

# **BIDDING DOCUMENTS**

**(TENDER Enquiry Documents)**

**FOR DESIGN, SUPPLY, INSTALLATION, TESTING,  
COMMISSIONING, OPERATION & MAINTENANCE  
OF  
MODULAR OPERATION THEATRE (MOT)  
&  
MEDICAL GAS MANIFOLD SYSTEM (MGMS)**

**FOR**

**Sports Injury Centre, Safdarjang Hospital,  
Ministry of Health & Family Welfare,  
Government of India**

**THROUGH**



**HSCC (I) Limited**  
**(A Govt. of India Enterprises)**

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

**Tel: 0120-2542436, 37, 38, 40.**

**Fax: 0120-2542447.**

**Web Site: [www.hsccltd.com](http://www.hsccltd.com)**

## INDEX

<b>Section</b>	<b>Topic</b>	<b>Page No.</b>
Section I	Invitation for Bids (IFB) Notice inviting Tender (NIT).....	3
Section II	General Instructions to Tenderers (GIT).....	5
Section III	Special Instructions to Tenderers (SIT) .....	27
Section IV	General Conditions of Contract (GCC) .....	28
Section V	Special Conditions of Contract (SCC) .....	45
Section VI	Life of Requirements.....	46
Section VII	Technical Specifications / BOQ.....	48
Section VIII	Quality Control Requirements.....	51
Section IX	Mandatory Qualification Criteria.....	52
Section X	Tender Form.....	55
Section XI	Price Schedules.....	56
Section XII	Questionnaire.....	60
Section XIII	Bank Guarantee Form for EMD.....	61
Section XIV	Manufacturer's Authorization Form.....	62
Section XV	Bank Guarantee Form for Performance Security / free CMC Security / Operational & Maintenance Contract .....	63
Section XVI	Contract Form (A & B).....	64
Section XVII	Proforma of Consignee Receipt & Installation Certificate.....	68
Section XVIII	Proforma of Final Acceptance Certificate by the Consignee	69
Section XIX	Annexure - Deleted .....	71
Section XX	Check list for the Tenders.....	72
Section XXI	Consignee.....	74

**Government of India**  
**Sports Injury Centre, Safdarjang Hospital,**  
**Ministry of Health & Family Welfare**

**Through**

HSCC (INDIA) LTD.  
(A Govt. of India Enterprises)  
Plot No.-6 (A), Block-E, Sector-I, NOIDA (U.P.)-201301  
Tel.: 91-2542436 TO 40, Fax: 2542447.

**SECTION-I**

**INVITATION FOR BIDS (IFB)**

**IFB No.: HSCC/PG-III/SIC-Safdarjang/MOT-MGMS/2009**

**Dated: 01.10.2009**

HSCC (India) Ltd. invites sealed bids in single stage two bid systems for & on behalf of Sports Injury Centre, Safdarjang Hospital, Ministry of Health & Family Welfare, Government of India for supply, installation, testing & commissioning of following:

Sl. No.	Name of Work / Item Description	Estimated Cost (in Rs.)	Bid Security (in Rs.)	Cost of document (in Rs.)	Period of Completion
1	Design, Supply, Installation, Testing, Commissioning, handing over, Operation and Maintenance of Modular Operation Theatre & Medical Gases Manifold System and Associated Works at Sports Injury Centre at Safdarjang Hospital, New Delhi.	10.00 Crores	20.00 lakhs	5000.00	4 Months

- i. Bidding documents may be referred for items, detailed specifications, quantity, terms and conditions of tendering, bid security, consignee and other relevant details. **Tenderer quoting the bid should quote for & also have experience for both Modular Operation Theatre & Medical Gas Manifold / Pipeline System.**
- ii. Bid evaluation shall be carried out on the basis of total **"Total of All Inclusive Lump sum Price"** to be offered for each item covered under Technical Specifications / BOQ including 5 years warrantee, 5 years CMC & 10 years operation & maintenance effective from the date of completion of installation.
- iii. Bidders have to quote for both Modular Operation Theatre, hereafter referred MOT & Medical Gas Manifold System, hereafter referred as MGMS. However, Bidders must quote for all the items covered under BOQ (Bill of Quantity) with full quantity.
- iv. A specimen copy of Bidding Documents is kept for inspection (free of cost) at the Bidding Documents sale counter of HSCC for the benefit of prospective bidders. Bidder can also inspect the same at HSCC website. **Downloaded Tender Document will not be accepted.**
- v. In case of goods of import origin, a foreign manufacturer can quote through their Authorized Agent.

A complete set of Bidding Documents in English may be purchased from **01.10.2009** by any interested bidder from 10:00 hrs to 16:30 hrs on all working days on the submission of a written request to the **General Manager (PG-III), HSCC (India) Ltd., Plot No. 6(A), Block E, Sector-1, Noida, (U.P.)** and upon payment of non-refundable fee of Rs. 5,000/- in the form of cash or Demand Draft from any nationalized bank drawn in favour of **HSCC (India) Ltd.** payable at New Delhi / Noida. Bidding Documents requested by mail shall be promptly dispatched by Courier / Speed Post on payment of an extra amount of Rs. 500/-. HSCC will not be responsible for postal delay, if any, in the delivery of the document or non-receipt of the same.

The Bidding Documents are non- transferable.

HSCC / Sports Injury Centre, Safdarjang Hospital reserves the right to accept or reject any or all the Bids in full or in part including lowest without assigning any reason thereof or incurring any liability.

The last date of submission of bids is **26.10.2009** up to 15:00 hrs. The bids shall be opened on the same day at 1530 hrs. in presence of bidders or their representatives who choose to be present.

In the event of any of the above mentioned dates being declared as a holiday / closed day in the purchaser's organization, the Bids will be sold / received / opened on the next working day at the appointed time.

A pre-bid meeting will be held in the chamber of The Medical Superintendent, Safdarjang Hospital, New Delhi – 110 029 on **12.10.2009** at 14:00 hrs.

***Prospective bidders are requested to visit the HSCC web site [www.hsccltd.co.in](http://www.hsccltd.co.in) regularly for viewing any further Announcements / Clarifications / Addendum / Amendments / Corrigendum / Notice etc., as no separate advertisement will be issued. The outcome & minutes of the pre-bid meeting will be posted in HSCC website.***

**Deputy Secretary (Hospitals)  
Ministry of Health & Family Welfare  
Govt. of India**

## SECTION-II

### GENERAL INSTRUCTIONS TO TENDERERS (GIT)

#### CONTENTS

Sl. No.	Topic	Page No.
<b>A</b>	<b>PREAMBLE</b>	
1	Definitions and Abbreviations	7
2	Introduction	9
3	Availability of Funds	9
4	Language of Tender	9
5	Eligible Tenders	10
6	Eligible Goods and Services	10
7	Tendering Expense	10
<b>B</b>	<b>TENDER ENQUIRY DOCUMENTS</b>	
8	Contents of Tender Enquiry Documents	10
9	Amendments to Tender Enquiry Documents	11
10	Clarification of Tender Enquiry Documents	11
<b>C</b>	<b>PREPARATION OF TENDERS</b>	
11	Documents Comprising the Tender	11
12	Tender Currencies	12
13	Tender Prices	13
14	Indian Agent	15
15	Firm Price / Variable Price	15
16	Alternative Tenders	15
17	Documents Establishing Tenderer's Eligibility and Qualifications	16
18	Documents Establishing good's Conformity to Tender Enquiry Document	16
19	Earnest Money Deposit (EMD)	17
20	Tender Validity	17
21	Signing and Sealing of Tender	18

<b>D</b>	<b>SUBMISSION OF TENDERS</b>	
22	Submission of Tenders	19
23	Late Tender	19
24	Alteration and Withdrawal of Tender	19
<b>E</b>	<b>TENDER OPENING</b>	
25	Opening of Tenders	19
<b>F</b>	<b>SCRUTINY AND EVALUATION OF TENDERS</b>	
26	Basic Principle	20
27	Preliminary Scrutiny of Tenders	20
28	Minor Infirmary / Irregularity / Non-Conformity	21
29	Discrepancy in Prices	21
30	Discrepancy between original and copies of Tender	22
31	Qualification Criteria	22
32	Conversion of Tender Currencies to Indian Rupees	22
33	Schedule-wise Evaluation	22
34	Comparison of Tenders	22
35	Additional Factors and Parameters of Evaluation and Ranking of Responsive Tenders	22
36	Tenderer's capability to perform the contract	23
37	Contacting the Purchaser	23
<b>G</b>	<b>AWARD OF CONTRACT</b>	
38	Purchaser's Right to Accept any Tender and to Reject any or All Tenders	24
39	Award Criteria	24
40	Variation of Quantities at the Time of Award	24
41	Notification of Award	24
42	Issue of Contract	24
43	Non-receipt of Performance Security and Contract by the Purchaser	25
44	Return of EMD	25
45	Publication of Tender Result	25
46	Corrupt or Fraudulent Practices	25

## SECTION-II

### GENERAL INSTRUCTIONS TO THE 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 organizations purchasing goods and services (i.e. Sports Injury Centre, Safdarjang Hospital, Ministry of Health & Family Welfare, Government of India) as incorporated in the Tender Enquiry document (Bidding Documents).
- (ii) "Tenderer" means Bidder/ the Individual or Firm submitting Bids/ Quotation / Tender
- (iii) "Supplier" means the individual or the firm supplying the goods and services as incorporated in the contract.
- (iv) "Goods" means the articles, material, commodities, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, Laboratory equipment, Industrial plant etc. which the supplier is required to supply to the purchaser under the contract.
- (v) "Services" means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.
- (vi) "Earnest Money Deposit" (EMD) means Bid Security / Monetary or financial guarantee to be furnished by a tenderer along with its tender.
- (vii) "Contract" means the written agreement entered into between the purchaser and / or consignee and the supplier, together with all the documents mentioned therein and including all attachments, annexure etc. therein.
- (viii) "Performance Security" means monetary or financial guarantee to be furnished by the successful tenderer for due performance of the contract placed on it. Performance Security is also known as Security Deposit.

- (ix) "Consignee" means the Hospital / Institute / Medical College / person to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of dispatch to another person as provided in the Contract then that "another" person is the consignee also known as ultimate consignee.
- (x) "Specification" means the document /standard that prescribes the requirement with which goods or services have to conform.
- (xi) "Inspection" means activities such as measuring, examining, testing gauging one or more characteristics of the product or services 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 Documents
- (ii) "NIT" means Notice Inviting Tenders & "IFB" means Invitation for Bids.
- (iii) "GIT" means General Instructions to Tenderer's
- (iv) "SIT" means Special Instructions to Tenderer's
- (v) "GCC" mean General Conditions of Contract
- (vi) "SCC" means Special Conditions of Contract
- (vii) Deleted
- (viii) "NSIC" means National Small Industries Corporation
- (ix) "PSU" means Public Sector Undertaking
- (x) "CPSU" means Central Public Sector Undertaking
- (xi) "LSI" means Large Scale Industry
- (xii) "SSI" means Small Scale Industry
- (xiii) "LC" means Letter of Credit
- (xiv) "DP" means Delivery Period
- (xv) "BG" means Bank Guarantee
- (xvi) "ED" means Excise Duty
- (xvii) "CD" means Custom Duty
- (xviii) "VAT" means Value Added Tax
- (xix) "CENVAT" means Central Value Added Tax
- (xx) "CST" means Central Sales Tax
- (xxi) "RR" means Railway Receipt
- (xxii) "BL" means Bill of Lading
- (xxiii) "FOB" means free on Board
- (xxiv) "FCA" means free Carrier
- (xxv) "FOR" means Free on Rail
- (xxvi) "CIF" means Cost, Insurance and Freight
- (xxvii) "CIP" (Destinations)" means Carriage and Insurance Paid up to named place of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from Warehouse to the consignee site for a period including 3 months beyond date of delivery.

- (xxviii) "DDP" means Delivery Duty Paid named place of destination (consignee site)
- (xxix) "INCOTERMS" means International Commercial Terms as on the date of Tender Opening
- (xxx) "SIC" means Sports Injury Centre, Safdarjang Hospital, Ministry of Health & Family Welfare, Government of India.
- (xxxi) Deleted
- (xxxii) "CMC" means Comprehensive maintenance Contract (labour, spare and preventive maintenance)
- (xxxiii) "RT" means Re - Tender.

## **2. Introduction**

- 2.1 The Purchaser has issued these TE documents for purchase of goods and related services as mentioned in Section-VI-"List of Requirements", which also indicates, *interalia*, the required delivery schedule, terms and place of delivery, installation, Testing and Commissioning.
- 2.2 The section (Section II- "General Instruction Tenderer's") provides the relevant information as well as instructions to assist the prospective tenderer's 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 Tenderer's (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 interruption 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 interruption of the tender etc, the English translation shall prevail.

## **5. Eligible Tenderers**

- 5.1 This invitation for tenders is open to all suppliers who fulfill 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 cost 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 - "Invitation of Bids" (IFB), 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 Specification
- 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 Authorization Form
- Section XV - Bank Guarantee Form for Performance Security / free 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 - Deleted
- Section XX - Check List for the Tenderers
- Section XXI - Consignee List

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

## **9. Amendments to TE documents**

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

9.2 Such an amendment will be notified in writing by registered / speed post / courier or by fax / telex / e-mail to all prospective tenderers, which have received the TE documents and will be binding on them. Amendment (s) will also be available on **HSCC's web site: <http://www.hsccltd.com>**.

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

## **10. Clarification of TE documents**

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

## **C. PREPARATION OF TENDERS**

### **11. Documents Comprising the Tender**

11.1 The Single Stage Two Bid Tender System, i.e. "Techno-Commercial Tender" and "Price Tender" prepared by the tenderer shall comprise the following:

#### **A) Techno- Commercial Tender (Un prices Tender)**

- i) Bid Security / Earnest money furnished in accordance with GIT clause 19.
- ii) Tender Form /Bid Form as per Section X (Un priced).
- iii) Documentary evidence, as necessary in terms of GIT 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 furnished Manufacturer's Authorization (Section XIV).
- v) Power of Attorney in favour of signatory of TE documents.

- vi) Documents and relevant details to establish in accordance with GIT clause 18 & Qualification Criteria 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 user's satisfaction certificate.
- viii) Price Schedule(s) as per Section XI filled up with all the details including Make, Model etc. of the goods offered with prices blank (without indicating any prices).
- ix) Certificate of Incorporation in the country of origin.
- x) Checklist as per Section XX.

**B) Price Tender:**

The information given at GIT Clause no. 11.1 A) ii) & viii) above should also be reproduced with the prices indicated. **A or B, C & D formats given at Section XI - Price Schedule are to be filled up.** Any tenderer not filling up A or B, C & D formats will not be evaluated & will be **ignored** and **rejected**.

**N.B.**

- 1. All pages of the Tender should be page numbered and indexed.
  - 2. It is the responsibility of tenderer to go through the TE document to ensure furnishing all required documents in addition to above, if any.
- 11.2 The authorized signatory of the tenderer must sign the tender duly stamped at appropriate places and initial all the remaining pages of the tender.
- 11.3 A tender, who does not fulfill any of the above requirements and / or gives evasive information / reply against any such requirements, shall be liable to be **ignored** and **rejected**.
- 11.4 Tender sent by fax/ telex / cable / electronically shall be **ignored**.

**12. Tender currencies**

- 12.1 The tenderer supplying indigenous goods or already imported goods shall quote only in Indian Rupees.
- 12.2. For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Yen. As regards price(s) for allied services, if any required with the goods, the same shall be quoted in Indian Rupees only if such services are to be performed / undertaken in India. Commission for Indian Agent, if any and if payable shall be indicated in the space provided for in the price schedule and will be payable in Indian Rupees only.
- 12.3. Tenders, where prices are quoted in any other way shall be treated as **non-responsive** and **rejected**.

### **13 Tender Prices**

13.1 The Tenderer shall indicated on the Price Schedule provided under Section XI all the specified components of prices shown herein 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 Deleted.

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

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

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

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

13.4.2 For goods offered 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) Deleted

- c) the price of goods quoted CIP (named place of destination) in India as indicated in the List of Requirements, Price Schedule and Consignee List;
- d) Deleted
- e) the charges for local Transportation, Insurance (local transportation and storage) would be extended and borne by the Supplier from Warehouse to the consignee site for a period including 3 months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;
- f) the charges for Incidental Services, as in the List of Requirements and Price Schedule;
- g) Deleted; and
- h) the prices should also mention the cost of **60 months Comprehensive Warranty followed by 60 months free AMC with spares (Comprehensive Maintenance Contract – {CMC}) along with operational maintenance cost for 10 years effective from the date of installation**, as mentioned in List of Requirements, Technical Specification and Price Schedule.

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

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

13.5.2 Deleted

13.5.3 Sales Tax:

If a tenderer asks for sales tax/ VAT, Service Tax and works contract tax to be paid extra, the rate and nature of sales tax applicable should be shown separately.

13.5.4. Octroi Duty and Local Duties & Taxes:

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

#### 13.5.5 Customs Duty:

The Sports Injury Centre, Safdarjang Hospital, Ministry of Health & Family Welfare, Government of India will issue the Customs Duty Exemption Certificate (CDEC), wherever applicable.

- 13.6 For transportation of imported goods offered from abroad, relevant instructions as incorporated under GCC Clause 10 shall be followed.
- 13.7 For insurance of goods to be supplied, relevant instructions as provided under GCC Clause 11 shall be followed.
- 13.8 Unless otherwise specifically indicated in this TE document, the terms FCA, FOB, FAS, CIF, CIP DDP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris
- 13.9 The need for indication of all such price components by the tenderers, as required in the clause (viz. GIT clause 13) is for the purpose of comparison of the tenders by the purchaser and will no way restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

#### 14. Indian Agent

- 14.1 If a foreign tenderer has engaged an agent in India in connection with its tender, the foreign tenderer, in addition to indicating Indian agent's commission, if any, in a manner described under GIT sub clause 12.2 above, shall also furnish the following information:
  - a) The complete name and address of the Indian Agent and its permanent income tax account number as allotted by the Indian Income Tax authority.
  - b) The detail 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 free CMC period.

#### 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 Deleted.

#### 16. Alternative Tenders

- 16.1 Alternative Tenders are **not permitted**.
- 16.2 Deleted.

