation Theatre	16,000/-
13	Shaver System Cum Micro Drill	1	Operation Theatre	24,000/-
14	Stapedectomy Set	2	Operation Theatre	20,000/-
15	Esophagoscope Set	2	Operation Theatre	20,000/-
16	Bronchoscopy Set	2	Operation Theatre	20,000/-
17	Tracheostomy set	2	Operation Theatre	20,000/-
18	Rhinoplasty Set	2	Operation Theatre	16,000/-
19	Video-Laryngoscope Set	1	Operation Theatre	12,000/-
20	Mastoidectomy Set + Tympanoplasty Set	2 Each	Operation Theatre	16,000/-
21	Direct Laryngoscope Set	2	Operation Theatre	4,000/-
22	Septoplasty Set	4	Operation Theatre	2,400/-
23	Tonsillectomy & Adenoidectomy Set	4	Operation Theatre	800/-

24	General Instruments Set for Head & Neck (for Minor OT)	1 Set	Minor Operation Theatre	12,000/-
25	Nasal bone fracture set	1	Operation Theatre	400/-
26	Caldwell luc set	1	Operation Theatre	600/-
27	Advanced Dental Chair Unit	3	1 for Endodontics + 1 for Orthodontics + 1 for Oral Surgery	72,000/-
28	Digital Panoramic X-ray machine with cephalometry	1	Orthodontics	30,000/-
29	Digital Apex Locators with graphic display + Endodontic Motor + Instruments Trolley	1 each	Orthodontics	10,000/-
30	Laser Based Optical Dental Cries Detection System	1 No.	Orthodontics	3,500/-
	<u>Radiology</u>			
31	CT Scan (64-Slices)	1	Radiology	24,00,000/-
32	Digital Flat Panel Radiography System	1	Radiology	4,00,000/-
33	Digital Mobile Radiography Unit	1	Radiology	2,00,000/-
34	Ultrasound with Biopsy Attachment	1	Radiology	80,000/-
	<u>ICU, Wards, Post-Op.</u>			
35	ICU Ventilators	4	ICU	2,00,000/-
36	Ventilator (Adult/Ped.)	1	Post-Op.	34,000/-
37	Central Station with 6 no. ICU Monitors	1 + 6	ICU	1,00,000/-
38	Central Station with 6 no. Bedside Ward Monitors + 3 Post-Op. Monitors – (Masimo Technology Product)	9	6 Wards + 3 Post-Op.	2,40,000/-
39	Defibrillator Biphasic	2	Wards	28,000/-
40	Syringe Infusion Pump	11	4 ICU + 5 Wards + 2 Post-Op.	14,600/-
41	Volumetric Infusion Pump	11	4 ICU + 2 Wards + 5 Post-Op.	14,600/-
42	Portable Spot Light	2	ICU	12,000/-
43	ECG Machine (6-Channels)	2	ICU	8,000/-
	<u>OPD</u>			
44	ENT Treatment Unit	2	OPD	60,000/-
45	Brainstem Evoked Response Audiometer (BERA) with ASSR	1	OPD	30,000/-
46	Puretone Audiometer	1	OPD	14,000/-
47	Impedance Audiometer	1	OPD	4,000/-
48	OAE- Otoacoustic Emission (Screening unit)	1	OPD	10,000/-

49	Flexible Nasopharyngolaryngoscope	Adult – 2no. & Pediatric – 2 no.	OPD	1,20,000/-
50	Electronystagmograph	1	OPD	8,000/-
51	Video Nystagmographic Machine (VNG)	1	OPD	12,000/-
	Laboratory			
52	Fully Automatic Clinical Chemistry Analyzer	1	Lab.	30,000/-
53	Fully Automatic Blood Count Analyzer (5-part)	1	Lab.	20,000/-
54	Automatic Coagulometer	1	Lab.	20,000/-
55	Automatic Blood Gas Analyzer	1	Lab.	50,000/-
56	Haemoglobinometer (Sahil or hellige)	1	Lab.	1,000/-

Part II: Required Delivery Schedule:

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

60 days from date of Notification of Award except, for MRI, CT Scan, DR System, DRF System, DSA, Gamma Knife, Gamma Camera, PET CT, Cath Lab. for which the delivery period will be 90 days from date of Notification of Award. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period).

b) For Imported goods directly from foreign:

60 days from date of opening of L/C except, for MRI, CT Scan, DR System, DRF System, DSA, Gamma Knife, Gamma Camera, PET CT, Cath Lab. for which the delivery period will be 90 days from date of opening of L/C. The date of delivery will be the date of Bill of Lading/Airway Bill. (Tenderers may quote earliest delivery period).

c) Installation & commissioning within 15 days of receipt of goods at site except for MRI, CT Scan, DR System, DRF System, DSA, Gamma Knife, Gamma Camera, PET CT, Cath Lab. for which installation & commissioning to be done within 60 days of receipt of goods at site.

Note: Indigenous goods or imported goods if supplied from Mauritius (offered in MUR) which are linked with supply of directly imported goods are to be supplied within the contractual delivery period as stated in para b) above.

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

Part III: Scope of Incidental Services:

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

Part IV:

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

Part V:

Warranty & Comprehensive Maintenance Contract (CMC) as per bid document.

Part VI:

Required Terms of Delivery and Destination.

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

At Consignee Site – Specified in the List of Requirements

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

b) For Imported goods directly from abroad:

The foreign tenderers are required to quote their rates on CIP Named Port of Destination Basis giving break up of the price as per the Proforma prescribed in the Price Schedule. Purchaser will place the order on Consignee site basis. The shipping arrangements shall be made by the supplier accordingly.

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.

Consignee/destination details as mentioned in Section-XXI.

Turnkey Works:

The Tenderer shall examine the existing site where the equipment is to be installed to assess the site condition for Equipment placement and installation. Whether the scope of Turnkey Works is mentioned in the Technical Specifications or not, the bidder's offer should be on a "Turn Key" basis including all costs associated with the supply, installation and commissioning of the equipment.

For equipment, the major Turnkey work to be carried out are given at the end of Technical Specification. The Tenderer to quote prices indicating break-up of prices of the Machine and Turnkey Job of Hospital / Institution/Medical College. The Turnkey costs to be quoted will be added for Ranking Purpose. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later. The Turnkey Work should completely comply with rules and regulations of Government of Mauritius, if any.

Bidders must take into consideration in its bid, the costs to be incurred for any additional work pertaining to civil, Electrical, Plumbing, sanitary, HVAC, IT requirements, Radiation protection as per rules and regulations of Government of Mauritius, furniture, servo stabilizers, U.P.S. etc. required for successful installation testing and commissioning of the Medical Equipment and the "All inclusive lump sum price" should include all such costs, each **schedule/package** is to be considered a package in itself and suppliers to execute the order package on a "turn key basis" including all civil, electrical, air – conditioning & allied requirement for the equipment, at the site.

For X-Ray and related equipment, bidders who have Type Approval/NOC of as per rules and regulations of Government of Mauritius/**concerned regulatory authorities wherever applicable** shall only be considered with documentary evidence. It shall be bidder's responsibility to get the equipment installed and commissioned as per rules and regulations of Government of Mauritius and installed and commission on "Turn Key basis".

Bidders must take into consideration in its bid the costs to be incurred for any additional work viz. Electrical cabling, plugs of suitable ratings from the source, Electrical points of suitable ratings, water connection, water drainage, plumbing, air-conditioning, Radiation protection/shielding, mechanical & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the quoted "All inclusive lump sum price" should include all such costs.

Section - VII
Technical Specifications

1. Full HDTV Endoscopic video camera with Recording System, Nasal Endoscopes with Xenon Light Source (Endoscopic Sinus Surgery Set)

A. Instruments	Quantity
1. 0 degree, 4mm, 18cm wide angle straight forward telescope, autoclavable	05
2. 0 degree, 2.9mm, 18cm wide angle straight forward telescope, autoclavable	05
3. 30 degree, 4mm, 18cm wide angle straight forward telescope, autoclavable	05
4. 30 degree, 2.9mm, 18cm straight forward telescope, autoclavable	05
5. 45 degree, 4mm 18cm wide angle straight forward telescope, autoclavable	05
6. 45 degree, 2.9mm 18cm wide angle straight forward telescope, autoclavable	05
7. 70 degree, 4mm, 18cm wide angle straight forward telescope, autoclavable	05
8. 70 degree, 2.9mm, 18cm wide angle straight forward telescope, autoclavable	05
9. Compatible handle for above telescopes	02
10. Sickle knife, pointed, 19cm long	02
11. Freer elevator should be double ended, semi sharp and blunt, 20cm long	02
12. Small size oblong shaped Antrum curette, straight, 19cm	01
13. Sinus curette 90deg and 55 deg curved	01 each
14. Antrum curette forward cutting small size, 19cm length	01
15. Double ended maxillary sinus ostium seeker, ball shaped ends diameter 1.2 and 2mm, length 19cm	02
16. Cottle elevator double ended, semi sharp and blunt, graduated, length 20cm	01
17. Conical suction tube should be malleable, with finger grip plate, luer lock, Outer diameter 2.5cm, working length 13cm	01
18. Antrum cannula, Luer-lock, with cut-off hole, short curved, outer diameter 3mm & 4 mm, length 12.5cm	01each
19. Bipolar coagulation forceps, insulated, angular, blunt, with integrated suction channel, with cut-off hole, length 19cm, to be supplied with Bipolar High frequency cord	01
20. Bipolar Suction forceps, 15 deg upturned, with suction channel, working length 12.5cm, to be supplied with Bipolar High frequency cord	02
21. Antrum punch for Left & Right side downward and forward cutting, working length 10cm	02 each
22. Nasal cutting forceps, working length 13cm	02
23. Antrum Punch, right & left side backward cutting, working length 10cm	02 each
24. Antrum grasping forceps for maxillary sinus, jaws curved to right, fixed jaw curved 90 deg, opening 120 deg, movable jaw backward, length 10cm	01 each
25. Blakesley nasal forceps, straight with working length 13cm	02
26. Blakesley nasal forceps, Upturned 45deg & 90deg with working length 13cm	01 each
27. Giraffe forceps 65deg upturn, cup jaws diameter 3mm with horizontal & vertical opening, length 12cm	01 each
28. Biopsy & Grasping forceps, vertical opening, malleable sheath end, cupped jaws diameter 4mm, working length 18cm	01
29. Sphenoid Punch, circular cutting circular punch, dia 4.5mm, working length 18cm	01
30. Sphenoid Punch, 65 deg upturned, circular cutting, dia 3.5mm, length 17cm	01
31. Nasal Scissors (Straight, right & left)	01 each
32. Antrum punch (small) Pediatric size, backward cutting	01
33. Biopsy forceps for nasopharynx	02 Nos.
34. Turbinectomy Scissors	02 Nos.
35. Tilley henckel forceps	04Nos
36. Through cut forceps (straight & 45deg) – 18x3mm, 11.5x3.5mm	02Nos each
37. Malleable suction	02 Nos.

38. DCR punch	02 Nos.
39. Frontal sinus seeker(Double ended 22cm- 70deg and 90deg)	01 each
40. OTO endoscope – 2.7mm(0deg and 30deg- 75mm) , 4mm (0deg- 50mm)	01 each

B. XENON LIGHT SOURCE AND LIGHT CABLE

1. High light intensity with 300watt Xenon Lamp(with one extra spare bulb)
2. High colour temperature – more than 6000 K corresponds to brightness of sunlight resulting in high visual and photographic clarity for colour rendition.
3. Monitoring of lamp function.
4. Unit should be compatible with Communication Bus system for remote controlled operation of the various features along with other equipment. .
5. Lamp type- Xenon lamp, 300 watt
6. Colour temperature- approx. 6000 K
7. Light outlets - 1
8. Light intensity adjustment continuously adjustable from 0 to 100% either manually or Automatically by the camera video-output signal.

C. FIBER OPTIC LIGHT CABLE Size 3.5 to 5mm, length 250 -275cm

D. Point A and B should be from same manufacturer and should be European CE / US FDA approved.

Note for Instruments sets

TITANIUM INSTRUMENTS :

1. All Instruments should be of international quality and made from surgical grade titanium.
2. The “Hinges” should be rust proof
3. The instruments should be guaranteed against metal fatigue and rust for atleast 02 years. Further repair should be available for next 5 years.
4. The instruments surface should be non-reflective.
5. The brand name along with catalogue number should be etched on the instruments.
6. The other instruments should be made of high grade titanium, they should not magnetize with use and the surface should be non-reflective and glare free under OT light.
7. Satisfactory Performance Certificate from Reputed Government Hospital is mandatory.
8. The instruments might be call for demonstration and approval. It is the sole discretion of the department to approve or disapprove the quality.

STAINLESS STEEL INSTRUMENTS :-

1. All Instruments should be of international quality and made from surgical grade stainless steel. Documentary evidence required for grade of material.
2. The “Hinges” should be rust proof
3. The instruments should be guaranteed against metal fatigue and rust for 02 years.
4. The instruments surface should be non-reflective.
5. The brand name along with catalogue number should be etched on the instruments.
6. The instrument should be CE & FDA approved.
7. The instruments might be call for demonstration and approval. It is the sole discretion of the department to approve or disapprove the quality.

Full HDTV Endoscopic video camera with Recording

1. The latest system should be truly Digital Full HDTV Endoscopic video camera. The system should qualify all the essential criteria for full HDTV system:

- a. Maximum Resolution of 1920 X 1080 pixels: Progressive scan.
- b. Consistent use of 16: 9 format for Input & Output to guarantee genuine HDTV.
- c. HD CCD sensing chip should optimize image quality & Digital Source Sampling for maximizing high fidelity image transmission.
- d. Optimizes to Any Size: The system should have integrated Optical Zoom (f= 14- 30 mm, 2X) to enhance the quality of Image size & cross specialty standardization of the camera system, regardless of the telescope used.
- e. The system should automatically optimize all settings. The system should be ready- to- use as soon as it is connected to the camera control unit.
- f. The system should have the facility to use a single camera control unit for all camera heads (either single chip or three chip) thus minimizing preparation & maximizes interspecialty Standardization.
- g. The system should be Menu driven, thus allowing the surgeon to program the camera head functions as per the surgical needs & requirement.
- h. The system should be capable of controlling the light control function from the camera head buttons without any additional requirement of hardware & software.
- i. Automated digital image enhancer
- j. Should have USB/ Image capture interface for direct storage of still/ video sequences

2. Technical Specifications:

- a. Image sensor: 3X1/3" CCD-Chip.
- b. Pixels 1920 x 1080
- c. AGC: Microprocessor controlled
- d. Lens: Integrated Parfocal Zoom Lens, f=14mm-30mm.

3. HD TV widescreen Monitor -The monitor should have : 01 each

- a. HDTV display in original 16: 10 HDTV format.
- b. 1080 p/ 50 & 1080 p/60 displays possible.
- c. HD LCD crystal display.
- d. Max. Resolution of 1920X1200 pixels.
- e. Screen diagonal – minimum 23".
- f. Desk top with pedestal.
- g. Should have USB image capture module interface for direct transfer of still and video images.
- h. Trolley for whole unit

All Equipment should be from same manufacturer and should be European CE / US FDA approved.

2. E.N.T. OPERATING MICROSCOPE

FLOOR STAND

1. Rollable floor stand on base with lockable castors, carrier and swivel arms with large reach of 1.30 m or higher, Weight caring capacity at least 18 Kg. Should have free float magnetic system with Six magnetic brakes Three brakes for Microscope body & three for Microscope Stand with, release of magnetic brakes by handgrips.
2. Manipulation to any position with locking for trouble free operation
3. Suitably Placed LCD display of function and parameters, individual programming for different Surgeons.

MICROSCOPE BODY

1. Motorized Zoom Magnification system with advanced apochromatic optics. Zoom magnification factors 0.4x to 2.4x activation by handgrip and foot control panel.
2. Total Magnification range 2 X to 18 X or better activated by hand grip and foot control without exchange of objective lens. Integrated continuously variable illumination field from 60mm-15mm or less. 3.
3. Internal Motorized fine focusing system activated by hand grip and foot control continuously. 4. Adjustable working distance from 200-225 mm to 500-525 mm or more without exchange of objective lens, integrated continuously variable illumination field spot size
5. Integrated 50:50 beam splitter with two additional output inbuilt for connection of co- observation device and video.
6. Binocular Stereo co observation system movable in all axis for assistant surgeon/ teaching purpose Future up gradation to XY module Frequency range between 50-60 Hz. Automatic Circuit Breaker Adjustable friction of all joints Microscope should be movable on an inclined coupling for positioning in lateral direction. The maximum stretching length of the horizontal arm to be not less than 1000mm. The swivel angles of the carrier arm not less than 300 degree. Balanced microscope with integrated technology to manoeuvre the microscope in all directions with minimal force.

BINOCULAR TUBE

1. 180 Degree or more tilt able binocular tube with focal length $f= 200$ mm or more
2. Graduated knob for continuous adjustment of inter-pupillary distance from 55 mm to 75 mm.

EYE PIECE

1. Pair of wide field push in eye piece 10X with magnetic locks
2. Diopter setting from -8 D to +5 D, also suitable for spectacles wearers

ILLUMINATION SYSTEM

1. Coaxial xenon illumination minimum 300 Watt with a back up quick easy lamp changer Xenon bulb

HANDGRIPS

1. Easily adjustable handgrips with keys for zoom and focus, illumination and magnetic brakes
2. Programming for magnetic brake for control of stand and microscope body brakes Fine Easy auto-balance function with touch of a button/touch screen panel.

FOOT CONTROL PANEL

Full function foot control panel with Control keys for zoom, focus, movements and light intensity

INTEGRATED DIGITAL VIDEO CAMERA SYSTEM:

Advanced digital 3CCD full HD Video camera should be Integrated in the microscope body, suitable for connection to PC, colour monitor.

USER PROGRAMMING:

Programming for starting illumination, Magnification, working distance, Zoom speed & Focus speed for at least 8 - 9 different users.

VIDEO/ IMAGE DATA MANAGEMENT SYSTEM:

Should have fully integrated digital video recording system & still photo with direct recording on USB hard drive & Pen Drive & optional networking facility.

VIDEO MONITOR:

Medical grade Full HD 17" or more display should be mounted on Microscope stand.

UPS & CVT:

Suitable UPS with One hour backup time with SMF Batteries & Stand. Should be able to work on wide input range between 160-270 VAC at 9frequency between 50Hz \pm 2Hz, Should use PWM technology with power conversion with single transformer arrangements with an output of 220VAC \pm 5%, protection of overload, short circuit and low battery. Should have indication on front panel for mains load/battery load/ battery overload-low and MCB protection in case of short circuit. ISI/CE approved good quality Indian make. Compatible CVT should be supplied for protection from voltage fluctuation.

Above microscope should be compatible for attachment of LASER.

Power requirement 220-240 volts50Hz

US FDA& European CE approved.

Any Other accessory which is must for smooth functioning/maintenance of the equipment.

Sterile drapes -- 20 numbers

Physical Demonstration if needed.

3. Electro Surgical Unit with Vessel Sealing Facility

- Microprocessor Controlled Electrosurgical Unit.
- TFT Display with Focused view of current active mode.
- Visual and audible alarms during activation.
- Facility to store 99 programs.
- Should have vessel sealing output.
- Should have Bipolar CUT/COAG facility.
- Should have Auto Start and Auto stop facility for bipolar modes.
- Automatic Control of output power according to tissue resistance
- Visual indicator for the actual power being delivered.
- Vessel sealing for laparoscope and open surgeries.
- Monopolar CUT - 1 to 300 w and Monopolar COAG -1 to 200 w.
- Bipolar CUT – 1 to 100 w and Bipolar COAG – 1 to 120
- Special mode for vessel sealing with Auto stops function.
- Special Bipolar Resection Modes for under water cutting & Coagulation (for saline TURP)
- FDA approved instruments for 7 mm Vessel Sealing.
- Reusable Vessel sealing instruments for open Surgery.
- Automatic instruments recognition for vessel sealing instruments.
- 5 mm Laparoscopic instruments for vessel sealing with cutting facility.
- Should be supplied with open vessel sealing instruments suitable for all kind of open surgeries.
- Should have universal socket for Monopolar , Biopolar and Neutral Electrode.
- Should have continues patient monitoring for neutral electrode.

4. Ceiling Shadow-less Double Dome OT Lights with Recording Camera (For Two Major OTs & Two for Minor OTs)

Double dome with major dome should have Illumination of 1,60,000 Lux and minor dome 1,20,000 Lux or more

- Intensity Control in 5 or more variable steps for individual domes.
- Height Adjustment should be possible.
- Action Radius :1850mm • Possible Movements :Radial, Angular & Axial
- Colour Temperature :4500K and above
- LED technology: minimum 40,000 hours lamp life
- Intensity, brightness, contrast and power switch to be made available on handle/wall-check.
- Focal distance(d_1+d_2)=0.8 to 1.2 m
- Temperature rise on the keep of surgeries to be less than 10°
- CR± approx. 95 or more
- 360° rotation for both arms
- User's interface Manual
- Heat Dissipation: Should maintain nominal Temp and the heat should be disbursed through an cooling mechanism
- Power Requirements Recharging unit: Input voltage- 220V-240V AC, 50Hz
- Tolerance (to variations, shutdowns) Voltage:±10%,Frequency:±2%
- Operating condition: Capable of operating continuously in ambient temperature of 10 to 40°C and relative humidity of 15 to 90% in ideal circumstances.
- Storage condition: Capable of being stored continuously in ambient temperature of 0 to 50°C and relative humidity of 15 to 90%.
- Disinfection: Parts of the Device that are designed to come into contact with the patient or the operator should either be capable of easy disinfection or be protected by a single use/disposable cover.
- Should be US FDA/CE and ISO 13485 approved product.
- Pre-installation requirements: nature, values, quality, tolerance a. Availability of 5 amp socket; b. Safety and operation check before handover;
- Training of staff (medical, paramedical, technicians)
 - a. Training of users on operation and basic maintenance;
 - b. Advanced maintenance tasks required shall be documented

5. Operation Table for ENT (For Major & Minor OTs)

TECHNICAL SPECIFICATIONS

1. It should be a mobile universal electric /electro-hydraulic operating table with 5 section table top. Having specialized accessories for General Surgeries
2. Should have st. steel column with integrated table top, all powered motorized movements including Trendelenburg / Anti-Trendelenburg / Lateral Tilt / Back Section / Back Lift for sitting position must happen with electric / electro-hydraulic drives.
3. All tables sections except half-back / central section should be quickly detachable using easy latch mechanism to suit all surgical needs.
4. Should have removable and interchangeable head and leg sections with an auto-locking mechanism to suit different functions and orientation identifiable by handset
5. The system should be modular and should have mechanically encoded coupling joints.
6. The system should have electrical and functional impact prevention safety with microprocessor and linear and angular position sensors avoid collisions between the motorized sections and the table or the floor
7. Table should be equipped with a motorized table top slide of approx. 350-400mm or more
8. All table positions height, lateral tilt, back, trendelenburg, reverse trendelenburg and zero leveling, longitudinal sliding, table base locking and unlocking should be electro-hydraulically operated using a touch switches on hand held controller. It should also indicate the patient orientation as reverse / normal.
9. Should have automatic 0 (Horizontal) position switch on hand held controller. Handset to provide Real-time pictorial display of table and patient positions for quick adjustments.
10. The table should be equipped with both electronic override control panel embedded in the centre column body offering all the controls as in the hand held controller. Should also have manual back-up from foot operated system
11. Table top reconfiguration should be quick and uncomplicated. Should have head rest with gas spring, double articulation type and pair of Split LEG rest with 0 deg. / 90 deg. Abduction facility and leg section up/down* \pm 90 deg.
12. Should have latest Cordless Bluetooth Hand Control for all Powered motorized / electro-hydraulic movements. The color screen should be with backlit for endoscopic procedures. Should also have min. two to maximum six memory position selectable by surgeon for pre-determined table positions e.g. Beach Chair
13. Fully charged 2x sealed gelified-lead 12V batteries should be sufficient for full week operative schedule. The centre column panel/base hand held controller should indicate the charging status and table battery status. Should be operational while batteries being recharged
14. The table should have heavy duty minimum antistatic large swivel castors with central hydraulic locking.
15. The table top should be made up of scratch-less X-Ray C-Arm translucent material and should provide full access for C-arm permitting high quality images and should allow easy X-ray with cassette holder bracket
16. Should be Radiolucent no metallic cross links between the bars. Table top frame, coupling points and standard rails should be resistant to disinfectant agents and constructed with easy-to-clean St. Steel.
17. The base column should have cover of stainless steel and should prevent the ingress of fluid protection by PVC bellows
18. Should have moulded, antistatic with no seams, Polyurethane foam Mattress with easy to fix Velcro system to stop slippage. Mattress must be Latex free.
19. Table electronics should allow table to be connected remotely for diagnostics and maintenance service saving time for productive surgery
20. Should have safe patient weight load capacity of at least 270kg or more in all position. The stationary patient weight capacity should be 350kg or more. The literature should support both types of weight capacities.
21. The table should have additionally a foot operated controls unit for Trendelenburg / Anti-trendlenburg, tilt and height

22. **Table SPECIFICATIONS:** $\pm 5\%$ deviation is allowed

- a. Height adjustment: min. 580-680 mm, max. 1100-1200 mm
- b. Side tilt: min, 18-20 degree
- c. Back (seat) section adjustment: -40 degree to + 80 degree
- d. Trendelenburg adjustment : 30-40 degree
- e. Reverse Trendelenburg adjustment : 25-30 degree
- f. Max. width : Min. 520-560 mm with rails
- g. Overall length : 200-220 cm
- h. Motorized Longitudinal slide of 350-400mm
- i. Flex / reflex: 220 degree /120 degree
- j. Kidney break /bridge elevation > 4inches
- k. Power input to be 220-240 VAC, 50 Hz fitted with Indian plug

23. **SET of accessories from same source as table:**

- i. Arm positioning support with radiolucent pad and clamps – One pair
- ii. Shoulder supports with Clamps-One pair
- iii. Anesthesia Screen – 1 no.
- iv. Infusion pole – 1 no.
- v. Body strap with locking Clamps – 2nos. (One Large and One Extra large)
- vi. Raised arm Support - One
- vii. Simple Lateral support with rectangular rubber pads-One pair
- viii. Lithotomy Goepel Leg Support with Ball socket joint movement – One pair
- ix. Adjustable instrument st. steel table, bridge shaped with clamp- One
- x. Head Gel Pad ring- 1nos. – adult and pediatric each.
- xi. Set of Visco / Gel 3D pads for supporting: Chest flat Roll, Sacral pad, heels pads (Pair) – each.

24. **Terms and conditions**

1. In case the table is imported the accessories must also be imported with the table and must not be locally sourced.
2. The quoted equipment should be having US-FDA approval.
3. Original catalogue and literature to be enclosed.
4. The vendor should have a good service and application back up along with instruments to provide an effective trouble shooting and support. (response time < 24 hours)
5. All technical bids comparative statement to the tender specifications must be enclosed along with reference no., paragraph no. from original catalogue of the equipment.

6. Anaesthesia Workstation

1. Anaesthesia Workstation is used for delivering anaesthesia agents to the patients during surgery. The complete unit also monitors the vital signs and ventilates the patient from neonatal to adult.

2. a) Anaesthesia Workstation complete with Anaesthesia gas delivery system.;Circle absorber system.;Precision vaporiser for halothane, isoflurane and Sevoflurane ;Anaesthesia ventilator. Monitoring system to monitor Anaesthetic gases, ECG, EtCO₂, Pulse Oximeter and airway pressure, NIBP, IBP (No as required) , rectal/ & skin temperature. b) Essential accessories to make the system complete

2.1 Demonstration of the equipment is a must.

3. Technical Specifications

3.1 Flow management

1. Should be Compact, ergonomic & easy to use
2. Machine should provide electronic gas mixing.
3. Multi-color TFT display of at least 12" size, with virtual flow meters for O₂, N₂O or Air
4. Dual flow sensing capability at inhalation and exhalation ports.
5. Should have back-up O₂ control which provides an independent fresh gas source and flow meter Control in case of electronic failure.
6. Gas regulators shall be of modular design/ graphic display
7. One no. yoke each for Oxygen & Nitrous Oxide. Separate Pipeline inlet for Oxygen , Nitrous Oxide and Air
8. Hypoxic Guard to ensure minimum 25% O₂ across all O₂-N₂O mixtures and Oxygen Failure Warning.
9. Should have integrated EtCO₂ monitor.
10. Should display flow, volume & pressure/volume loops.

3.2 Breathing system

2. Latex free fully autoclavable.
3. Flow sensing capability at inhalation and exhalation ports, sensor connections shall be internal to help prevent disconnect.
4. Sensor should not require daily maintenance.
5. Bag to vent switch shall be bi-stable and automatically begins mechanical ventilation in the ventilator position.
6. Adjustable pressure limiting valve shall be flow and pressure compensated.

3.3 Vaporizers

1. New generation Vaporizer must be isolated from the gas flow in the off position and prevent the simultaneous activation of more than one vaporizer.
2. Vaporizer should mount to a Selectatec manifold of 2 vaporizers, which allows easy exchange between agents. Temperature, pressure and flow compensated vaporizers and Maintenance free - for Isoflurane, Halothane, and Sevoflurane

3.4 Ventilation

1. The workstation should have integrated Anesthesia Ventilator system.
2. Ventilator should have Volume Control and Pressure Controlled and SIMV modes.
3. Ventilator should have a tidal volume compensation capability to adjust for losses due to compression, compliance and leaks; and compensation for fresh gas flow.
4. The workstation should be capable of delivery of low flow anesthesia.

5. Ventilator should be capable of atleast 120-150 L/min peak flow to facilitate rapid movement through physiologic —dead space in the Pressure Control mode
6. Bypass cardiac mode
7. Tidal volume: 5ml-1400ml

3.5 1. Anesthesia Monitoring Specifications: 19" TFT Screen

- a. Monitoring of vital parameters: ECG, NIBP, SPO2 and two Invasive Blood Pressure.
- b. Twin temperature measurement with skin and rectal probes- Two sets with each monitor
- c. Automatic identification and measurement of anesthetic agents, EtCO2, O2 and N2O and MAC value. FiO2 measurement. To be available either on M/c or monitor. It should have a paramagnetic sensor with O2 Sensor.
- d. Depth of Anesthesia Monitoring module - one per monitor with 50 sensors with each monitor
- e. Neuromuscular Transmission Monitoring with all accessories. One set with each monitor
- f. Cardiac Output measurement facility by thermo dilution technology with all accessories- one set for three monitors.
- g. 24hrs of graphical and numerical trending
- h. Should have Hemodynamic, Oxygenation and Ventilation calculation package. Should also have Ventilation Data available on monitor.
- i. Should include inbuilt Anaesthesia record keeping software facility in all OT monitor to document anesthesia event using standardized menu based entries.
- j. Facility to store snapshots during critical events for waveform review at a later stage
- k. Audio visual and graded alarming system
- l. Monitor should be USFDA approved

2. Display of Ventilator:

- a. Tidal volume (VT)
- b. Inspiratory/expiratory ratio (I:E)
- c. Inspiratory pressure (Pinspired)
- d. Pressure limit (Plimit)
- e. Positive End Expiratory Pressure (PEEP)

3.6 Centralised Monitoring and Networking:

Web Browsing feature for browsing near real time waveforms and graphical & numerical trend upto 24hrs remotely through telephone dial in facility. Compatible with HIS system of the hospital.

3.7 Automatic Recording System

4. System Configuration Accessories, spares and consumables

- 4.1 Anaesthesia Gas Delivery system -01
- 4.2 Circle absorber -01
- 4.3 Ventilator -01
- 4.4 Monitor -01
- 4.5 Vaporiser Halothane -01
- 4.6 Vaporiser Sevoflurane -01
- 4.7 Vaporiser Isoflurane -01 & Vaporizer Desflurane -01
- 4.8 Adult and Paediatric autoclavable silicone breathing circuits -02 ea
- 4.9 Reusable IBP Transducer -04. Reusable IBP cables -04. Disposable Transducers - 100
- 4.10 Disposable domes-100
- 4.11 Temp probe Skin reusable- 02
- 4.12 Temp probe Rectal Reusable-02
- 4.13 Accessories Anesthetic gases-01 set

- 4.14 Depth of Anesthesia Sensors-100 adult & 100 pediatric
- 4.15 Accessories for Cardiac Output module- 01 set
- 4.16 Accessories for neuromuscular transmission monitor- 01 set
- 4.17 Standard accessories to make all parameters working- 01 set
- 4.18 Disposable Adult & Paediatric circuits- 100 ea.
- 4.19 HME filters.- 100
- 4.20 Vital Parametrer Accessories-01 Set
- 4.21 Nellcor/Masimo SpO2, Adult, Ped., Neonatal Sensor-2each
- 4.22 NIBP/Adult, Ped., Neonatal Cuff – 2 each

5. Environmental factors

- 5.1 The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%
- 5.2 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
- 5.3 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
- 5.4 Safe disposal system of waste anaesthetic gases should be either in place or should be recommended along with the bid if not available. Supplier will be held responsible if this is not ensured at the time of installation.

6. Power Supply

- 6.1 Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate fitted with Indian plug
- 6.2 Resettable over current breaker shall be fitted for protection
- 6.3 Suitable Servo controlled Stabilizer/CVT
- 6.4 UPS of suitable rating shall be supplied for minimum 1 hour backup for the entire system

7. Standards, Safety and Training

- 7.1 Should be FDA or CE approved product
- 7.2 Electrical safety conforms to standards for electrical safety IEC-60601 /IS-13450
- 7.3 Manufacturer should be ISO certified for quality standards.
- 7.4 Certified to be compliant with IEC 60601-2-13-Medical Electrical equipment part 213: Particular requirements for the safety of Anaesthesia Workstations
- 7.5 Should have local service facility .The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.
- 7.6 All imported components like anaesthesia machine, monitor and ventilator should be from one manufacturer/principal.
- 7.7 Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.
- 7.8 Comprehensive warranty for 1 year and provision of CMC for next 3 years.

8. Documentation

- 8.1 User Manual in English
- 8.2 Service manual in English
- 8.3 List of important spare parts and accessories with their part number and costing
- 8.4 Certificate of Calibration and inspection from the factory
- 8.5 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

8.6 List of Equipment available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.

8.7 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue/data sheet. Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.

8.8 Must submit user list and performance report within last 5 years from major hospitals.

7. Coblation unit for ENT

1. Controlled Ablation of tissues based on low temperature Bi- Polar Radio frequency technology in electrolytic solution like normal saline. The system should not any need for the secondary patient grounding pad.
2. The bipolar- RF probe should have multi Electrode Technology that will allow a uniform production of plasma/ Laser Technology
3. The generator should have integrated saline pump for continuous irrigation of the surgical site.
4. The output voltage settings should be controlled by the regulation on the generator from setting 1-9.
5. The generator should have a feature of Automatic scope saver, i.e. when the probe comes too close to endoscope the controller pauses radio frequency output and resumes radio frequency output when the probe is returned to safe distance
6. The generator should have facility to use a foot switch for convenience and ease of use.
7. There should be facility to adjust coblation and coagulation with different settings.
8. The generator should able to take different types of probes for open and minimally invasive ENT procedures.
9. It should be able to take multiple ranges of wands for Tonsillectomy, turbinate reduction, adenoids, soft palate applications operating in the temperature range of 40 deg C to 70 deg C at tissue level and supplied with 2 wands of each application.
10. The 100-200 μm plasma field (containing highly energized particles) allows for precise volumetric removal of soft tissue with minimal thermal damage to untargeted tissue.
11. Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA (US)/ STQC CB Certificate/ STQC S Certificate or valid detailed electrical and functional safety test report from ERTL. Copy of the certificate/ test report shall be produced along with the technical bid

8. Nerve Stimulator Locater & Mapper

- Microprocessor controlled constant current delivery.
- Reliable and accurate current delivery.
- Stimulator, mapper and nerve locator modes in one unit.
- Compact size, light weight and user friendly.
- Alphanumeric LCD display with back light and touch key pad.
- Should have nerve stimulation mode, nerve mapper Mode for transcutaneous
- Tracing and motor and sensory nerves locator modes.
- Nerve stimulation mode should have Twitch, TOF, Tetanus, Double Burst stimulation and Post Tetanic Count.
- Should have audible alert before actual pulse delivery.
- Variable current range as per the selected mode.
- Separate output for stimulator, mapper and locator modes.
- Should work on mains power as well as on in- housed rechargeable batteries.

9. Neuro ENT Navigation System

Neuro Navigation System should include below features:-

- High performance Image-Guided Surgery platform that works with Windows/Linux/Unix Operating System Environment
- System should have low/economical recurring disposables cost.
- System should offer DICOM, CD/DVD, USB data transfer to navigation system.
- System should offer external input panel for S. Video, BNC, USB and network ports.
- System should offer 2 monitors one for surgeon and one for technician. Surgeon monitor should be of minimum 27" full HD.
- System should offer hybrid optical technology Wireless Active or Passive.
- System should have inbuilt UPS.

Instruments:-

- Instrumentation should be designed specifically for image guided surgery.
- System should have wireless active or passive instruments.
- System should offer total control of software from sterile field.
- No additional personnel required to run the system during surgery.
- Durability: Instruments should be autoclavable.
- Integrated Instruments along with universal adapter kit to navigate hospital trolley instruments like suction, drills, etc.
- Validation of navigable instruments can be done easily.
- System should provide Recalibration of factory calibrated navigable range of instruments in case instrument alignment is out.
- The system should provide dynamic referencing so that registration is not lost even of patient & camera moves.
- The system should be USFDA approved.

Neuro Software :-

The software is the interface that links the surgeon to the navigation system and should be :-

- User friendly software and intuitive.
- Easy to maintain and support.
- System should accept image fusion/correlation between multiple CT images.
- System should be able to view to see 3-D image of patient anatomy.
- System should have annotation points which can be seen during surgery
- System should give audio feedback during registration.
- System should incorporate rescue points to recover navigation registration during surgery in case of registration accuracy loss during surgery.
- System should be able to mark danger areas & system should alert when reaching the marked areas.
- System should have neuro workflow oriented sequences.
- System should provided easy and fast registration process.
- System should provided Pinless navigation.
- System should be capable of doing following procedures:-
 - o Carniotomies
 - o Endonasal Approach
 - o Shunt Placement
 - o Biopsy (Frameless)
 - o Trans Nasal

- o ENT workflow oriented sequences
- o Capable for FESS & Skull base surgeries
- System should have advanced auto segmentation capabilities & should be able to perform following segmentation:-
 - o Brain
 - o Tumor
 - o Vasculature
 - o Skull, Skin
 - o Ventricles
 - o Custom
- System should support surgeries in following positions:-
 - o Supine
 - o Prone
- System should support frameless biopsy.
- The software should have capability to fuse axial, sagittal & coronal image sets of different modalities.
- System should be supplied with Zeiss Pentero Microscope Intergration.
- Should have the feature of following registrations:-
 - o Paired points (sticky markers or anatomic landmarks)
 - o Surface matching (fiducial-less: no image add-on on preoperative CT/MRI/CTA/MRA/DTI/fMRI/PET/SPECT images)
 - o Automatic Registration
- Spine software:-

The software is the interface that links the surgeon to the navigation system and should be of

 - Based on windows operating system.
 - Familiar, easy to use interface.
 - Low cost hardware.
 - Easy to maintain and support.
 - Advanced features such as image fusion between multiple CT for pedicle screw placement and spinal tumor.
 - Unique perspective view to see 3-D image of patient anatomy.
 - Should have annotation points which can be seen during surgery.
 - Audio feedback during registration.
 - Rescue points to recover navigation registration during surgery in case of registration accuracy loss during surgery.
 - Capability to mark danger areas & system should alert when reaching the marked areas.
 - Spin workflow oriented sequences.
 - Easy & fast registration process.
 - System should have advanced auto segmentation capabilities.
 - System should have capability work with screw implants from any company.
 - The software should have the capability to fuse axial, sagittal & coronal image sets of different modalities.
 - Should have capability to store user defined view.
 - Should have inbuilt planning software for Spin Screw planning.
 - Should have pre-calibrated instrument like AWL, pedicle feeler and also have possibility to navigate conventional instruments.

10. Flexible Esophagoscope

1. The Video Esophagoscope should have CCD chip on the tip technology.
2. Directions of view: 0°
3. Angle of View: Minimum 140°
4. Depth of illumination: 3-100 mm
5. Insertion tube diameter: 5.2-9.8 mm
6. Instrument/suction working channel: minimum 2.8-3.2 mm
7. Working Length: minimum 1050-1100mm
8. Tip angulation (up/down): Minimum 210°/120° for viewing Crico pharyngeal muscles
9. It should have a rotatable PVE connector for easy maneuverability by 180°
10. The unit should be able to be sterilized by ETO/Plasma sterilized/liquid solutions
11. Unit should be supplied with compatible:
 - Flexible Biopsy forceps: 1
 - ETO Venting Cap: 1
 - Leakage tester: 1
 - Biopsy valves (disposables): 10
 - Cleaning brush kit: 1
12. VIDEO PROCESSOR, LIGHT SOURCE AND AIR PUMP FOR ABOVE VIDEO SCOPE. Video Processor should have digital signal processing high resolution color CCD Chip with 2RGB, 2Y/C and 1 BNC Video output connectors for external devices like recording and printing, dedicated keyboard for data entry. The Processor should have zoom facility up to 2X and PIP function. White balance function should be incorporated in the unit. The Processor should automatically adjust illumination for maximum clarity during endoscopic procedure. The Processor should be supplied with RGB, Y/C, BNC cables and keyboard. The Video Processor should either have inbuilt Light source with minimum 100-300 watts Xenon bulb with a standby LED bulb or Bidders can quote Xenon light source separately with same specifications. Light source should be automatic and manual control. Air pump should be in-built in the light source.
13. Power supply to be 220-240VAC, 50Hz fitted with Indian plug.
14. Suitable UPS with maintenance free batteries & Back up time 30 minutes.
15. US FDA / European CE /BIS Approved model should be offered.
16. Cooling system should be forced air cooling.
17. Endoscopy Trolley should be provided.
18. LCD digital monitor should be provided, Min. size 21", colour medical grade.
19. Other Accessories:
 - a. Biopsy forceps- 4nos.
 - b. Foreign body forceps – 4nos.
 - c. Foreign body basket – 3nos.
 - d. Bite block – 1no.

11. FESS SURGERY SET

- 1 Blaksley nasal forceps straight
- 2 Blaksley nasal forceps 45 degree
- 3 Blaksley nasal forceps 90 degree
- 4 Tru-cut forceps straight
- 5 Tru-cut forceps 45 degree
- 6 Tru-cut forceps 90 degree
- 7 Backbiting forceps plain
- 8 Backbiting forceps rotatable
- 9 Double ended ball probe
- 10 Sickle knife
- 11 Antrum punch backward cutting downward
- 12 Antrum punch backward cutting upwar
- 13 Super punch through cutting upward
- 14 Super punch through cutting straight
- 15 Freer's elevator with suction
- 16 Giraffe forceps
- 17 Frontal sinus suction
- 18 Maxillary sinus suctio

12. INSTRUMENTS FOR MICROLARYNGEAL SURGERY (MLS)

S.NO: INSTRUMENT	QUANTITY
1 Operating laryngoscope Adult size-18cm- Large	2
2 Operating laryngoscope Adult size-18cm-Medium	2
3 Anterior commissure scope Adult size-22cm	1
4 Crico –Pharyngoscope	1
5 Laryngoscope – Pediatric	1
6 Laryngoscope holder and chest support for use with above laryngoscopes Adult size (ring 9.5 cm, rod 34 cm)	2
7 Laryngoscope holder and chest support Child size (ring 9.5 cm. Rod 24 cm)	1
8 Fiber optic light carrier to fit in operating laryngoscopes Adult size	2
9 Fiber optic light carrier to fit in operating laryngoscopes Child size	2
10 Straight forward wide angle telescope-4mm 30cm length- 0° angle, autoclavable with attached handle	1
11 Fiber optic light cable, fully autoclavable 4.9mm-180cm with adapters for use with light source and above scopes	2
12 Laryngeal cutting forceps-23 cm 2mm round cupped jaws, straight	2
13 Laryngeal cutting forceps-23 cm 2mm round cupped jaws, angular upwards	2
14 Laryngeal cutting forceps-23 cm 2mm round cupped jaws, bent to right	2
15 Laryngeal cutting forceps-23 cm 2mm round cupped jaws, bent to left	2
16 Laryngeal artery forceps with ratchet-23 cm Serrated, straight	1
17 Laryngeal alligator forceps-23 cm Serrated –straight	2
18 Laryngeal alligator forceps-23 cm Serrated -bent to right	1
19 Laryngeal alligator forceps-23 cm Serrated -bent to left	1
20 Laryngeal scissors-23 cm Straight	3
21 Laryngeal scissors-23 cm Angular 45° up	2
22 Laryngeal scissors-23 cm Bent to right	2
23 Laryngeal scissors-23 cm Bent to left	2
24 laryngeal scissors-23 cm Straight, horizontal cutting	2
25 Laryngeal forceps-23 cm Round cupped jaws 5 mm, straight, double action	2
26 Laryngeal grasping forceps for arytenoids-23 cm	1
27 Laryngeal biopsy forceps-23 cm Oval cup shaped jaws	2
28 Laryngeal needle holder with ratchet	1
29 Atraumatic vocal cord retractor-23 cm Self retaining with ratchet	1
30 Arnold vocal cord holding forceps-23 cm Triangular jaws, for right side	1
31 Arnold vocal cord holding forceps-23 cm Triangular jaws, for left side	1
32 Laryngeal knife-23cm Straight cutting	3
33 Laryngeal knife-23cm Sickle shaped, curved	2
34 Laryngeal knife-23cm Round vertical cutting	2
35 Laryngeal hook-23 cm Blunt	1
36 Laryngeal hook-23 cm Sharp	1
37 Laryngeal needle-23 cm Curved to right	2
38 Laryngeal needle-23 cm Curved to left	2
39 Laryngeal elevator with suction channel-23 cm	1
40 Laryngeal knot tier-23 cm	1
41 Laryngeal hook, blunt with probe end	2
42 Instrument handle For use with item No 30to 38 mentioned above	1
43 Laryngeal suction tube (micro laryngeal) –25 cm Diameter 2 mm	3
44 Laryngeal suction tube (micro Laryngeal) –25 cm Diameter 3mm	3
45 Laryngeal insulated canula-25 cm 3 mm O.D. for suction and coagulation	2

46 Laryngeal cotton wool carrier-25 cm Straight, serrated	2
47 Bipolar electrode –3 mm, length 23 cm With removable suction tube	1
48 Cable for bipolar forceps-5 m long	1
49 Injection Needle, Leus lock, straight	2
50 Teeth protector one metallic and one silicon (autoclavable)	1 each
51 Laryngeal Biopsy forceps 3x4mm, 20-25cm	2
52 FB forceps	2
53 All accessories should be from the same manufacturer and should be European CE/ US FDA approved	

Note for Instruments sets

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13. Shaver System Cum Micro Drill

A. It should be fully upgradable to one unit- six functions:

1. Shaver system for surgery of the paranasal sinuses and anterior skull base
2. INTRA Drill
3. Sinus shaver
4. Micro saw
5. Intranasal Drill
6. Skeeter Drill(for stapedotomy)

B. Drill System:

1. Built in microprocessor controlled flow rate irrigation pump.
2. Integrated irrigation and coolant pump(silicon tubing)
3. Should be compatible with Micro ear drill handpiece & drill bits (universal)
4. Maximum Revolution for Shaver mode should be 10,000 rpm.
5. Maximum revolution for sinus burr mode should be 12,000 rpm
6. Maximum revolution speed for Drill mode should be 40,000 – 60,000 rpm.
7. Power supply 230-240 VAC, 50/60 Hz.
8. Easy to maintain and sterilizable.
9. Both Autoclavable and Disposable range of blades should be available.
10. Along with 2 blades each straight and curved(45deg)
11. 2 pedal foot switch

C. Handpiece clean & oil injection machine (350ml capacity)

1. Lubricating and cleaning
2. Voltage 220V AC at 50Hz / 22 V at 1 Hz
3. Air supply 0.35 to 0.60MPa 4. Capability – 350ml 5. Air Displacement – 60 L/min

D. Hand piece Straight / angled (compatible with micromotor drill) 02 each

E. Drill bit Cutting/polishing 0.6/1.0/2.0/3.0/4.0/5.0/6.0/8.0 mm 04 each

F. Saw blades 04

G. Nasal drill bit with and without guard 02 Each

14 Stapedectomy Set

Micro pick 90 degrees angled : 165 mmlength 0.2mm
Micro pick 90 degrees angled : 165 mm length 0.2mm Micro pick straight
Fisch perforator 160 mm length diameter 0.3mm
Fisch perforator 160 mm length diameter 0.5mm
Stapes piston Measuring rod
Prosthesis crimper 80mm
Fisch crurotomy scissor curved to right
Fisch crurotomy scissor curved to left
Fisch Perforator : 0.7mm
Fisch Perforator : 0.2mm
Hand Burr of All Sizes
Piston Measuring Plate