## 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 fulfill the following requirements:
- a) in case the tenderer offers to supply goods, which are manufacturer by some other firm, the tenderer has been duly authorized 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 standard form provided under Section XIV in this document.
  - b) the tenderer has required financial, technical and production capability necessary to perform the contract, and further, it meets the qualification criteria incorporated in the Section IX in these documents.
  - c) in case the tenderer is not doing business in India, it is duly represented by an agent stationed in India fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale, service, maintenance, & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and / or technical specifications.
  - d) in case the tenderer is an Indian agent / authorized representative quoting on behalf of a foreign manufacturer for the **restricted item**, the Indian agent / authorized representative is already enlisted under the Compulsory Enlistment Scheme of Ministry of Finance, Govt. of India, operated through Directorate General of Supplies & Disposals (DGS & D), New Delhi.

## 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) / Bid Security

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

## 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 **non-responsive** and **rejected**.

- 20.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request (s) and responses thereto shall be conveyed by surface mail or by fax / telex/ cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, however, may not agree to extend its tender validity without forfeiting its EMD.
- 20.3 In case the day up to which the tenders are to remain valid falls on / subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

## **21. Signing and Sealing of Tender**

- 21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11.
- 21.2 Unless otherwise mentioned in the SIT, a tenderer shall submit two copies of its tender marking them as "Original" & "Duplicate". Duplicate tender may contain all pages including Technical Literature / Catalogues as per in Original tenders.
- 21.3. The original and duplicate 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 authorized person who is signing the tender bid should have valid Power of Attorney.**
- 21.4 All the copies of the tender shall be duly signed at the appropriate places as indicated in the TE document and all other pages of the tender including printed literature, if any shall be initialed 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 initialed by the person(s) signing the tender.
- 21.5 The tenderer is to seal the original and copy of the tender in separate envelopes, duly marking the same as "**Original**" & "**Duplicate**" and so on and writing the address of the purchaser and the tender reference number on the envelopes. The sentence "NOT TO BE OPENED" before \_\_\_\_\_ (The tenderer is to put the date & time of tender opening) are to be written on these envelopes. The inner envelopes are then to be put in a bigger outer envelope, which will also be duly sealed, marked etc. as above. If the outer envelope is not sealed and marked properly as above, the purchaser will not assume any responsibility for its misplacement, premature opening, late opening etc.
- 21.6 TE document seeks quotation following **Single Stage two Tender System**, in two parts. First part will be known as "**Techno-Commercial Tender**", and the second part '**Price Tender**' as specified in clause 11 of GIT. Tenderer shall seal "**Techno - Commercial Tender**" and '**Price Tender**' separately and covers will be suitably super scribed. Both these sealed covers shall be put in a bigger cover and sealed and procedure prescribed in paras 21.1 to 21.5 followed.

## D. SUBMISSION OF TENDERS

### 22. Submission of Tenders

- 22.1 Unless otherwise specified, the tenderers are to deposit the tenders in the tender box kept for this purpose at **HSCC (I) Limited, Plot No.: E-6(A), Sector-1, Noida-201301, Uttar Pradesh**. In case of bulky tender, which can not be put into tender box the same shall be submitted by the tenderer by hand to **General Manager (PG III)** or his nominee, **HSCC (I) Limited, Plot No.: E-6 (A), Sector-1, Noida- 201 301, Uttar Pradesh**. The officer receiving the tender will give the tenderer an official receipt duly signed with date and time.
- 22.2 The tenderers must ensure that they deposit their tenders not later than the closing time and date specified for submission of tenders. It is the responsibility of the tenderer to ensure that their Tenders whether sent by post or by courier or by person, are dropped in the Tender Box by the specified clearing date and time. In the event of the specified date for submission of tender falls on/ is subsequently declared a holiday or closed day for the purchaser, the tenders will be received up to the appointed time on the next working day.

### 23. Late Tender

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

### 24. Alteration and withdrawal of Tender

- 24.1 The tenderer, after submitting its tender, is permitted to alter / modify its tender so long as such alterations / modifications are received duly signed, sealed and marked like the original tender, within the deadline for submission of tenders. Alternations / 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 / IFB.

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

## **F. SCRUTINY AND EVALUATION OF TENDERS**

### **26. Basic Principle**

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

### **27. Preliminary Scrutiny of Tenders**

- 27.1 The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed stamped and whether the Tenders are generally in order.
- 27.2 Prior to the detailed evaluation of Price Tenders, pursuant to GIT Clause 34, the Purchaser will determine the substantial responsiveness of each Tender to the TE Document. For purposes of these clauses, a substantially responsive Tender is one, which conforms to all the terms and conditions of the TE Documents without material deviations. Deviations from, or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 5), Warranty (GCC Clause 15), EMD (GIT Clause 19), Taxes & Duties (GCC Clause 20), Force Majeure (GCC Clause 26) and Applicable law (GCC Clause 31) will be deemed to be a material deviation. The Purchaser's determine of a Tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

- 27.3 If a Tender is not substantially responsive, it will be **rejected** by the Purchaser and cannot subsequently be made responsive by the Tenderer by correction of the nonconformity.
- 27.4 The tenders will be scrutinized to determine whether they are complete and meet the essential and imported requirements, conditions etc. as prescribed in the TE document. The tenders, which do not meet the basic requirements, are liable to be treated as **non- responsive** and will be summarily **ignored**.
- 27.5 The following are some of the important aspects, for which a tender shall be declared **non- responsive** and will be summarily **ignored**;
- (i) Tender form as per Section X (signed and stamped) not enclosed
  - (ii) Tender is unsigned.
  - (iii) Tender validity is shorter than the required period.
  - (iv) Required EMD (Amount, validity etc.).
  - (v) Tenderer has quoted for goods manufactured by other manufacturer(s) without the required Manufacturer's Authorisation Form as per Section XIV.
  - (vi) Tenderer has not agreed to give the required performance security.
  - (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 inquiry like terms of payment, liquidated damages clause, warranty clause, free CMC, 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 Line Item**.

## **28. Minor Infirmary / Irregularity / Non-Conformity**

- 28.1 If during the preliminary examination, the purchaser find any minor informality and / or irregularly and / or non- conformity in a tender, the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or effect the ranking order of the tenderers. Wherever necessary, the purchase may convey its observation on such 'minor' issues to the tenderer by registered / speed post etc., asking the tenderers 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 Deleted.

### **30. Discrepancy between original and copy of Tender**

30.1 In case any discrepancy is observed between the text etc. of the original copy and that in the copy of the same tender set, the text etc. of the original copy shall prevail.

### **31. Qualification Criteria**

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

### **32. Conversion of tender currencies to Indian Rupees**

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

**33.** Deleted

33.1 Deleted.

### **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 Carriage and Insurance (CIP) destination / consignee site basis including **Design, Supply, Installation, Testing, Commissioning, cost of 5 years guarantee / warrantee (as applicable), on-site training at consignee's site, Turnkey Works (Civil, Electrical, Mechanical etc.), cost of 5 years Comprehensive Annual Maintenance Contract, cost of 10 years Operation & Maintenance effective from the date of installation** of both Modular Operation Theatre & Medical Gases Manifold System and Associated Works.

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

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

- i) In the case of goods manufactured in India or goods of foreign origin already located in India, sales tax & other similar taxes and excise duty & other similar duties, Customs Duties, Services Tax, Works Contract Tax etc. which will be contractually payable (to the tenderer), on the goods if a contract is awarded on the tenderer; and
  - ii) in the case of goods of foreign origin offered from abroad, customs duty and other similar import duties / taxes, which will be contractually payable (to the tenderer) on the goods if the contract is awarded on the tenderer.
- 35.2 The purchaser's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.
- 35.3 The Purchaser reserves the right to give the price preference to small-scale sectors etc. and purchase preference to central public sector undertaking as per the instruction in vogue while evaluating, comparing and ranking the responsive tenders.

### **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, who's tender, has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily.
- 36.2 The above - mentioned determinations will, interalia, take into account the tenderer's financial, technical and production capabilities for satisfying all the requirements of the purchaser as incorporated in the TE document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by the purchaser.

### **37. Contacting the Purchaser**

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

## **G. AWARD OF CONTRACT**

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

38.1 The purchaser reserves the right to accept in part or in full any tender or reject any or more tender(s) without assigning any reason or to cancel the tendering process and rejects 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) percent, the quantity of goods and services mentioned in the Item (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) percent, 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.

### **41. Notification of Award**

41.1 Before expiry of the tender validity period, the purchaser will notify the successful tenderer(s) in writing by registered / speed post or by fax / telex / cable (to be confirmed by registered / speed post) that its tender for goods & services, which have been selected by the purchaser, has been accepted, also briefly indicating therein the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful tenderer must furnish to the purchaser the required performance security within thirty (30) 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 will mail the contract form (as per Section XVI) duly completed and signed, in duplicate, to the successful tenderer by registration / speed post.

42.2 Within twenty one (21) days from the date of the contract, the successful tenderer shall return the original copy of the contract, duly signed and dated, to the purchaser by registered / speed post.

42.3 Deleted.

#### **43. Non-receipt of Performance Security and Contract by the Purchaser**

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 against it as pr the clause 24 of GCC-Termination for default.

#### **44. Return of EMD / Bid Security**

44.1 The earnest money of the successful tenderer and the unsuccessful tenderers will be will be retuned 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 of 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)

<b>Sl. No.</b>	<b>GIT Clause No.</b>	<b>Topic</b>	<b>SIT Provision</b>	<b>Page No.</b>
A	1 to 7	Preamble	No Change	26 - 27
B	8 to 10	TE documents	No Change	26 - 27
C	11 to 21	Preparation of Tenders	No Change	26 - 27
D	22 to 24	Submission of Tenders	No Change	26 - 27
E	25	Tender Opening	No Change	26 - 27
F	26 to 37	Scrutiny and Evaluation of Tenders	Change	26 - 27
G	38 to 46	Award of Contract	No Change	26 - 27

## SECTION-III

### SPECIAL INSTRUCTIONS TO TENDERERS

#### (SIT)

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

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

- A. Preamble**  
No Change
- B. TE documents**  
No Change
- C. Preparation of Tenders**  
No Change
- D. Submission of Tenders**  
No Change
- E. Tender Opening**  
No Change
- F. Scrutiny and Evaluation of Tenders**  
Change

#### **27. Preliminary Scrutiny of Tenders**

***The Bid offers shall be evaluated on “Total All Inclusive Lumpsum basis”. Accordingly, bidders should quote any one currency on “FOR Destination / consignee” (in case of goods of Indian Origin) or “CIP Destination / consignee” basis (in case of goods of Foreign Origin). The bidders are advised to quote “All Inclusive Lumpsum basis” separately for each of “Cost of Equipments”, “Cost towards 5 years CMC” & “Cost towards 10 years of Operation & Maintenance” for arriving to “Total All Inclusive Lumpsum Cost”.***

- G. Award of Contract**  
No Change

## SECTION-IV

### GENERAL CONDITIONS OF CONTRACT (GCC)

#### TABLE OF CLAUSES

<b>Sl. No.</b>	<b>Topic</b>	<b>Page No.</b>
1	Application	29
2	Use of contract documents and information	29
3	Patent Rights	29
4	Country of Origin	29
5	Performance Security	30
6	Technical Specifications and Standards	30
7	Packing and Marking	31
8	Inspection, Testing and Quality Control	31
9	Terms of Delivery	32
10	Transportation of Goods	32
11	Insurance	33
12	Spare parts	33
13	Incidental services	34
14	Distribution of Dispatch Documents for Clearance / Receipts of Goods	34
15	Warranty	35
16	Assignment	36
17	Sub Contract	36
18	Modification of contract	37
19	Prices	37
20	Taxes and Duties	37
21	Terms and mode of Payment	37
22	Delay in the supplier's performance	40
23	Liquidated Damages	41
24	Termination for default	41
25	Termination for insolvency	42
26	Force Majeure	42
27	Termination for convenience	43
28	Governing language	43
29	Notices	43
30	Resolution of disputes	43
31	Applicable Law	44
32	General / Miscellaneous Clauses	44

## **SECTION - IV**

### **GENERAL CONDITIONS OF CONTRACT (GCC)**

#### **1. Application**

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

#### **2. Use of contract documents and information**

- 2.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the purchaser in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this TE document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.
- 2.2 Further, the supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC sub-clause 2.1 above except for the sole purpose of performing this contract.
- 2.3 Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 2.1 above shall remain the property of the purchaser and, if advised by the purchaser, all copies of all such documents shall be returned to the purchaser on completion of the supplier's performance and obligations under this contract.

#### **3. Patent Rights**

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

#### **4. Country of Origin**

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

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

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

## 5. Performance Security

5.1 Within thirty (30) days from date of the issue of notification of award by the purchaser, the supplier, shall furnish performance security to the purchaser for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations, valid for a period of minimum **Sixty two (62) months** from the date Notification Award.

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

a) It shall be in any one of the forms namely Account Payee Demand Draft in favour of **HSCC (I) Ltd.**, payable at New Delhi / NOIDA or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in Section XV of this document in favour of the purchaser.

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 Bank Guarantee for free 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 free Annual Comprehensive Maintenance Contract as per the 'Contract Form- B' in Section XVI with respective consignees, 3(three) months prior to the completion of warranty period. The free CMC will commence from the date of expiry of the Warranty Period.

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

## 6. Technical Specification 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 section VII and VIII of this document.

## **7. Packing and Marking**

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

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

7.3 packing Instruction:

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

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

## **8. Inspection, Testing and Quality Control**

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

8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at not 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 alternations 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-dispatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.
- 8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchase 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-dispatch 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 contract.
- 8.8 Principal / Foreign supplier and Indian Supplier shall also have equipment inspected by recognized / reputed agency like **SGS, Lloyds, Sri Ram etc.** prior to dispatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

## **9. Terms of Delivery**

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

## **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 place of destination) terms i.e. upto consignee destination

- 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 conditions at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured. The insurance cover shall be obtained by the Supplier and should be valid till **4 months** after the receipt of goods by the Consignee.
- ii) in case of supply of the imported goods on CIP Named place 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.

If the equipment is not commissioned and handed over to the consignee within 4 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 actual will be reimbursed.

## **12. Spare parts**

- 12.1 If specified in the List of Requirement 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 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 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, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by the purchaser.

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 promptly on receipt or order from the purchaser.

### **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) Design, Supply, Installation, Supervision, Testing, Commissioning, Demonstration, Handing Over, trial run, Operation and Maintenance of the goods.
- ii) Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
- iii) One month onsite (at consignee premises) 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 dispatch documents well in time to the purchaser to enable the purchaser clear or receive (as the case may be) the goods in terms of the contract.

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

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

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

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

B) For goods **imported** from abroad

Within 24 hours of dispatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of dispatch 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;
- (v) Manufacturer's / Supplier's warranty certificate;
- (vi) Inspection Certificate for the dispatched equipments issued by recognized / reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to dispatch
- (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.

***Goods to be dispatched by the Supplier only after receipt of Dispatch Clearance Certificate to be issued by Authorized Representative of the Purchaser.***

**15. Warranty**

- 15.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporated 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 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 This comprehensive warranty shall remain valid for Sixty (60) months 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 in terms of the contract, unless specified otherwise in the SCC.
- 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.

- 15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) x 7 (days) x 365(days) basis, 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.
- 15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified / replaced goods shall be extended to a further period of Twenty Four (24) months from the date such rectified / replaced goods starts functioning to the satisfaction of the purchaser.
- 15.6 If the supplier, having been notified, fails to rectify / replace the defect(s) within 8 hours on a 24(hrs) x 7 (days) x 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.
- 15.7 During Warranty period, the supplier is required to visit at each consignee/s site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods
- 15.8 The purchaser / consignee reserve the rights to enter into free 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 free CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years after the expiry of warranty period.
- 15.10 The supplier along with its Indian Agent and the free CMC provider shall always accord most favoured client status to the Purchaser vis-à-vis it's 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.

## **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) Specification, 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, the supplier shall convey its views to the purchaser within twenty one days from the date of supplier's receipt of the purchaser's amendment / modification of the contract.

## **19. Prices**

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

## **20. Taxes and Duties**

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

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

## **21. Terms and Mode of Payment**

### **21.1 Payment Terms**

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

**A) Payment for Domestic goods or Foreign Origin Located Within India.**

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

**a) On delivery, Installation and Testing:**

80% payment of the contract price shall be paid on receipt of goods in good condition and after its successful Installation & Testing 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, Installation & Testing Certificate as per Section XVII in original issued by the authorized representative of the consignee;
- (iii) Two copies of packing list identifying contents of each package;
- (iv) Inspection certificate issued by the nominated inspection agency, if any.
- (v) Insurance Certificate;
- (vi) Certificate of origin.

**b) On Commissioning and Acceptance:**

Balance 20% payment would be made against 'Final Acceptance Certificate' as per Section XVIII of goods to be issued by the consignees subject to recoveries, if any, either on account of non-rectification of defects / deficiencies not attended by the Supplier or otherwise.

**B) 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:**

Eighty (80) % of the net price 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 prepaid 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;
- (v) Manufacture's / Supplier's warranty certificate;
- (vi) Inspection certificate issued by the nominated inspection agency, if applicable as per contract;
- (vii) Manufacture's own factory inspection report and
- (viii) Certificate of origin by the chamber of commerce of the concerned country;
- (ix) Inspection Certificate for the dispatched equipments issued by recognized / reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to dispatch.
- (x) Dispatch Clearance Issued by the purchase
- (xi) Certificate of origin

**b) On Installation, Testing, Commissioning and Acceptance:**

Balance payment of 20% of net CIP price of goods would be made against 'Final Acceptance Certificate' as per Section XVIII 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.

- (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 100% payment to the foreign Principal.

**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. Payment shall be paid in Indian Rupees to the Indian Agent on proof of 100% payment to the Foreign Principal.

**C) Deleted**

**D) Annual Comprehensive Maintenance Contract Charges:**

The Supplier shall provide free CMC for Five (5) years beyond the completion of warranty obligations. The consignee will enter into free of cost CMC with the supplier as stipulated in the contract. The supplier shall submit a bank guarantee for an amount equivalent to 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 free CMC period.