15 Esophagoscope Set

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

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16 Bronchoscopy Set**A. ADULT**

	Qty.
1. Straight Forward Telescope 0°, diameter 4.5 mm, length 50 cm, autoclavable. Fiber optic light transmission incorporated,	01
2. Bronchoscope Tube Universal, without distal fiber optic light carrier for use with proximally insertable prismatic light deflector and plugs length 43 cm, size 8.5	01
3. Bronchoscope Tube Universal, without distal fiber optic light carrier, for use with proximally insertable prismatic light deflector and plugs length 43 cm, size 7.5	01
4. Bronchoscope Tube Universal, without distal fiber light carrier, and plugs length 43 cm, size 6.5	01
5. Prismatic Light Deflector, autoclavable, with connection fiber optic light cable	01
6. Glass Window Plug	01
7. Rubber Telescope Guide	01
8. Adaptor with sliding glass window plug, sealing cap, notched lens and keyhole opening, movable, for use with Full Lumen Tracheoscopes and Bronchoscopes	01
9. Injection Cannula, for positive pressure assisted ventilation system, O.D. 3.5 mm for use with bronchoscopes and tracheoscopes with LUER-lock	01
10. Instrument Guide, for suction catheter	01
11. Adaptor from bronchoscope to respirator	01
12. Optical Bronchoscopic Forceps, circular cup, alligator for hard foreign bodies	01
13. Optical Bronchoscopic Forceps, for peanut and soft foreign bodies With spring-action handle	01
14. Optical Bronchoscopic Forceps, round cupped jaws for Biopsy, cup diameter 3.3mm	01
15. Optical Bronchoscopic Forceps, Universal for biopsy, for removing foreign bodies and denatured tissue	01
16. Rigid Suction Tube, diameter 4mm, working length 50 cm	02
17. Rigid Suction Tube, diameter 2.5mm, working length 50 cm	02

B. PAEDIATRIC & NEONATE

1. Bronchoscope, length 30 cm, size 6	01each	2.
Bronchoscope, length 30 cm, size 5	01each	3.
Bronchoscope, length 30 cm, size 4.5	01each	4.
Bronchoscope, length 30 cm, size 4	01each	5.
Bronchoscope, length 30 cm, size 3.5	01each	6.
Bronchoscope, length 26 cm, size 4	01each	7.
Bronchoscope, length 26 cm, size 3.5	01each	8.
Bronchoscope, length 18.5 cm, size 3.5	01each	9.
2Bronchoscope, length 18.5 cm, size 2.5	01each	10.
Compatible Telescopes for above mentioned Bronchoscope tubes, Straight Forward- scope 0°, auto-clavable. Fiber optic light transmission incorporated	01each	
11. Compatible Optical Alligator Forceps for Pediatric Broncho- Esophagoscopes, for use with telescope forced controlled handle for removal of hard foreign bodies	01	
12. Compatible Optical Forceps for Pediatric Broncho-Esophagoscopes, with bean jaws, for use with telescope forced controlled handle for removal of peanuts and soft foreign bodies.	01each	13.
Compatible Optical Forceps, for use with telescope for biopsy.	01each	14.
Compatible Optical Pediatric Scissors, for use with telescope and Broncho-Esophagoscopes	01	

15. Compatible Optical Forceps for use with telescope Universal, biopsy and grasping	01	
16. Rubber Telescope Guide for use with Telescopes or optical forceps	01	
17. Prismatic Light Deflector, Autoclavable, with Connection to fiber light cable	01	
18. Glass window Plug	01	
19. Adaptor with sliding glass window plug, sealing cap, notched lens and keyhole opening, moveable	01	
20. Adaptor from bronchoscope to respirator	01	
21. Instrument guide, for suction catheter	01	
22. Injection Cannula for possitive pressure assisted ventilation system,O.D. 3.5 mm and 2.7mm with LUER-lock	01each	23.
Compatible Suction tube, straight, with rubber tip, diameter 2mm		
24. Working length 35cm	01	
25. Cotton Applicator, working length 35cm,	01	
26. Sponge Holder, spring handle, working length 35cm	01	

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17 Tracheostomy set

Each sets includes –	Qty.
1. Mosquito artery forceps, Curved	4
2. Mosquito artery forceps, Straight	4
3. Medium sized artery forceps straight	4
4. Medium sized artery forceps curved	4
5. Langenback"s retractor, small	4
6. Langenback"s retractor, Large	2
7. 15 no. Blade	20
8. Forceps, Tracheal Dilating. Child. 12cm/4.75".	2
9. Tracheostomy Tube, Chevalier Jackson.Silver Plated. 20 Fr.	2
10. Tracheostomy Tube, Chevalier Jackson.Silver Plated. 32 Fg.	2
11. Tracheostomy Tube, Chevalier Jackson.Silver Plated. 34 Fg.	2
12. Tracheostomy Tube, Fuller. 18Fg.	2
13. Retractor, Single hook. Sharp. 16cm/6.25". Also for Tracheostomy.	2
14. Retractor, Single hook. Blunt. 16cm/6.25". Also for Tracheostomy.	2
15. Retractor, Double hook. Sharp. 16cm/6.25".Also for Tracheostomy.	2
16. Retractor, Double hook. Blunt. 16cm/6.25". Also for Tracheostomy.	2
17. Needle Holder	2
18. Tissue holding forceps (Plain and tooth)	2 Each
19. BP Handle	2
20. Sponge Holding forceps	2
21. Cricoid Hook(Single prong and Double prong)	2 Each

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18 Rhinoplasty Set

1) Retractor, Nasal. Aufricht. 4cm. Blade.16.5cm/6.5.	2
2) Retractor, Nasal. Aufricht. 6cm. Blade.16.5cm/6.5".	2
3) Retractor, Kilner. Alae. 2 Prongs. Sharp. 10mm wide. 10cm/4".	2
4) Retractor, Kilner. Alae. 2 Prongs. Sharp. 13mm wide. 10cm/4".	2
5) Retractor, Fomon/Joseph. 2 Prongs-Ball tipped. 10mmW. Length 16cm/6.25"	2
6) Retractor. Cottle. 2 Prongs-Sharp. 12mmW. Length 14cm/5.5".	2
7) Retractor. Cottle. 2 Prongs-Lt. Sharp.12mmW. Length 14cm/5.5".	2
8) Retractor. Cottle. 4 Prongs. Blunt.10mmW. Length 14cm/5.5".	2
9) Retractor, Alar. Cottle.13mmWx22mmD.15cm/6".	2
10) Hook, Tenaculum. Shallow Curved , 15cm/6".	2
11) Hook, Tenaculum. Deep Curved , 15cm/6".	2
12) Hook. Skin. 2mm. Gillies. 16cm/6.25".	6
13) Hook. Skin. 4mm. Gillies. 16cm/6.25".	6
14) Hook. Skin. 2mm. Mcindoe. 19cm/7.25".	2
15) Hook. Skin. 3mm. Mcindoe. 19cm/7.25".	2
16) Hook. Skin. 4mm. Mcindoe. 19cm/7.25".	2
17) Knife, Joseph. Button end. Straight 15cm/6"	2
18) Skin Grafting Handle. Rt. Hand. Watson-modification; with 20 Blades.	2
19) Spare Blades for Skin Graft Knives.Sterile.	2
20) Elevator, Farabeuf. 8mm. Curved 15cm/6".	2
21) Elevator, Septum. Masing. D/E. 22cm/8.75	2
22) Forceps , Adson. 1mm. Cross.Serratedated . 12cm/4.75"	4 each
23) Forceps , Adson. 1mm. 1x2 Tth. 12cm/4.75"	4 each
24) Forceps , Adson. 1.5mm. Serratedated 12cm/4.75"	4 each
25) Forceps , Adson. 1.5mm. 1x2 Tth. 12cm/4.75"	4 each
26) Fine Operating/Iris Scissors, SS. Straight 9cm/3	4 each
27) Fine Operating/Iris Scissors, SS. Curved 9cm/3.5".	4 each
28) Joseph Scissors, SS. Straight 14cm/5.5".	2 each
29) Joseph Scissors, SS. Curved 14cm/5.5".	2 each
30) Metzenbaum Scissors, Straight 10cm/4".	4 each
31) Metzenbaum Scissors, Curved 10cm/4".	4 each
32) Metzenbaum Scissors, Straight 12.5cm/5".	4 each
33) Metzenbaum Scissors, Curved 12.5cm/5".	4 each
34) Scissors, Reynolds. . 13cm/5.25".	4 each
35) Scissors, Reynolds. . 15cm/6".	6 each
36) Jameson Scissors. . 14cm/5.5".	6 each
37) Chisel. 6mm. Cottle. Graduated. 18cm/7.25".	2 each
38) Chisel. 7mm. Cottle. Graduated. 18cm/7.25".	4 each
39) Chisel. 9mm. Cottle. Graduated. 18cm/7.25".	2 each
40) Chisel. 12mm. Cottle. Graduated. 18cm/7.25".	2 each
41) Chisel. Fishtail. 16mm. Cottle. 18cm/7.25".	2 each
42) Osteotome. Walter. 2mm. 19cm/7.25".	2 each
43) Osteotome. Walter. 3mm. 19cm/7.25".	2 each
44) Osteotome. Walter. 4mm. 19cm/7.25".	2 each
45) Osteotome. Walter. 7mm. 19cm/7.25".	2 each
46) Osteotome. Walter. 9mm. 19cm/7.25".	2 each
47) Osteotome. Walter. 12mm. 19cm/.25".	2 each
48) Chisel, Nasal. McIndoe. 11mm. 16cm/5.5".	2 each
49) Chisel, Nasal. McIndoe. 13mm. 16cm/5.5".v	2 each

50) Chisel, Nasal. Silver/Masing. Straight 18cm/7".	2 each
51) Chisel, Nasal. Silver/Masing. Cvd.Rt. 18cm/7".	2 each
52) Chisel, Nasal. Silver/Masing. Cvd.Lt. 18cm/7".	2 each
53) Walsham forceps(Rt & Lt)	2 each
54) Ash forceps	2
55) Ballenger swivel	4
56) Kerrison"s rongeur (Small & large)	4 each
57) Luc"s forceps –small	4
58) Nasal Scissors (straight & curved)	4 each
59) Nasal gouge	4
60) Mallet -100g	2
61) Bone Nibbler (single action & double action)	4 each

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19 VIDEO-LARYNGOSCOPE SET

1. The system should provide a compact and at the same time multifunctional documentation unit. The system should have Hi-Lux high performance light source and the high resolution 12" integrated flat screen monitor. Additionally, the system should have integrated recording facility which can be controlled from the recording button on the handle of video laryngoscope. The system should provide the facility of recording up to 900 still images.

2. Technical Specifications:

A. Video Laryngoscope PAL:

- i. Direction of view: 0 deg.
- ii. Angle of view: 85 deg.
- iii. Depth of view: 3-50 mm
- iv. Working length: 30 cm
- v. Outer diameter: 3.7 mm
- vi. Deflection: Upward 180 deg, Downward 90 deg.

B. The following accessories should be included,

- i. Carrying Case
- ii. Pressure compensation cap
- iii. Leakage tester
- iv. Mouth piece

3. The processor should be a multifunctional and compact unit for better space utilization. Should have integrated camera, light source and monitor. The system should incorporate the following functional units,

4. The Video processor(Camera control Unit) should be able to produce, S-Video, Composite Video

5. The control unit should have integrated digital Image process module

6. The control unit should have two output to control peripheral devices such as printer/Hard Drives VCR
50 watts HiLux high performance light source, with

7. a color temperature of 5500 K to 5700 K. Upto 1000 Hours lamp operating time.

8. The unit should have SD/USB memory card for storage of still and video images

9. The compact unit should have 14" to 15" TFT/LCD

10. color monitor of high resolution 800 x 600 pixels.

11. The compact unit should have inbuilt high membrane keyboard for entering patient data

12. Should have automatic high electronic shutter speed.

13. Minimum light sensitivity : 0.3 to 3.0 lux at f=1.4 mm.

14. Should have signal to noise ratio not less than 48 dB.

15. Should have on screen menu display for all parameters.

16. Should have digital signal processing for high quality colour reproduction.

17. Should have automatic white balance for all Endo Light source.

18. The Control unit should have digital image processing module for enhancement control.

19. The unit should be easily transportable / portable without dismantling of the camera systems. 20.

Should have European CE / US FDA Approved

20 MASTOIDECTOMY + TYMPANOPLASTY SET

1 Hartmann Ear Speculum Black Finish	- 6 nos
2 Shea Aural Speculum	- 4 nos
3 Plester Mastoid Self Retaining Retractor	- 2 nos
4 Wulstein Self Retaining Mastoid Retractor (3 × 3) prongs	- 2 nos
5 Hartmann Dressing forceps	- 2 nos
6 Tilley dressing forceps	- 3 nos
7 Suction Cannula (16,18,20,21,23)	- 6 each
8 Suction adopter	- 6 each
9 Verhoven Suction tube holder	- 6 nos
10 Lempert Mastoid Suction tube No.1, 2, 3, 4.	- 2 each
11 Mastoid Suction cannula size 1,2,3,4.	- 3 each
12 Micro Crocodile Forceps Serrated straight	- 6 nos
13 Micro Crocodile cup forceps straight	- 6 nos
14 Micro belluci /crocodile scissors straight	- 6 nos
15 McGee Wire crimper	- 2 nos
16 House Dieter Malleus Nipper upward	- 2 nos
17 Wullstein needle straight	- 2 nos
18 Wullstein needle slight curved	- 2 nos
19 Plester flap knife for incision	- 2 nos
20 Rosen circular knife 45 degree angled	- 2 nos
21 Sickle knife	- 2 nos
22 Micro pick 45 degree 0.8mm	- 2 nos
23 Micro pick 90 degree angles	- 2 nos
24 Micro instruments case with box autoclavable	- 2 nos
25 Lemperts Periosteum elevator	- 2 nos
26 Farabouf's Perisosteum Elevator	- 2 nos
27 Freer's Elevator with periosteum Elevator Double Sided	- 2 nos
28 Ossicle Holding Forceps	- 2 nos
29 Wullstein Self Retaining Mastoid Retractor 4X4 prongs	- 2 nos
30 Fagge Aural Bayonet Forceps	- 2 nos
31 Adson plain forceps	- 2 nos
32 Adson tooth forceps	- 2 no
33 Ball Point (Hook Bent)probe 45°	- 2 nos
34 Myringotomy knife	- 2 nos
35 House bone curette	- 2 nos
36 House graft press forceps	- 2 nos
37 Grommet Tube Insertor	- 2 nos
38 Grommet Holding forceps	- 2 nos
39 Teflon piston holding forceps	- 2 nos
40 Cartilage slicer	- 2 nos
41 Endaural speculum (Lemperts) (Left and right)	- 2 nos each
42 Micro aural cup forceps	- 2 nos
43 Anterior crurotomy knife straight	- 2 nos
44 Rosen Elevator gently curved	- 2 nos
45 Curved scissor (Graft removal)	- 2 nos
46 Steele's curved suture removal scissor	- 2 nos
47 Mayo's scissor straight	- 2 nos
48 B.P. Handle for blade no.3	- 2 nos
49 Needle holder long	- 2 nos

50 Needle holder small	- 2 nos
51 Mosquito forceps sharp pointed	- 2 nos
52 Kilner retractor	- 2 nos
53 Skin hook	- 2 nos
54 Backhaus towel forcep	- 2 nos
55 Towel Clip Cross Section	- 2 nos
56 Heath's Suture removal Scissors	- 2 nos
57 Potts Angled Scissors 450	- 2 nos
58 Fenestra Hook Straight Shaft 25 ° angle	- 2 nos
59 Fenestra Hook Straight Shaft 45 ° angle	- 2 nos
60 Fenestra Hook Straight Shaft 90° angle	- 2 nos
61 Fenestra Hook Straight Shaft 90 ° angle short	- 2 nos
62 Jobson Horne probe	- 3 nos
63 Sheas/ House Piston Measuring Rod 3.5,4, 4.5 mm	- 2 nos each
64 Staples Footplate Perforator Guarded all sizes	- 2 set
65 Vectis	- 3 nos.

21 Laryngoscope/Direct Laryngoscope

Fiber optic Laryngoscope – preferably should be reusable using the latest LED technology and reusable light source using the latest LED technology.

- The main body of the handle should incorporate an excellent grip & should feel even wearing a glove.
- There should be a freely moving light intensifier of light from the light source through to the tip of the fiber optic blade to prevent any possibility of cross contamination.
- Should be light weight (upto 500 gms).
- The unit should allow the blade to be inserted easily & should provide a positive locking mechanism when moved into the closed position.
- The patient contact material should be biocompatible.
- Handheld unit, single piece when in use.
- On/off switch to be robust and easy to use.
- External material to be non-ferrous.
- Blades to be surgical grade 316 stainless steel
- Supplied in protective, reclose able container.
- Internal batteries, rechargeable preferred/Penlight battery AA size, Battery charger (if rechargeable), Battery compartment (if reusable) to be sealed against liquid ingress, yet easily opened.
- Accessories mandatory with Batteries, blades of various adult, neonatal and pediatric sizes.
- 06 LED should be given as spare.
- Manufacturer/supplier should have ISO 7376 standard; certificate for quality standard.
- The lithium battery should comply to IEC 62133 or its equivalent.
- The device should meet IEC 60601-1, IEC 60601-2 standard requirements.
- Should be US FDA or EU CE approved product.

22 SEPTOPLASTY SET

1 Thudicum Nasal speculum (Size 3)	- 2 nos
2 St.Clair Thomson Nasal speculum (Size 3)	- 2 nos
3 Hartmann Nasal speculum (Size 3)	- 2 nos
4 Killian's nasal speculum(Size 2)	- 2 nos
5 Killian's nasal speculum with fibre optic light carrier	- 3 no
6 Addson plain forceps	- 2 nos
7 Scissor straight small	- 2 nos
8 Scissor curved small	- 2 nos
9 Cottle Retractor Sharp + Blunt	- 2 nos each
10 Alar Retractor	- 3 nos
11 Howarth elevator	- 1 no
12 Parker elevator	- 1 no
13 Freers elevator double ended	- 2 nos
14 Ferguson Nasal suction (Size 3)	- 2 nos
15 Ballenger Swivel knife	- 2 nos
16 Heymann Turbinectomy scissor	- 2 nos
17 Heymann Turbinectomy scissor angled	- 2 nos
18 Killian Nasal gauge (Size 3)	- 2 nos
19 Tilley septum gauge 'V' shape edge cutting	- 2 nos
20 Cottle Septal scissor spring action angular bows	- 3 nos
21 Luc's forceps turbinate	-3 nos
22 Mallet	- 2 nos
23 KNAPP Columella forceps	- 3 nos
24 Ball point curved double side probe	- 3 nos
25 Ball point probe straight	- 2 nos
26 SMR fine elevator	- 2 nos
27 Freer suction with elevator and stillete	- 3 nos
28 Tilley nasal packing forceps	- 3 nos
29 Lempert Mastoid suction tube size 1,2,3,4	- 3 nos each
30 Tongue depressor	- 3 nos
31 Kidney tray	- 2 nos
32 Bowl medium size	- 3 nos
33 Mayo scissor	- 2 nos
34 Suture removal scissor	- 2 nos
35 B.P.Handle	- 2 no

23 Tonsillectomy & Adenoidectomy Set

- 1) Mouth Gag, Frame-Davis Boyle; with Fixed Teeth Plate. Complete with 3 Tongue Blades. Child. - 2
- 2) Mouth Gag, Frame-Davis Boyle; with Fixed Teeth Plate. Complete with 5 Tongue Blades. Adult. - 2
- 3) Mouth Gag, Frame-Davis Meyer; with Sliding Teeth Plate. Complete with 5 Tongue Blades. Adult. - 2
- 4) Mouth Gag, Frame-Davis Boyle; with Fixed Upper Teeth Plate. Complete with 5 slotted Doughty blades. Adult. - 2
- 5) Draffin Bipod, with 4 Rings. 48cm/19". - 2
- 6) Negus Jack/Chest Support with rack action. - 2
- 7) Forceps, Tonsil holding. Denis Browne. Small. 18cm/7". - 2
- 8) Forceps, Tonsil Holding. Denis Browne. Large. 20cm/8". - 2
- 9) Tonsil Dissector & Pillar Retractor. Beavis. 20cm/8". - 2
- 10) Tonsil Dissector 9mmW & Pillar Retractor. Hurd. 20cm/8". - 2
- 11) Remington Hobb Diathermy Forceps. Serratedated. Straight 25cm/10". - 2
- 12) Forceps, Tonsil Artery. Birkett/Schmidt. 2nd Curved. 19cm/7.5". - 2
- 13) Forceps, Tonsil Artery. Negus. 1 Curved. 19cm/7.5". - 2
- 14) Forceps, Tonsil Artery. Negus. 2 Curved. 19cm/7.5". - 2
- 15) Forceps, Tonsil Artery. Wilson. D Curved. 19cm/7". - 2
- 16) Snare, Tonsil. Eves. Sliding Action. 28cm/11". - 2
- 17) Snare Wire. Tonsil. 24 SWG. Packet of 12. - 2
- 18) Needle, Suturing. Tonsil. Irwin Moore. Curved Rt. 20cm/8". - 2
- 19) Needle, Suturing. Tonsil. Irwin Moore. Curved Lt. 20cm/8". - 2
- 20) Pusher/Knot tier. Negus. 20cm/8". Curette, Adenoid; with cage. St. Clair Thomson. CP/SS Handle. 8mm, 24cm/9.25". - 2
- 21) Curette, Adenoid; with cage. St. Clair Thomson. CP/SS Handle. 10mm, 24cm/9.25". - 2
- 22) Curette, Adenoid; with cage. St. Clair Thomson. CP/SS Handle. 12mm, 24cm/9.25". - 2
- 23) Curette, Adenoid; with cage. St. Clair Thomson. CP/SS Handle. 14mm, 24cm/9.25". - 2
- 24) Curette, Adenoid; with cage. St. Clair Thomson. CP/SS Handle. 16mm, 24cm/9.25". - 2
- 25) Curette, Adenoid; with cage. St. Clair Thomson. CP/SS Handle. 18mm, 24cm/9.25". - 2
- 26) Forceps, Peritonsillar Abcess. St. Clair Thomson/Quincy. - 2
- 27) Cannula, Suction. Yankauer. CP. 27cm - 2
- 28) Tongue Depressor. Lack. Set of 3. - 2
- 29) Tongue Depressor. Flat. 12.5cm./5". - 2
- 30) Tongue Depressor. Flat. Dcv. 18cm/7". - 2
- 31) Forceps , Swab Holding. Krause. 28cm/11". - 2
- 32) Negus Jack/Chest Support with rack action. - 2
- 33) Uvula Retractor 1 34) Bayonett forceps - 2

Note for Instruments sets

TITANIUM INSTRUMENTS : 1. All Instruments should be of international quality and made from surgical grade titanium. 2. The “Hinges” should be rust proof 3. The instruments should be guaranteed against metal fatigue and rust for atleast 02 years. Further repair should be available for next 5 years. 4. The instruments surface should be non-reflective. 5. The brand name along with catalogue number should be etched on the instruments. 6. The other instruments should be made of high grade titanium, they should not magnetize with use and the surface should be non-reflective and glare free under OT light. 7. Satisfactory Performance Certificate from Government Hospital is mandatory. 8. The

instruments might be call for demonstration and approval. It is the sole discretion of the department to approve or disapprove the quality.

STAINLESS STEEL INSTRUMENTS: -

1. All Instruments should be of international quality and made from surgical grade stainless steel. Documentary evidence required for grade of material.
2. The “Hinges” should be rust proof
3. The instruments should be guaranteed against metal fatigue and rust for 01 year.
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6. The instrument should be CE & FDA approved.
7. The instruments might be call for demonstration and approval. It is the sole discretion of the department to approve or disapprove the quality..