## **E) Operational & Maintenance Contract Charges:**

The Supplier shall provide Operation & Maintenance for a period of Ten (10) years effective from the date of successful installation & commissioning. The consignee will enter into an Operation & Maintenance contract with the supplier as stipulated in the contract. The supplier shall submit a bank guarantee for an amount equivalent to 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 Operation & Maintenance period.

21.2 Deleted

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 authorized in the contract.

21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant document etc., duly signed 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 Deleted

21.9 Deleted

## **22. 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 in the List of Requirements and as incorporated in the contract.

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

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

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

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

- (a) The purchaser shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.
- (b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and, also including statutory increase in or fresh imposition of customs duty, excise duty, sales tax / VAT, Service Tax and Works Contract Tax or on account of any other tax or duty which may be levied in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.
- (c) But nevertheless, the purchaser shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, excise duty, sales tax / VAT, Service Tax and Works Contract Tax or any other duty or tax or levy or on account of any other grounds, which takes place after the expiry of the date of delivery stipulated in the contract.

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

### **23. 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 shall, without prejudice to other rights and remedies available to the purchaser under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods and / or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached purchaser may consider termination of the contract as per GCC 24.

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

### **24. Termination for default**

24.1 The purchase, without prejudice to any other contractual rights and remedies available to it (the purchaser), may by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any

extensions thereof granted by the purchaser pursuant to GCC sub-clauses 22.3 and 22.4.

24.2 In the event of the purchaser terminates the contract in whole or in part, pursuant to GCC sub-clause 24.1 above, the purchaser 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 for the extra expenditure, if any, incurred by the purchaser for arranging such procurement.

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

## **25. Termination for insolvency**

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

## **26. Force Majeure**

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

26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of, the party claiming to be affected by such event and which has caused the non-performance or delay in performance. Such events may include, but are not restricted to, acts of the purchaser 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 in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and seek all reasonable alternative means for performance not prevented by the Force Majeure event.

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

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

## **27. Termination for convenience**

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

## **28. Governing language**

- 28.1 The contract shall be written in English language following the provision as contained in 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 differences of any kind shall arise between the purchaser 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 or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India. In the case of a dispute or difference arising between the Purchaser / Consignee and a domestic Supplier relating to any

matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitrator to be appointed by the Employer. The award of the arbitrator shall be final and binding on the parties to the contract subject to the provision that the Arbitrator shall give reasoned award in case the value of claim in reference exceeds Rupees One Lakhs (Rs. 1,00,000/-).

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

### **31. Applicable Law**

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

### **32. General/ Miscellaneous Clauses**

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

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

32.3 The supplier shall notify the purchaser of any material change would impact on performance of its obligations under this Contract.

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

32.5 The Supplier / its Indian Agent / free 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 free CMC or the Contract.

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

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

## SECTION-V

### SPECIAL CONDITIONS OF CONTRACT (SCC)

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

These Special Conditions will modify, substitute / supplement the corresponding (GCC) clauses.

Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

### INDEX

#### Table of Clauses

Sl. No.	GCC Clause No.	Topic	Page No.
		No Change	45

## SECTION-VI

### LIST OF REQUIREMENTS

#### Part I

Sl. No.	Name of Work / Item Description	Estimated Cost (in Rs.)	Bid Security (in Rs.)	Cost of document (in Rs.)	Period of Completion
1	Design, Supply, Installation, Testing, Commissioning, Handing over Operation and Maintenance of Modular Operation Theatre & Medical Gases Manifold System and Associated Works at Sports Injury Centre at Safdarjang Hospital, New Delhi.	10.00 Crores	20.00 lakhs	5000.00	4 Months

#### Consignee Address:

Director,  
Sports Injury Centre, Safdarjang Hospital,  
Ministry of Health & Family Welfare,  
Government of India,  
New Delhi

#### Part II: Required Delivery Schedule:

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

45 days from date of Signing of Contract to be delivered at consignee site. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period for which no price preference will be given).

**b) For Imported goods directly from foreign:**

45 days from the date of opening of L/C. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period for which no price preference will be given).

#### Part III: Scope of Incidental Services:

Design, Supply, Installation, Supervision, Testing, Commissioning, Demonstration, Handing Over, Trial run, one month onsite Training, Operation and Maintenance etc. as specified in GCC Clause 13.

#### Part IV:

Deleted.

**Part V:**

Free Comprehensive Maintenance Contract (free CMC) for Five (5) years after the successful completion of warranty obligation of Five (5) years as per the terms of Contract & detailed technical specifications.

**Part VI:**

**Required Terms of Delivery and Destination.**

**a) For Indigenous goods or for Imported goods if supplied from within India:**

At Consignee Site- Specified in the List of Requirements

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

**b) For Imported goods directly from abroad:**

The foreign tenderes are required to quote their rates on CIP Named Place of Destination Basis giving break up of the price as per the Proforma prescribed in the Price Schedule. Purchaser will place the order on CIP Named Place of Destination basis.

Delivery of Goods from the named port of Destination to the Consignee Site will also be responsibility of the Supplier. Insurance (local transportation and storage) would be extended and borne by the Supplier from Warehouse to the consignee site for a period including 3 months beyond date of delivery.

**Destination / Consignee details are given in Section XXI**

**SECTION-VII**  
**TECHNICAL SPECIFICATIONS**

**ENCLOSED AT THE END OF THIS DOCUMENT**

**FROM PAGE NO. 75 ONWARDS**

## GENERAL TECHNICAL SPECIFICATIONS

### GENERAL POINTS:

#### 1. Warranty:

- a) **Sixty (60) months Comprehensive Warranty** as per Conditions of Contract of the TE document for complete equipment (including Batteries for UPS, other vacuumatic parts wherever applicable) from the date of satisfactory installation, commissioning, trial run & handing over of equipment to Hospital/Institution/Medical College.
- b) 98% up time Warranty of complete equipment with extension of Warranty period by double the downtime period on 24 (hrs) X7 (days) X 365 (days) basis.
- c) All software provided should be original, latest version & licensed & any updates in future should be provided free of cost during Warranty / operational period.

#### 2. After Sales Service:

After sales service centre should be available at the city of Hospital/ Institution/Medical College on 24(hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 8 hrs. The service should be provided directly by Tenderer/Indian Agent. Undertaking by the Principal Manufacturer that the spares for the equipment shall be available for at least 10 years from the date of supply.

#### 3. Training:

One month free of cost on Site training to Doctors/ technicians/ staff is to be provided by Principal/ Indian Agents (if they have the requisite know-how) for operation and maintenance of the equipment to the satisfaction of the consignee.

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

- a) The free Comprehensive Maintenance Contract (free CMC) which includes preventive maintenance including testing & calibration as per technical/ service/ operational manual of the manufacturer, labour and spares, after satisfactory completion of Warranty period may carried out by the Supplier for next 5 years for complete equipment including Batteries for UPS, other vacuumatic parts wherever applicable. The supplier shall visit consignee site as recommended in the manufacturer's technical/ service/ operational manual, but at least once in six months during the free CMC period.
- b) Deleted
- c) Deleted
- d) The supplier shall submit a bank guarantee for an amount equivalent to 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 free CMC period.
- e) There will be 98% uptime warranty during free CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend free CMC period by double the downtime period.

- f) During free CMC period, the supplier is required to visit at consignee's site at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- g) All software provided should be original, latest version & licensed & any updates in future should be provided free of cost during Warranty, CMC period & operational period.
- h) Failure of the above [4. e) to 4. g)] by the supplier, may lead to the forfeiture of the Bank Guarantee for free CMC / Operational & Maintenance.

**5. Operation & Maintenance of subject equipment:**

- a) The Operation & Maintenance Contract which includes both operating & maintaining the complete set up of Modular Operation Theatre & Manifold Systems supplied by the bidders with all men & materials besides preventive maintenance including testing & calibration as per technical / service / operational manual of the manufacturer, labour and spares to be carried out by the Supplier for a period of 10 years for complete equipment including Batteries for UPS, other vacuumatic parts wherever applicable. The contract starts soon after the completion of successful installation & commissioning of the whole set up.
- b) The supplier shall submit a bank guarantee for an amount equivalent to 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 Contract period.
- c) There will be 98% uptime warranty during Contract Period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend contract period by double the downtime period.
- d) During contract period, the supplier is required to post sufficient qualified manpower on 24 (hrs) X 7 (days) X 365 (days) basis.
- e) All software provided should be original, latest version & licensed & any updates in future should be provided free of cost during the operational & maintenance period.
- f) Failure of the above [4. c) to 4. e)] by the supplier, may lead to the forfeiture of the Bank Guarantee for Operational & Maintenance.

## **Section - VIII**

### **Quality Control Requirements**

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

Tender Reference No.

Date of opening

Time

Name and address of the Tenderer:

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

- 01 Name of the manufacturer
  - a. full postal address
  - b. full address of the premises
  - c. telegraphic address
  - d. telex number
  - e. telephone number
  - f. fax number
- 02 Plant and machinery details
- 03 Manufacturing process details
- 04 Monthly (single shift) Production capacity of goods quoted for
  - a. normal
  - b. maximum
- 05 Total annual turn-over (value in Rupees)
- 06 Quality control arrangement details
  - a. for incoming materials and bought-out components
  - b. for process control
  - c. for final product evaluation
- 07 Test certificate held
  - a. Type test
  - b. BIS/ISO certification
  - c. any other
- 08 Details of staff
  - a. technical
  - b. skilled
  - c. unskilled

Signature and seal of the Tenderer

## **Section - IX**

### **Mandatory Qualification Criteria**

1. Tenderer should be private limited or public limited company and registered with company act and have minimum five years market standing and experience.
2. a) Tenderer who is quoting the bid should have experience of both modular operation theater and medical gas pipeline system and must have completed at least one project of both modular operation theaters and medical gas pipe line system in any one of the Central Government / State Government / CPWD / PWD Government hospital in India during last three years for **Rupees four hundred lakhs** or above. In case the Bidder does not have the experience of the above works as a single package, two separate orders for medical gas pipe line and modular operation theater from the same government institute to a same common bidder will be also considered. Tenderer should submit completion certificate from the installed central government/state government/CPWD/PWD government hospital and failing which bid will be rejected.
3. The firm should submit an affidavit duly notarized that they have not abandoned any work of Union Government/ any State Government(s)/ PSU's etc. during the last 5 years. They should also submit an affidavit that they have not been blacklisted, debarred, declared non-performer or expelled by Union Government/any State Government(s)/ PSU's etc. during the last 5 years.
4. Tenderer should have sound financial background to undertake the project and should have a bank solvency of minimum **Rs. 250 lakhs** or above and should submit copy of attested bank solvency certificate of **Rs. 250 lakhs** and failing which bid will be rejected.
5. Tenderer should have an annual average turn over of **Rupees ten hundred lakhs** for last three years and there should not be any losses occur in these three years. Attested copy of CA certificate should be submitted in this respect and failing which bid will be straight way rejected.
6. Tenderer should be registration with ESI/PF. Copy of the certificate should be submitted in this respect and failing which bid will be straight way rejected.
7. Third Party validation of the complete medical gas pipe line system must be mandatory and will be done by the HTM 2022 UK (HTM02-01) Approved Pharmacist (AP). Tenderer should submit the complete CV and other details of the third party pharmacist along with tender bid.
8. Tenderer should submit a mandatory letter of authority from the distributor of original Foreign Principal / Manufacturer for the quoted imported products. The Indian agent who is quoting on behalf of original Foreign Principal / Manufacturer for the quoted imported products must be distributor with the similar company since at least last three to five years for the quoted products. Letter should be submitted in this regard as a proof for experience and failing which bid will be rejected.

9. Tenderer should not quote any optional items. If any firm quotes any optional items, they will be disqualified. Firm must quote strictly as per the desired specifications and items mentioned in BOQ and failing which bid will be rejected.
10. As this is a time bound Project, accordingly, offers from bidders who can comply & ensure timely completions of the Project within 4 months will be appreciated. Any delay in execution / completion of the work will be penalized appropriately which may even lead to cancellation of contract and as per provision laid out but not limited to GCC Clause 23.
11. If any information furnished by the applicant is found incorrect at a later stage, the applicant shall be liable to be debarred from participating in tenders of HSCC/MoHFW. The department reserves the right to verify the particulars furnished by the applicant independently.
12. Even though the agency meets all the criteria, the Employer/Consultant reserves the right to accept or reject any applicant/disqualify any agency without assigning any reason whatsoever.

#### **Note**

1. The Tenderer shall furnish Performance statement in the enclosed Proforma 'A'.  
  
The manufacturer as well as the Tenderer/ Indian Agent shall furnish Satisfactory Consignee Certificate in respect of above, duly translated in English and duly notarized in the country of origin, along with the tender.
2. The Tenderer shall furnish a brief write-up, packed with adequate data explaining and establishing his available capacity/capability (both technical and financial) to perform the Contract (if awarded) within the stipulated time period, after meeting all its current/present commitments. The Tenderer shall also furnish details of Equipment and Quality control in the enclosed Section VIII.
3. Notwithstanding anything stated above, the Purchaser reserves the right to assess the Tenderer's capability and capacity to perform the contract satisfactorily before deciding on award of Contract, should circumstances warrant such an assessment in the overall interest of the Purchaser.
4. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser for technical acceptability as per the tender specifications, before the opening of the Price Tender.
5. The applicants are advised to visit the site to get first hand information as regards its approach, accessibility, working conditions, site conditions, availability of labour and material etc. and other matters affecting cost and work. All costs incurred in connection with submission of the pre-qualification application shall be borne by the applicant irrespective of the outcome.

**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 : \_\_\_\_\_

Sr. No.	Order Placed by (full address of purchaser)	Order number and date	Description and quantity of ordered goods and services	Value of order (Rs.)	Date of completion of Contract		Remarks indication reasons for delay if any	Have the goods been functioning Satisfactorily (attach documentary proof)**
					As per contract	Actual		
1	2	3	4	5	6	7	8	9

Signature and seal of the Tenderer

\*\* The documentary proof will be a certificate from the consignee/end user with cross-reference of order no. and date in the certificate along with a notarized certification authenticating the correctness of the information furnished. If at any time, information furnished is proved to be false or incorrect, the earnest money furnished will be forfeited.

# Section-X TENDER FORM

Date.....

To

-----  
-----  
-----

(Complete address of the purchaser)

Ref. Your TE document No. ----- dated -----

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No.----- Dated ----- (*if any*), the receipt of which is hereby confirmed. We now offer to supply and deliver----- (*Description of goods and services*) in conformity with your above referred document for the sum of ..... (total tender amount in figures and words), 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 authorized to sign tender for and on behalf of

-----  
-----

### SECTION-XI (A) PRICE SCHEDULE

#### A) PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA

1	2	3	4	5							6
Sr. No.	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Rs.)							Total Price (at Consignee Site) basis (Rs.)
				Ex- factory/Ex-warehouse/Ex-showroom/ Off-the shelf	Excise Duty (if any ) [%age &value]	Sales Tax/ VAT (if any) [%age & value]	Packing and Forwarding charges	Inland Transportation, Insurance for a period including 3 Months beyond date of delivery, loading/unloading and Incidental costs till consignee's site	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site	Unit Price (at Consignee Site) basis	
				(a)	(b)	(c)	(d)	(e)	(f)	(g) =a+b+c+d+e+f	4x5(g)

Total Tender price in Rupees: -----

In words: -----

**Note:-**

- If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail. Please refer all the items listed in the BOQ / technical specifications while filling the Price Format.***

Signature of Tenderer -----

Name -----

Business Address -----

Seal of the Tenderer -----

Place: -----

Date: -----

## SECTION-XI (B) PRICE SCHEDULE

### B) PRICE SCHEDULE FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5					6
Sr. No.	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Currency)					Total Price on CIP Named Port of Destination+ Insurance (local transportation and Storage)  4x5(e)
				FOB price at port/airport of Lading  (a)	Carriage & Insurance (port of loading to port of entry) and other Incidental costs  (b)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site**  (c)	Inland Transportation, Extended Insurance (local transportation and storage) from port of entry to the consignee site for a period including 3 months beyond date of delivery**  (d)	Unit Price on CIP Named Place of Destination +Extended Insurance (local transportation and storage)  (e) =a+b+c+d	

\*\* To be paid in Indian Currency (Rs.)

Total Tender Price in Foreign currency: -----

In words: -----

**Note:-**

1. ***If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail. Please refer all the items listed in the BOQ / technical specifications while filling the Price Format.***
2. ***The Tenderer will be fully responsible for the safe arrival of goods at the named place of destination (Consignee site) in good condition as per terms of CIP***
3. ***Sports Injury Centre, Safdarjang Hospital, Ministry of Health & Family Welfare, Govt. of India will provide the CDEC.***

Indian Agent:

Indian Agency Commission - \_\_\_\_ % of FOB

Signature of Tenderer -----

Name -----

Business Address -----

Seal of the Tenderer -----

Place: -----

Date: -----



**SECTION-XI (D) PRICE SCHEDULE**

**D) PRICE SCHEDULE FOR OPERATION & MAINTENANCE FOR A PERIOD OF 10 YEARS**

1	2	5	6	7		
Sr. No.	Brief Description of Goods	Cost for 1 months of operation & maintenance	Cost for 6 months of operation & maintenance	Cost for 1 year of operation & maintenance	Cost for 5 years of operation & maintenance	Cost for 10 years of operation & maintenance
	Operation & maintenance of MODULAR OT					
	Operation & maintenance of MGMS					

Total cost to be paid in Indian Currency (Rs.)

In Figure: .....

In words: .....

**Note:- If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.**

Indian Agent:

Signature of Tenderer .....

Name .....

Business Address .....

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 "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 its owing to the occurrence of one or both the two conditions, specifying the occurred conditions(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 authorized 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

\_\_\_\_\_  
\_\_\_\_\_  
*(Name and address of the purchaser)*

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 authorize 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 authorized to submit a tender, process the same further and enter onto 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, free 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, and designation]  
for and on behalf of messrs \_\_\_\_\_

[Name & address of the manufacturers]

*Note: 1. This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.*

*2. Original letter to be sent.*

**SECTION - XV**  
**BANK GUARANTEE FORM FOR PERFORMANCE SECURITY / free**  
**CMC SECURITY / OPERATION & MAINTENANCE**

To  
Head of Hospital/Institute/Medical College

WHEREAS \_\_\_\_\_(Name and address of the supplier) (Hereinafter called "the supplier") had 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 recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

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

NOT 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 ..... months from the date of completion of Warranty Obligation as per the terms of Contract No.....dated..... i.e. up to ..... (indicate date)

\_\_\_\_\_  
(Signature with date of the authorized officer of the Bank)

\_\_\_\_\_  
Name and designation of the officer

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

**SECTION - XVI**  
**CONTRACT FORM -A**  
**CONTRACT FORM FOR DESIGN, SUPPLY, INSTALLATION, SUPERVISION,**  
**TESTING, COMMISSIONING, DEMONASTRATION, HANDING OVER, TRIAL**  
**RUN, TRAINING OF OPERATORS, OPERATION & MAINTENANCE &**  
**WARRANTY OF GOODS**

\_\_\_\_\_  
\_\_\_\_\_  
(Address of the purchaser'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 constructed 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) Manufacturer's Authorization 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 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:

Sr. No.	Brief Description of goods/services	Accounting unit	Quantity to be supplied	Unit Price	Total price

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

Total value (in figure) \_\_\_\_\_ (In words) \_\_\_\_\_

- (ii) Delivery schedule
- (iii) Details of Performance Security
- (iv) Quality Control
  - (a) Mode(s), stage(s) and place(s) of conducting inspections and tests.
  - (b) Designation and address of purchaser's inspecting officer
- (v) Destination and dispatch instructions.
- (vi) Consignee, including port consignee, if any
- (vii) Warranty clause
- (viii) Payment terms
- (ix) LD Clause

\_\_\_\_\_  
**(Signature, name and address  
 of the purchaser's authorized official)**  
 For and behalf of \_\_\_\_\_

Received and accepted this contract

\_\_\_\_\_  
 (Signature, name and address of the supplier's executive  
 duly authorized to sign on behalf of the supplier)  
 For and on behalf \_\_\_\_\_  
 (Name and address of the supplier)

\_\_\_\_\_  
 (Seal of the supplier)

Date : \_\_\_\_\_

Place : \_\_\_\_\_

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

Annual CM Contract No. .... dated .....

Between

.....  
 .....

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

And

.....  
 .....

(Name & Address of the Supplier)

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

In continuation to the above referred contract

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

1	2	3
<b>Sr. No.</b>	<b>BRIEF DESCRIPTION OF GOODS</b>	<b>QUANTITY. (Nos.)</b>

- b) The free 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 free CMC)
- c) The free Annual Comprehensive Maintenance Contract (fee CMC ) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period for complete equipment (including Batteries for UPS, other vacuummatic parts, \_\_\_\_\_&\_\_\_\_\_).
- d) There will be 98% uptime warranty during fee CMC period on 24 (hrs) x 7 (days) x 365 (days) basis, with penalty, to extend free CMC period by double the downtime period.
- e) During free 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 free CMC.
- g) The bank guarantee valid till \_\_\_\_\_ [(fill the date) 2 months after expiry of entire free CMC period] for an amount of Rs. \_\_\_\_\_ [ (fill amount) equivalent to 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 free CMC within a period of 21 (twenty one) days of issue of free CMC failing which the proceeds of Performance Security shall be payable to the Purchaser.
- h) If there is any lapse in the performance of the free CMC as per contract, the proceeds free CMC bank guarantee for an amount of Rs. \_\_\_\_\_ (equivalent to 5% of the cost of the equipment as per contract) shall be payable to the consignee.

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

Received and accepted this contract

\_\_\_\_\_  
(Signature, name and address of the supplier's executive  
duly authorized 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 & INSTALLATION 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) Date of Satisfactory Installation : \_\_\_\_\_
- 8) Date of Handing Over / Acceptance : \_\_\_\_\_
- 9) Name and destination of  
Authorized Representative of  
Consignee : \_\_\_\_\_
- 10) Signature of Authorized  
Representative of Consignee with  
date : \_\_\_\_\_
- 11) Seal of the Consignee : \_\_\_\_\_

**SECTION -XVIII**

**Proforma of Commissioning & 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 Lading / Air Way Bill / Railway Receipt / Goods Consignment Note no. \_\_\_\_\_ date \_\_\_\_\_
- (f) Name of the vessel / Transporter:
- (g) Name of the Consignee: \_\_\_\_\_
- (h) Date of commissioning and providing test:

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

<b>S. No.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Amount to be recovered No.</b>

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 fulfill its contractual obligations with regards 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 in respect of the installation of the equipment(s)/ plants (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 of account of failure of the supplier to meet his contractual obligations is \_\_\_\_\_ (here indicated the amount).

Signature  
Name  
Destination with stamp

**## Explanatory notes for filling up the certificate:**

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

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

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

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

**SECTION - XIX**

**ANNEXURES**

**Annexure - 1**

1. Deleted

## SECTION - XX

### CHECKLIST

**Name of the 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 Items?			
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.	Are you a SSI unit, if yes have you enclosed certificate of registration issued by Directorate of Industries / NSIC			
4.a.	Have you enclosed clause- by -clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications?			
b.	In case of Technical deviations in the compliance statement, have you identified and marked the deviations?			
5.a.	Have you submitted satisfactory performance certificate as per the Proforma for performance statement in Sec. IX of TE document in respect of all orders?			
b.	Have you submitted copy of the order(s) and end user certificate?			
6.	Have you submitted manufacturer's authorization as per Section XIV?			
7.	Have you submitted prices of goods etc. in the Price Schedule as per Section XI?			
8.	Have you kept validity of 120 days from the Techno Commercial Tender Opening date as per the TE document?			
9.a.	In case of Indian Tenderer, have you furnished Income Tax Account No. as allotted by the Income Tax Department of Government of India?			

Sl. No.	Activity	Yes / No/ NA	Page No. in the TE document	Remarks
b.	In case of Foreign Tenderer, have you furnished Income Tax Account No. of your Indian Agent as allotted by the Income Tax Department of Government of India?			
10.	Have you intimated the name and full address of your Banker(s) along with your account number			
11.	Have you fully accepted payment terms as per TE document?			
12.	Have you fully accepted delivery period as per TE document?			
13.	Have you submitted the certificate of incorporation?			
14.	Have you accepted the warranty as per TE document?			
15.	Have you accepted terms and conditions of TE document?			
16.	Have you furnished documents establishing your eligibility & qualification criteria as per TE documents?			
17.	Have you furnished Annual Report (Balance Sheet and Profit & Loss Account) for last three years prior to the date of Tender opening?			

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

\_\_\_\_\_  
**(Signature with date)**

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

\_\_\_\_\_  
**(Name, address and stamp of the tendering firm)**

**Section - XXI**

**Consignee List**

<b>Medical Institutions</b>	<b>Contact Address</b>
Sports Injury Centre, Safdarjang Hospital, Ministry of Health & Family Welfare, Government of India, New Delh.	The Head of Department, Sports Injury Centre, Safdarjang Hospital, Ministry of Health & Family Welfare, Government of India, New Delh.

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

# **TECHNICAL SPECIFICATIONS**

## **Modular Prefabricated OT, Pre Operative and Post Operative along with Medical Gas Pipe Line System with various services on turkey basis.**

### **Modular Prefabricated OT & Pre Operative and Post Operative Room**

#### **Technical Specifications**

##### **Stainless steel Prefabricated Walls & Ceilings**

The pre-fabricated SS 304 sheet (1.6 mm thick) wall sloping & ceiling panels backed by 12mm thick gypsum board to provide the seamless operating room. Technical Specifications: Stainless Steel Walls & Ceiling Construction (Indigenous): The external walls of the room are constructed with solid brick and mortar and are in the scope of the hospital. The inner surface walls should be constructed with at least 1.20mm thick 304 grade stainless steel sheets backed by 9/12-mm gypsum board. The inner surface walls should be fixed to the brick wall with essential supports. There should be minimum possible cavity/gap in between the solid and steel walls. The total distance between the inside and outside surfaces of the operating room should be variable to suit the architects' layout, but should be sufficient for the flush mounting of equipments. The individual wall panels should be spot welded together at equal intervals to render equal support to the panels. Spot welding should be properly grinded to make the surface levelled. All joints should be filled with metal filler and sanded flush on site, ready to receive the plastic finish. The cavity between the inner and outer walls should be left with minimum obstructions for the possible addition of equipment at a latter date and to enable services, pipes, conduits etc, to be run within the cavity. All wall-mounted equipment should be flush mounted and sealed into theatre. The wall panel design and construction should allow for the installation and support of all equipment and the provision of openings required for the installations, without affecting rigidity and strength. Access boxes should be fitted to the rear of all wall-mounted equipment to enable maintenance to be carried out from outside the operating room. All the sharp edges and corners should be smoothed to avoid bacteria contamination.

##### **Imported Antibacterial / Antifungal Paint**

Anti-Microbial Protection: These product hygiene coatings start the biocidal action as soon as the microorganism land on the surface, and prevents the growth of mould, bacteria and yeasts for at least 10 year. This Hygiene coating are independently tested by leading universities to demonstrate resistance to a wide range of mixed species, including stubborn pathogens such as MRSA (Methicillin Resistance Staphylococcus Aureus). Other pathogens that can be present in hospital environment and to which resistance is confirmed are: Acinetobacter sp, Aerobacter aerogenes, Bacillus subtilies (and other Bacillus sp) Escherichia coli, Listeria monocytogenes, Pseudomonas aeruginosa, Pseudomonas putida, Salmonella typhimurium, Serratia marcescens, Staphylococcus Aureus. Lily Cycle Savings: The unparalleled durability of our hygiene coatings helps to extend the maintenance cycle and to minimize all related material, labour and shut down costs. The speed with which they can be installed and the ease of subsequent maintenance also create significant cost savings. Chemical Persistence: These hygiene coatings should be highly resistant to abrasives, detergents and weak acids and alkalis used in cleaning regimes. Further more, they can be regularly steam cleaned without any loss of performance or adhesion to the substrate. COSHH Regulations: These comply with the statutory requirements for the control of the substance Hazardous of Health Regulations 1994 (COSHH).

##### **Imported Conductive Tile Flooring : ESD-Control tile Flooring for inside OT**

Flooring : Providing & fixing 2mm thick Conductive flooring with carbon backing total thickness 2.00mm, total weight 3.000 g/m<sup>2</sup> polyurethane reinforced ,scratch resistant, fire resistant, chemical resistant , slip resistant, anti fungi & bacterial growth , dimensional stability ≤0.40%, static electrical

charger < 2Kv , impact sound reduction approx +4bd, electrical resistant. Installation : The flooring would be installed on a smooth, clean sub floor which should be free from any undulation .A copper strip/mesh should be layer under the tiles, with one earthing point for every 150 sft of area and good quality water based adhesive for fixing as per as manufacturers recommendation. Thermal Welding: The joints must be welds by the heat fusion process to get a seamless floor. The joints in the flooring should be sealed by using a PVC welding bar of matching colour to be supplied by the manufacturer, using a hot air gun for fusion of welding bar with flooring.

### **Imported Homogenous Carpet roll flooring for all other areas.**

Flooring: Providing & fixing 2mm thick homogenous flooring total thickness 2.00mm.

Thermal Welding: The joints must be welds by the heat fusion process to get a seamless floor. The joints in the flooring should be sealed by using a PVC welding bar of matching colour to be supplied by the manufacturer, using a hot air gun for fusion of welding bar with flooring.

### **Imported Self leveling compound of 3mm**

Self leveling compound: The hyper-fluid self-leveling product with prolonged work ability, extra rapid hardening, compensated shrinkage, suitable for high-resistant adjustment from 2 to 4mm of irregular non-planer substrates before laying homogenous tiles with very low TVOC emission and hypo-allergenic cements. The cement based adhesive with SAS Technology, reactive-epoxide and polyurethane two component products, dispersed in water solution and solvent. Preparation: it should be prepare it in clean container, first of all pouring in a quantity of water equal to approximately  $\frac{3}{4}$  of that which will be required. Gradually add it to the water in the container, mixing the paste with a low-rev ( $\approx 400/\text{min.}$ ) helicoidal or trapezoidal agitator. Then the add more water until a fluid, homogeneous, lump-free mortar is obtained. For the best result and mix larger quantities of self leveling products, a stirring device with vertical blades and slow relation is recommended. Specific polymers with high dispersion properties ensure that it is immediately ready for use. The amount of water indicated on packaging is an approximate value. It's features a high degree of self leveling capacity. Adding extra water dose not improve the workability of the product. And may cause shrinkage in the plastic phase of drying and result in less effective final performance with a reduction in surface hardness, compressive strength and adhesion to the substrate. The application should be generally applied with a smooth spreader or blade. Application with plaster pumps allows the user to very quickly achieve homogeneous, high thickness correction of large continuous surface. It is advisable to press down hard with the spreader during application so as to regulate the absorption of water and obtain maximum adhesion to the substrate, after which the thickness can be adjusted as required. Use of lighted, cylindrical- section, leveling bar will be required to free the self-leveling product from air bubbles created by high absorption level of the substrate and to obtain a smooth and perfectly plane surface also high thickness are applied. Application of a further substrate correction layer must be carried out as soon as the previous layer is ready for foot traffic ( $\approx 2-4$  h at +23 C/50% R.H.), by laying it, a professional, single component, water base adhesion promoter, following the instruction for use. After this interval it is necessary to wait  $\approx 5-7$  days, depending on the thickness created, and then applied it, after which the subsequent application may be carried out. In the case of low temperature and humidity it is advisable to keep the environment ventilated during application and during the hours immediately following application, in order to avoid the formation of condensation on the surface of the self-leveling product during the setting phase, protect from air currents at actual floor level.

### **Imported Air Ceiling Management System (complete) : 1set for 1 OT**

Each consist of the following and for each OT:

Imported 1no. of Media Bridge 3x3size.

Imported 1no. of Twin Dome LED OT Light

Imported 1no. of Homogenous low turbulence unidirectional laminar air flow system.

Imported 8nos. Peripheral light cum clean room luminaries fitted in the CG frame.

Imported 4nos. RGB Clean Room Luminaries fitted outside CG frame

All items of air ceiling system like Media Bridge, Twin Dome LED Light, Peripheral lights and Clean-room peripheral light/luminaries and RGB luminaries should be from one single make, single origin and single standard and will only be accepted.

**Ceiling suspended horizontal medical supply unit Media Bridge.** The system should be useful for laminar flow system in the OR. The aluminum-extruded profile should have an integrated double support rail at the bottom. Facilities for LED lighting, mains, extra low voltage, telephone/data and medical gases are ready for connection at central incoming point on the horizontal profile. These facilities must be arranged in type, quantity and position according to customer's request. Connection of medical gases and electrical components to the hospital system is provided through the vertical aluminum suspension profiles.

The system should be arranged in a square shape having size of 3mtr x 3mtr square.

It should have the following :- 8 x vertical suspensions inclusive heavy ceiling flanges and false ceiling covers, 4 x profile corners 90°, revolving., 8 x side lights, 1 x 12m additionally medical rail of 25x10mm at the inside of the system, 40nos. Electrical multipin switch + socket of Indian Origin 6/16amp with plate. 2nos. Data socket RJ45 cat 6, wiring to be executed at site. , 40 x Potential Earthing Equalization sockets with inside wiring . 3 x Equipment trolleys, large (690 mm wide), with 3 shelves. It should be supplied with three trolley carrier, wide execution including crosshead tie bar, for carrying monitoring and respiration apparatus, travelling crab with bearings, turnable by +/- 45°, 2 nos. stainless steel support tubes diameter 38 mm, 1530 mm length, 690 mm width, loading capacity 150kg. It should also have utilisable area 640x340mm coated in grey-white RAL 9002 with lateral supporting rails 25x10mm for mounting 2tubes 38mm with module 690mm weight 6.3kg and load carrying supporting base capacity 40Kg.

**24nos Medical Gas Outlets Points** ( i.e. 4 x oxygen, 4x N2O, 4x MA4, 4xSA7, 4xAGSS and 4 x Vacuum.) It should fully meets and complies with HTM 2022, HTM 02-01, C11 standards and should be duly CE marked. It should have Integral check valve Integral check valve – allows removal of the housing and socket assemblies for maintenance without closing down the entire pipeline and each outlet should be individually tested. It should be hundred metal construction. Full metal to metal seal on maintenance check valve ensures no degradation over time. It should be of all hundred percent metal and must incorporate a sheerplance that ensures a fail – safe condition after accidental damage or bed jacking (causing no damage to first fix and enabling easy replacement without isolation). Construction of the terminal unit should be of machined brass and die – cast chrome collar with stainless steel rolling pins. Each of the gas specific components must have the gas service engraved onto it, to ensure safety and compliance with standard.. The box should be supplied with a flush mounting bezel as a plaster finish. Should have safety features like positive action of rolling pin latch mechanism which hold the probe securely, anti rotational locking bar and the gas indexing pin are cast into the socket assembly and cannot come loose or be removed and gas specific indexed – eliminates the risk of connecting a socket assembly of one gas to the terminal block of another, either during installation or maintenance.

#### **Imported Twin Dome LED OT Light**

Operating LED Light (Imported) for each OT. It should be twin dome and power LED which should provide direct, reflection free illumination which allows to have double the efficiency compares to conventional light source. It should have LFL lens combination and have the primary optics which guides the light in a parallel, while secondary optics ensures beams of coherent light. The results should be an excellent illumination in the OT field in terms of area and depth. It should be cold infrared –free light.

It should be flat, sealed light body specially designed for laminar flow ceilings. It should have flow optimizes light head and reduced surface temperature minimize turbulences in laminar air flow.

It should have IR-free illumination avoids tissue desiccation and sweat on the surgeon's forehead. It should have optimized ratio light head/light field diameter. The size of the light body should not be more then 800mmx 720mm.

The high illumination intensity should be 160000lux at 1m distance. It should have deep field illumination L1+L2=800mm. It should have adjustable light field from 180mm to 300mm which provided flexibility of surgery. It should have twin identical light head of 160000lux each.

It should have fixed color temperature 4700K. It should have color rendering index RA>95. It should have diameter of light field from 180-300mm. The depth of light field should be not less then 800mm.

temperature at surgeon head should be <1 C and temperature on surface light head <37C. It should have light head dimmable (8steps) 70000 to 160000lux.