24 General Instruments for ENT (Head & Neck)

	Qty.
1. BP Handle	2 Nos.
2. Skin hooks(single and Double)	4 Nos. each
3. Langenbeck right angle retractor(Short & Long Blade)	2 Nos. each
4. Allis tissue holding forceps	1 No.
5. Adson tissue forceps	4 Nos.
6. Artery forceps	
i. Small (Curved and straight)	6 Nos. each
ii. Medium (Curved and straight)	6 Nos. each
iii. Large (Curved and straight)	4 Nos. each
7. Babcock tissue forceps	6 Nos.
8. Tissue holding forceps	
i. Small	4 Nos.
ii. Medium	4 Nos.
iii. Large	4 Nos.
9. Lahey"s tissue forceps	2 Nos.
10. Vessel clamps(Bull Dog clamp)	4 Nos.
11. Joll"s retractor	2 Nos.
12. Dingman"s retractor	2 Nos.
13. Needle holder (Variable size)	4 Nos.
14. Sponge holding forceps	2 Nos.
15. Gigli saw holder	2 Nos. Set
16. Periosteum elevator	2 Nos.
17. Dural retractor	4 Nos.
18. Spoon curette	
i. Medium	2 Nos.
ii. Large	2 Nos.
19. Tissue cutting scissors(Small, Medium & large)	3 Nos. each
20. Suture cutting scissors(Small, Medium & large)	3 Nos. each
21. Doyen mouth gag	2Nos.
22. Heister jaw opener	2Nos.
23. Ferguson Mouth gag	2Nos.

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25 Nasal bone fracture (1 Set)

Asch forceps

Walsham forceps

26 Caldwell luc set (1Set)

Nasal gouge

Mallet

Ribbon retractor

Cheek retractor

27 Advanced Dental Chair Unit

1. Dental Chair (Compressor, Suction, RVG, Portable IOPA)

1. The chair should be designed to provide good ergonomics, hygiene and aesthetics.
2. Dental Unit should have Convenient Overhead Delivery System
3. The Chair should be operated by electrical Motors with smooth and non-jerky, soft start and soft stop movements.
4. It should have anti crushing seamless upholstery- resistant to disinfectant solutions.
5. The backrest should be Ultra-thin and flexible.
6. It should have multi-position armrests.
7. It should be ergonomically designed steel base with stable six point contact to the floor.
8. It should be protected by an anti-slip material.
9. Body of the chair and unit should be painted/coated and non-rust able material.
10. It should have Multi functional foot control and feather touch panel on Doctor's side.
11. It should have multipurpose double articulating head rest with reversibility feature for patients on wheel chair.
12. It should have safety brake system.
13. Chair should have synchronized toe movement.
14. Chair should have minimum 4 programs. Two patient entry programs, one rinse program & one patient exit program.
15. It should have facility of locking to lock the chair in working position.
16. Maximum Height of the chair should be 80- 90cm and Minimum Height 40- 45cm.
17. Should have integrated 300 Watt power supply for Fibre optic Handpieces, Piezo Scaler, electric motor etc.
18. It should have features to support the upgrades in the system

2. Dental Unit

1. Should be centrally-mounted control head combines with a Left/Right rotating chair-mounted arm with balanced flex arm with pneumatic brake.
2. Handpiece control block should be flow-through water design to eliminate stagnant water.
3. Should be Data Communication system (DCS) for two-way communication between system circuit boards, monitoring all system functions. Also auto-detects new modules.
4. **Built-in anti-retraction valves and flush valve system for infection control.**
5. Autoclavable Quick Disconnect warm water syringe.
6. Fibre-optic Air turbine
7. Micro motor with speed range of 300 to 40,000 rpm in standard mode
8. 60-65 watts of cutting power
9. Sterilizable and audible torque limit warning.
10. Doctor's Touchpad should have dual operator modes.
11. Tray holder
12. All water tubes should have an antimicrobial additive that becomes part of the tubing material itself and inhibits the ability of bacteria to attach to the tubing surface by ionic silver exchange.
13. All the water inlet/outlet connection and air connection should be concealed within the chair base or floor box

3. Cuspidor

1. It should have high and low volume motorized suction.

2. The suction system should be with separating tank and automatic self cleaning separating tank.
3. It should have **fine particle collector and amalgam separators**.
4. Autoclavable saliva ejector, High volume evacuator and 3 way syringe.
5. Mini LED Curing light with standard light guide (7.5mm) produces a minimum 1,100mW/cm². Light guide should be autoclavable. Produces light between 420 and 480 nm.
6. Standard multi-function touchpad and designed to be used as a handle for positioning of the assistant's arm.
7. Flat panel Monitor mount that rotates approx 360 degrees.
8. Swivel Vitreous China/glass bowl with Adjustable cup fill and bowl rinse timers.
9. Easily swivel for Right hand or Left hand dentist without using tools.
10. Clean water bottle System.

4. Operating light.

1. It should have three intensity sensor based white and cold LED light. Composite 7000-8,000 lux, Medium 18000-20,000lux, High 20000-24,000 lux.
2. Light head should include three axial movements – Horizontal, Vertical & Axial, diagonal adjustment.
3. It should have feathered-edge, balanced-intensity light pattern
4. It should have optically designed reflector
5. Auto On/Off functions with chair pre-set movements.

5. Doctor's Stool

1. Cast-aluminium base with five tile casters
2. Two-way adjustable lumbar support
3. Integral gas cylinder for height adjustment.
4. Height range 470mm – 635mm

6. Assistant's stool

1. Cast-aluminium base with five tile casters.
2. Height adjustable torso support with height adjustable foot-ring
3. Integral gas cylinder for height adjustment.
4. Height range 570mm – 735 mm.

7. Certification (for all the above)

1. US-FDA approved.
2. CE-approved
3. ISO-approved

28 Digital Panoramic X-ray machine with cephalometry - 01 No.

1. Machine Specifications

- 1.1 The digital panoramic X-ray unit should be able to record panoramic radiographs and various cephalograms.
- 1.2 It should be free standing.
- 1.3 The unit must have multiple arm joints enabling complicated movements for versatile imaging geometries.
- 1.4 The x-ray generator should be a microprocessor controlled.
- 1.5 The unit should be compatible with the line voltage of 100-240V~ ±10 %, 50 or 60 Hz and line current of 8 -15A and should have a power factor corrector to compensate the mains voltage fluctuations automatically.
- 1.6 The unit should be fully digital control and re-programmable.
- 1.7 The unit should have an interactive, informative and intuitive color TFT graphic user interface for technical factors and selected programs digitally displayed and for image preview.
- 1.8 The unit must have a microprocessor controlled self-diagnostic control system with clear help guiding to correct use and error messages announcing hardware or software problems
- 1.9 The unit should be based on concept of open positioning i.e. free view to the patient from all directions, three positioning laser beams, easy access also for wheelchair patients and motorized patient positioning and temple supports.
- 1.10 The unit should have focal spot size of 0.5 x 0.5mm, automatic four blade primary collimator, optimised image geometry and constant magnification (It should be adjustable form of focal trough), option for automatic compensation for the cervical vertebrae shadow.
- 1.11 There should be autofocus feature for making the positioning of the focal layer automatically. Also there should be option so that the user can monitor the suggested focal layer adjustment both on the control panel and on the image acquisition preview
- 1.12 The unit should have **two** separate inbuilt sensors, one for panoramic imaging and one for cephalometric imaging. The sensor should be CCD / flat panel with pixel size 40-50µm and the image pixel size should be in the range of 40 -100µm. The spatial resolution should be in the range of 5-15 line pairs/mm for panoramic images and 5-10 line pairs/mm for cephalometric images
- 1.13 There should be provision of Automatic Gain Control (AGC) to produce excellent image quality regardless the patient's tissue and bone thickness and Dental Image Contrast Enhancement (DICE) option to adjust and optimize the contrast of the image automatically and to bring out image details on the entire grey scale.
- 1.14 The imaging software should create DICOM images and be ready for integration with PACS system
- 1.15 The system should have fully automatic and software controlled soft tissue filter, automatic alignment for cephalometry and horizontal scanning.
- 1.16 The imaging programs should include

- 1.16.1** Basic panoramic programs like standard panoramic program, lateral double TMJ program, PA double TMJ program, sinus (straight layer) program.
 - 1.16.2** Advanced panoramic programs like horizontal segmenting, interproximal panoramic program, orthogonal panoramic program, bitewing panoramic program, lateral-PA double TMJ program, lateral multiangle TMJ program (left and right), PA multiangle TMJ program (left and right), PA non rotational sinus program and lateral non rotational sinus program.
 - 1.16.3** Tomography like crosssectional, longitudinal and mixed crosssectional-longitudinal.
 - 1.16.4** Various cephalometric views like lateral cephalogram, PA cephalogram
- 1.17** The cephalostat should have automatic alignment of radiation source, functionally designed and easy-to use head positioner, swivelling nasal support, low absorption carbon fibre ear posts, magnification scale.

2. Standards, Safety and Training

- 2.1 Should be certified product by reputed standards agency.
- 2.2 It should have AERB approval certification prior to installation
- 2.3 Manufacturer/ Supplier should have ISO certification for quality standards.
- 2.4 Installation and regular service and maintenance in every 3 months must be carried out through company trained / certified engineers.
- 2.5 Electrical safety for Panoramic x-ray unit should conform to standards for electrical safety IEC-60601 / IS-13450
- 2.6 The company trained / certified engineers have to train the technician and other staff members of the user department for at least 3 days following installation of the machine.

3. Accessories:

- 3.1 From reputed manufacturer
- 3.2 Make and Model of all the quoted accessories should be specified) and data sheet in original to be submitted
- 3.3 Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160- 260 V and output 220-240 V and 50 Hz).
- 3.4 The supplier should provide a UPS along with the OPG machine and the UPS should provide a power back up for atleast 10-15 minutes for whole system.
- 3.5 The online UPS should have maintenance free batteries
- 3.6 Ultra light weight lead free aprons - 2 nos.
- 3.7 Wall mounted Apron stand — 1 no.
- 3.8 Apron Hanger suitable for the supplied aprons, shields. (Lead Free)- 2 nos.
- 3.9 Thyroid Shields – 2 nos. (Lead free)

- 4. Quality assurance:** Quality assurance tests for OPG as per AERB norms/Govt. Of Mauritius Guidelines to be provided by vendor for CMC period.

29 Digital Apex Locators with graphic display

1. The Apex Locator should have no zero-adjustment, automatic calibration.
2. The apical constriction and anatomical apex should be determined by calculating the ratio of 2 different frequencies (400Hz and 8kHz).
3. It should have a LCD display and control pad.
4. Weight less than half a KG.
5. It should have 3 sounding alarms for the 3 positions - in canal, at apex and outside apex.

Endodontic Motor & Instrument Trolley

1. Should have a contra angle hand piece with miniature head for easy accessibility to the posterior region
2. -Should have continuous rotation.
3. -Should have the preset programs as well as the ability to manually set speed, torque and 4:1, 10:1, 16:1 or 20:1 gear ratio
4. Should have a speed range of 300-600 rpm
5. Should have a torque range of .5 to 3 Ncm
6. Should have auto reverse, auto stop and auto reverse off features
7. Should have an LED display panel for easy display of set parameters
8. Should have rechargeable batteries
9. Should have a alarm for torque limit as well as during auto reverse
10. Should have CE European quality certification

Instrument Trolley

- It should have minimum 5 drawers
- It should be supplied with 2 fiber trays for different types of instrument.
- It should have good quality paint finish
- It should have good aesthetics and heavy duty wheels
- it should have smooth drawer movement with magnet locking system.
- It should have corrosion free artificial marble top.
- it should have good and aesthetic drawer handles.
- It should have locking facility

30 Laser Based Optical Dental Caries Detection System

SPECIFICATIONS

1. Should be cordless module with charging facility
2. Laser based sensitive dental caries detection system
3. Should have different acoustic alarms for sound and carious tissue.
4. Should have high performing rechargeable Lithium Polymer battery.
5. Should have LED Display for mode selection
6. The tip should be angled and should have capability of 360 degree rotation.
7. Should be supplied with protective glasses for operator
8. Should be operable in Indian working conditions like 220-240 V AC.
9. Should confine to all safety standards for electrical appliances.
10. Should be FDA/ CE Europe certified.

31 CT SCAN – 64 Slice

The system should be latest state of the art, independent 64 or more rows of detectors with acquisition of at least 64 slices per rotation capable of integrating with any PACS/HIS system. The system should be DICOM - ready with true isotropic volume acquisition and sub millimeter resolution. The model quoted should be, AERB Type approved/equivalent Govt. of Mauritius Guidelines and US FDA / European CE certified.

The essential requirements of the system are as follows:-

a) Gantry:

- Aperture: 70 cms or more
- FOV: 50 cms or more
- 3-D laser lights for positioning.

b) X-Ray Generator:

- High Frequency type.
- Power output: 80 kW or higher
- mA Range: 20-600 mA (With incremental steps of 10 mA)
- KV Range: 80-110 or more

c) X-Ray Tube:

- Tube Voltage: 80-110 kV or more
- Anode Heat Storage Capacity of at least 6.3 MHU or direct cooling tube

d) Patient Table:

- Load carrying capacity at least of 180 Kg with positional accuracy of 1 mm or less
- Metal free scan-able range of 150 cm or more
- Floating table top with foot pedal/hand control for positioning.

e) Spiral Acquisition:

- Scan Time should be 0.4 sec or less for full 360 degree rotation.
- Minimum slice thickness should be 0.625 mm or less.
- Pitch Factor (volume pitch): freely selectable in auto mode and also manually variable between 0.5 to 1.5 or more. Specify all possible pitch selections.
- Bolus Triggered or bolus chase spiral acquisition should be available.
- Real time x-ray dose reduction which combines both Z axis and angular tube current modulation to adjust the dose to the size and shape of individual.

f) Image Resolution:

1. High contrast resolution should be at least 15 lp/cm for axial and spiral scan at 0% MTF with full FOV.
2. Low contrast resolution – 5mm or less at 3.0 HU using 20 cm CATPHAN phantom on 10 mm slice thickness.

g) Data Acquisition System:

- Detector- Capable of acquiring 64 slices per 360 degree of rotation.
- At least 64 rows of independent detectors are required with Z-axis coverage of 38 mm or more.
- Solid state or rare earth detectors of latest technology free from repeated calibration.

h) Image Reconstruction:

- High speed real time reconstruction with display matrix of 1024x1024 or more.

- Reconstructed slice thickness should be sub-millimeter to 10mm freely selectable.
- State of the art iterative reconstruction module should be provided.

i) Operator Console:

- High resolution medical grade LCD color monitors of 19" or more.
- Should perform Registration, scheduling, protocol selection, Volume rendering, volume measurements, Multi-planar Reconstruction, and standard evaluation application and all available post processing functions without the help of the satellite workstation.
- Raw Data storage with at least 500 GB Hard disc having image storing capacity of 5,00,000 or more in 512x512 format.
- Auto-voice capability with custom designed key board and mouse.
- Archiving options: CD-R, DVD, should be available. 5000 rewritable DVDs should be provided.

j) Workstation console and Satellite

1. It should be a high speed (minimum post-processing frame rate of 16 frames/sec) CPU with a speed of 3.0 GHz or better and with an independent Hard disc storage capacity of 512 GB or more, with 19 inches or more high resolution medical grade colour LCD monitors capable of simultaneously viewing and performing all post processing functions and filming independently without the help of main console.
2. Memory of the workstation should be independent of the console.
3. Two way data transfer between the operator console & the satellite workstation should be automatic and standard.
4. Post Processing Soft-wares
 - (i) Perfusion CT for brain
 - (ii) CT Angio, VRT, MIP, MPR, 3-D Shaded Surface display, Image Fusion, Vessel segmentation, luminal view
 - (iii) Virtual Endoscopy with facility for virtual dissection and computer aided detection of polyps.
 - (iv) Automatic bone Removal facility.
 - (v) Dental CT.
 - (vi) Lung nodule evaluation software. CAD for Lung nodule evaluation software should be quoted as optional.
5. Interactive & Automatic Cine display should be available.
6. Image Evaluation Tools:
 - (i) Parallel evaluation of multiple ROI in circle, irregular and Polygonal forms,
 - (ii) Statistical Evaluation for area/ volume, S.D, Mean/Max and Histograms.
 - (iii) Distance & angle measurement, freely selectable, positioning of co-ordinate system, grid and image annotation.
7. Two additional independent post processing stations (workstations, total no.2) with all the software as in the main console should be available. . The necessary connectivity etc. for proper functioning should be provided by the vendor with the supply of stand alone server of at least 10 tera byte storage capacity with expansion slot of additional tera bytes. All post processing facility and data archiving should be available independently at both the workstations.

k) Patient communication system:

1. An integrated intercom and Automated Patient Instruction System (API) should be provided.
2. Two closed circuit TV for patient monitoring.

l) Dry Chemistry Laser Imager:

1. Resolution: 16 bits/ 500 dpi or more with minimum three ports.
2. Support Multiple Film Sizes: one of which must be 17"x14". 3. DICOM 3.0 Compatible.

m) System Configuration Accessories, spares and consumables:

- Collapsible wheel chair with rubberized swivel wheels - 01 nos.
- Standard Patient positioning accessories and restraining devices - 02 sets.
- Light weight —ZERO LEAD Radiation protection apparels including Aprons - 5 Nos. Gonadal shields – 5 Nos, Thyroid shields – 5 Nos and Lead goggles – 5 Nos.
- Lead Glass 100 cm x 150 cm of 2 mm Lead equivalence as per the requirement of the equipment. As per AERB/equivalent Govt. of Mauritius Guidelines recommendations
- Online UPS of suitable rating should be supplied for the complete system including Gantry, computer system, with at least 30 minutes back up.
- Dual Head Pressure Injector with 5000 syringes of 200 ml.
- Software for Remote Diagnostics Service should be provided.
- System must be PACS, HIS/RIS interface ready without any new hardware or software.
- Centralized oxygen and suction facility (to be connected to the nearest port) in gantry and recovery room.
- A free comprehensive software upgrade guarantee for entire life of scanner must be provided.
- Warranty: 12 months from the date of satisfactory installation. The warranty shall cover all the accessories, turnkey work including CT tube and all consumables.
- Comprehensive Maintenance Contract for next five years including all the accessories, turnkey work, Air conditioning and CT tube and all consumables.

n) Instructions to the vendors/suppliers: All companies must give product data sheets confirming the specifications along with the tender. The compliance statement must be filled strictly under the heading given in the tender. Each specification corroborated in the compliance statement must give the page number where it is listed in the product data sheet. Incompletely filled information will not be considered.

-Aneasthesia Machine with monitor for vital parameters.

Vendors are requested to see the site for installation of the CT.

o) AERB/equivalent Govt. of Mauritius Guidelines site approval: Vendors shall be responsible for getting AERB/equivalent Govt. of Mauritius Guidelines Site Plan approval prior to installation.

The turnkey works/activities are to be executed by the vendors as per statutory norms/ regulations/ guidelines including Atomic Energy Regulatory Board (AERB)/equivalent Govt. of Mauritius Guidelines for successful supply, installation, testing and commissioning of the equipment. The turnkey works/activities to be executed by the vendors are further elaborated as below and these are to be read in conjunction with the terms and conditions of the bid document, Amendment dated. 04.2.2016 and mentioned elsewhere:

Turnkey for CT Scan

The layout plan (with dimensions) allocated for CT Scan has already been uploaded. Air-conditioning of appropriate strength/capacity (tonnage) in the area as required shall be done. Additional standby split air conditioner(s) of appropriate strength/capacity (tonnage) to be fixed in the main equipment rooms.

Civil work: In the civil works Modifications/Renovations in the existing rooms by the supplier/vendor as shown in the layout plan after approval by the Atomic Energy Regulatory Board (AERB)/equivalent Govt. of Mauritius Guidelines shall be executed as per approved makes.

The walls of whole Complex should be finished acrylic/plastic emulsion (approved makes) and should be finished with vitrified tiles up to five feet height from the floor. Colour as approved by Purchaser/HSCC shall be provided.

The flooring in the CT complex should be as per AERB regulations/equivalent Govt. of Mauritius Guidelines. Flooring in all rooms shall be of vitrified tiles of 80 x 80cm size or other close appropriate size of reputed makes. Colour as approved by Purchaser/HSCC shall be provided.

Whole area of CT Complex as in the layout plan approved by the AERB//equivalent Govt. of Mauritius Guidelines shall be finished with fire resistant false ceiling material.

All the doors should be provided with necessary fittings with hydraulic type door closures (for approved makes refer previous amendment) and with Mortised locks (approved makes).

Main door of the CT complex in the corridor shall be in glazed aluminum powder coated with adequate thickness of glass with etching work wherever required. Colour of aluminium powder coating shall be got approved from Purchaser/HSCC before execution of works.

Lead Glass window of adequate size will be fixed as per AERB guidelines//equivalent Govt. of Mauritius Guidelines in the console room. Proper signage both external and internal to be done.

Electrical work: The firm is required to specify load requirement i.e. required for the unit, the air conditioning, room lighting and accessories, if any. The electrical works should be as per approved makes. The electrical works should have minimum two separate Earthing with copper plate is to be provided for the each equipment and air-conditioning equipment as per equipment requirements. The use of earth leakage circuit breaker will be as required.

A distribution panel of appropriate capacity is to be provided by hospital. The load shall also be provided by the hospital. From the substation of the hospital to the distribution panel, cable of appropriate size shall be provided & fixed by the hospital. Vendor shall do cabling from distribution panel up to the equipment. The switch gears (MCBs / ACBs/ MCCBs), L.T. distribution board for MCBs etc. (approved makes). Electrical wires should be of copper of different capacity as per the load (approved makes).

For Telephone wiring cables. Telephones to be provided in all rooms with EPABX system having control in office.

Modular range Switches / Sockets of approved makes should be provided and fixed as per requirement. LED lights of suitable illumination should be provided of Phillips/GE/ Crompton/Syska make.

Light dimmers (down lighters) should also be fixed in the equipment room.

Ceiling fans/ wall fans to be provided in all rooms (approved makes).

Air conditioning:

Split Air conditioners of reputed make (approved makes) to be provided by the vendor in whole complex as per requirements (to maintain appropriate temperature in the main equipment room & other rooms) and as per regulations of AERB/equivalent Govt. of Mauritius Guidelines.

Standby additional split air conditioners of appropriate strength/capacity (tonnage) to be fixed in the main equipment room.

Hygrometer Nos.1 to be provided.

In-built or External De Humidifier in Equipment, Console and Examination rooms to be provided as per room layout.

Fire Protection

Non water based fire protection is to be integrated as per requirement. Fire extinguishers of appropriate types should be fixed in different rooms as per requirement. Heat detectors/hooters/photoelectric/smoke detectors shall be provided in all the rooms and corridors as per requirements. In case the expiry date of fire extinguishers is before the completion of one year comprehensive warranty period, extra set(s) of fire extinguishers will be supplied by the vendor till the completion of the 1 year comprehensive warranty period. Besides, any works required as per local statutory norms/Delhi Fire Services norms shall be executed by the vendor.

The vendor to also install the following:

Audio visual Music systems for patient waiting areas.

Adequate Pest, insect and rodent control system to be provided and installed to ensure that area remains insect, pest and rodent free.

Music and Public Address system for calling/ informing the patients in the waiting areas.

Furniture:-

Following furniture (Godrej/Debono/Delite) will be provided:

Waiting Chairs in group of 3	3 nos
Chairs with castors and armrests	4 nos.
Phantom Rack for CT	1 No.
Overhead Storage(1.2x0.4x.6m) for CD storage	1 no.
Steel Storage Almirah	2 nos.
Medicine Trolley	1 Nos.
Ultrasonic pest repellent equipment	1 nos.
Insect killer equipment	1nos.
Dressing unit with mirror	1 Nos.

32 DIGITAL FLAT PANEL RADIOGRAPHY SYSTEM (1 No.)

A. General Specifications

1. Latest state of the art Fully digital radiography system. Mention the year of introduction of the quoted model in the International market.
 - 2 (a).The quoted model (and not the individual components) should be US FDA and CE approved.
 - 2(b). In the system 2 out of 3 major components (Tube, detector, and generator) should be manufactured by the quoting vendor themselves.
 - 3 (a). Mention the manufacturer of the third component and provide the MoU with the other party for the same.
 - 3(b). Vendor should have experience of supplying and maintaining similar DR equipment in the last 5 years in major government hospitals/reputed hospitals. (Certificates of supply and satisfactory performance to be enclosed Other certificates are not acceptable).
 4. The quoted model should have AERB type approval certificate or equivalent Govt. of Mauritius Guidelines. In case the model is being imported for the first time NOC from AERB/equivalent Govt. of Mauritius Guidelines or equivalent must be available & AERB type approval certificate or equivalent Govt. of Mauritius Guidelines must be obtained within 8 weeks of installation by the vendor who receives the order.(Vendor must give undertaking for obtaining AERB type approval certificates/equivalent Govt. of Mauritius Guidelines with tender quotation.
 - 5 (a). Fully digital radiography system with two Flat panel detectors with Cesium Iodide Scintillator and with Automatic Exposure control (AEC) capable of performing exposure in vertical, horizontal and oblique positions to perform all skeletal body (Upright and Lying down) radiographs.
 - 5(b). The unit should be completely integrated along with auto features in quality control & performance, AEC, APR, fully automated positioning system with autotracking for horizontal table and for vertical stand studies.
- B) Detailed Specification of X-Ray Flat Panel Detectors (Quote the latest model of flat panel detectors)**
Note: The Technical Specifications should be supported by compliance statement with page number of original Technical Data Sheet and any additional information from the manufacturer.