It should be supplied with four non sterile positioning handles and one sterile suspension handles. It should be supplied with dual control panel remote or wall. It should have interface for OR integration RS 232.

It should have upgrade guarantee for all LED OR lights giving the user an option to upgrade the lighting technology by changing the LED pads, not the mechanical system.

### **Ino. Homogenous Low Turbulance unidirectional laminar air flow system (Imported)**

It should be Ultra Clean Ventilation System with Unidirectional Flow. It should be draft-free, comfortable room climate and minimal, undistruptive noise level. It should have minimal pathogen concentration (, 10 CF U/m<sup>3</sup>) in the sterile field. It should have highly economical energy consumption from a very low pressure drop. It should be perfectly seamless integration of ceiling mounted equipment and OT Ceiling. It should be flexible modular range of solutions, adjustable to the local requirements .It should be made out of high quality and durable materials, filter housings and pressure chamber are made out of high-end stainless steel (quality : 1.4301). The frame for the CG-Diffuser and the surrounding equipment are constructed from high quality, anodized aluminum profiles.

The air velocity with 0.25 m/s and should have air volume (in flow) of 5440 m<sup>3</sup>/h. It should have aerosol port for pressure differences measurement. It should have separate seal leak test ports for each minipleat Hepa- filter (in conjunction with test groove). Laminar air flow should not be a grouping of filter housings plus a perforated plate.

Filter technology: The filter and laminar air flow ceiling both should be from same manufacturer. It should have a low pressure drop allows for the long-term usage of the HEPA Miniplet H14 filters. The filters must be need to be changed after two /three years, providing a significant saving of the running cost of the Laminar Flow Ceiling. It should have reliable filter efficiency our filters are guaranteed to remove particles and gems with the usual H 13 filters retaining 99.95 % of the particles and germs. It should have minimal pressure drop a low pressure drop ensures the energy saving characteristic of the Laminar Flow Ceiling. The pressure drop of 93 mm H 13 filters should be only approx. 60 Pa. at an airflow of 1000 m<sup>3</sup>/hm<sup>3</sup>. It should be mandatory to have test certificate for the filters from the original mfr of filter and laminar air flow system. Filter should be according to EN 10204 ("ULPACAT-Test"). It should be protected on both sides against inadvertently touching the filters.

Unidirectional air flow : The high quality CG-Diffuser should secures the unidirectional airflow according to EN ISO 14644. The double-layer textile screen constructed from specialized material with more than 100 fibres/cm, ensures an even diffusion of the air. This technology must avoids turbulences which might otherwise draw germs from the non-sterile area into the operating field and which low cost materials, one layer diffusers, or perforated plates can not guarantee this.

Powerful, low noise recirculation system : It should have low noise recirculation systems guarantee compliance with noise levels of ≤ 45 to 48 dB(A) required by European standards. Minimizing the noise level should be highly important for the OT team, which has to stay focused on the medical procedure over many hours.

CG3 aluminum frame : It should be perfect integration in the operation theaters and should be rigid frame system, made from anodized aluminum profile enables the perfect integration of the OT Ceiling with the surrounding installations. The OT lighting should be integrated into a frame system which ensures its air sealed integration with the OT ceiling. The installation frame of the lighting should no longer required. The frame system should allows the seamless and air-sealed coverage of all gaps between the various installations and for the direct connection to the remaining OT ceiling OT ceiling – a perfectly integrated solution for the OT.

Unidirectional air flow ceiling consist of the following :

Pressure Chamber: It should be air sealed pressure chamber, made out of stainless steel as per (DIN 1.4301) It should have smooth inner surfaces, therefore easy to disinfect during filter changes. Pressure chamber should be place on a stable profile, made out of galvanized Aluminum. Air sealed housing for the integration of the stand of the O.R. light and openings for the service of the O.R.

light. Sealed ports for temperature pressure sensors must be provided. It should have aerosol port. It should have port for pressure differences measurement and should have separate seal leak test ports for each Hepa – filter (in conjunction with test groove). The flange should be made out of stainless steel (DIN 1.4301).

Filter – and Diffuser – Frame : It should be made out of galvanized Aluminum profile with integrated frames for the placement of the filter – cells, made out of stainless steel (DIN 1.4301) and for the placement of the frame for the CG- Diffuser. The Aluminum profile provides Aluminum rails for the easy and seamless placement of the false sealing or other connecting equipment. The Aluminum profile is prepared for the integration of the sterile field and O.R. – illumination, when combined with the rail system for the O.R. illumination.

Sterile Air Diffuser CG : Transparent diffuser with double layer micro mesh, made out of specialized textile. Assembly and disassembly without screws or tools. Air- flow optimized frame made out of Aluminum profile. Pass through of the stand of the O.R. light.

It should have air volume (in flow) of 8.000 m<sup>3</sup>/h. The outer dimension (length x width) should be 3120 x 3120 mm and sterile air-flow field (length x width) should be 3018 x 3018 mm. The height of the pressure chamber (height) should be 465mm and height of available ceiling space (minimum requirement) should be 480 mm. The average air velocity should be 0,25 m/s. It should have number of HEPA filters/Type should be 4 pcs. 1220 x 1220 mm and should be 4 pcs 1220 x 457 mm. Filter Class should be according to EN 1822 should be H13 and beginning pressure loss should be 60 Pa. The recommended max. pressure loss before filter change should be 180 Pa and all test documents according DIN 4799/6.90. It should have frame for O.R. and Sterile Field Illumination which should be integrated frame for the housing of the O.R. and sterile field. The Illumination for the integration of sterile clean room lights. The frame should provides a seamless integration of Laminar Flow Ceiling and the lighting fixtures. Light bodies can be positioned directly in the frame.

**Peripheral Light cum clean room luminaries fitted in the CG frame -8nos. (Imported) for each OT:** Clean-room imported surface-mounted and recessed luminaire with 3 T5 lamps 54 W. Framed luminaire cover made of highly-resistant and disinfectant-consistant laminated safety glass, laserable, semi-specular. With visual systems against glare of the lamps and of the internal highly-specular reflectors, cumulative reflexion coated, singular adjustable by up to +/- 30°. Luminaire body white, consists of sheet steel with mechanical and electrical removable carrier equipment. Protection IP 65. With dimmable electronic multi-lamp ballast with 1-10 V interface. Suitable for areas with infrared regulation

**Imported Clean-room luminaries with RGB for each OT** to be fitted outside the air ceiling system area in the OT-4nos. : The luminaries for surface or recess mounting in operation theatres should flush with the ceiling, for 2 or 3 T5 fluorescent lamps (49 or 54 W), Ø 16 mm. With highly-specular, anodised aluminium reflectors and optical anti-glare system for individually adjustable light distribution. Luminaire cover made of highly-resistant, disinfectant-proof laminated safety glass with stylish fine-grained surface, glass pane with white coated steel frame. Closing devices are integrated automatically in the electrical safety control without lines having to be connected to the luminaire housing.

Luminaire body made of sheet steel, white, powder-coated, supplied ready for connection optionally for individual or series circuit, with digital, electronic control gear in Multi-Lamp technology. Mains supply and further wiring by means of Pg 16 screw glands. With four-pole connection terminal and earth connection terminal for wires up to 2.5 mm<sup>2</sup> for mains supply and further wiring. Luminaire with ENEC and F mark, degree of protection IP 65, protection class I, 230 V, 50 Hz.

Recess frames for the gas-tight installation of clean-room luminaires in IP 65 in suspended ceilings. Frame made of extruded aluminium profile, white, powder-coated, able to be put together to form a rigid, continuous frame by means of plug and screw connections, optionally in individual, continuous-line, rectangular or U-shaped arrangements. Ledge for ceiling construction material as angular ledge for covering the raw edge of the ceiling construction material.

**Imported Medical Ceiling Supply System (complete) for Post Operative and Pre Operative**  
Imported Medical Supply Unit (MSU) of 2.5mtr each

Technical specifications :-

It should be duly CE marked and comply with 93/42/EEC Medical Devices: General and should have CE no.

It should be constructed from aluminium profiles with a maximum length of 2500mm length in one piece with integrated double support rail at the bottom for the installation of movable carriers, primed, coated and stove enamelled in RAL-Colour 9002. Profiles for trolleys and support profiles shall be executed in natural anodized aluminium finish.

The system shall be ceiling mounted, suspended by means of aluminium suspension profiles 150x75 mm. Connection of the medical gases, electricity components through the vertical aluminium suspension profiles. Including ceiling flanges for fixing. Installation of electrical, communications and medical gases components in the front and the rear side of the MSU must be possible. It should have runner rail for trolleys. It should have plastic cover strip for fixed stop absorption and protection against injury.

It should have following at front side:

1 no. RJ45 and RJ15 data sockets,

1no.electronic current impulse relay 24V with integrated transformer, for switching reading light on off by patient hand set.

It should have following at rear side:

12nos. multipin electrical switch sockets of 6/16amp

1no. RJ45 and RJ15 sockets at front side,

1no.electronic current impulse relay 24V with integrated transformer, for switching reading light on off by patient hand set.

12nos. Electrical multipin switch + socket of Indian Origin 6/16amp with plate.

12 x Potential Earthing Equalization sockets with inside wiring .

2 x Equipment trolleys, large (690 mm wide), with 2 shelves. It should be supplied with two trolley carrier, wide execution including crosshead tie bar, for carrying monitoring and respiration apparatus, travelling crab with bearings, turnable by +/- 45°, 2 nos. stainless steel support tubes diameter 38 mm, 1530 mm length, 690 mm width, loading capacity 150kg.

It should also have utilisable area 640x340mm coated in grey-white RAL 9002 with lateral supporting rails 25x10mm for mounting 2tubes 38mm with module 690mm weight 6.3kg and load carrying supporting base capacity 40Kg.

**06nos Medical Gas Outlets Points** ( i.e. 2 x oxygen, 2x MA4, 2 x vacuum.) fitted at the back of each MSU. It should fully meets and complies with HTM 2022, HTM 02-01, C11 standards and should be duly CE marked. It should have Integral check valve Integral check valve – allows removal of the housing and socket assemblies for maintenance without closing down the entire pipeline and each outlet should be individually tested. It should be hundred metal construction. Full metal to metal seal on maintenance check valve ensures no degradation over time. It should be of all hundred percent metal and must incorporate a sheerplance that ensures a fail – safe condition after accidental damage or bed jacking (causing no damage to first fix and enabling easy replacement without isolation). Construction of the terminal unit should be of machined brass and die – cast chrome collar with stainless steel rolling pins. Each of the gas specific components must have the gas service engraved onto it, to ensure safety and compliance with standard.. The box should be supplied with a flush mounting bezel as a plaster finish. Should have safety features like positive action of rolling pin latch mechanism which hold the probe securely, anti rotational locking bar and the gas indexing pin are cast into the socket assembly and cannot come loose or be removed and gas specific indexed – eliminates the risk of connecting a socket assembly of one gas to the terminal block of another, either during installation or maintenance.

**Imported Clean-room luminaries in Post Operative and Pre Operative :** The luminaries for surface or recess mounting in operation theatres should flush with the ceiling, for 2 or 3 T5

fluorescent lamps (49 or 54 W), Ø 16 mm. With highly-specular, anodised aluminium reflectors and optical anti-glare system for individually adjustable light distribution. Luminaire cover made of highly-resistant, disinfectant-proof laminated safety glass with stylish fine-grained surface, glass pane with white coated steel frame. Closing devices are integrated automatically in the electrical safety control without lines having to be connected to the luminaire housing. Luminaire body made of sheet steel, white, powder-coated, supplied ready for connection optionally for individual or series circuit, with digital, electronic control gear in Multi-Lamp technology. Mains supply and further wiring by means of Pg 16 screw glands. With four-pole connection terminal and earth connection terminal for wires up to 2.5 mm<sup>2</sup> for mains supply and further wiring. Luminaire with ENEC and F mark, degree of protection IP 65, protection class I, 230 V, 50 Hz. Recess frames for the gas-tight installation of clean-room luminaires in IP 65 in suspended ceilings. Frame made of extruded aluminium profile, white, powder-coated, able to be put together to form a rigid, continuous frame by means of plug and screw connections, optionally in individual, continuous-line, rectangular or U-shaped arrangements. Ledge for ceiling construction material as angular ledge for covering the raw edge of the ceiling construction material.

**Peripheral Light cum clean room luminaries. (Imported) in all other areas:** Clean-room imported surface-mounted and recessed luminaire with 3 T5 lamps 54 W. Framed luminaire cover made of highly-resistant and disinfectant-resistant laminated safety glass, laserable, semi-specular. With visual systems against glare of the lamps and of the internal highly-specular reflectors, cumulative reflexion coated, singular adjustable by up to +/- 30°. Luminaire body white, consists of sheet steel with mechanical and electrical removable carrier equipment. Protection IP 65. With dimmable electronic multi-lamp ballast with 1-10 V interface. Suitable for areas with infrared regulation

**Hermetically Sealed Sliding Door with atomization with vision panel 300 x300mm. 1500mm x 2100mm size and 1000mm x2100mm size.**

Hermetically sealed door with vision panel 300 x300mm. Clean air is vitally important. If this applies anywhere, it certainly applies in an operating theatre. Both the air and the instruments must always be sterile. The most important cause of wound infections is the uncontrolled exchange of air, resulting in the spread of pathogenic germs. One of the weakest points in such an air control system is the door. A door which is open for even a short period of time, will cause a temporary disturbance in the prevailing hierarchy, coupled with an exchange of particles and a movement of air for a period of some minutes. A turbulent air flow across the floor will also stir up dust particles, some of which will be carrying germs. A door left ajar undermines the entire system and can have serious consequences for the patient. A door which does not close properly can even cause a permanent disruption of the pressure hierarchy, with all the consequences of this.

Track system and door blade guide system : Track made of a patented anodized aluminum profile, size 90 x 110 mm. The running surface of the track for the top rollers is placed under an angle of 45°. The door blade hangs by means of two hard plastic, top rollers with a double bearing, under the aluminum track. This also guarantees a smooth and silent running. The top rollers can independently be adjusted in the height and width. The underside of the door blade is guided by 2 hygienic white nylon closing rollers and one special guide roller. Track covered with coated steel plate canopy with 30° sloping top, over full length of the track. Canopy material made of 0,63 mm galvanized steel plate. The door can easily be opened and closed by means of the special lever handle, which is provided on both sides of the door blade.

The horizontal track is provided with a special running space, which is positioned under an angle of 45° and has 2 special indentations for the end position of the top rollers. When the door is closing, the top rollers will run in the indentations because of the weight of the door blade. The door blade sinks 6 mm. towards the floor and is pushed towards the wall frame. Because the door blade is provided with a special rubber gasket, all around the door blade, a hermetic sealing is then realized. The door is certified for its hermetically closing in an operating theater and clean room at 50Pa. Its hermetically closing is 99.99986% air tight at this overpressure. The finished floor in the opening and in the sliding space must be level; maximum deflection is ± 1 mm.

Execution of the door blade: The door blade is made of a 5 mm. thick anodized aluminum profile with rounded corners. The bottom guide is V-shaped, even as the bottom guide rollers its selves. In the

door blade surrounding is a special rubber gasket fitted for the hermetic closing on the floor and wall frame. This rubber gasket is exchange-able. The door blade is 60 mm. thick and on both sides flush finished with hygienic hard plastic laminate. The built up of the door: Anodized aluminum surrounding, 4-sided, blind fixed. Door core made of CFC-free Polyurethane or EPS, thickness 48 mm. As top layer on both sides is hard plastic laminate of size 6mm. The total door blade thickness is 60 mm, flush on both sides.

Frame profile : It should be sliding door is standard delivered with an anodized aluminum angle profile. This aluminum profile is 3-sided and blind fixed to a finished wall opening. The door blade gasket will seal the opening to this aluminum profile.

Lock in the door blade: Espagnolet lock for a automatic operated door. There should be electro mechanical lock mounted on the track and on both sides a key-switch on the finished wall with Euronorm cylinder and 3 keys. The lock can be activated or switched off by means of the key-switch.

Automation with 2 sensors foot operation and hand sensors (magic switch): The automation of hermetically sealing sliding doors for clean rooms, operating theatres etc. This micro processor-regulated control should have flexible set-up of the microprocessor system makes it possible to move almost any door, whatever the size or weight, smoothly and accurately. At the same time the design provides such a high safety level and is so easy to use that the system is extremely suitable for use in places where very high standards are demanded when sealing off certain areas.

Control: Microprocessor-controlled and regulated electromechanical sliding door drive.

Power supply: 1\*230 Vac +15% / -20% or 1\*110Vac +30% / -20%

Frequency: 50 / 60 Hz and power Consumption - Minimal: 18 W and Maximal: 450 W

Drive: 3 phase AC motor and Nominal Motor power: 90 W

Maximal Motor power: 225 W

Motor regulator: Microprocessor controlled motor driver

Max. door weight : 250 Kg and Max. door width : 3500 mm.

Slow speed (V slow):20 - 120 mm. / sec. and Starting speed (V start) :20 - 220 mm. / sec.

Opening speed (V open) :V slow - 800 mm. / sec. and Closing speed (V close) : V slow - 500 mm. / sec. Pedestrian opening :10% - 90% of the available door opening.

### **Manual Hinged Door with vision panel 300 x300mm.**

1800mm x 2100mm size and 900mm x 2100mm size.

**Imported Control Panel :** Control panel should have all the controls within the theatre will be located on a membrane type control panel mounted in the theatre wall. The panel will incorporate all the necessary controls for the correct operation and monitoring of the equipment and services within the operating theatre. The time elapsed digital clock and real time digital clocks shall have high brightness characters, The medical gas alarm will indicate High and Low gas pressure for each gas service present in the operating theatre and will have an audible buzzer with mute facility. The medical gas alarms will be connected to local pressure switches located downstream of the last isolation valves. Each control panel will be of 6tile and will have display for Time elapse clock, Standard Clock, Temperature and Humidity, Clean room luminaries, Telephone, Medical Gas Alarms

### **X-Ray Viewing Screen**

Size :1000x700x95deep :Twin plate X-ray view screen should be with electrical safety codes for high & low voltage system. The theatre is to be equipped with 2 plate X-Ray viewing screens. It should be designed to provide flicker free luminance for the film viewing purpose. It should be installed flushed with the theatre wall for hygiene and ease of cleaning.

### **Distribution Board**

Electrical Distribution Board will have all high voltage equipment should be installed in a separate enclosure. The remote cabinet should house the operating lamp transformers, mains failure relays, electrical distribution equipment and circuit protection equipment for all circuits within the operating theatre. All internal wiring should terminate in connectors with screw and clamp spring connections

of the Clip-on type mounted, on a DIN rail. Individual fuses or miniature circuit breakers should protect all internal circuits.

**PRD : Pressure Release Damper having multi 304 grade stainless steel blades to control room air pressure-1no.** Pressure relief damper statically and dynamically balanced made out of 1 mm thick stainless steel of Grade 304 of minimum size 300 mm x 300 mm with minimum three adjustable stainless steel blades.

**Writing Board (List Board) Size: 1000x700x60deep**

Size: 1000x700x60deep: Writing board should be made of ceramic having Magnetic properties and should be flushed to the wall of the operation room

**Storage Unit :Size 1700x865x350deep**

1700x865x350deep : The storage unit mfr from 1.2mm of Stainless steel of 304 grade. The doors of the storage cabinet should house vacuum insulated glass, these doors should be installed on the storage units with the help of imported fittings allowing an opening allowance of at least 160degree. The storage unit should be divided in 2 equal parts and each part should have individual doors with locking system .Each part should be provided with steel racks which should be completely detachable type.

**Hatch/Pass Box**

Hatch should be of 600mmx 600mm size and should be provided in each Operation Theatre to remove waste materials from the Operation Theatre to Dirty linen Area just adjacent to Operation Theatre.The Hatch will be designed in such a way that only one door will be opened at one time.

**View Window with motorized blind :** To provide View window with motorized horizontal blinds sandwiched in two parallel toughened glasses (thickness not less than 5.5 mm) complete with FHP Motor control etc.

**2 bay Surgical Scrub sink with soap dispenser.**

Surgical Scrub sink should be designed for use in Operation theatre complex providing surgeons with a convenient sink for pre op scrub up. Each fixture should be fabricated from heavy gauge type 304stainless steel of 1.5mm thickness & should be seamless welded construction polished to a satin finish. The scrub sink should be provided with a front access panel, which should be easily removed for access to the water control valve, waste connections, stoppers & strainers. Hands free Operation should include infrared sensor and foot operator with built in range of adjustment. Thermostatic Mixing Valve control should be located behind the access panel & maintain constant water temperature. User defined settings of 1,3,5,10 min are available. This timing should be adjustable to meet individual application requirement, provided with infrared sensor thermostatic controlled taps with fail-safe temperature controls. All units should have reduced anti splash fronts. It should have manual foot and operation mode. Hospital should provide geysers for warm water.

**High Voltage industrial socket with metal box -2nos. in each OT**

32A, 1 Ph. Metal clad socket with MCB control to be provided with complete wiring of 2x6 sqmm. Copper conductor standard PVC.

**Electrical wiring, conduiting with fixtures inside the OT, Preoperative and Post Operative.**

Wiring with Low leakage current wires of FRLS wires as per requirements including providing and fixing of conduiting and boxes etc. to complete the work in all respect. Wiring for 250 volts single phases and neutral 6/16 amps switched socket outlet.

**Fe-Male Lockers to be fitted outside the OT**

a. Number of Lockers per Unit (Tier x Column)	4 x 4
b. Dimension of Lockers per Piece ( H x W x D)	450.00 X 400.00 X 400.00mm
c. Total Height of Locker system	1800.00 mm
d. Total width of Locker System	4000.00 mm
e. Shelves Require in per Locker Unit	2
f. Type of Locker to be used (Hasp/Cam)	CAM Lock
g. Door opening (left/right)	Right

- h. Masonary Platform (Provided/not) Provided

### **Male Lockers to be fitted outside the OT**

Specifications:

- |  |                            |
|--|----------------------------|
| a. Number of Lockers per Unit (Tier x Column)  | 4 x 4                      |
| b. Dimension of Lockers per Piece ( H x W x D) | 915.00 X 350.00 X 400.00mm |
| c. Total Height of Locker system               | 1830.00 mm                 |
| d. Total width of Locker System                | 750.00 mm                  |
| e. Shelves Require in per Locker Unit          | 2                          |
| f. Type of Locker to be used (Hasp/Cam)        | CAM Lock                   |
| g. Door opening (left/right)                   | Right                      |
| h. Masonary Platform (Provided/not)            | Provided                   |

### **Imported Hand Rail Crash Guard System outside the OT and all other areas**

The system fixed to brick wall at 900mm center high from finished floor level comprising continuous aluminum rail retainer, adjustable rail mounting base, with impact absorbing strip, end cap and high impact vinyl acrylic snap-on textured surface cover. "140mm Height x 80mm thickness"

### **Imported Corner Guard Protection System out side the OT and all other areas.**

The system fixed to brick wall at the corner from finished floor level. Adjustable end cap. High impact vinyl acrylic snap-on matt finished. "50mm wide x 10mm thickness x 900mm length". Corner guard system consist of following: PVC cover, base, top and bottom end cap in different color etc.

### **Imported Ceiling Cubical Partition Track Aluminum rail with plastic runner, rings and netted curtains**

Imported Cubicle Curtain Track : It should be made from heavy Duty Aluminium cubicle track size 20mm wide x 30mm high, made of aluminium natural anodized to 15 microns complete with continuous PVC liner, nylon gliders and hooks, plastic end cap, connecting bridge, overlapping joint connector, wall brackets with matching screws to make up cubicle height to 2100mm clearance from floor level at 1000mm spacing and securely fixed to above slab all strictly in accordance with the manufacturer's instruction.

**Imported Intravenous Track I.V Track :** It should be made from heavy Duty Aluminum Intravenous track 'U' configuration size : 35mm (W) x 19.2mm(H) make of aluminum natural anodized to 15 microns complete with wall brackets with matching screws all strictly in accordance with the manufacturer's instruction 1 no. IV carrier to a set of IV support track complete with 5 points Telescopic Bottle Holder adjustable 600mm~900mm tree.

## **Medical Gas Pipe Line System**

### **Technical Specifications**

#### **Imported O2 Manifold Supply System (Cylinder Manifold Unit)**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. It should have Bull nose J Type cylinder connections. It should permanently connected reserve supply and should be brought into operation automatically via a non-return valve and should be designed, where practicable, to provide the same flow rate as the primary system. There should be sufficient connected capacity to supply the pipeline for minimum of four hours. An isolation valve should be fitted immediately upstream of the reserve manifold connection to the pipeline distribution system. Manifolds and changeover panel shall be designed and certified for use with 230 bar cylinders. Cylinder racks shall be powder coated steel and designed to securely support cylinders of varying diameters. A cylinder rack of capacity equal to one bank can be provided for the storage of spare cylinders. Cylinder tailpipes shall have gas specific commotions to the manifold header, and cylinder connections shall have bull- noded connectors to BS 341. It should be all metal construction. It should be available in only wall mounting format. It should have straight line format as standard.

### **Imported O2 Fully Automatic Manifold Control Panel**

It should fully comply and meet with HTM 2022, HTM02-01 and C11, and must be duly CE marked with CE no. specified on it. An Automatic control panel (ACP) shall be provided. The panel shall consist of the following but not limited to the following : - Automatic manifold control panel should provide a duty or standby gas supply from two cylinder banks with automatic changeover. The manifold indicates local status and has a remote indicator facility. Should have minimum 1500 L/min output flow available. Automatic manifold control panel should be designed to supply the MGPS with a constant pressure supply via a control panel from two equal banks of cylinders and the changeover from the 'duty' to the 'standby' bank of cylinders should be automatic. Automatic changeover from the duty to the standby bank should occur at a cylinder pressure that will ensure the maximum usage of the contents of the duty bank. If the normal operation of the changeover control depends on an electrical supply the design should ensure that, in the event of an electrical supply failure, there should not be any disruption to the flow of gas into the pipe line supply and on restoration of the supply, the original running bank shall return on line. The unit should have separate pressure regulating valves for each bank of cylinders and the control system should be designed for ease of maintenance. Cylinders can be changed, or the pressure regulating valve removed for overhaul without loss of continuity of the gas supply. The changeover unit should be provided with monitoring to detect and display: duty bank operating, duty bank empty, standby bank operating, standby bank below 10 % when the duty bank is empty, reserve bank low, pipeline pressure fault. Should be all metal construction, including enclosure and available in wall mounting format.

### **Imported O2 ESM Emergency Stand By Manifold System**

It should fully comply and meet with HTM 2022, HTM02-01 and C11, and must be duly CE marked with CE no. specified on it. The emergency standby manifolds provide a standby gas supply from one bank of bull nose cylinder connection. Emergency supply manifold should be designed to supply medical gas at a constant pressure from one of a pair of connected cylinders into the MGPS the manifold should be connected to the MGPS via a non return valve one cylinder valve should be open with the other closed as a spare. The unit shall have an isolating valve changeover shall be carried out manually by opening the isolating valve. Gauges shall be provided to indicate the pressure in the cylinder and the regulated pressure being supplied in to the MGPS monitoring will be provided to detect when the pressure in the cylinder has fallen to a predetermined level with contacts for transmission to the main alarm system. A cylinder rack of capacity equal to one bank can be provided for the storage of spare cylinders. Cylinder tailpipes shall have gas specific connections to the manifold header and cylinder connection shall have bull nosed connectors to BS 341.

### **Imported N2O Manifold Supply System (Cylinder Manifold Unit)**

It should fully comply and meet with HTM 2022, HTM02-01 and C11, and must be duly CE marked with CE no. specified on it. It should have Bull nose J Type cylinder connections. It should be permanently connected reserve supply and should be brought into operation automatically via a non-return valve and should be designed, where practicable, to provide the same flow rate as the primary system. There should be sufficient connected capacity to supply the pipeline for minimum of four hours. An isolation valve should be fitted immediately upstream of the reserve manifold connection to the pipeline distribution system. Manifolds and changeover panel shall be designed and certified for use with 230 bar cylinders. Cylinder racks shall be powder coated steel and designed to securely support cylinders of varying diameters. A cylinder rack of capacity equal to one bank can be provided for the storage of spare cylinders. Cylinder tailpipes shall have gas specific connections to the manifold header, and cylinder connections shall have bull-nosed connectors to BS 341. It should be all metal construction. It should be available in only wall mounting format. It should have straight line format as standard.

### **Imported N2O Fully Automatic Manifold Control Panel**

It should fully comply and meet with HTM 2022, HTM02-01 and C11, and must be duly CE marked with CE no. specified on it. An Automatic control panel (ACP) shall be provided. The panel shall consist of the following but not limited to the following : - Automatic manifold control panel should provide a duty or standby gas supply from two cylinder banks with automatic changeover. The manifold indicates local status and has a remote indicator facility. Should have minimum 500 L/min output flow available. Automatic manifold control panel should be designed to supply the MGPS with a constant pressure supply via a control panel from two equal banks of cylinders and the changeover from the 'duty' to the 'standby' bank of cylinders should be automatic. Automatic changeover from

the duty to the standby bank should occur at a cylinder pressure that will ensure the maximum usage of the contents of the duty bank. If the normal operation of the changeover control depends on an electrical supply the design should ensure that, in the event of an electrical supply failure, there should not be any disruption to the flow of gas into the pipe line supply and on restoration of the supply, the original running bank shall return on line. The unit should have separate pressure regulating valves for each bank of cylinders and the control system should be designed for ease of maintenance. Cylinders can be changed, or the pressure regulating valve removed for overhaul without loss of continuity of the gas supply. The changeover unit should be provided with monitoring to detect and display : duty bank operating, duty bank empty, standby bank operating, standby bank below 10 % when the duty bank is empty, reserve bank low, pipeline pressure fault. Should be all metal construction, including enclosure and available in wall mounting format.

#### **Imported N2O ESM Emergency Stand By Manifold System**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. The emergency standby manifolds provide a standby gas supply from one bank of bull nose cylinder connection. Emergency supply manifold should be designed to supply medical gas at a constant pressure from one of a pair of connected cylinder into the MGPS the manifold should be connected to the MGPS via a non return valve one cylinder valve should be open with the other closed as a spare. The unit shall have an isolating valve changeover shall be carried out manually by opening the isolating valve. Gauges shall be provided to indicate the pressure in the cylinder and the regulated pressure being supplied in to the MGPS monitoring will be provided to detect when the pressure in the cylinder has fallen to a predetermined level with contacts for transmission to the main alarm system. A cylinder rack of capacity equal to one bank can be provided for the storage of spare cylinders. Cylinder tailpipes shall have gas specific connections to the manifold header and cylinder connection shall have bull nosed connectors to BS 341.

#### **Imported Medical Vacuum Plant: 4000lpm Medical Vacuum Plant with triplex vacuum pumps of 2000l/min each. (two continuous working to produce 4000lpm and one stand by of 2000lpm)**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. It should have anti-vibration mountings on pump units. Should have bacterial efficiency 99.999%. Should complies to IEE Codes of Practice and is designated Class 11 equipment. Medical Vacuum Plant which consists of triplex vacuum pumps 415volt, 3phase, 5.5kw, 50Hz as a standard to produce 2000l/min of vacuum. Two vacuum pumps will continuous run to provide 4000l/min of vacuum. One pump of 2000l/min will be always as stationery (stand by) It should have 3nos. pump mounted horizontal vessel of capacity 2000litres each, duplex bacterial filter set, 3 starter units, 1 PCU control. The Medical vacuum must be provided by Vacuum plant which is capable of providing a flow rate of min 4000 LPM. It should also have bacterial filter assemblies, controls system and associated pipe work and valves. The filter assemblies will be duplex to allow the plant to remain in service during filter element replacements. The control circuitry and power management system will fully monitor the safe operation of the plant, providing signaling into the alarm system. It should have standard controls include complete operating and indicating system. It should have monitoring includes plant to alarm system interface and indicator. It should have multi-purpose test point fitted adjacent to plant/pipeline interface. It should have condensation traps and flexible links to each exhaust. Each subassembly should contain a bacterial filter rated at the plant capacity. The bacterial filter should be marked legend "Bio-hazards" and should have filter efficiency when tested by the sodium flame test in accordance with or BS:3928-1969 of less than 0.005% at the system design flow. The pressure drop across a clean filter at the system design flow should not exceed 25mm Hg (3 Kpa) at a vacuum of 475mm of Hg (63 kpa). The drainage trap should be integral part of bacterial filter and should be fitted with a transparent steriliseable bowl to collect liquid. Bacterial filter in parallel shall be provided between drainage trap system and reservoir to facilitate the online servicing without interrupting the vacuum service. The exhaust gases shall be discharged outdoors and away from windows and other air intakes.

#### **10 bar Imported Medical Air Plant 3200lpm ; Medical Air Plant with triplex air compressors of 1600l/min each. (two continuous working to produce 3200lpm and one stand by of 1600lpm)**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. Should have anti-vibration mountings on compressor units. Should complies to IEE Codes of Practice and is designated Class 11 equipment. It should be designed to provide a fully automatic system. Medical Air Plant which consists of triplex screw air

compressors 415volt, 3phase, 50Hz as a standard to produce 3200l/min of air. Two air compressor will run to provide 3200 l/min of air and one air compressor of 1600l/min will be always as stationery (stand by) It should have 2nos. air vertical air vessel of capacity 1500litres each. The control circuitry and power management system will fully monitor the safe operation of the plant, providing signaling into the alarm system. It should have standard controls include complete operating and indicating system. It should have monitoring includes plant to alarm system interface and indicator. It should have multi-purpose test point fitted adjacent to plant/pipeline interface. It should have two vertical vessel of capacity 1500litres, 3 x 15kw air compressors floor mounted, duplex filter and duplex air dryer system of similar capacity of air compressor, 3star delta starter units,1 PCU control and fuse assembly.

#### **Imported Triplex 4stage Air Filtration System**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. Three set of four – stage filter (one as working and one standby) Should be provided as follows: The filters should be made of die cast aluminum housing with epoxy powder paint on the outside and anodized surface treatment inside to prevent corrosion and ensure extra long life. The filters Should have maximum contaminant removal efficiency with minimum pressure drop. Total 4 stages of filters Should be used (stage 1 & 2 Should be installed before the desiccant dryer and balance two stages after it as mentioned below :

- Stage – 1: Coalescing filters for general purpose protection, removing liquid water and oil aerosol to 0.1mg cum. (0.1 ppm) and particles down to 1 micron.
- Stage – 2: Particulate filters for dust protection, removing particles down to 1 micron.
- Stage – 3 : High efficiency coalescing filters, removing liquid water and oil aerosol to 0.01 mg/cu.m (0.01 ppm) and particles down to 0.01 micron.

#### **Imported Pressure Reducing Station**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. It should be simplex pressure reducing station shall comprise as in-line pressure regulator, with downstream pressure gauge. It should have pressure relief valve, capable of passing the flow of the regulator will be installed downstream of the regulator. Isolation valves should be fitted upstream of the regulator and downstream of the pressure relief. It should have duplex pressure reducing station and have two branches as described, connected to the MGPS in parallel, in order to allow maintenance on the components of one branch while the gas flow is maintained in the other branch. Ball valves should be full bore and operate from fully open to fully closed with a quarter turn of the handle. It should have complete pressure reducing station with base plate mounted for ease of installation. It should have padlocks available to allow locking of the valves in both open and closed positions and must have easy to read pressure gauges. It should be base plate mounted and supplied with copper stub pipes for ease of installation using inert jointing procedures.