- 1 Use of matrix flat panel imager (Radiography).
- 2 Name of the Detector model and manufacturer to be provided.
- 3 Assembling should be Monolithic panel/tiles.
- 4 Active Matrix Flat Panel detectors should be based on Indirect Conversion process
- 5 Scintillate material used for flat panel detector should be Thallium doped Cesium iodide (Csi:TI).
6. Semi Conductor material (Photodiode) should be Amorphous Silicon.
7. Charge Read Out should be Thin Film Transistor Array (TFT Array).
8. Detector Size should be 40 cm x 40 cm or more (more will be preferred).
9. Array Size be 2000x2000 pixel or more.
10. Pixel Pitch should be 0.2 mm or less.
- 11 Image depth should be 14 Bits or more.
12. Detector Quantum Efficiency (DQE) should be at least 65%
13. Tube assembly movements to be automatically synchronized with both the horizontal and vertical detectors movement.
14. Two Digital flat panel detector systems with detector fixed & integrated into the Bucky table as well as wall stand.
Due to extensive workload a sturdy system is necessary, therefore wireless or tethered detector is not acceptable. Wireless detector is also not acceptable due to risk of theft and damage.
15. Mention the weight of the detector.
16. System warm up time should be mentioned.

C) Specification of Acquisition Work station:

17. Monochrome LCD monitor with protect panel from dust and scratches.
18. Manufacturers name and model to be provided.
19. Viewing angles (Horizontal & Vertical): 170 Deg. or more.
20. Size of Monitor (diagonal) 19" or more.
21. Mouse control & touch screen display.
22. Mention all the standard accessories to be supplied with the monitor.
23. Hard disc storage: 4000 or more images.
24. Post Acquisition, Image processing and Display: Mention the time.
25. The system should have auto protocol select.

D) X-Ray Table Specification :

26. Four way motor driven floating horizontal table top of carbon fibre or its equivalent, compact bucky table with digital flat panel detector should be provided.
27. Mention the range of vertical, horizontal and longitudinal movements of the table.
28. Removable grid for SID of 100 cms for horizontal table applications.
29. Maximum patient weight - 200 kgs or more.
30. Table Top length: 200 cm or more.
31. Foot switches for – adjusting height, longitudinal movement side to side movements and for locking.
32. Automatic detector alignment should be possible on the table.

E) Vertical Stand

33. Vertical movement should be motorized..
34. The vertical movement to be servo coupled to the movement of the X-Ray tube (simultaneous movements).
35. Provide two removable grids with Grid Ratio of 12:1 or more.
36. Motorized Tilting vertical detector facility should be available from (-20) to (+90) degrees).
37. Maximum height from the floor to the centre of detector should be 172 cm or more.

F) Ceiling Mounted X-Ray Tube

38. X-Ray tube suspended on a telescopic column.
39. The movement of X-Ray tube should be motorized and should be possible in all directions: Specify the travel range and angulations in degrees.
40. It should have capability of manual override.
41. Provision for control panel on patient side.
It should have autopositioning and autotracking function.

G. X-Ray Generator

- 42 a) Invertors Type Constant Potential high Voltage Generator (High Frequency X-Ray Generator)
,Microprocessor controlled with constant output and low ripple frequency.
 - b) Power: 80 KW or more.
 - c) 1000mA at 80kv or more according to IEC standard.
 - d) Automatic exposure control with 3 or 4 chambers.
 - e) overloading protection should be available.
 - f) minimum exposure time should be 1 milli sec or less.

H) X-Ray Tube

- 43) Mention the make of the X-Ray tube.
- 44) A dual focus Rotating anode with high speed of 8000 rpm or more, compatible with the provided generator.
Focal spots of following sizes-
Large-1.2mm or less.
Small 0.6 mm or less.
45. Anode Heat storage capacity 300 KHU or more. Tube protection against overload should be available. Please specify tube rotation at vertical and horizontal axes.

46. **Filter and collimator**

- a) It should have Inherent filtration.
- b) Mention details of added filtration.
- c) Square collimation –automatic type
- d) Display of collimation.
- e) Rotation of +/- 45 degrees or more.

47. Advanced Clinical Application Facility : Auto Image stitching / image pasting soft ware and necessary hardware on vertical and horizontal bucky, for complete spinal column, extra long leg image & other long body parts, should be a standard feature in the machine.

48. Two additional Workstations for Image viewing, Post Processing, reporting and documentation : Qty (2 Nos.)
- High Speed processor based workstation 2.4 GHz or higher processing speed with post processing capability. The workstation should have 8 GB RAM or more. It should have its independent memory & hard disk of at least 1 TB. It should have a high resolution medical grade 2 MP monitor of size 21'' or more capable of simultaneously viewing or performing post processing functions. Both Workstations should be configurable with Digital X- Ray or Digital fluoroscopy System & all other Imaging equipments in New Emergency block of any make. Latest operating system should be available.

49. Image Annotation.and addition of Anatomical markers.

50. Demographic Correction.

51. Window and Level adjustment.

52. Electronic Collimation.

53. Magnification, Image Rotation.

54. Application for comparison with standard (Look up) tables should be available. Should have CD and DVD writing facilities.

It should support storage of images on CD or DVD.

System should be DICOM 3 or higher version. It should have features to connectivity to any network in DICOM format.

Easy integration and networking should be possible with any other existing future networking including other modalities, HIS, RIS and PACS at no extra cost.

Accessories

55. Dry chemistry camera of 500 DPI or more should print at least 3 sizes of films at one time i.e. 10x8, 10x12, 10x14, 14x14, 14x17 inches. 500 films of 14x17 size should be supplied along with camera. It should be capable of being networked with all modalities of all other Imaging equipments in New Emergency block of any make.

56. Compression belt (Pediatric and adult) (2 each).

57. Patient hand grip.

58. Patient support bar for vertical stand to be provided.

59. Lead Glass 120 cm x 100 cm to be provided.

60. Provide Voltage stabilizer for the entire system including both workstation.

61. UPS of appropriate rating along with batteries (with half hour back up) for the acquisition workstation of reputed brand to be provided.

62. Radiation protection equipment:

a. light weight lead aprons -5,

b. gonad shields-4 (2 Adult, 2 Pediatric)

c. lead goggles-4

d. thyroid shield -4.

63. PA system for calling patient.

64. lead aprons hanging unit –for 5 aprons.

65.Necessary furniture like table for operating console ,4 standard and two revolving office chairs, examination stool and foot step.

Other Terms and Conditions:-

66. Some specification which are not qualified, the buyer reserves the right to evaluate the specification based on the details given by the firm.

67. The equipment should be under comprehensive warranty for 1 year for all items for which order is placed including turnkey works from the date of successful installation and handing over with an uptime warranty of 98% and extension of warranty period by double the down time in excess of 2%.

68. Please quote Comprehensive maintenance Contract (Including X-Ray Tube and detector) and all other items for which order is placed including turnkey works for next 3 years after successful completion of warranty with 98%uptime and extension of CMC period by double the down time in excess of 2%.

69. All software up-gradation will be provided free of cost to the institute as and when available

70. Operating manual & service manual along with schematic diagram to be provided
71. There will be an agreement between the buyer and seller for comprehensive maintenance contract at the time of finalization of purchase of equipment.
72. Only principal or their authorized principal agents should participate in the tender. Principal manufacturer will have to give an undertaking of availability of spares as well maintenance of services for 10 years in case there is any change of local agent.
73. Company should provide adequate application training of at least one month or as long as required to the Radiologists & Technical staff.
74. All the civil, Electrical alternation / fixation pertaining to the installation of the machine will be the responsibility of the firm.

Accreditation and Quality Certification

75. The quoted model should be AERB/equivalent Govt. of Mauritius Guidelines type approved and CE & US FDA certified. (as detailed in A of the Technical specification)
76. The Bidder must have been in business of Flat Panel Detector equipment for at least last five years with .supply/installation in major government hospitals. (enclose copies of supply order and satisfactory performance reports)

For Digital Flat Panel Radiography System

77. The layout plans (with dimensions) allocated has already been uploaded. Air-conditioning of appropriate strength/capacity (tonnage) in the area as required shall be done. Additional standby split air conditioner(s) of appropriate strength/capacity (tonnage) to be fixed in the main equipment rooms.
78. Civil work: In the civil works Modifications/Renovations in the existing rooms by the supplier/vendor as shown in the layout plan after approval by the **Atomic Energy Regulatory Board (AERB)** or equivalent Govt. of Mauritius Guidelines shall be executed as per approved makes specified in bid document.

The walls of whole Complex should be finished acrylic/plastic emulsion (for approved makes refer bid document) and should be finished with vitrified tiles (for approved makes refer bid document) up to five feet height from the floor. Colour as approved by Purchaser/HSCC shall be provided.

The flooring in the Fluoroscopy/DR complex should be as per AERB regulations/equivalent Govt. of Mauritius Guidelines. Flooring in all rooms shall be of vitrified tiles of 80 x 80cm size or other close appropriate size of reputed makes (for approved makes refer bid document). Colour as approved by Purchaser/HSCC shall be provided.

Whole area of Complex as in the layout plan approved by the AERB/equivalent Govt. of Mauritius Guidelines shall be finished with fire resistant false ceiling material.

All the doors should be provided with necessary fittings with hydraulic type door closures and with Mortised locks.

Main door of the complex in the corridor shall be in glazed aluminium powder coated with adequate thickness of glass with etching work wherever required. Colour of aluminium powder coating shall be got approved from Purchaser/HSCC before execution of works.

Lead Glass window of adequate size will be fixed as per AERB guidelines/equivalent Govt. of Mauritius Guidelines in the console room. Proper signage both external and internal to be done.

79. Electrical work: The firm is required to specify load requirement i.e. required for the unit, the air conditioning, room lighting and accessories, if any. The electrical works should have minimum two separate earthing with copper plate to be provided for the each equipment and air-conditioning equipment as per equipment requirements. The use of earth leakage circuit breaker will be as required.

Turnkey for Digital Flat Panel Radiography System

The layout plans (with dimensions) allocated has already been uploaded earlier. Air-conditioning of appropriate strength/capacity (tonnage) in the area as required shall be done. Additional standby split air conditioner(s) of appropriate strength/capacity (tonnage) to be fixed in the main equipment rooms.

Civil work: In the civil works Modifications/Renovations in the existing rooms by the supplier/vendor as shown in the layout plan after approval by the Atomic Energy Regulatory Board (AERB)/equivalent Govt. of Mauritius Guidelines shall be executed.

The walls of whole Complex should be finished acrylic/plastic emulsion and should be finished with vitrified tiles ((approved makes) up to five feet height from the floor. Colour as approved by Purchaser/HSCC shall be provided.

The flooring in the Fluoroscopy/DR complex should be as per AERB regulations//equivalent Govt. of Mauritius Guidelines. Flooring in all rooms shall be of vitrified tiles of 80 x 80cm size or other close appropriate size of reputed makes. Colour as approved by Purchaser/HSCC shall be provided.

Whole area of Complex as in the layout plan approved by the AERB/equivalent Govt. of Mauritius Guidelines shall be finished with fire resistant false ceiling material.

All the doors should be provided with necessary fittings with hydraulic type door closures and with Mortised locks.

Main door of the complex in the corridor shall be in glazed aluminum powder coated with adequate thickness of glass with etching work wherever required. Colour of aluminium powder coating shall be got approved from Purchaser/HSCC before execution of works.

Lead Glass window of adequate size will be fixed as per AERB guidelines/equivalent Govt. of Mauritius Guidelines in the console room. Proper signage both external and internal to be done.

Electrical work: The firm is required to specify load requirement i.e. required for the unit, the air conditioning, room lighting and accessories, if any. The electrical works should be as per approved makes. The electrical works should have minimum two separate Earthing with copper plate is to be provided for the each equipment and air-conditioning equipment as per equipment requirements. The use of earth leakage circuit breaker will be as required.

A distribution panel of appropriate capacity is to be provided by hospital. The load shall also be provided by the hospital. From the substation of the hospital to the distribution panel, cable of appropriate size shall be provided & fixed by the hospital. Vendor shall do cabling from distribution panel up to the equipment. The switch gears (MCBs / ACBs/ MCCBs), L.T. distribution board for MCBs etc.. Electrical wires should be of copper of different capacity as per the load.

For Telephone wiring cables (approved makes). Telephones to be provided in all rooms with EPABX system having control in office.

Modular range Switches / Sockets of approved makes should be provided and fixed as per requirement. LED lights of suitable illumination should be provided of Phillips/GE/ Crompton/Syska make.

Air conditioning:

Split Air conditioners of reputed make to be provided by the vendor in whole complex as per requirements (to maintain appropriate temperature in the main equipment room & other rooms) and as per regulations of AERB/equivalent Govt. of Mauritius Guidelines.

Standby additional split air conditioners of appropriate strength/capacity (tonnage) to be fixed in the main equipment room.

Hygrometer Nos.1 to be provided.

In-built or External De Humidifier in Equipment, Console and Examination rooms to be provided as per room layout.

Fire Protection

Non water based fire protection is to be integrated as per requirement. Fire extinguishers of appropriate types should be fixed in different rooms as per requirement. Heat detectors/hooters/photoelectric/smoke detectors (approved makes) shall be provided in all the rooms and corridors as per requirements. In case the expiry date of fire extinguishers is before the completion of one year comprehensive warranty period, extra set(s) of fire extinguishers will be supplied by the vendor till the completion of the 1 year comprehensive warranty period. Besides, any works required as per local fire services statutory/Delhi Fire Services norms shall be executed by the vendor.

The vendor to also install the following:

Audio visual Music systems for patient waiting areas.

Adequate Pest, insect and rodent control system to be provided and installed to ensure that area remains insect, pest and rodent free.

Music and Public Address system for calling/ informing the patients in the waiting areas.

Furniture:-

Following furniture (Godrej/Debono/Delite) will be provided:

Chairs with castors and armrests	2 nos.
Overhead Storage(1.2x0.4x.6m) for CD storage	1 no.
Medicine Trolley	1 No.

33 DIGITAL MOBILE RADIOGRAPHY UNIT

	<ol style="list-style-type: none"> 1) The unit should be compact, easily transportable digital mobile radiographic unit with articulated or telescopic arm. 2) It should be suitable for bedside x-ray for ward patients, intensive care units and operation theatres. 3) The unit should be a digital system with flat panel detector. 4) If the DR system is inoperable it should be able to function as conventional system. 5) Out of three major components (Detector, X-Ray Tube & X-Ray Generator) at least two should be from the same manufacturer. 6) It should be FDA approved. 7) Type approval from AERB/equivalent Govt. of Mauritius Guidelines is mandatory. In case vendor is supplying a new model, NOC from AERB/equivalent Govt. of Mauritius Guidelines is mandatory and subsequently obtaining type approval from AERB/equivalent Govt. of Mauritius Guidelines within 8 weeks of installation shall be the responsibility of the vendor. 8) The vendor should have prior experience of supplying same/similar equipment in India in the reputed government or private institutions as per DGHS /MOHFW guidelines 9) The order copies and performance certificates from these reputed (Govt./Private institutions) should be available 10) The system should have the following essential features. The bidder should quote their latest model. Please mention year of launch. 11) Supplier should have a trained service engineer in the state of supply for better uptime.
	The system must include the following:
1.	<i>Power Line Connection:</i>
	The unit should operate on single-phase power supply with plug in facility to any standard wall outlet with automatic adaptation to line voltage 200 to 240 Volts, 15 Amp plug.
2.	<i>The Generator:</i>
	i. Must be microprocessor controlled high frequency, output 30 KW or above.
	ii. It should have a digital display of mAs and kV and an electronic timer.
	iii. KV range: 40kV to 125kV or more in increments of 1kV
	iv. Max. current: 300 mA or more at 100 KV.
	v. mAs range: 0.1 – 350 mAs(to specify mA and seconds separately)
	vi. Exposure time range: 0.004 – 10 s
3.	<i>X-Ray Tube:</i>
	i. Output of the tube should match the output of the generator.
	ii. Focal spot should be less than 1 mm
	iii. Rotating anode with 3000 rpm or more
	iv. heat storage capacity of the anode : 120 KHU or better
	v. Tube overload protection should be available
4.	<i>EXPOSURE</i>
	i. vendor must provide with exposure technique chart
	ii. exposure status lights on main control and collimator
	iii. exposure indicator or air kerma indicator to be available.
5.	<i>Flat panel detector:</i>
	i. Detector should be wireless , cesium iodide scintillator with amorphous silicon technology
	ii. The flat detector should be of the size 14 x 17 inch or more.
	iii. The detector pixel matrix size should be 2.0K x 2.0K or more.
	iv. Pixel size 200 microns or less
	v. The machine should have a detector storage compartment.
	vi. The image viewing time after exposure should not be more than 10 sec.

6.	Battery:
	i. The machine should be able to run on mains as well on battery supply
	ii. Specify Battery charging time and battery operation time
	iii. Number of exposures which can be done on fully charged battery should be greater than 150.
	iv. The battery should also provide power for the motor to move the machine.
	v. The battery should be able to be charged from a normal 15A 230 V single phase socket in less than 6 hours.
7.	Workstation:
	i. The machine should have an integrated workstation with a TFT touch screen.
	ii. The workstation should enable to view the image, and provide post processing features, using touch screen.
	iii. The post processing features should include, zoom, contrast and brightness adjustment, storage of image with a memory of at least 2000 images.
	iv. The touch screen size should be at least 15 inches.
8.	Connectivity:
	The machine should be fully network ready and it should be possible to transfer images and patient data from and to hospital network using LAN connectivity and wireless LAN. System should be DICOM 3 compatibility and DICOM functions including DICOM Print, Image Export, WLM, MPPS. It should provide the possibility to write all Patient images, Studies and single images onto CDs/pen drive directly on work station Interface. The system should have DICOM 3.0 Ethernet 10/100 Base T . DICOM worklist interface , storage service class (SCU) and others. Antivirus software to be inbuilt/updated continuously.
9.	The unit must have an effective braking system for parking, transport and emergency braking. The tube stand must be fully counterbalanced with rotation in all directions.
10.	It must have an articulated or telescopic arm for maximum positioning flexibility in any patient position. The angles in various planes to be specified by the manufacturer.
11.	The exposure release switch should be detachable with a cord of at least 5 meters. Exposures with remote control should be possible. Remote control should be offered with system.
12.	The Dose Area Product meter should measure the X-ray dose output at the collimator and reports the measured Dose Area Product (mGy*m2) to the DICOM header of the image should be provided.
13.	Four light weight 'zero lead' aprons should be provided.
14.	2 Grids of at least 8:1 or better ratio and frequency should be provided.
15.	One year comprehensive on site warranty of entire system (Spares and labour), without any exclusion, including detector, X-ray tube, computers and all other accessories. This will be followed by 3 years CMC to be quoted separately, year wise.
16.	98% uptime guarantee should be given. In case down time exceeds 2%, penalty in the form of extended warranty, double the number of days for which the equipment goes out of service, will be applied
17.	The supplier must ensure the availability of expertise for service and maintenance at New Delhi. Uninterrupted availability of spare parts and repair for the next ten years must be assured by the principal in the form of an undertaking. Undertaking by the principal also to be given for providing maintenance services for 10 years in case there is change of local agent.
18.	All technical information provided in the quotation must be substantiated with attached original product data sheets. The compliance statement must include the page number and paragraph/line no. from the technical datasheet (in original) where the particular specification is being complied with.

34 Ultrasound with Biopsy Attachment:-

Technical Specification
The system should be latest fully Digital Color Doppler Ultrasound System and can be used for applications like Abdominal, Obs. / Gynae , small parts, Endocavitary, Pediatric & Vascular applications. The system should have following essential features:
1. The system should have the following image modes:2D,M mode ,PW, Tissue Harmonic mode , Color Doppler, Power Doppler mode.
2. The system should have minimum 15000 or more digital processing channels and 256 or more grey shades.
3. The system should have a very high dynamic range of 170dB or more and should independently selectable in B & M mode. Please specify the range.
4.The system should have a very high frame rate for B-mode & Colour mode. Maximum frame rate should be greater than 350 fps or more for B-mode
5. The system should be able to support all type of transducers (Convex, Endocavitary, Linear, Phased array and Intraoperative Transducers).Frequency range of all transducers should be 2-14Mhz.
6. All transducers should have broad band width technology for extreme high resolution imaging. All transducers have user selectable multi frequency imaging .
7. The system should have Advanced measurement packages for all applications.
8. The system should an integrated high resolution TFT/LCD of 17 inches or more with facility of tilt and swivel along with convenient grip.
9. The system should have minimum three active universal ports & active ports can be directly selectable from the control panel.
10. The system should have scanning depth in the range of 2- 30cms.
11. The system should have a very high capacity Hard Disc Drive (min.160GB) for storage of images.
12. The system should have inbuilt CD/DVD R/W and USB ports for image export.
13. The system should have zoom facility both in real time and frozen image and it should be minimum 6 times or more in both real time & frozen modes.
14. The system should have minimum 6 steps transmitting focussing (transmit focal zones) and adjustable gain should be available up to 100 dB for B-mode & M-mode.
15. The system should have Directional Power Doppler to define the low blood flow directions.
16. The system should have HD-flow/Advanced dynamic flow to acquire the blood flow with directions in the deeper region at a very high frame rate.
17. The system should have automatic optimization in B-mode and auto adjustment of Doppler base-line & velocity range.
18. The system should have B-mode image steering & Color Doppler steering. Please mention the angle.
19. The system should have the facility of on-screen adjustment for Dynamic range, Frequency selection, Presets, Name of the patient etc.
20. The system should have advanced real time quantification for Doppler parameters like velocity frequency, time, heart rate, slope, flow volume, pulsatility index resistivity index, peak velocity, average volume, point value area and diameter flow volume etc
21. The system should have extensive calculation software package for general measurements, vascular
22. The system should have the facility to view the Thumbnail images and system can be programmed for various users with the facility of user passwords.
23. The system should have the Trapezoid scan facility for linear probes.

24. The system should have Compound Imaging and Tissue Harmonic Imaging.(Please specific type of compound imaging offered)
25. Probes: a) Convex probe with frequency range of 3.0-6.0 MHz. (+/- 1MHz) with biopsy guide b) TV/TR probe with frequency range of 5-8 MHz (+/- 1MHz) and minimum field of view of 125 degree with biopsy guide. c) (c) Linear probe with frequency range of 6.0-11.0 MHz ((+/- 1MHz). d) Convex volume (4D) probe.
26 One year complete 98% uptime warranty for the entire equipment, probes and accessories batteries etc. which should include service as well as parts for which order is placed. Warranty shall be extended by double the down time if down time exceeds more than 2%/
27 Three years comprehensive maintenance charges (Machine + probes and all accessories, batteries for which order is placed) after one year warranty to be quoted separately with 98% uptime. CMC period will be extended by double the down time if it exceeds more than 2%
28. Please attach the original manufacture's product catalog and datasheets. Photocopied, computer generated catalogue and datasheet will not be accepted.
29 The shortlisted bidders will have to give demonstration of their quoted model before finalizing the evaluation of their bids.
30. The bidder should enclose the original product data sheet, brochure & compliance sheet, without which the bid will be rejected. Computer generated data sheet and brochure will not be accepted. The serial number of specifications must be indicated against the relevant portion of the compliance sheet and data sheet.
31. Other accessories: Jelly Bottles (50 Nos.), Patient Examination Table, Doctor's chair, Patient Chair, curtains for changing room.
32. Should be approved product by USFDA and European CE.