#### **Imported Duplex Anesthetic Gas Scavenging System (AGSS) of 1300 l/min**

Should fully meets and complies with BS 5684, BS 6832 and HTM-2022, C11 standards. It should be duly CE marked and comply with 93/42/EEC Medical Devices: General and should have CE no. Duplex AGSS System with twin stand alone AGSS pumps of 3phase 1300l/min capacity each with built in flow indication and pressure regulation valve. It should be mounted on single frame with control panel and separate warning label. One pump working and one stand by. One pump will be standby with the other in operation. The package should consist of two rotary vane vacuum pumps, a control panel, and a receiver all mounted on a common base frame. AGSS pump: AGSS pump shall operate completely dry permanently lubricated and sealed. Each pump should be completely air cooled and have absolutely no water requirements. Control System: The duplex control system should conform to International Standards. The control system should provide automatic changeover from running to reserve with circuit breaker disconnects for each AGSS pump with external operators, full voltage motor starters with overload protection, control circuit transformers, visual and audible reserve unit alarm with isolated contacts for remote alarm. Should be in duplex format and must be chassis mounted ready for installation. Duplex system in-line non-return valves should allow individual pump servicing. Active anesthetic gas scavenging systems should be designed to safely remove exhaled anesthetic agents from the operating environment and dispose of them to atmosphere, thus preventing contamination of the operating department and providing a safe and healthy

workspace for the personal. AGSS design should be dependent upon flow rate and pressure drop characteristics of the individual components of a systems, it is essential that terminal units, remote controls and pump units. Ten AGSS Remote Control indicators must be provided with the system. Ten AGSS hose kit with probe must be provided with the system so that it can be made fully functional to use.

#### **Imported Medical Grade Copper Tube /Piping**

All Copper Pipes must be duly Medical Grade, seamless, fully degreased and half hard (designated to R 250). It should confirms and meets with the latest BS EN13348:2001 standard. Chemical Composition as per CU.DHP to 1190-1 and CW024A to EN 1412. Maximum total carbon content 0.20mg/dm<sup>2</sup>. It should be third party certified from TUV or SGS.

Pipe sizes should be used as mentioned below:

76mm OD x 1.5mm thk  
54mm OD x 1.2mm thk  
42mm OD x 1.2mm thk  
28mm OD x 1mm thk  
22mm OD x 1mm thk  
15mm OD x 1mm thk  
12mm OD x 1mm thk

Degreasing: All pipes, fittings and valves shall be degreased, steam cleaned internally, dried, shot blasted and blown through with medical quality air and individually capped at both ends after passing a visual internal inspection.

Fittings : Fittings shall be wrought copper, brass or bronze conforming to BS: 864 part 2 and suitable for a steam working pressure of 17 bar and especially made for brazed socket type of connections.

#### **Imported Master Alarm Panel**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. Master Alarm Panel (MAP) shall monitor the central gases, vacuum and compressed air and work or indicate abnormal conditions as per specified herein. MAP shall be located in the gas manifold room in the basement of the APC Building. Alarm should be designed to monitor piped gas pressure (high and low pressure on up to six services), via pressure switches, in theatres, intensive care units, recoveries, private rooms and wards etc. It should also act as a slave to another alarm within 250 meters, using a three core screened cable (four cores if signals are to be returned to the master unit).Local area alarms should provide indication of the condition of gas (Normal , High or Low Pressure) at the point of use, by monitoring the internal pressure of the pipeline. The method of monitoring should be by individual pressure switches for high pressure, low pressure, and low vacuum and each switch should be fitted with an end of line monitoring resistance, matched to the alarm panel, to enable the alarm panel to detect any faults on the system wiring or signal transmission. The alarm panel should have the ability to display up to six services each with normal & two fault conditions. Alarm panel should have battery back up will be provided within the system to enable the alarm panel to function normally in the event of mains power failure. The internal battery must be used to keep alarm panels operational in the event of mains power failure. Should be designed to monitor high and low pressure from local pressure switches. Should be available in surface or flush format. The alarm system should be CE Marked with CE no. to be specified.

#### **Imported Area Valve Unit Module with single service valve box and area alarm fitted in module.**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. It should be easy to operate and reliable. It should be supplied pre wired and with pressure switches, terminal board and med gas area alarms. The Steel chassis & cover should be powder coated and there should be a emergency assess lock mechanism on each door. It should have multi gas configuration. Each unit should be batch controlled. It should have Area Alarm, pressure switches and interconnecting cable work. Should create an independent zone within the gas pipeline system. It should provide one to five gases services. It should be with or without area alarm facility It should be available as a complete kit with all pipes, fittings, pressure switches and gas. There should be simple pressure switch adjustment. It should be designed for installation at any

location to allow departmental staff to view and assess easily. It should have clear labeling and colour coding and should have single point isolation / alarm unit with in the zone. Area service unit module should consist of 1 to 5 AVSU (Area Valve Service Units) with med gas area alarm. It should incorporate a valve with NIST connection at either side, mounted in a lockable box with an emergency break-glass front, the valve will be complete with stub pipes that extend to the outside of the box to enable easy connection to the MGPS. The valve should be constructed from Die-cast nickel plated brass alloy, body, cap and stem with chrome plated brass alloy ball valve with Nitrile seats. Access to the seats and ball should be through the front of the valve thereby avoiding the necessity of valve removal for repair or maintenance. The seats should be made as a one piece insert to ease maintenance. The valve shall be able to operate from fully closed to fully open with a quarter turn of the handle. The assembly shall be connected to the copper stub pipes by means of a flange, fitted with Nitrile O-ring seals forming part of the spade gaskets. The spades are supplied with 'THROUGH' and 'BLANK' stamped on their edges to identify type and so that they are easily identified. The stub pipes shall have the appropriate NIST connectors fitted each side of the valve. The valve box will be manufactured from 16 SWG steel powder coated white and designed to avoid as escape into the building structure by unitary construction of the back box. The door will be fixed to the back box using a full-length hinge, pin-indexed to ensure non-interchangeability with other gases, it shall be louvered top and bottom to naturally ventilate the valve box. The opening in the door shall be suitable for a plastic (pull-out) or glass insert to suite the customers needs. The whole of the AVSU shall be identified for its gas by an engraved traffolite label riveted to the cover, and a gas identity label attached to the pipe work. The NIST connectors forming part of the stub pipes shall incorporate a metal to metal seal thus avoiding the possibility of degradation over time.

#### **Imported Terminal Units (Gas Outlet Points)**

It should fully complies and meets with HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. The terminal outlet of all the services (e.g.O<sub>2</sub>, N<sub>2</sub>O, CA<sub>4</sub>, CA<sub>7</sub> & Vacuum) should conform to International Standard and the features required are: Should have Integral check valve Integral check valve – allows removal of the housing and socket assemblies for maintenance without closing down the entire pipeline and each outlet should be individually tested. It should be hundred metal construction. Full metal to metal seal on maintenance check valve ensures no degradation over time. It should be of all hundred percent metal and must incorporate a sheerplane that ensures a fail – safe condition after accidental damage or bed jacking (causing no damage to first fix and enabling easy replacement without isolation). Construction of the terminal unit should be of machined brass and die – cast chrome collar with stainless steel rolling pins. Each of the gas specific components must have the gas service engraved onto it, to ensure safety and compliance with standard. Each wall mounted outlet point must be enclosed in a white ABS decorative mounting box with an ABS fascia and both the mounting box and the fascia shall have rounded corners to avoid the possibility of injury. The box should be supplied with a flush mounting bezel as a plaster finish. Should have safety features like positive action of rolling pin latch mechanism which hold the probe securely, anti rotational locking bar and the gas indexing pin are cast into the socket assembly and cannot come loose or be removed and gas specific indexed – eliminates the risk of connecting a socket assembly of one gas to the terminal block of another, either during installation or maintenance.

#### **Imported AGSS Terminal Units**

It should fully complies and meets with BS 6834, HTM 2022, HTM02-01and C11, and must be duly CE marked with CE no. specified on it. It should have Integral balance value is accessible through the front of the outlet. Should be Individually tested. Must be compatible with the AGSS Receiver System. Construction of the first fix terminal block shall be of machined brass and copper. The second fix assemble should incorporate an adjustable orifice for flow controls so that system balance can be achieved without the need to remove the fascia plate. The unit should be enclosed in a white ABS decorative mounting box with an ABS fascia. Both the mounting box and fascia should have rounded corners to avoid possibility of injury. The box should be supplied with a flush mounting bezel as a plaster finish.

#### **Imported Oxygen Flow Meter with Humidifier Bottle**

It should be duly CE marked and comply with 93/42/EEC Medical Devices: General and should have CE no. It should be pressure compensated prevents back pressure build up on flow indicator, durable polycarbonate flow tube with cover. It should be made up of anodized aluminum body and control knob. Flow meter should have twin graduated scale which must provides precision control permanent

scale graduations. Flow meter should be placed in the vertical position. It should be light weight of 200g. It should have +/-4% gauge accuracy. It should have inlet pressure 50-60psi. To use it, gradually turn on the knob and adjust the position on the ball in accordance with the desired flow rate. The flow meters should be of 1-15 LPM range for oxygen and with inlet pressure 50-60psi. Bubble Humidifier bottle should be unbreakable, reusable to disinfectants and complements.

#### **Imported Theatre Vacuum Unit**

It should be duly CE marked and comply with 93/42/EEC Medical Devices: General and should have CE no. It should be mounted on a trolley. It should provides excellent performance with uncompromising safety and must be lightweight construction. It should have 0-750mmhg and pressure gauge of 63diameter and gauge accuracy of +/-2%. It should have on /off switch and 270degree control knob for vacuum and should have safety positive pressure restrictor. It should be colour coded high or low suction models. It should be supplied with bactitrap. Extensive connection options. Vacuum adjustment and separate on/off switch. It should be MRI compatible. MRI compatibility does not infer zero magnetism but an acceptable level of magnetism within a specified magnetic field. The high vacuum suction controller, when used within 1000 Gauss of magnetic exposure, functions with specification, does not represent a projectile danger when installed, and does not distort the MRI image. Twin Vacuum Collection jar of 2000ml of high quality, durable receiver jars for electric or pipeline suction systems. Strong, polycarbonate material and autoclavable at 121°C for 15minutes, without degradation. Height of the jar should be 300mm or above and diameter should be 140mm or above and should be light weight 620g. It should be reusable, cost-effective solution for all clinical areas. It should have tubing connector of 8.5mm and should have integrated float valve.

#### **Imported Ward Vacuum Unit**

It should be duly CE marked and comply with 93/42/EEC Medical Devices: General and should have CE no. It should be wall mounted or bed head panel mounted. It should provides excellent performance with uncompromising safety and must be lightweight construction. It should have 0-750mmhg and pressure gauge of 63diameter and gauge accuracy of +/-2%. It should have on /off switch and 270degree control knob for vacuum and should have safety positive pressure restrictor. It should have colour coded high or low suction models. Yellow color for high and blue color for low. It should be supplied with bactitrap. Extensive connection options. Vacuum adjustment and separate on/off switch. It should be MRI compatible. MRI compatibility does not infer zero magnetism but an acceptable level of magnetism within a specified magnetic field. The high vacuum suction controller, when used within 1000 Gauss of magnetic exposure, functions with specification, does not represent a projectile danger when installed, and does not distort the MRI image. Vacuum Collection jar of 2000ml of high quality, durable receiver jars for electric or pipeline suction systems. Strong, polycarbonate material and autoclavable at 121°C fir 15minutes, without degradation. Height of the jar should be 300mm or above and diameter should be 140mm or above and should be light weight 620g. It should be reusable, cost-effective solution for all clinical areas. It should have tubing connector of 8.5mm and should have integrated float valve.

#### **Imported Low Flow Vacuum Unit**

It should be duly CE marked and comply with 93/42/EEC Medical Devices: General and should have CE no. It should be wall mounted or bed head panel mounted. It should provides excellent performance with uncompromising safety and must be lightweight construction. It should have 0-150mmhg and pressure gauge of 63diameter and gauge accuracy of +/-2% . It should have on /off switch and 270degree control knob for vacuum and should have over vacuum safety relief set at 150mmHg. It should be colour coded high or low suction models. Yellow color for high and blue color for low. It should be supplied with bactitrap. Extensive connection options. Vacuum adjustment and separate on/off switch. It should be MRI compatible. MRI compatibility does not infer zero magnetism but an acceptable level of magnetism within a specified magnetic field. The high vacuum suction controller, when used within 1000 Gauss of magnetic exposure, functions with specification, does not represent a projectile danger when installed, and does not distort the MRI image. Vacuum Collection jar of 1000ml of high quality, durable receiver jars for electric or pipeline suction systems. Strong, polycarbonate material and autoclavable at 121°C for 15minutes, without degradation. Height of the jar should be 260mm or above and diameter should be 110mm or above and should be light weight 550g. It should be reusable, cost-effective solution for all clinical areas. It should have tubing connector of 8.5mm and should have integrated float valve.

**Imported High pressure antistatic rubber tube for O2, N2O, Air & Vacuum**

It should be duly CE marked and comply with 93/42/EEC Medical Devices: General and should have CE no. It should be EN 739 certified. Duly color coded for individual services i.e. white for Oxygen, Blue for N2O, Black for Air and Yellow for Vacuum, antistatic rubber tube.

**Imported Bed Head Unit (sliding panel type) for single bedded ward rooms and VIP rooms**

It should be duly CE marked. It should be mounted flush to the wall and should supply all necessary requirements of the patient. The front of the bed head unit should be made from timber frame and the inside of the body should be electrostatic powder coated. On the front side it should have picture panel which should work with a double sliding rail system. The bed head unit should work by sliding the picture to the side which should work with rail system and medical gas pipe line outlets and accessories should be seen by sliding the picture. It should be supplied with a luminary over the bed head panel. It should be supplied also with a trunk of approx three feet which should have 4nos. multipin electrical sockets 6/16amp, 1no. RJ11/RJ15 telephone socket, 1no. luminary light switch which should be mounted above the panel. It should be pre Piped and pre wired. It should have provision for customer choice 2gas terminal outlet points.

**Imported Bed Head Horizontal Wall Panel 5feet (two duct)**

It should be duly CE marked. It should be extruded light alloy profiles made in one piece. Light metal front panels duly powder coated of RAL colour and shade of customer choice. The bed head panel should be set up with different individual profiles for variable system solutions to realize 2 track variants as horizontal, wall-mounted supply system. The upper duct should be for electrical and adapt sockets and the lower one for gas terminal units. It should also have medical rail 25 x 10 mm below the lower duct. It must have tubular T5 fluorescent lamps with electronic control gear for reading/examination lighting. General lighting – depending on the total length – one or more luminaire inserts for one or two T5 fluorescent lamps 39 W, 49 W or 54 W; and reading/examination lighting: per bed space one T5 fluorescent lamp 24 W (with continuous light emission opening) or 54 W (with interrupted light emission opening); For maintenance purposes, the lighting components of the bed units must be exchangeable without interrupting the supply of adjacent bed units. Bed Head Unit should have general lighting and reading lighting. Each Bed Head Panel should have four 6/16amp multipin Indian Standard Electrical Switched Socket for regular supply. Each Bed Head Panel should have RJ45 –1no. It should have provision for customer choice of 2/3/4gas terminal outlet points.

**OT Items PART - B****CENTRAL DEVICE CONTROL AND DOCUMENTATION IN ONE OPERATION THEATRE**

Central Device Control via Touch Screen in Sterile Area

Should have a 19" medical grade touch screen with 1280x1024 (SXGA) resolution in sterile field for central control of Surgical Devices, peripheral equipment, documentation and telemedicine. The touch screen should have a realistic user interface that mimics the actual panels of devices being controlled by displaying an identical image of the device panels. There should be capability to preset up to 100 preset configurations based on surgery type / Surgeon name in order to reduce turn around time between surgeries.

Should be able to control Medical Devices and documentation of images from the same touch screen in the sterile area. There should be ability to connect to a telephone system and control it via the touch screen of the integration system from within the sterile field and simultaneously from the parallel Nurse Work Station (NWS). Should have capability to control Devices eg. Endoscopic devices, Documentation System, High Frequency Unit, Motorized OT Table, Overhead Camera Room Cameras from the same central touch-screen in sterile area or through the parallel Nurse workstation. The system should be able to integrate and control OT tables of various manufacturers like Trilux/Maquet / Trumpf / Berchtold / Steris), High frequency Units of various major manufacturers eg. Valley Lab. The touch screen should also display the alert text messages, whenever a warning signal is emitted from any device, the touch screen should be able to display:

The type of alert Identify the faulty device Integration system should be capable of integrating PTZ room cameras, OT light Camera and external / auxiliary medical devices like C-Arm, Ultrasound and Microscope.

#### Nurse Workstation

The Nurse Station, located outside the sterile field within each operating room, shall consist of:

An in-wall integrated frame with stainless steel front cover.

A medical grade in-wall mounted 19" Touch Screen.

A medical keyboard with a sensor that indicates the time for cleaning and disinfection.

Track ball that can be disinfected.

The circulating nurse will be able to assist the surgeon or his assistant by controlling the same functions, as those of the spring arm mounted Touch Screen, through the Nurse Station.

#### Documentation System

The documentation system should be supplied with all functions for integrated and precise documentation of endoscopic procedures and open surgery in a single system. The documentation system should have user-friendly operation to facilitate quick and simple management of electronic patient files. It should be able to record still images, video sequences and spoken comments of findings in intra-operative procedures and be controllable from same touch screen located within the sterile field. It should have a possibility of voice entry of the OT report while viewing video and image files. It should have transparently structured user guidance and a clearly arranged menu control, with the possibility of being controlled by means of above mentioned touch screen and also by camera head and foot switch.

All the Devices and documentation system should be controllable from same Touch Panel.

The documentation system should be able to perform following functions :

Digital storage and advanced editing of still images, video sequences and audio files.

Digital alternative to video printer, video recorder and dictating machined

Sterile, ergonomic operation via touch screen, camera head buttons and/or footswitch.

Efficient archiving on DVD, CD-ROM or USB stick, both multi session and multipatient.

Network storage should be possible.

Automatic creation of standard reports

Computers and monitors for use in the OR area certified according to EN 60601-1

## **PART – C**

### **AUDIO VIDEO COMMUNICATION IN ONE OPERATION THEATRE (in the same OT which would have central device control & Documentation )**

#### Audiovisual communication System (Functions and Control)

The operating rooms should be connected to the Conference room for video conferencing and live transmissions. Suitable cable should be laid accordingly.

All video sources shall be routed through a video matrix system via touch screen located in the sterile field or Nurse Works Station (NWS), that enables the display of any image from any source to any destination in the OR, or outside the OR.

The Audio/ Video Router system should have the minimum following outputs.

16 S-video inputs and outputs

8 digital SD-SDI inputs and outputs

4 DVI-D (Full HD) inputs & Outputs

8 RGBHV inputs and 4 outputs, with Min bandwidth 300 MHz.

(1x3) audio signal distributor

Wireless microphone headset.