35 ICU Ventilator

The ventilator should be microprocessor based and work with hospital external high pressure line/ external compressor to be used in ICU for Adult, Paediatric and infant patients. It should be easy to use having a color inbuilt touch screen at least 12 inch or more in size with screen lock, intuitive menu structure, inbuilt ETCO2 monitoring , Mode preset capability, Pressure bar graph/ breath indicator and prioritized alarms alongwith the following settings/ features :-

Ventilation Mode

Volume Controlled ventilation (Assisted / Control)	VCV
Pressure Controlled ventilation (Assisted / Control)	PCV
Synchronized intermittent mandatory Ventilation	V-SIMV AND P-SIMV
Pressure support ventilation (Spont, CPAP, PEEP)	PSV
Non invasive ventilation	VCV, PCV, SIMV, PSV
Pressure support with Volume assured	VAPS
Airway pressure release ventilation	APRV/BI-PHASIC VENTILATION/BIPAP
Pressure regulated volume control	PRVC
Continuous positive airway pressure	CPAP

Ventilation Settings & Ranges

Tidal Volume	20 ml to 2000 ml or more
Inspiratory Peak Flow	0 to 200 LPM (Compensated)
Maximum Inspiratory Peak Flow	> 200 l/min (Depending on gas supply pressure)
Respiratory Rate	upto 100 BPM
SIMV Respiratory Rate	1 to 60 BPM
Inspiratory plateau	0 to 60 % of IT
FiO2	21% to 100%
Insp pause, Exp Pause, sustained exhalation, programmable sigh	
Inspiratory Trigger (pressure and flow trigger)	

Monitored Parameters

Respiratory Phase & Type, Respiratory Rate, Exhaled Tidal Volume, Exhaled Min. Volume Total, I : E : Ratio, Peak Inspiratory Pressure, Average Pressure, Plateau Pressure , End Expiratory Pressure, % Oxygen Delivered, f/Vt (RSBI), etCo2(End tidal Co2)

Respiratory Mechanics Maneuvers

Static Compliance and Resistance
 Low Inflation flow (LIP) and upper inflection point (UIP)
 P 0.1 and Maximum Inspiratory Pressure

Displayed Trends Values for 48 hours at least

Graphics Module with
Scalars
 Flow vs. Time
 Pressure vs. Time
 Adjustable Time Scale.

Loops

Flow / Volume
 Pressure / Volume
 Pressure/flow the screen should display atleast 3 loops/ curves

Facility for Freeze Screen

Individual Analysis of Each Curve
 Loop Save and Overlay Function
 Individual Analysis of Each Loop

Calculated Values

Inspiratory pause, Expiratory Pause

Should have audio-visual alarms alongwith appropriate message for

Inspiratory pressure (High), circuit, FiO2 (High/Low), Resp Rate, Tidal volume, minute ventilation, gas failure, apnea

+ The ventilator should have built-in programmable nebulizer.

AC Power & Battery Indicators

- Loss of AC Power
- Charging, In Use, Low
- Main Battery in Use
- Should have atleast one hour built in back-up

Self Test / Self Diagnosis

- Quick Self Test and Extended Self Test

Interface Port

RS - 232 Outputs and Remote Communication

+ Ventilator should be EUROPEAN CE/FDA APPROVED. The manufacturing origin should be EUROPEAN/US.

Scope of supply

Ventilator	-01No	
Air supply unit	-	01No (Optional)
Patient Tubing (adult)	-02 Nos / Unit	
Patient Tubing (paed)	-02 Nos / Unit	
Nebuliser Kit	-05 Nos / Ventilator	
NIV Mask with harness (Reusable)	- 02 Nos / Ventilator	
Humidifier (F&P 810) with chamber	- 01 No / Ventilator	
Bacteriological filters	- 10 Nos / Ventilator	-

OPTIONAL ITEMS

1. **ETCO2 cable with accessories**
2. **Nebulaizer (<3 micron particle)**
3. **Air compressor from the same manufacturer with change over facility and it should be European CE / FDA certified**

36 Ventilator (Adult & Ped.)/Non-invasive ventilator

1. The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%
 - a. IPAP: 4 to 25 cm
 - b. EPAP: 4 to 25 cm
 - c. Breath rate: upto 30 BPM with spontaneous for time mode
 - d. Timed inspiration: 0.5 to 3.0 sec
 - e. Rise Time: 150 to 600 msec
2. Mode:- CPAP with PS, Biphasic pressure control, apnea backup
3. System with leakage compensation.
4. System should be supplied with all reusable accessories
5. Power input to be 220-240VAC, 50Hz fitted with Indian plug
6. UPS of suitable rating with voltage regulation, spike protection and maintenance free batteries or internal battery with 60 minutes back up
7. Should be USFDA or European CE approved product..
8. Comprehensive training for lab staff and support services till familiarity with the system
9. User/Technical/Maintenance manuals to be supplied in English.
10. List of important spare parts and accessories with their part number and costing.
11. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
12. Certificate of calibration and inspection
13. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist.
14. The job description of the hospital technician and company service engineer should be clearly spelt out.

1.1. Central station for bedside monitors with independently controlled. 21" multi-color TFT Monitor, complete with Ethernet LAN cabling, alarm management, 72 hours trending, bed to bed viewing of waveforms and remote alarm management like silencing of alarms etc.
1.2 Central Station to have capability to display atleast 16 beds
Equipment Specifications for Complete Monitoring System
2. Description of Function
2.1 Critical patients need to be monitored continuously in ICU and bedside with central monitors
3. Operational Requirements
3.1 ICU should comprise of modular monitors at the bedside and with central station.
3.2 Capability of storage of patient data
3.3 Demonstration of the equipment is a must.
3.4. Technical Specifications
3.5 Multi colored TFT/LCD display touch screen of sizes as specified.
3.6 Eight digital and waveforms/traces display
3.7 Combination of single, dual and multi parameter modules.
3.8 Parameter modules freely exchangeable between all the monitors.
3.9 Multi-channel ST segment analysis.
3.10 Facility to monitor and display ECG, Respiration, NIBP, SPO2(Masimo technology), Temp. 2 channel
3.11 Monitor should have 12-lead ECG Monitoring capability simultaneously.
3.12 Automatic arrhythmia detection & alarm for standard and lethal arrhythmia.
3.13 EtCO2 – Side stream. Display both inspired and expired values, showing capnography
3.14 Should provide hemodynamic, oxygenation, Ventilation calculation package.
3.15 Should have drug calculation package.
3.16 Trend of at least 72 hours.
3.17 Monitors should be HL7 compatible.
3.18 400 nos. event recall/snapshot facility automatically triggered by alarm.
3.19 Spirometry, EEG, Venous saturation, BIS, NMT,3 additional IBP's- modules to be offered as per the nos. specified which help clinicians in guiding fluid management.
3.20. Web browsing facility to review each network monitors data through hospital LAN via office PC in Hospital LAN Network and / or through dial up facility from remote location.
3.21. The monitors should have monitor-to monitor overview facility
3.22. Should automatically calculate QTc measurement
3.23. System should be complete with Computer System, UPS with 1 hour back-up & Laser Printer for each Central Station.
3.24. The system offered should not be PC based.
3.25 System should be USFDA & CE approved with certification.

No. of Central Stations (Minimum 21" - 1no.)
No. of Monitors (Minimum 19" - 6nos.)
<u>3.26 List of additional Modules to be provide in 19" Monitors</u>
Three IBP (in each of 6 nos. Monitors)
Cardiac output (in each of 6 nos. Monitors)
End tidal CO2 (in each of 6 nos. Monitors)
NMT (in each of 2 nos. Monitors)
EEG (in each of 2 nos. Monitors)
Venous saturation (in each of 6 nos. Monitors)
BIS (in each of 2 nos. Monitors)
Spirometry (in each of 100 nos. Monitors)
Minimal Invasive CCO (in each 6 nos. Monitors)
Non-Invasive Hb (in each 6 nos. Monitors)
<u>3.25 Accessories</u>
ECG Module (5/10 lead ECG cable- 2 sets per monitor)
SpO ₂ Probe complete set (2 for Adult, 1 for Pediatric, 1 for neonatal)
NIBP cuff complete set (3 per monitor for adult, 2 for pediatric, 1 for neonatal)
End tidal CO2 (Adult & Ped. kit 01 per Monitor & Disposables sample lines – 50 tubing per monitor)
IBP Reusable Interface Cable (3 per monitor) Disposable pressure transducer kit (10 per monitor)
Two Temperature (Two Rectal/ esophageal & skin probes per monitor)
Recorder paper rolls (10 per module)
BIS Sensors - 20no. For each module
Spirometry: Suitable monitoring set for each monitor
Accessories for Cardiac Output/CCO Monitoring: One set for each monitor
Venous saturation - suitable monitoring for each monitor
NMT Monitoring Set
EEG Monitoring set for each monitor
<u>4.0 General Specifications</u>
4.01 Comparative compliance statement to be provided, mentioning page and para in the catalogue.
4.02 Undertaking that Local after sales Service will be provided round the clock

4.03 Undertaking from Principal that after sales service, spares & accessories will be provided for minimum 10 years after installation.

4.04 Warranty for one year and CMC as per rules.

4.05 All installation and cabling to be done on turn key basis and cost to be borne by the bidder.

4.06 Bidder to inspect the site of installation before quoting, to confirm the site of wall mounts and length of cables to be installed.

4.07. Service and user manual in English

5. Environmental factors: No interference with use of electrocautry

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

5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40 deg C and relative humidity of 15-90%.

Shall meet IEC-60601-1-2: 2001 general Requirements of Safety for Electromagnetic Compatibility.

6. Power Supply

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

6.2 Shall meet the safety requirements as per IEC 60601-2-27:1994—Medical electrical equipment—Part 2: Particular requirements for the safety of electrocardiographic monitoring equipment

38 Technical Specifications for Connectivity, Remote monitoring and Notification system – Central Monitor with 06 Bedside Monitors for Ward (Masimo Technology Product) + 03 Bedside Monitors for Post-Operative Room

Description of Function

A remote monitoring and notification system is used to monitor the patients by the bedside and relay the data to a central monitoring station from where the patients can be monitored. The notification system should also be capable of sending alarm notifications to care givers and have auto escalation features for providing fool proof redundancies

Requirements	Specifications
1. Operational Requirements	<ul style="list-style-type: none"> • Suitable for all types of Patients: Adult, Pediatric, Infant, and/or Neonate
2. Functional Requirements of bedside monitors	<p>Provide continuous, simultaneous measurements and clear digital displays of the following parameters:</p> <ul style="list-style-type: none"> • SpO2, Pulse rate and Perfusion Index • Non-Invasive Blood pressure • Respiration rate (optional) • Noninvasive Hemoglobin(optional) • LCD Colour Display with Adjustable Brightness • Touchscreen • Variable Pleth Waveform • Trend display up to 96 hours at 2 seconds sampling rate • Access to Menu and user settings for configuring and managing alarms
3. Central Monitoring Station	<ul style="list-style-type: none"> • Should have choice for selecting multiple domains and monitor up to 40 patients at a glance in one single screen • Choice of icon and/or Numeric Views, to quickly investigate patient alarms • Review trend data from central monitoring station- Window interest of 10 minutes to 96 hours should be displayed on the central monitoring station • Display of waveforms and alarms from monitors, ventilators , infusion pumps, syringe pumps
4. Additional Connectivity/ Integration capabilities	<ul style="list-style-type: none"> • Vendor neutral 3rd party data integration • Should interface with hospital HL7 Admit, Discharge, and Transfer (ADT) system for simplified patient association • Should have provision for bedside patient association via ADT • Should have options for integration into EMR • Should interface with hospital EMR system using HL7 for automated documentation of patient data • EMR documentation push from point of care
4. IT Infrastructure requirements	<ul style="list-style-type: none"> • Should be able to support both wired and wireless installations

	<p>Wireless Configuration Support</p> <ul style="list-style-type: none"> • IEEE Standard: 802.11 a, b, g • Encryption: TKIP, AES <p>Wired Configuration Support</p> <ul style="list-style-type: none"> • Ethernet: Standard IEEE 802.3
5. Alarm notification system	<p>Should provide multiple options that include:</p> <ul style="list-style-type: none"> • Proprietary paging system – Vendors should provide both paging transmitter and pagers • Auto escalation feature that would escalate the alarm to predetermined set of care givers when the primary care giver does not acknowledge the alarm • Should allow 3rd party messaging with gateways that comply to TAP1.6/1.8 over ethernet or HL7
6. Display Range of Bedside monitors	<ul style="list-style-type: none"> • Oxygen Saturation (SpO2)- 0 – 100% • Pulse Rate(PR) - 25-240bpm • Perfusion Index(PI) - 0.02-20% <p>NIBP (Adult, Paediatric, Neonatal)</p> <ul style="list-style-type: none"> • Systolic- 40-260 mmHg, 40-230 mmHg, 40-130 mmHg • Diastolic- 26-220 mmHg, 26-183 mmHg, 26-110 mmHg • MAP- 20-200 mmHg, 20-160 mmHg, 20-100 mmHg
7. Saturation Accuracy for Bedside monitors	<ul style="list-style-type: none"> • Saturation Range : 60% to 80% <ul style="list-style-type: none"> > Accuracy when there is no Motion Adults/ Infants/Pediatrics : 3% • Saturation Range : 70% to 100% <ul style="list-style-type: none"> > Accuracy when there is no Motion Adults/ Infants/Pediatrics : 2% Neonates: 3% > Accuracy when there is Motion Adults/ Infants/Pediatrics/Neonates : 3% > Accuracy when there is Low Perfusion Adults/ Infants/Pediatrics/Neonates : 2%
8. Pulse Rate Accuracy for bedside monitors	<ul style="list-style-type: none"> • Pulse Rate Range : 25 - 240 bpm <ul style="list-style-type: none"> > Accuracy when there is no Motion Adults/ Infants/Pediatrics/Neonates : 3 bpm > Accuracy when there is Motion Adults/ Infants/Pediatrics/Neonates : 5 bpm > Accuracy when there is Low Perfusion Adults/ Infants/Pediatrics/Neonates : 3 bpm
9. NIBP Accuracy	<ul style="list-style-type: none"> • Between 0 mmHg and 300 mmHg. : ± 3 mmHg
10. SpO2 Modes & Sensitivity for bedside monitors	<ul style="list-style-type: none"> • Averaging modes : 2, 4, 8, 10, 12, 14 or 16 seconds • Sensitivity : APOD, Normal and Max
11. Environmental Requirements	<ul style="list-style-type: none"> • Operating Temperature: 0-35°C • Operating Humidity: 10-95%

	<ul style="list-style-type: none">• Atmospheric Pressure: 540-1,060 mBar
12. Regulatory Requirements	<ul style="list-style-type: none">• FDA and CE approved product• Manufacturer/Supplier should have ISO certification for quality standards
13. Compliance Requirements	<ul style="list-style-type: none">• Safety Standards: ANSI/AAMI ES 60601-1, CAN/CSA C22.2 No. 60601-1, IEC/EN 60601-1, 3rd Ed.• Pulse Oximeter Standards: ISO 80601-2-61• Alarm Standards: IEC 60601-1-8• EMC Standards: EN 60601-1-2, Class B• Degree of Protection : TypeBF, DefibProof- Applied Part

39 Cardiac Defibrillator

Description of Function

1. Defibrillator should use low energy biphasic waveform for delivering shock energy & must have energy selection 2-200 j and more as per AHA 2010 & 2015 guidelines in AED as well as manual mode.
2. Should have facility to do ECG monitoring from 3-5 leads , with screen size>5”
3. Must be capable of monitoring ECG through ECH cables, multiple functions electrode /pads & external paddles.
4. Unit should have adult & in built pediatric external paddles & should be able to defibrillator both adult & pediatric patients with charging time of <5 seconds.
5. Facility for increase/ decrease energy selection on paddles as well as on the unit. Should have ECG print out facility.
6. Machine should be compact & portable with in-built rechargeable battery for at least 3 hr. of continuous ECG monitoring & should be weighing less than 10 kg. With battery & paddles.
7. Defibrillator should have facility to upgrade for external pacing Spo2 & Etco2 monitoring parameters.
8. Should have user selectable alarm setting .should work on mains as well as rechargeable battery.
9. Should be supplied with following accessories:
 - i. 3/5 lead ECG cable – 2 Nos.
 - ii. External Defibrillator paddles (Ped & adult) – 1 Nos.
 - iii. Multi- functions defibrillator & monitoring pads- 5 Nos.
10. Should be US FDA approved product approved for use in US.

40 Syringe Infusion Pump

- 1) The syringe pump should be programmable, user friendly, safe to use and should have battery backup and comprehensive alarm system.
- 2) Must Work on commonly available standard 5ml/10ml/20ml/50ml/60 ml Syringes with accuracy of minimum of +/- 2% or better, with automatic syringe size recognition.
- 3) US-FDA approved product.
- 4) Flow rate programmable from 0.1 to 1000 ml/hr or more in steps of 0.1 ml/hr with user selectable flow set rate option. SAVE last infusion rate even when the AC power is switched OFF.
- 5) Bolus rate should be programmable to 40 to 1000 ml/hr or more with infused volume display and one key press bolus. Reminder audio after every 1 ml delivered.
- 6) Display of Drug directory of more than 50 drugs, customized and adjustable.
- 7) Key board locking system for patient safety.
- 8) Keep Vein Open (KVO) must be available at 0.1 ml or set rate.
- 9) Selectable Occlusion pressure trigger levels selectable from 300/500/900 mmHg./ at least 3 selectable levels.
- 10) Automatic detection of syringe size & proper fixing. Must provide alarm for wrong loading of syringe such as flanges out of slot; disengaged plunger, unsecured barrel etc.
- 11) Manual pusher with plunger protection guard.
- 12) Anti bolus system to reduce pressure on sudden release of occlusion.
- 13) Should have comprehensive ALARM package including: Occlusion limit exceed alarm. Near end of infusion pre-alarm & alarm, volume limit pre-alarm & alarm, KVO rate flow, Low battery pre- alarm and alarm, AC power failure and Drive disengaged alarm.
- 14) Rechargeable Battery having at least 1 hours backup for about 5ml/hr flow rate with 50ml syringes. Larger battery life and indication of residual life will be preferred.
- 15) Mounting device / Docking Station for at least four pumps as per requirement so as to enable to power up to 4 pumps with one power cord when mounted on IV pole.
- 16) The unit shall be capable of stored and operating continuously in ambient temperature of 10 –50deg C and relative humidity of 15-90%
- 17) Power input to be 220-240VAC, 50Hz.
- 18) Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
- 19) User Manual and service manual in English.

- 20) Should have local service facility. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.
- 21) List of important spare parts and accessories with their part number and costing.
- 22) Bidder has to give demonstration of the quoted model.

41 VOLUMETRIC INFUSION PUMP

The Volume Controlled peristaltic Infusion Pump having at least following major specifications:

- a) Range : 1~1000 ml/hr. in 1 ml increments and 0.1~100 in 0.1 ml/hr. increments in Micro Infusion mode
- b) Infusion Time: 1 ~ 96 hours in increment of 1 minute.
- c) It should have display of drug names.
- d) It should have volume delivered indication
- e) Should have individualized alarms for -
 - i) Low Battery Pre Alarm and Alarm.
 - ii) Adjustable Occlusion level 100 ~ 900 mmHg in increment of 50 mm Hg.
 - iii) Drive error
 - iv) Air bubble detector (adjustable sensitivity)
 - v) Completion / End of Infusion
 - vi) Door Open
 - vii) Protection against free flow. Occlusion Check System must be integrated
 - viii) Unconfirmed Settings
 - ix) Mains Power Failure
 - x) Infusion Line Disconnection Alarm.
- f) Should have Keep Vein Open(KVO) function on completion with least volume : minimum 3 ml/hour or adjustable.
- g) Should have rechargeable NiMH type of battery having long life of about 5 hours @ 100 ml/hr. or more.
- h) Should be light weight not more than 3 Kg.
- i) Should operate on mains cum battery with input Voltage AC 240 Volts 50 Hz.
- j) Should store history of 750 last dated events.
- k) Should have variety of infusion modes such as Ramp-up / Ramp down, Sequential, Bolus, secondary etc. with last setting save at power ON.
- l) Should be compatible with all standard IV Sets.
- m) Should display the Volume to be infused, Infusion Duration, Infused Volume, Flow Rate, Present Pressure in the IV Set System, Alarm limit selected for Occlusion alarm, Occlusion pre alert by pressure increase indication, Visual Indication of Occlusion upstream or downstream etc.
- n) There should be a provision of LOADING dose at the beginning of infusion.
- o) There should be a provision of BOLUS delivery.
- p) There should be facility to LOCK the keyboard.
- q) Should have facility to program the PAUSE infusion time with indication after the programmed time is elapsed.
- r) The product offered should be USFDA/European CE approved with certificate to be submitted.

42 Portable Spot Light

- Should be comfortable and mobile LED Head Light and easy to use without any cables
- Should have maximum Luminous intensity of around 2,00,000 lux or more
- Should have Color Temperature of 5000K
- No need to change the lamp (At least 50,000 hours of service life)
- Should have minimum battery service life of 6 hours after full charge
- Yellow/ white light
- Luminosity adjustable from 10 to 100 mm at a working distance of 40 cm
- Batteries should be capable of being charged easily without powering off
- Should be able to Rapid USB charging from wall adaptor or PC
- Should have integrated battery status indicators
- Should have continuous digital dimming facility
- Total weight not more than 325g.
- Focus should be down to about 65mm
- Should be ergonomic fit, comfortable through a removable, washable flexible headband
- Should have spare batteries
- All accessories should be from the same manufacturer
- Should be European CE or US FDA approved and of international safety standards
- Prior demo is must

43 ECG Machine (6-channel)

Six channel microprocessor controlled ECG Machine to operate on mains and rechargeable battery, recorder should run minimum 4 hours on fully charged battery.

Auto Power Off (when not in use), multi-channel formats should be available. 12 lead ECG system with recorder. Should give measurement matrix. Should give lead fail/lead reversal failure messages.

Should give resting ECG. Sufficient memory for ECG storage.

44 E.N.T. WORKSTATION (ENT TREATMENT UNIT)

Main Unit

- Durable steel casing, non rusting, long lasting
- Large instrument surface made of stainless steel with dividers and heating system to heat the instruments, laryngeal mirrors and endoscopes.
- Device to Heat the laryngeal mirrors
- Compressed air system continuously adjustable from 0.1 to 4 bars for spray and politzering, spray liquid with autoclavable nozzle for cleaning
- Handle for compressed air should be having a regulation valve
- Medication reservoir be made of stainless steel, should be detachable and suitable for all type of medications.
- Stainless steel tank for compressed air of capacity of 1.5 or more
- Compressor unit should be completely separate from suction unit
- Inbuilt motor suction unit with capacity of 35 liters per minute with maximum 92% vacuum.
- Should have a vacuum gauge, bacterial filters, 1.5 liters liquid container and effective device to prevent overflow.
- Suction tube should have automatic on off switch and small ear rinse funnel
- Warm water rinsing Device with autoclavable stainless steel handle with snap closure system and fine spray regulation valve
- Separate stainless steel tank to prevent mineral build up and heat up to 38 degree temp
- Cold water irrigation through existing water connection
- Automatic liquid container discharge system should be provided
- Suction tube cleaner with exchangeable re-usable adapter.
- X-ray viewer integrated in a writing draw with automatic on /off switch(Optional)
- Dispenser for cotton and paper • provision for attachment of microscope
- Equip with waste container
- Endoscopy centre with cold light source with two outlets with 300 LED/XENON/HALOGEN light bulb
- Head light with fibro-optic cable to be used with above light source for examination
- Head light rest made of stainless steel
- Two warming quivers for rigid endoscope- should be removable for autoclaving and cleaning
- automatic on/off switch for single light outlet with light barrier
- Large writing surface
- Draw for computer key board along with swivel support for computer monitor
- Power supply 220-240 volts/50 Hz
- Integrated Mono and Bipolar cautery system with all cables & probes/forceps.

ENT EXAMINATION MICROSCOPE:

The ENT examination microscope with integrated, fanless high transmission, high performance LED illumination in the microscope head.

- Integrated, fanless high performance white-light-LED Luminescence: min. 120 klux (200 mm), 30 klux (400 mm) • Color temperature: 5.500 K
- Optimized stereo effect by 24 mm stereo basis
- In built LED light source with SD camera OR HD camera with a facility to take images, video & transfer the same to any smart phone via the wi fi card.
- Mechanical support arm for the microscope
- Expandable with scale projection at the image plane with a option of green filter Objective: 200 mm, (fine focusing)

- Objectives with manual fine focusing Visualization:
- HD-camera with facility to record, take images and transmit the same through the wi-fi card to smart phone/ PC/ Laptop. wide-field eyepiece 16x magnification
- Colour filter green, with pivot mechanism
- The ENT microscope should be on castors with locking system
- Monitor holder,HD monitor,lateral double hand grip

ENT PATIENT EXAMINATION CHAIR

- Should be motorized and ergonomically designed examination and treatment chair facilitating the posture of both doctor and patient
- Heavy base casing
- All elements of chair should be anatomically shaped
- Seat should have motorized lifting device
- Seat should have height adjustment for children
- Integrated foot switch for easy adjustment of height
- Should have complete rotation 360 degree with locking device
- Should be comfortably padded and folded back for enabling easy sitting of overweight and handicapped patient • Head rest-15cm with adjustable height.
- Backrest adjustable and can be made to incline 10 degree forward to vertical position and backward completely to a horizontal position and can be rolled back
- Movement of armrest and footrest should be synchronized with backrest movement
- Chair should conform to CE mark
- Power supply:220-240Volts/ 50Hz

DOCTORS EXAMINATION CHAIR

- Wide base, should have rolling casters for easy movement
- Should have back rest
- Easy height adjustment of hydraulic nature
- Comfortably cushioned seat

RIGID ENDOSCOPES

- 4mm/0 & 30 degree nasal endoscope-1 in number
- 2.7mm/0 & 30 degree nasal endoscope-1 in number
- Magnifying 90 degree Laryngoscope with facility to focus manually - 1 in number
- Ear telescope [aural endoscope]: 3mm-diameter/ 6cm length/ 0 degree-1 in number
- . Ear telescope [aural endoscope]: 3mm-diameter/ 6cm length/ 30 degree-1 in number
- All above endoscopes should be wide angle & autoclavable
- Co-axial fibro-optic light cable/2.5mm diameter-1 in number.

STROBOSCOPY (INTEGRATED)

- The LED stroboscope should be noiseless with flash light & pilot light for vocal cord diagnostics based on LED technology
- The LED stroboscope should have the variable phasing & slow motion mode, adjustable with the footswitch. Page | 39 • Should display voice frequency, sound pressure level, audio output for archiving the voice signal including attachable laryngoscope microphone also should have a body sound adapter for voice asthenic patient (stethoscope adapter for clip microphone for a better connection of the microphone signal to the stroboscope control .

- The flash frequency should be 70 -1000 Hz, without reduction, sound level metering range 70-125 dB + / - 1 dB, operating modes , continuous light, slow motion 0.5 – 2 Hz, frozen image 0 degree – 400 degree, hunting over the footswitch adjustable, light durable approx., 50,000 hrs.
- The system should have a integrated LED light source, light durable approx., 50,000 hrs, brightness 220 kLux / 175 Lumen, length of the cable 1.9m
- The system should indicate the status of light- pilot light, flicker & slow motion.

Display and recording system

1. High resolving 1/3" CCD camera with high light sensitivity with HD-LED monitor (min. 32").

Following items are optional

- Compatible System for easy recording of images and videos in HD digital formats. Easily transferable to External hard drives and USB pendrives/storage cards without losing resolution.
- Fiberoptic Otoscope with all size speculums including Seigel's pneumatic Speculum.
- Otoscope with fiberoptic illumination • 3.5, volts Halogen bulb with 5 spare bulbs.
- Magnification, 3 or 4 times. • Pneumatic bag for Sieglisation of tympanic membrane
- 8Reusable and autoclavable speculum set of 4 or 5—2 sets for each Otoscope • Heavy duty handles with charger and chargeable long life battery with spare battery.

SOFTWARE:

- 1 no. Acoustic analysis/Recording of the voice signal (Multi Dimensional Voice Profile (MDVP)voice software, archiving and recording the voice, and taking report.
- 1 no. P.C.(Personal Computer) should consist of a CPU, Keyboard and Mouse for installation for software.

The item should have European CE/ US FDA approval

45 Brainstem Evoked Response Audiometer (BERA) with ASSR

1. BERA:

- i. 2 channels.
- ii. Windows based.
- iii. Bone Conduction.
- iv. Integrated database.
- v. Pre-programmed auto tests.
- vi. Waveform reproducibility indication.
- vii. Split left/right recordings.
- viii. Simultaneous recording of condensation rarefaction stimuli.
- ix. Normative data indication.
- x. Soft attenuator.
- xi. Wave editing during testing
- xii. Digital filter application (during and after test).
- xiii. Add, subtract curves
- xiv. Low noise amplifier
- xv. Ecoch G recordings with markers
- xvi. Middle Latency
- xvii. Late Latency (P300, MMN etc.)
- xviii. Essential facility for OAE and NCT and should be upgradable to VNG

2. ASSR:

- i. PreAmplifier
- ii. 2 channels
- iii. Gain 80 dB
- iv. Frequency Response upto 8000Hz
- v. Noise 6.0 nV Hz
- vi. CMR Ratio > 115 dB at any frequency between 0.1Hz & 10Hz.
- vii. Input Impedance > 10M
- viii. Accepted electrode offset > 300mV.
- ix. Power from main unit.
- x. Impedance Check
- xi. Measuring Current 25uA.
- xii. Ranges 0.5k – 25k.

3. All accessories should be from the same manufacturer and should be European CE/ US FDA approved.

46 Pure Tone Audiometer

1. Should be advance 2 channel clinical audiometer with High Frequency upto 20KHz.
 - a. Air , Bone and Speech
 - b. Free Field ,Speech and Pure Tone
 - c. 2 Channel Binaural Speech
 - d. Automatic Threshold
 - e. Bekesy test
 - f. Automatic Speech Scoring
 - g. 2 Channel Master Hearing Aid
 - h. Tones : Pure, Warble and Pulsed Tones
 - i. Masking : WN, NB and SN Masking

2. Special Test:
 - a. SISI Free Field
 - b. Tone decay
 - c. ABLB Test
 - d. MLB
 - e. MLD
 - f. Loudness Balancing: 250 Hz, 500 Hz, 2kHz, 4kHz, 6kHz NB noise with direct comparison to standard curves.

3. Tone decay:
 - a. Number of Channels : Two Independent Oscillators
 - b. Frequency Range : 125 Hz – 20kHz
 - c. Intensity Range : 10dB – 120dB (Air Conduction) -10dB – 80dB (Bone Conduction) 5dB and 1 dB Attenuators
 - d. Frequency Resolution: Multi frequency

4. Others
 - a. All accessories for all the above units to be included.
 - b. Facility for the free field audiometry to be included.
 - c. Software for report, data storage and printing should be included.
 - d. Regular calibration of equipment.
 - e. All accessories should be from the same manufacturer and should be European CE/ US FDA approved

47 Impedance Tympanometer/Audiometer

Impedance audiometer with contra ear testing facilities

1. Multifrequency
2. Probe Frequency- 226Hz, 678Hz,800Hz,1000Hz
3. Pressure Range- +200 to – 400 daPa
4. Volume Range - 0.1 ml to 6.0 ml
5. Accuracy - $\pm 5\%$ to ± 10 daPa
6. Test Time- < 3 Seconds
7. Reflex Mode
8. Test Frequencies- 500, 1000, 2000, 4000 Hz $\pm 2\%$
9. Test Method- Ipsilateral, Contralateral
10. Noise (Band) - WN/HP/LP
11. Intensities IPSI Lateral-70 to 110 dbHz
12. Intensities Contra Lateral- 70 to 120 dbHz (with TDH39)
13. Intensity Setting- Automatic or Manual
14. Eustachian Tube Function - Intact and Perforated mode
15. ETF Pressure Range -+ 300 to – 400 daPa
16. Test - Ipsilateral Reflex Test with AGC, Reflex Decay
17. Test Programme- Reflex Test selectable
18. Memory- Test Result of both ears
19. Probe - Light weight, adjustable, Hand Held , With Built in control light & switch
20. Printer- Silent Thermal Printer , (with paper printer facility)
21. Display-Graphic LCD with adjustable contrast
22. Power Supply- Mains 100-240 Volts, 50/60 Hz 25 VA
23. PC Interface- USB Cable
24. Automatic self calibration
25. Regular calibration of equipment.
26. All accessories should be from the same manufacturer and should be European CE/ US FDA approved

48 OAE- Otoacoustic Emission (Screening unit)

1. TEOAE

- i. 1.5 to 4 kHz
- ii. Sample Rate - 16 kHz
- iii. Stimulus Level- ca. 80 dB SPL peak
- iv. Window of analysis- 5-13 ms post stimulus

2. DPOAE

- i. DP 2 to 5 kHz
- ii. Frequency Ratio f2/f1- 1.2
- iii. Level Ratio L2/L1- Scissor Paradigm
- iv. Measurement Interval- 512 samples
- v. Frequencies f2- 1.5, 2, 3, 4, 6, 8, kHz (single & multiple selections possible)
- vi. Stimulus Levels L2- 35 to 65 dB HL (in steps of 5dB)
- vii. Also battery operated
- viii. Multiple test methods
- ix. Database for at least 1000 tests
- x. Data transfer to PC via USB or wireless
- xi. Printing via PC/ Printer(Software should be included)
- xii. Stimulus intensity: 40 to 70 dB SPL (DPOAE). 83 dB
- xiii. SPL (TEOAE).
- xiv. Maximum output (Protection): 90 dB SPL.
- xv. Power supply: (4) AA/UM-3/R6 - alkaline (6V total)
- xvi. Battery life: Approximately 250-300 tests.
- xvii. Display: LCD-display 4 line x 10 character.
- xviii. All accessories should be from the same manufacturer and should be European CE/ US FDA approved

49 Flexible Nasopharyngolaryngoscope (Adult – 2no. & Pediatric – 2 no.)

Description

A. General Specifications:

1. Should have large viewing angle and movable distal tip for better orientation
2. Waterproof, fully immersible for cleaning and disinfections
3. Sterilizable with ETO gas/ low temperature sterilzier
4. Resistant construction and robust mechanics

B. Technical Specifications:

1. Direction of view: 0 deg.
2. Angle of view: 100-110 deg.
3. Working length: 20-25 cm or better
4. Outer diameter: 5-5.5 mm
5. Instrument Channel: 2-2.5mm
6. Deflection: Upward upto 150 deg, Downward upto 150 deg.

C. The following accessories should be included:

1. Carrying Case 1 no.
2. Pressure compensation cap 1 no.
3. Leakage tester 1 no.
4. Mouth piece 1 no.
5. Cleaning Brush 1 no.
6. One Biopsy Forceps- Double action Jaws
7. One Grasping Forceps- Double action Jaws

D. Demonstration of quoted model should be offered if desired

E. All accessories should be from the same manufacturer. Equipment should be European CE/ US FDA approved

50 Electronystagmograph

Must have The ENG Tests: Saccades, Gaze, Pursuit, Positional, Dix Hallpike, Caloric & Optokinetic.

- Must have User definable test sequence.
- Should have Automatic calculation of Culmination
- Should have Frequency with manual override.
- Must have Automatic plotting of butterfly charts.
- Must have Auto calculation of Slow Phase Velocity (SVP).
- Must have Auto derivation of Canal Perisis and Directional 22 Preponderance.
- Should have Patient safety through optical isolation.
- Along with Computer controlled Light-Bar.
- Must have Intuitive user interface software.
- Patient data comparison (multiple sessions and/or with normative data).
- Efficient patient data management using single envelope.
- Patient history chronologically documented.
- Reformatting of Sensitivity & Filters in Review & Analysis.
- Optional data export to excel file for educational research.
- Notch Filter & data validation.
- With Desk top PC & Printer.
- ENG Hardware must be Portable compact size.

Technical Specifications: SYSTEM CAPABILITIES:

* Input Channels : 2

- Low Filter : 1,2 or 4 secs.
- Hi Filter : 7.5/15/30 Hz
- Coupling : DC Response
- Input Offset voltage Range : + 16mV CMRR : > 100 dB Noise : < 5 μ V peak-to-peak max with input shorted.
- Notch Filter : 50/60 Hz.
- Resolution (ADC) : 14 bit
- Sampling Rate : 500 Hz • Sweep Speed : 5/10/20 mm/sec
- Range of Eye position : + 30 degree Horizontal/Vertical Tracked
- Linearity Horizontal : 1% full scale Vertical : 1.2% full scale Input Power : 120/240 VAC, 50/60 Hz

OPTICAL STIMULUS

- Type : Light Bar
 - Patient to Bar Distance : 1 metre
 - Target Position : Gaze Targets + 30 degrees
 - Pursuit & SaccadeS : Computer controlled
 - Target Size : < ½ degree
 - Optokinetic : 6 Targets ELECTRODES
 - Type : Ag/Ag CI Disc Electrodes
- Item must have CE or US FDA certificate

51 Video Nystagmographic Machine (VNG)

1. With sensitivity of minimum 105 images per second binocular, minimum 174 images per second monocular.
2. Goggle with one camera and goggle with two cameras (non occluded and occluded view).
3. Able to perform all vestibular tests including smooth pursuit test (tracking)
4. Compatible with latest windows software
5. Laptop with minimum Processor core i3, 4GB DDR3 RAM, 500 GB hard disk with resolution of 1024x768 resolution or better, B/w Laser printer for documentation.
6. Rotary chair, irrigation for water and air included.
7. Software should be user friendly and free upgradable for next 10yrs.
8. Should be capable of performing following tests -
 - a. Calibration test
 - b. Gaze Nystagmus test
 - c. Pendulum tracking
 - d. Optokinetic tracking
 - e. Position tracking
 - f. Water caloric tracking
 - g. Air caloric tracking
9. Should be European CE / US FDA approved

Note for Instruments sets

TITANIUM INSTRUMENTS : 1. All Instruments should be of international quality and made from surgical grade titanium. 2. The “Hinges” should be rust proof 3. The instruments should be guaranteed against metal fatigue and rust for atleast 02 years. Further repair should be available for next 5 years. 4. The instruments surface should be non-reflective. 5. The brand name along with catalogue number should be etched on the instruments. 6. The other instruments should be made of high grade titanium, they should not magnetize with use and the surface should be non-reflective and glare free under OT light. 7. Satisfactory Performance Certificate from Government Hospital is mandatory. 8. The instruments might be call for demonstration and approval. It is the sole discretion of the department to approve or disapprove the quality.

STAINLESS STEEL INSTRUMENTS :- 1. All Instruments should be of international quality and made from surgical grade stainless steel. Documentary evidence required for grade of material. 2. The “Hinges” should be rust proof 3. The instruments should be guaranteed against metal fatigue and rust for 02 years. 4. The instruments surface should be non-reflective. 5. The brand name along with catalogue number should be etched on the instruments. 6. The instrument should be CE & FDA approved. 7. The instruments might be call for demonstration and approval. It is the sole discretion of the department to approve or disapprove the quality.

52 FULLY AUTOMATIC CLINICAL CHEMISTRY ANALYSER

A. MAIN CHEMISTRY ANALYZER UNIT

1. Fully automated, Discreet, Multi-channel, Random access clinical chemistry analyzer with ISE.
2. Assay modes: photometric end point, kinetic, indirect ISE, bichromatic and immunoturbidimetric.
- 3 Throughput: at least 1000 or more tests per hour with ISE out of which at least 500-800 be photometric tests.
- 4 Sample type- plasma, serum, urine, CSF and other fluids analysis facility.
5. Sample loading: Atleast 60 sample positions with continuous loading.
6. Onboard parameter test: Minimum 40 onboard photometric parameters.
7. The system should have the facility of adding immunochemistry module.
8. The system should be able to take samples from primary / secondary tubes, sample cups.
9. System should have minimum 10 open channels.
10. The system should have facility for automatic rerun, automatic reflex testing and have facility for continuous loading of stat samples without interrupting the routine run .It should have capacity to detect bubble, viscosity check, hemolysis and low sample volume.
11. Photometer: multi-wavelength diffraction grating photometric system with wavelengths ranging from 300-800 nm.
12. The system should have menu for therapeutic drugs and drugs of abuse.
13. Lamp source: halogen/xenon lamp with life of atleast 800 hours. One extra lamp should be provided free of cost with the equipment besides the normal standard accessories.
14. Bar Code Reading facility for samples and reagents.
15. Sample and reagent probe: Separate probes for sample and reagents .
16. Sample probe: probe must have liquid level detector/sensor and independent washing facility. Also probe crash detection and sample clot detection facility should be there. It should use <25µl sample in 0.1µl increment.
- 17.Reagent probe: probe must have liquid level detector/sensor and independent washing facility with probe crash detection facility.
18. Reagent compartment should be refrigerated with temperature 4-8oC or better and humidity control.
19. Cuvettes: Permanent hard glass / quartz cuvettes/plastic cuvettes with onboard washing facility or disposable cuvettes.
20. Should have pre-& post- auto dilution of samples and re-run capability for out of range samples. Also there should be facility for serial dilutions in multipoint calibration.

B) Computer system

21. Personal computer having windows XP , Pentium IV processor, DVD –RAM , with monitor, keyboard and printer compatible with normal A-4 size paper.
22. Quality control: real time, individual and cumulative quality control with automatic programming with L-J graphs. Printout of QC charts & reports.
23. Software: i) Compatible, programmable windows based user friendly software with comprehensive data processing and management system. ii) Graphical user interface software for unidirectional and bidirectional communication. iii) LIS and HIS capability. Full technical support to link it to HIMS should be provided. It should also be able to link to company's teleservice functioning for QC data / calibrators data downloading. iv) Complete backup of the database for calibration, control and patients sample result. v) At least 10,000 patient result storage and multitasking facility on computer.

C) Water purification unit:

24. All vendors should supply the compatible water treatment plant for the instrument based on RO or any latest technology, along with necessary plumbing and adequate size storage tank if required by the

equipment. They will have to check the hospital's water quality before supplying water plant. It would be the responsibility of the vendor to maintain the water quality for the equipment irrespective of the quality of the feed water. The vendor should also give separate prefiltration unit if required.

25. All related plumbing for whole instrument with suitable diameter pipes for input as well as drain water should be done by the company. Also suitable stand for water purification system and storage tank should be provided.

D) UPS

26. Equipment should be supplied with compatible online UPS for entire machine with atleast 60 min battery backup.

E) Other General Conditions

27. Should have US FDA and European CE approved certification.

28. On-site training: Comprehensive and full training of all users by suppliers for operating the equipment on site.

29. The manufacturer should provide 2 spare printer cartridges free of cost. Printer should be such that it's cartridges are easily available.

30. Models quoted should be latest on production line of manufacturer and manufacturer's certificate for this should be provided.

31. Logbook with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the Hospital technician and company service engineer should be clearly spelt out.

32. Complete circuit diagram and service manual and operating manual must be provided. User/technical/maintenance manuals to be supplied in English. Supplier must provide original documentary proof of the date and place of manufacturing of supplied equipment.

33. Certificate of Traceability for calibrators, traceable to national/international reference standards to be submitted by the firm.

34. Manufactures should also be manufacturing the reagents/kits needed for the machine. However, quality control sera may be of third party.

35. Assured supply of spares and consumables for 10 years at least.

36. Comprehensive warranty includes replacement of all parts which might require replacement even due to wear/tear which may affect the routine functioning of the equipment) for first one year. CMC rates for next 3 years after warranty (including accessories and RO system + UPS with batteries + computer system) to be quoted at the time of tender only. If due to some reason company is not able to repair the equipment, the equipment of similar specification and same throughput should be installed free of cost at the same term and conditions till the period is completed.

37. Cumulative cost (including cost of the equipment including 1 year warranty, and CMC for next 3 years i.e. from second to fourth year and Price of the reagents/consumables/Solutions/Accessories etc for 3 years as per the mentioned workload) will be taken into consideration for evaluation of price. Price bid evaluation document attached in Annexure 1.

38. Where-ever applicable, the reagent wastage cost due to mechanical error of the equipment should be compensated free of cost by the bidder.

39. Based on the workload provided by the user department, the bidder shall have to quote all other items and their quantities which are likely to be consumed daily for the tests listed in the bidder quote document. Anything which is not quoted by the bidder in the technical and price bid document shall have to be supplied free of cost for the entire validity period.

40. Maximum down time for both equipments at a stretch should not be more than 6 hrs.

41. Installation and satisfactory functioning reports of atleast last 3 years.

42. Should be capable of up gradation and/or onsite integration if required.

43. Site preparation while installation including plumbing etc. to be done by the firm.

44. Compliance Report Performa (Mandatory) : Compliance report to be submitted in a tabulated and point wise manner clearly saying 'Yes/No' in the Compliance Proforma. The compliance report should be signed by Authorized signatory of the Manufacturer / Supplier.

ANNEXURE -1 Bidder quote for the Bio-chemistry autoanalyser 16 channel (1000 throughput)

• The bidder whose bid is lowest as per the total of amounts in A, B and C will be considered as L1 i.e. The sum total of Cost of the equipment(including 1 year warranty), 3 years CMC charges after warranty and Price of the Reagents/Consumables/ Solutions/ Accessories etc. for 3 years as per the mentioned workload

• The bidder must also quote the following in a tabulated PDF form. The rates quoted in this table shall remain fixed for first five years from date of installation.

A. Cost of the equipment (including 1 Year Warranty) B. 3 Yrs. CMC charges after warranty (CMC will be paid annually).

A. Cost of the equipment (including 1 Year Warranty)

B. 3 Yrs. CMC charges after warranty (CMC will be paid annually). Refer Price Schedule Formats

C. TABLE – The Price of the following reagents should be quoted at the time of tender. These rate shall remain fixed for 5 Years from the date of award of contract-

S.No.	Name of Assay	Approx. No. Of Tests required for the Assay (Monthly)	Kits	Rate	No. Of Kits likely to be consumed (to the next higher digit if calculation leads to fractional no. Of kits)	Cost of Kits (yearly consumption)	Cost of Kits (5 years consumption)
1	Glucose	6000					
2	Urea	6000					
3	Creatinine	6000					
4	T.Bilirubin	6000					
5	D.Bilirubin	750					
6	SGOT	6000					
7	SGPT	6000					
8	ALP	6000					
9	Amylase	750					
10	CK	750					
11	CK-MB	750					
12	LDH	750					
13	Sodium	6000					
14	Potassium	6000					
15	Multi Calibrator/ specific calibrator	Usage according to specified frequency					
16	Quality Control Sera (both	Usage according to					

	normal & abnormal range)	specified frequency					
17	Any other consumable viz. Lamp, disposables, wash solutions, buffers etc.	Usage according to specified frequency					

- The Rates of all consumable/accessories like tips, lamp, electrodes, disposables, buffer solutions, wash solutions or any other reagent for the day to day running of the equipment should be included at the time of tender and should be quoted in the table C on the basis of the above projected work load.
- CMC charges will be paid annually after expiry of warranty. Any amount quoted in table C shall be paid at the time of actual purchase of the kits and consumables.
- The Price of the reagents for other tests not mentioned in the above table but which are available on the equipment shall be quoted at the time of bid only (If needed to be started in future).these rates will also be frozen for five years. However, rates for these parameters will not be used for price bid evaluation.
- Onboard stability of reagents should be at least 30 days for the parameters frequently used and at least 45 days for the less frequently used parameters and shelf life of reagents should be at least 6 months.
- The system must be supplied with necessary pre-requisites and start up kits for installation and training free of cost as per the mentioned workload for 2 months for all the parameters mentioned in table (Annexure 1).

Calibrators and Controls (normal and abnormal) for all the above tests in suitable volume for above mentioned workload and any other liquid consumables /buffer solutions/wash solutions/accessories for the above mentioned workload must also be provided free of cost.

- Any consumable not quoted in this table but essential for performing the above listed tests shall have to be supplied free of cost for the entire workload during the validity of the contract.

53 Fully Automatic Blood Count Analyzer (5-part)

Tender Specification

- 1 Automated Blood Cell Counter is used to count various types of blood cells in the blood.
- 2 Automatic blood cell counter that measures 27 parameters including 5part differential ofWBC is required complete with printer.
- 3 Parameters to be measured are -WBC, LYM%, LYM, MON%, MON, GRA%, GRA, RBC, HGB, HCT, MCV, MCH, MCHC, RDW, PLT, MPV, PCT, PDW. Retic, Retic% NE, NE% L4, L4%, MO, MO%, EO, EO%, BA, BA%, IG with NRBC Should be reportable parameter
- 4 Histogram WBC 5-part diff distribution, RBC distribution, PLT distribution. WBC Seatogram
- 5 Measurement Principle Electrical impedance method (WBC, RBC, HCT, PLT) Cyanmethemoglobin colorimetric method (HGB)
- 6 Low Sample Volume less than 200 μ L
- 7 Throughput > 70 samples per hour.
- 8 Linearity Ranges WBC 0 -80.0 * $10^3/\mu$ L RBC 0.20-7.50 * $10^6/\mu$ L
HGB 2.0-25.0 g/dL HCT 10.0%-70.0% PLT 10-999 * $10^3/\mu$ L
- 9 Reproducibility (CV) WBC RBC
HGB HCT PLT LYM% MON% GRA%
- 10 The sampling probe should be automatically cleaned off, so that any blood stack doesn't occur.

Various sensors should check the condition of the instrument. If any abnormality is detected, an error message be displayed so that occurrence of trouble is prevented

- 12 Along with Reticulocyte count malaria count should be possible.
- 13 External Printer.
- 14 System as specified-
- 15 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
- 16 The unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.
- 17 Power input to be 220-240VAC, 50Hz fitted with Indian plug
- 18 Resettable over current breaker shall be fitted for protection 19 • Suitable voltage corrector/stabilizer
- 20 Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.
- 21 Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.
- 22 Should be compliant with IEC 61010-1:covering safety requirements for electrical equipment for measurement control and laboratory use.
- 23 Should be FDA or CE or ISI approved product.

54 AUTOMATIC COAGULOMETER

- Fully automated stand along coagulometer.
- Should be a BENCHTOP analyser thereby minimizing space requirements.
- Should be able to perform clotting, chromogenic and immunological tests.
- High throughput and rapid processing of STAT samples without the need to interrupt the analyser.
- Should be a random, continuous analyser with continuous loading of samples.
- Storage of calibration and their curves.
- Windows compatible software.
- Should be a touch screen analyser.
- More than 390 samples on board.
- More than 20 reagents on board.
- In built Barcode for samples.
- External Barcode for reagents.
- The analyser should have US capability.
- Should have more than 250 cuvettes on board capacity.
- Should have patient data base capacity of at least 900 samples.
- Patient results archiving.
- System should have electronic security.
- In built maintenance program should be present.
- Following facility of storage of patient curves,
 - a) Facility of storage of patient curves.
 - b) Should have automatic rerun and reflex programmes.
 - c) Should have an option for running parallelism for inhibitor studies.
- Equipment should be able to perform following parameters:
PT, APTT, Fibrinogen, Free protein s, Protein C Chromogenic, Heparin LMWH and UFH, AT III, Plasminogen, Anit Plasmin, vWF Activity, DwRT Screen & Confirm, Silica Based LA, D Dimer (FDA for VTE Exclusion), APCR V, Homocystine.
- Should provide calibration certificate for the hardware traceable to National or international calibration agency.
- Consumables for running of 2000 tests f PT, APTT to be provided along with the analyser.
- Compatible UPS with a 30 min supply backup to be supplied along with the equipment.
- 1 year warranty and after warranty 3 year CMC which will be included in the price comparison.
- Manufacturer/supplier should have ISO Certification for quality standards.Should be DA, CE, UL or BIS approved products.
- User/ Technical .Maintenance manual to be supplied in English.
- Certificate of calibration and inspection from factory.
- List of important spares and accessories with their part number and costing.
- Penalty Clause: Down time penalty clause. If the equipment is not repaired within 04 days of informing the company. 2% of the total cost will be charged as penalty for every 07 days.
- Rate of consumables and controls to be fixed for 5 years.
- One back up unit should be provided along with the equipment.
- Stand by technical operator for 24 x 7 operation for 05 years should be provided as needed.
- Demonstration of equipment by all the participant firms before finalization of technical specifications.
- Installation and demonstration at the place of working.

55 AUTOMATIC BLOOD GAS ANALYSER

A fully automated pH/Blood gas/electrolyte analyzer measuring the following parameters:

- pH, PCO₂, PO₂, Barometric pressure.
- Na, K, Ca, Cl
- Co-oximetry: ct Hb, CCO Hb, Met Hb, Sulf Hb, Haematocrit and Barometric pressure.
- Sample volume should be approximate 100 µl for all parameters.
- All calibration and cleaning cycles should be fully automated with user selectable Calibration items.
- Calibration should be performed by liquid calibration for all parameters.
- The electrodes provided should be zero maintenance including the reference electrode.
- The system should have on board data manager to store all patient results, QC data and calibrations.
- The system should have a closed waste system and mentioned continuously. Also all the system reagents should be monitored continuously.
- A power fail protection for 20 min.to take all calibration and programmed data.
- The analyzer should have a colour LCD screen to access all the system software and to display the patient's results. With alphanumeric key board/touch screen.
- A built in thermal printer should be provided to print out patient results.
- The system should work in discrete testing, ie, selectable parameter testing.
- Should be supplied with consumable, reagents and QC agents for 1000 tests, as per the user requirements so that they do not expire.
- Should not preferably use special gases.

56 Haemoglobinometer (Sahli or hellige)

The Haemoglobinometer Sahli's type, should be square tube type and the kit should consist of the following:-

Comparator Holder – 1.

It should be black in colour and the windows should have the following dimensions :-

a. Height : 3 cms (Minimum)

b. Width: 0.5. cms (Minimum)

· Colour comparator

· Square Hb Tube graduated on both sides for measurement of haemoglobin in percentage and gram %

20 Microlitre Hb – Pipette

· Amber coloured acid vial

· Glass Stirrer

· Dropper with Teat

· Cleaning Brush

· The kit should also be supplied with the following standard accessories:

1. Square Hb tubes: 01 no.

2. Hb pipettes: 01 no.

3. HCL N/10: 500ml

4. Dropper: 01 no.

5. Glass stirrer: 01 no.

Section – VIII

Quality Control Requirements

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

Tender Reference No.

Date of opening

Time

Name and address of the Tenderer:

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

01 Name of the manufacturer

- a. full postal address
- b. full address of the premises
- c. telegraphic address
- d. telex number
- e. telephone number
- f. fax number

02 Plant and machinery details

03 Manufacturing process details

04 Monthly (single shift) production capacity of goods quoted for

- a. normal
- b. maximum

05 Total annual turn-over (value in Rupees)

06 Quality control arrangement details

- a. for incoming materials and bought-out components
- b. for process control
- c. for final product evaluation

07 Test certificate held

- a . type test
- b . BIS/ISO certification
- c . any other

08 Details of staff

- a. technical
- b. b skilled
- c. c unskilled

Signature and seal of the Tenderer

Section – IX

Qualification Criteria

1. The tenderer must be a manufacturer or it's authorized Agent. They may authorise their agent as per proforma of Manufacturer authorization form as given in the tender enquiry document to quote and enter into a contractual obligation.

2. (a) The Manufacturer should have supplied and installed in last Five years from the date of Tender Opening, at least **33%** of the quoted quantity of the similar equipment meeting major parameters of technical specification which is functioning satisfactorily.

2 (b). The Tenderer quoting as authorized representative of the manufacturer meeting the above criteria 2 (a) should have executed at least one contract in the last five years from the date of tender opening of similar equipment meeting major parameters of Technical specification which is functioning satisfactorily, anywhere in the World of the same manufacturer.

Note

1. The tenderer shall give an affidavit as per Section-XIX of the TE document.
2. In support of 2(a) & 2(b), the Tenderer shall furnish Performance statement in the enclosed Proforma 'A'.

The manufacturer/Agent as Tenderer shall furnish Satisfactory Performance Certificate/Installation Reports in respect of above, duly notarized in the country of origin, along with the tender.

The Tenderer shall furnish a brief write-up, packed with adequate data explaining and establishing his available capacity/capability (both technical and financial) to perform the Contract (if awarded) within the stipulated time period, after meeting all its current/present commitments. The Tenderer shall also furnish details of Equipment and Quality Control in the enclosed Section VIII.

3. Notwithstanding anything stated above, the Purchaser reserves the right to assess the Tenderer's capability and capacity to perform the contract satisfactorily before deciding on award of Contract, should circumstances warrant such an assessment in the overall interest of the Purchaser.
4. Tender shall submit audited balance sheets for the last three years. Annual Turnover statements should be certified by chartered accountant bearing their membership No.
5. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser for technical acceptability as per the tender specifications, before the opening of the Price Tender.
6. The Tenderer shall furnish copy of all Purchase Orders (complete with specifications and prices) in their Technical Bid for the same model supplied to Govt. Hospitals/PSU Hospitals/UN Agencies/Govt. Labs/Corporate Hospitals in the last one year from the date of Technical Bid opening.

PROFORMA 'A'
PROFORMA FOR PERFORMANCE STATEMENT

(For the period of last five years)

Tender Reference No. : _____

Date of opening : _____

Time : _____

Name and address of the Tenderer : _____

Name and address of the manufacturer : _____

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

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

Signature and seal of the Tenderer

**** The documentary proof will be a certificate from the consignee/end user with cross-reference of order no. and date in the certificate along with a notarized certification authenticating the correctness of the information furnished.**

**Section - X
TENDER FORM**

Date_____

To

Senior Chief Executive,
Ministry of Health & Quality of Life,
Govt. Of Republic of Mauritius, Mauritius.

Ref. Your TE document No. _____ dated _____

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. _____, dated _____, the receipt of which is hereby confirmed.

We now offer to supply and deliver_____ (*Description of goods and services*) in conformity with your above referred document for the sum as shown in the price schedule(s), attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements. We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – “Special Conditions of Contract”, for due performance of the contract.

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

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

We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.

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

(Signature with date)

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

SECTION - XI PRICE SCHEDULE**A) PRICE SCHEDULE FOR DOMESTIC GOODS or GOODS OF FOREIGN ORIGIN LOCATED WITHIN MAURITIUS**

1 Schedule	2 Brief Description of Goods	3 Country of Origin	4 Quantity (Nos.)	5 Price per unit (Rs.)					6 Total Price (at Consignee Site) basis (MUR) 4 x 5(e)
				Ex - factory/ Ex - warehouse /Ex-showroom /Off - the shelf (a)	Taxes & Duties if Applicable (b)	Inland Transportation, Insurance for a period including 3 months beyond date of delivery, loading/ unloading and Incidental costs till consignee's site (c)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site (d)	Unit Price (at Consignee Site) basis (MUR) (e) =a+b+c+d	

Total Tender price in MUR: _____

In words: _____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted separately as per Section - XI - Price Schedule C
3. Government of Mauritius exempts payment of VAT, Local Taxes Levies etc.
4. Government of Mauritius shall provide exemption of Custom Duty and other fees payable to Custom Office.

Name _____

Business Address _____

Place: _____

Signature of Tenderer _____

Date: _____

Seal of the Tenderer _____

SECTION – XI PRICE SCHEDULE
B) PRICE SCHEDULE FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5						6
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Currency)						Total Tender price: CIP Port of destination + Extended Insurance+ local transportation and storage at consignee site) 4X 5 (f)
				FOB/FCA price at port/ airport of Lading (a)	Carriage & Insurance (port of loading to port of destination) and other Incidental costs (b)	CIP Price (Mauritius) (c)	Loading & unloading at name place/port of entry + local transportation and storage to the consignee site + Extended Insurance for a period including 3 months beyond date of delivery (d)	Incidental Services (including installation, commissioning, supervision, demonstration & training) at consignee's site (e)	Unit Price on CIP Port of destination + Extended Insurance+ local transportation and storage at consignee site) (f)=c+d+e	

Total Tender Price in words: _____

Bidder must specify Applicable Custom Duty :

- Note: -**
1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
 2. The charges for Annual CMC after warranty shall be quoted separately as per Section – XI – Price Schedule C
 3. The Tenderer will be fully responsible for the safe arrival of the goods at destination (consignee site) in good condition as per CIP at Consignee's site
 4. Government of Mauritius shall provide exemption of Custom Duty and other fees payable to Custom Office.

Agency Commission - __% of FOB/FCA.

Place: _____

Date: _____

Name _____
Business Address _____
Signature of Tenderer _____
Seal of the Tenderer _____

SECTION – XI PRICE SCHEDULE (TO BE QUOTED IN MAURITIUS LOCAL CURRENCY)**C) PRICE SCHEDULE FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD**

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

* After completion of Warranty period

NOTE:-

1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.
2. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted for next 3 years on yearly basis for complete equipment and Turnkey (if any).
3. Government of Mauritius exempts payment of VAT, Local Taxes, Levies etc.
4. Cost of CMC will be added for Ranking/Evaluation purpose.
5. The payment of CMC will be made as per clause GCC clause 21.1 (D).
6. The uptime warranty will be 98 % on 24 (hrs) X 7 (days) X 365 (days) basis or as stated in Technical Specification of the TE document.
7. All software updates should be provided free of cost during CMC period.
8. The stipulations in Technical Specification will supersede above provisions
9. The supplier shall keep sufficient stock of spares required during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

Place: _____

Date: _____

Name _____

Business Address _____

Signature of Tenderer _____

Seal of the Tenderer _____

**SECTION XI- PRICE SCHEDULE
D) PRICE SCHEDULE FOR TURNKEY**

Schedule No.	BRIEF TURNKEY DESCRIPTION OF GOODS	CONSIGNEE	Turnkey price (MUR)

Note: -

1. The cost of Turnkey as per Technical Specification (Section VII) may be quoted on lump sum. Government of Mauritius exempts payment of VAT, Local Taxes, Levies etc.
2. Cost of Turnkey will be added for Ranking/Evaluation purpose.
3. The payment of Turnkey will be made as per clause GCC clause 21.1 (c).
4. The stipulations in Technical Specification will supersede above provisions

Name_____

Business Address_____

Signature of Tenderer_____

Seal of the Tenderer_____

Place: _____

Date: _____

**SECTION - XII
QUESTIONNAIRE**

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

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

SECTION - XIII
BANK GUARANTEE FORM FOR EMD

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

- The conditions of this obligation are:
- (1) If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
 - (2) If the Tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-

- a) fails or refuses to furnish the performance security for the due performance of the contract.
- or
- b) fails or refuses to accept/execute the contract.
- or
- c) if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged

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

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

(Signature of the authorised officer of the Bank)

Name and designation of the officer

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

SECTION - XIV
MANUFACTURER'S AUTHORISATION FORM

To

Senior Chief Executive,
Ministry of Health & Quality of Life,
Govt. Of Republic of Mauritius, Mauritius.

Dear Sirs,

Ref. Your TE document No _____, dated _____

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

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

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

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 to legally bind the manufacturer.*
2. Original letter may be sent.

SECTION - XV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/ CMC SECURITY

To
Senior Chief Executive,
Ministry of Health & Quality of Life,
Govt. Of Republic of Mauritius, Mauritius.

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of contract no _____ dated _____ to supply (description of goods and services) (herein after called "the contract").
AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;
AND WHEREAS we have agreed to give the supplier such a bank guarantee;

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

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

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

This guarantee shall be valid up to _____ (indicate date)

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

.....
Name and designation of the officer

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

SECTION - XVI
CONTRACT FORM - A

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

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

Contract No _____ dated _____

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

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

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

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

5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:

- (i) Brief particulars of the goods and services which shall be supplied/ provided by the supplier are as under:

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

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

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

2. Delivery schedule

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

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

Received and accepted this contract

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

For and on behalf of _____

(Name and address of the supplier)

(Seal of the supplier)

Date: _____

Place: _____

SECTION - XVI
CONTRACT FORM - B
CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT

Annual CM Contract No. _____ dated _____
 Between _____

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

(Name & Address of the Supplier)

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

In continuation to the above referred contract

6. The Contract of Annual Comprehensive Maintenance is hereby concluded as under: -

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

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

- b) The CMC commence from the date of expiry of all obligations under Warranty i.e. from _____ (date of expiry of Warranty) and will expire on _____ (date of expiry of CMC)
- c) The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period may be quoted for next 3 years as contained in the above referred contract on yearly basis for complete equipment (including X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts, ___ & ___) and Turnkey (if any).
- d) There will be 98% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- e) During CMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service/technical/ operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 6 months commencing

from the date of the successful completion of warranty period for preventive maintenance of the goods.

- f) All software updates should be provided free of cost during CMC.
- g) The bank guarantee valid till _____ [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs. _____ [(fill amount) equivalent to 2.5 % of the cost of the equipment as per contract] shall be furnished in the prescribed format given in Section XV of the TE document, along with the signed copy of Annual CMC within a period of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the Purchaser/Consignee.
- h) If there is any lapse in the performance of the CMC as per contract, the proceeds Annual CMC bank guarantee for an amount of Rs. _____ (equivalent to 2.5 % of the cost of the equipment as per contract) shall be payable to the Consignee.
- i) **Payment terms:** The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the HOD concerned. The payment will be made in Indian Rupees.
- j) **Paying authority:** _____ (name of the consignee i.e. Hospital/ Institute /Medical College's authorised official)

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

Received and accepted this contract

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

For and on behalf of _____

(Name and address of the supplier)

(Seal of the supplier)

Date: _____

Place: _____

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

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

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

SECTION - XVIII
Proforma of Final Acceptance Certificate by the Consignee

No _____

Date _____

To

M/s _____

Subject: Certificate of commissioning of equipment/plant.

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

(a) Contract No _____ dated _____

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

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

(d) Quantity: _____

(e) Bill of Loading/Air Way Bill/Railway
Receipt/ Goods Consignment Note no _____ dated _____

(f) Name of the vessel/Transporters: _____

(g) Name of the Consignee: _____

(h) Date of commissioning and proving test: _____

Details of accessories/spares not yet supplied and recoveries to be made on that account.

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

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

The supplier has fulfilled its contractual obligations satisfactorily ## or

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

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

He has not supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the

period specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).

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

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

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

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

Signature

Name

Designation with stamp

Explanatory notes for filling up the certificate:

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

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

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

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

SECTION - XIX
AFFIDAVIT/UNDERTAKING

I/ We have read and understood the instructions and the terms and conditions contained in the document. I/We accordingly accept all terms and conditions of the tender enquiry document including the essential conditions specially incorporated in the tender enquiry like terms of terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism applicable law. I/ We confirm that we do not stand deregistered/debarred/banned/blacklisted by any Govt. Authorities. I/ We do hereby declare that the information furnished/ uploaded is correct to the best of my/our knowledge and belief. I/We hereby certify that the prices offered by us in this tender is not higher than the prices we had offered to any other Govt. of India Organisation(s)/PSU(s) during the last one year and shall provide the justification for reasonableness of our offered price whenever asked during evaluation of our submitted bid. I/ We also hereby certify that if at any time, information furnished by us is proved to be false or incorrect; I/ We are liable for any action as deemed fit by the purchaser in addition to forfeiture of the earnest money.

Date:

(Signature of the bidder)
NAME & ADDRESS OF THE BIDDER

NOTE: To be submitted on non-judicial stamp paper of Rs. 10/- duly certified by Public Notary

SECTION – XX
CHECKLIST

Name of Tenderer:
Name of Manufacturer:

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
1. a.	Have you enclosed EMD of required amount for the quoted schedules?			
b.	In case EMD is furnished in the form of Bank Guarantee, has it been furnished as per Section XIII?			
c.	In case Bank Guarantee is furnished, have you kept its validity of 165 days from Techno Commercial Tender Opening date as per clause 19 of GIT?			
2. a.	Have you enclosed duly filled Tender Form as per format in Section X?			
b.	Have you enclosed Power of Attorney in favour of the signatory?			
3. 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?			
4. a.	Have you submitted satisfactory performance certificate/ Installation Reports as per the Proforma for performance statement in Sec. IX of TE document in respect of all orders?			

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
b.	Have you submitted copy of the order(s) and end user certificate/ Installation Reports?			
5.	Have you submitted manufacturer's authorization as per Section XIV?			
6.	Have you submitted prices of goods, turnkey (if any), CMC etc. in the Price Schedule as per Section XI?			
7.	Have you kept validity of 120 days from the Techno Commercial Tender Opening date as per the TE document?			
8.	Have you intimated the name an full address of your Banker (s) along with your Account Number			
9.	Have you fully accepted payment terms as per TE document?			
10.	Have you fully accepted delivery period as per TE document?			
11.	Have you submitted the certificate of incorporation?			
12.	Have you accepted the warranty as per TE document?			
13.	Have you accepted terms and conditions of TE document?			
14.	Have you furnished documents establishing your eligibility & qualification criteria as per TE documents?			

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
15.	Have you furnished Annual Report (Balance Sheet and Profit & Loss Account) for last three years prior to the date of Tender opening duly certified by chartered accountant bearing their membership no.?			
16.	Have you enclosed the Affidavit as per Section XIX of the TE Document?			

N.B.

1. All pages of the Tender should be page numbered and indexed.
2. The Tenderer may go through the checklist and ensure that all the documents/confirmations listed above are enclosed in the tender and no column is left blank. If any column is not applicable, it may be filled up as NA.
2. It is the responsibility of tendered to go through the TE document to ensure furnishing all required documents in addition to above, if any.

(Signature with date)

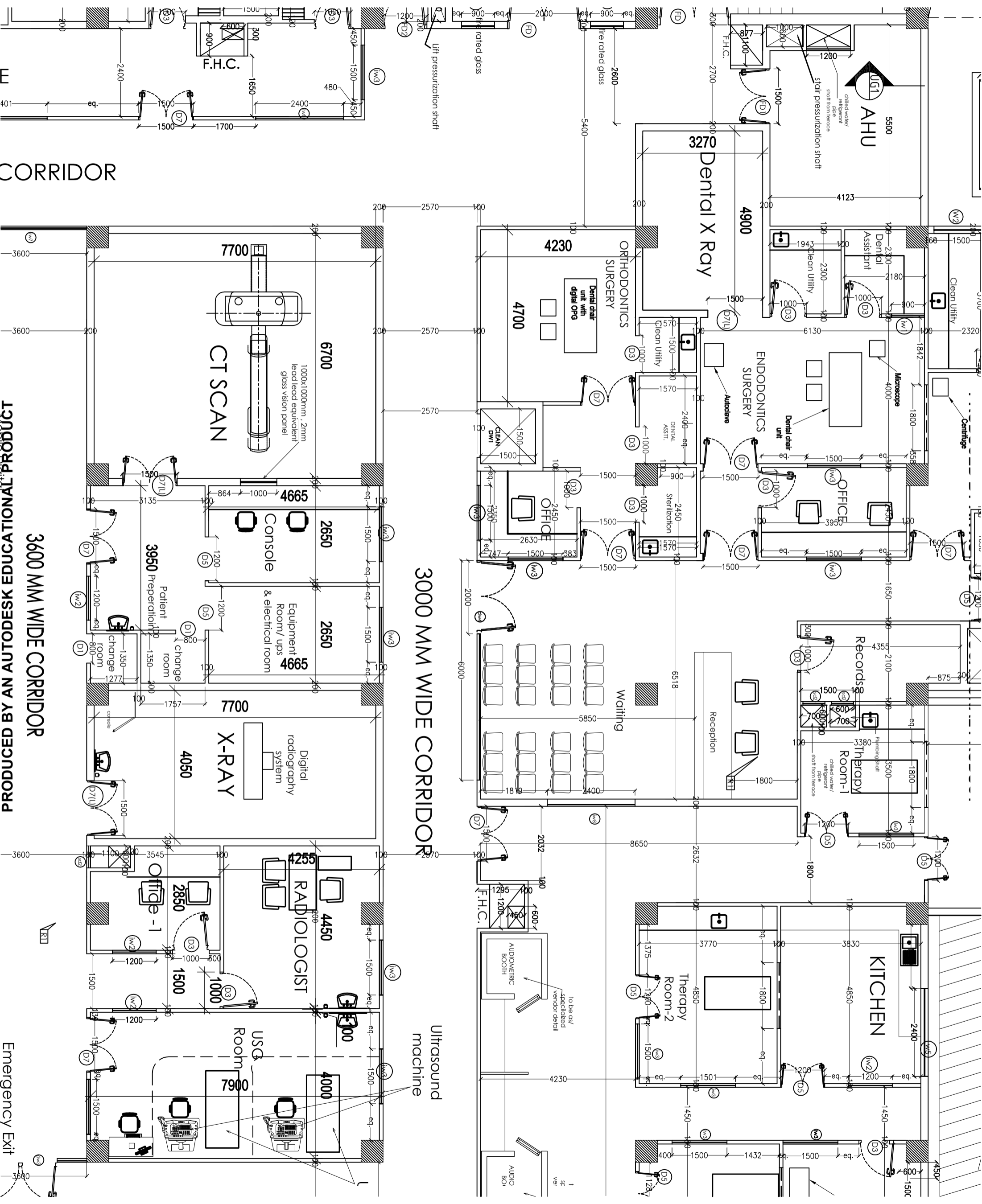
**(Full name, designation & address of the person duly authorised sign on behalf of the Tenderer)
For and on behalf of**

(Name, address and stamp of the tendering firm)

Section - XXI
Consignee List

Medical Institutions/Consignee	Purchaser Contact Address.
ENT Hospital, Vacoas, Mauritius	Senior Chief Executive, Ministry of Health & Quality of Life, Govt. Of Republic of Mauritius, Mauritius.

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



CORRIDOR

3600 MM WIDE CORRIDOR

3000 MM WIDE CORRIDOR

Emergency Exit

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT
Mobile Digital