The room shall have the following video sources and destinations:

Sources	Destinations
Room Camera	Flat Screen Monitor No 1
Endoscopy Camera	Flat Screen Monitor No 2
Overhead camera	Large screen-wall mounted
CD/DVD (Playback)	Touch Screen Monitor
Archiving system	Patch Panel Video Connection
Patch Panel Video Connections	Conference room.

All videos shall be controlled via the touch screen installed within the sterile field or from the nurse station unit. Furthermore, the room should be equipped with an Audio switcher in order to be able to direct the audio signals from any audio source to any audio destination. The room shall have the following audio sources and destinations:

SOURCES
TELEPHONE
CD PLAYER
Patch panel audio connections

DESTINATIONS
LOUDSPEAKER
Patch panel audio connections

An active loudspeaker shall be installed within the Operating Room and shall have the following specifications:

Following enhancements should be supplied along with the integration and communication system.

#### ROOM CAMERA –system

A room camera shall be installed in the operation theatre at the most suitable place for the best possible view of the room showing the complete operating room. The room camera should be wall mounted.

The surgeon and his team should be able to send the video signal of the Room Camera with S-Video signal to the conference room via the touch screen of the integration system located in the sterile field or Nurse Works Station (NWS) for its movement, pre-set positions and zoom functions.

The room camera should be controlled by the touch screen of the integration system located in the sterile field or Nurse Works Station (NWS) for its movement, pre-set positions and zoom functions. Suitable cable material and a patch panel should be offered as per the position of the Room camera.

#### LOUDSPEAKER SYSTEM

3 channel Loudspeaker with Digital volume control and Audio mixer and Audio equalizer should be installed at a most suitable place. Suitable cable material and a patch panel should be offered as per the position of the Loudspeaker.

Loudspeaker should be compatible with the integration system for any feedback as to whether any equipment is switched off. Any alarms or feedback from the endoscopic equipment should be audible from the same system.

All audio routing should be controlled via the touch screen of the integration system from within the sterile field and simultaneously from the Nurse Works Station (NWS). Furthermore, volume should be controlled from the touch screen.

#### LARGE SCREEN SYSTEM

A Large screen should be installed on one of the walls of the operating Room. Suitable cable material and a patch panel should be offered as per the position of the Large Screen.

The large screen should be compatible to the integrated system with S-Video signal and controlled by the touch screen located in the sterile field or Nurse Works Station (NWS) for routing any (all) videos to the large screen.

### TELESTRATION SYSTEM

The Telestration system should allow the transmission of visual marking via the integrated Touch screen to enable remote teaching.

This system should allow the operating surgeon to send any impression made on the touch screen from within the sterile field and simultaneously from the nurse station to any destination along with the video with S-Video signal for the purpose of tele-teaching. This will help the surgeon to take precise opinion during communication. Suitable cable material and a patch panel should be provided.

### TELEPHONE SYSTEM

A digital telephone system shall be connected to the system and shall allow the surgeon or his assistant to make telephone calls by Dialling from the touch screen. The telephone system should be controlled via the touch screen from within the sterile field and simultaneously from the nurse station. A user can place and/or receive telephone calls by using ceiling mounted directional microphones. The sound will be transmitted through the powered speaker. An In-ear monitoring system should be provided to allow the caller to make discrete telephone conversation. The system should allow presets for Direct Dialling. Suitable cable material and a patch panel should be offered as per the requirement of the system.

### CONTROL OF PERIPHERALS

The system should allow the surgeon or his assistant to control some of the functions within the operating rooms from the touch screen this shall include but not limited to:  
Switching the OR lights on/off

### BI-DIRECTIONAL A/V COMMUNICATION TO CONFERENCE ROOM

The Surgeon and his team should be able to do Bi-Directional Audio/ Video communication From OT to Conference Room. Suitable cabling should be laid from the Operation Theatre to the Conference Room. For Bidirectional Video Communication a Room Camera should be installed in the conference Room. Suitable Number of Sets of Transmitters, Receivers and Cable Material should be offered as per the requirement. The Bi-Directional communication system should be controlled via the touch screen from within the sterile field and simultaneously from the nurse station.

### VIDEO CONFERENCING SYSTEM

A video conferencing system should be offered for external communication from the operating room. The Surgeon and his team should be able to transmit Video signals via S-Video signals and audio signals via ISDN lines or IP Service from the Operating to the Outside world.

The ISDN lines or IP Service shall be provided by the hospital at a position suitable to the system requirements. The system should be able to transfer high quality real time images and audio signals from multipoint at a minimum speed of 2Mbps. The system should be compatible to both NTSC and PAL system with resolution up to XGA for transmission over the ISDN lines or IP Service.

The conferencing system should be controlled via the touch screen of the integration system from within the sterile field and simultaneously from the Nurse Works Station (NWS) for routing of Routing of A/V signals and dialing of Numbers. Suitable Number of Sets of Transmitters, Receivers and Cable Material should be offered as per the requirement.

It should have offsite video conferencing: users in every room should be able to make out bound videoconferencing calls anywhere using the codec connected to the network.

The system should be capable routing following signals while assuring native signal.

1280x1024 High definition digital (DVI) signal.

1024x768 High resolution signal

640x480SVHS( S-Video) signal

## Bill of Quantity

# Sports Injury Center at Safdurjung Hospital

## Modular Prefabricated OT, Pre and Post Operative Rooms along with Medical Gas Pipe Line System with various services on turkey basis.

### Bill of Qty for Modular Prefabricated OT

OT sizes : OT-1 : 5535mm X 6420mm

OT sizes : OT-2 : 6940mm X 7305mm

OT sizes : OT-3 : 6555mm X 6850mm

Sr. No.	Description of Modular Prefabricated Operation Theater	Qty
1.	Stainless steel Prefabricated Walls & Ceilings The pre-fabricated SS 304 sheet (1.6 mm thick) wall sloping & ceiling panels backed by 12mm thk gypsum board to provide the seamless operating room. (as per tender technical specifications).	3lot for 3 OT
2.	Imported Air Ceiling Management System (complete) : 1set for 1 OT Each consist of the following and for each OT: Imported 1no. of Media Bridge 3x3size. Imported 1no. of Twin Dome LED Light. Imported 1no. of Homogenous low turbulence unidirectional laminar air flow system. Imported 8nos. Peripheral light cum clean room luminaries fitted in the CG frame. Imported 4nos. RGB Clean Room Luminaries fitted outside CG frame All items of air ceiling system like Media Bridge, Twin dome LED Light, Peripheral Light and Clean-room peripheral light/luminaries and RGB luminaries should be from one single make, single origin and single standard and will only be accepted. (as per tender technical specifications).	3set for 3 OT
3.	Imported Antibacterial / Antifungal Paint Filling of all joints & cavity with metallic epoxy filler and sanded flush to provide a joint less finish & then sprayed with water based liquid plastic aseptic & self sterilizing wall coating system to a d.f.t. of 300 microns with primer. (as per tender technical specifications).	3lot for 3 OT
4.	Hermetically Sealed Sliding OT Door with atomization with vision panel 300 x300mm. (1500mm x 2100mm size for main door-1no. for each OT.) Hermetically sealed door with vision panel 300 x300mm. Clean air is vitally important. If this applies anywhere, it certainly applies in an operating theatre. Both the air and the instruments must always be sterile. The most important cause of wound infections is the uncontrolled exchange of air, resulting in the spread of pathogenic germs. (as per tender technical specifications).	3nos. for 3OT
5.	Hermetically Sealed Sliding OT Door with atomization with vision panel 300 x300mm. (900mm x 2100mm size for side door-1no. for each OT.) Hermetically sealed door with vision panel 300 x300mm. Clean air is vitally important. If this applies anywhere, it certainly applies in an operating theatre. Both the air and the instruments must always be sterile. The most important cause of wound infections is the uncontrolled exchange of air, resulting in the spread of pathogenic germs. One of the weakest points in such an air control system is the door. (as per tender technical specifications).	1no for OT-3
6.	Manual Hinged Door with vision panel 300 x300mm of size 1800mm x 2100mm .	03nos.
7.	Manual Hinged Door with vision panel 300 x300mm of size 900mm x 2100mm.	02nos.
8.	Imported Flooring seamless with perfectly curved flash coving, resistant to mechanical stresses & dynamic loads & having ESD / EMI (conductive) protection characteristics , 2mm thick washable. (as per tender technical specifications).	3lot for 3 OT
9.	Imported Self leveling compound : The hyper-fluid self-leveling product with prolonged work ability, extra rapid hardening, compensated shrinkage, suitable for high-resistant adjustment from 2 to 4mm of irregular non-planer substrates before laying homogenous tiles with very low TVOC emission and hypo-allergenic cements. (as per tender technical specifications).	3lot for 3 OT

10.	Imported Surgeon Control Panel 6 tile mounted flush in the theater wall comprising of the following: 1no. Day Clock. 1no.Elapse Time Clock 1set dimmer for peripheral lights 1no. medical gas area alarm. 1no. hand free telephone. 1set point only for temperature & humidity display with indicator.	3nos. for 3 OT
11.	Twin plate x-ray viewing screen designed to provide a high level of control luminance. Size 1000x700x95deep (as per tender technical specifications).	3nos. for 3OT
12.	Writing/List Board Size: 1000x700x60deep (as per tender technical specifications).	3nos. for 3OT
13.	Stainless steel 304grade 1.6mm thk Storage Unit having two shelves having 5 mm thick glass door & mounted flush with the theater wall. Size 1700x865x350deep (as per tender technical specifications).	6nos. for 3OT
14.	PRD : Pressure Release Damper:- Providing , Fixing & Installation of Cascade pressure stabilizer having multi 304 grade stainless steel blades to control room air pressure.	3nos. for 3OT
15.	Two Bay Surgical Scrub Sink made up of 304 Stainless Steel 1.6mm thk sheet with electronic sensors and manual foot operation (as per tender technical specifications).	3nos. for 3OT
16.	Distribution board /Electrical Panel (as per tender technical specifications).	3nos. for 3OT
17.	Hatch/Pass Box Hatch should be of 600mmx 600mm size and should be provided in each Operation Theatre to remove waste materials from the Operation Theatre to Dirty linen Area just adjacent to Operation Theatre. The Hatch will be designed in such a way that only one door will be opened at one time.	3nos. for 3OT
18.	View Window with motorized blind View window with motorized horizontal blinds sandwiched in two parallel toughened glasses (thickness not less than 5.5 mm) complete with FHP Motor control etc.	3nos. for 3OT
19.	Electric Wiring + fittings, PVC conducting and fixtures inside the OT.	3lot. for 3OT
20.	High Voltage industrial socket with metal box 32A, 1 Ph. Metal clad socket with MCB control to be provided with complete wiring of 2x6 sqmm. Copper conductor standard PVC.	6nos. for 3 OT
21.	Fe-Male Lockers (as per tender technical specifications).	12nos.
22.	Male Lockers (as per tender technical specifications).	12nos.
23.	Imported Homogenous carpet type 2mm thk Flooring seamless , 2mm thick washable out side the OT in all the areas. Sterile collidoor, change room, duty room etc.	300sqmtrs
24.	Imported Self leveling compound : The hyper-fluid self-leveling product with prolonged work ability, extra rapid hardening, compensated shrinkage, suitable for high-resistant adjustment from 2 to 4mm of irregular non-planer substrates before laying homogenous tiles with very low TVOC emission and hypo-allergenic cements. (as per tender technical specifications) in Sterile collidoor, change room, duty room etc.	300sqmtrs
25.	Imported Antibacterial / Antifungal Paint Filling of all joints & cavity with metallic epoxy filler and sanded flush to provide a joint less finish & then sprayed with water based liquid plastic aseptic & self sterilizing wall coating system to a d.f.t. of 300 microns with primer. (as per tender technical specifications) in Sterile collidoor, change room, duty room etc.	600sqmtrs
26.	Part B Central Device Control & Documentation for Integration OT: It is require in 1OT out of three only (as per tender technical specifications).	For 1 OT
27.	Part C Audio Video Communication System for Integration OT: It is require in 1OT out of three only (as per tender technical specifications).	For 1 OT
28.	Imported Hand Rail Crash Guard System outside the OT and other areas The system fixed to brick wall at 900mm center high from finished floor level comprising continuous aluminum rail retainer, adjustable rail mounting base, with impact absorbing strip, end cap and high impact vinyl acrylic snap-on textured surface cover. "140mm Height x 80mm thickness" (as per tender technical specifications).	400mtrs
29.	Imported Corner Guard Protection System out side the OT and other areas. The system fixed to brick wall at the corner from finished floor level. Adjustable end cap. High impact vinyl acrylic snap-on matt finished. "50mm wide x 10mm thickness x 900mm length ". Corner guard system consist of following: PVC cover, base, top and bottom end cap in different color etc. (as per tender technical specifications).	150nos.
30.	Imported Ceiling Cubical Partition Track Aluminum rail with plastic runner, rings and netted curtains. : It should be made from heavy Duty Aluminium cubicle track size 20mm wide x 30mm high, made of aluminium natural anodized to 15 microns complete with continuous PVC liner, nylon gliders and hooks, plastic end cap, connecting bridge, overlapping joint connector, wall brackets with matching screws to make up cubicle height to 2100mm clearance from floor level at 1000mm spacing and securely fixed to above slab all strictly in accordance with the	40set

	manufacturer's instruction. (as per tender technical specifications).	
31.	Imported Intravenous Track: Imported I.V Track : It should be made from heavy Duty Aluminium Intravenous track 'U' configuration size : 35mm (W) x 19.2mm(H) make of aluminium natural anodized to 15 microns complete with wall brackets with matching screws all strictly in accordance with the manufacturer's instruction 1 no. IV carrier to a set of IV support track complete with 5 points Telescopic Bottle Holder adjustable 600mm~900mm tree. (as per tender technical specifications)	20set

## Bill of Qty for Pre and Post Operative Rooms

**Post Operative Room Size : 6265mm X 7610mm**

**Pre Operative Room Size : 4355mm X 7610mm**

Sr. No.	Description	Qty
32.	Stainless steel Prefabricated Walls & Ceilings The pre-fabricated SS 304 sheet (1.6 mm thick) wall sloping & ceiling panels backed by 12mm thk gypsum board to provide the seamless operating room. (as per tender technical specifications).	1lot
33.	Imported Peripheral light cum clean room luminaries with RGB The luminaries for surface or recess mounting in operation theatres should flush with the ceiling, for 2 or 3 T5 fluorescent lamps (49 or 54 W), Ø 16 mm. With highly-specular, anodised aluminium reflectors and optical anti-glare system for individually adjustable light distribution. Luminaire cover made of highly-resistant, disinfectant-proof laminated safety glass with stylish fine-grained surface, glass pane with white coated steel frame. Closing devices are integrated automatically in the electrical safety control without lines having to be connected to the luminaire housing. Luminaire body made of sheet steel, white, powder-coated, supplied ready for connection optionally for individual or series circuit, with digital, electronic control gear in Multi-Lamp technology. Mains supply and further wiring by means of Pg 16 screw glands. With four-pole connection terminal and earth connection terminal for wires up to 2.5 mm <sup>2</sup> for mains supply and further wiring. Luminaire with ENEC and F mark, degree of protection IP 65, protection class I, 230 V, 50 Hz .Recess frames for the gas-tight installation of clean-room luminaires in IP 65 in suspended ceilings. Frame made of extruded aluminium profile, white, powder-coated, able to be put together to form a rigid, continuous frame by means of plug and screw connections, optionally in individual, continuous-line, rectangular or U-shaped arrangements. Ledge for ceiling construction material as angular ledge for covering the raw edge of the ceiling construction material.	15nos.
34.	Imported Antibacterial / Antifungal Paint Anti-Microbial Protection: These product hygiene coatings start the biocidal action as soon as the microorganism land on the surface, and prevents the growth of mould, bacteria and yeasts for at least 10 year. This Hygiene coating are independently tested by leading universities to demonstrate resistance to a wide range of mixed species, including stubborn pathogens such as MRSA (Methicillin Resistance Staphylococcus Aureus).	1lot
35.	Imported Homogenous carpet type 2mm thk Flooring seamless, 2mm thick washable for pre and post operative.	1lot
36.	Self leveling compound : The hyper-fluid self-leveling product with prolonged work ability, extra rapid hardening, compensated shrinkage, suitable for high-resistant adjustment from 2 to 4mm of irregular non-planer substrates before laying homogenous tiles with very low TVOC emission and hypo-allergenic cements. The cement based adhesive with SAS Technology, reactive-epoxide and polyurethane two component products, dispersed in water solution and solvent.	1lot
37.	Imported Medical Supply Unit Ceiling mounted of 2500mm each (for postoperative, pre-operative rooms ) It should fully meets and complies with HTM 2022 ( latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	08nos.
38.	Imported Control Panel for Post and Pre Operative mounted flush in the theater wall comprising of the following: 1no. Day Clock. 1no.Elapse Time Clock 1set dimmer for peripheral lights 1no. medical gas area alarm. 1no. hand free telephone. 1set point only for temperature & humidity display with indicator.	2nos.

39.	Twin plate x-ray viewing screen designed to provide a high level of control luminance. Size 1000x700x95deep (as per tender technical specifications).	2nos.
40.	Writing/List Board Size: 1000x700x60deep (as per tender technical specifications).	2nos.
41.	Stainless steel 304grade 1.6mm thk Storage Unit having two shelves having 5 mm thick glass door & mounted flush with the theater wall. Size 1700x865x350deep (as per tender technical specifications).	4nos.
42.	PRD : Pressure Release Damper:- Providing , Fixing & Installation of Cascade pressure stabilizer having multi 304 grade stainless steel blades to control room air pressure.	2nos.
43.	Two Bay Surgical Scrub Sink made up of 304 Stainless Steel 1.6mm thk sheet with electronic sensors and manual foot operation (as per tender technical specifications).	1no.
44.	Distribution board /Electrical Panel.	2nos.
45.	Electric Wiring + fittings and fixtures inside the post and pre operative rooms.	1lot
46.	Hermetically Sealed Sliding Door with atomization with vision panel 300 x300mm. (1500mm x 2100mm size for main door-1no. for each OT.) Hermetically sealed door with vision panel 300 x300mm. Clean air is vitally important. If this applies anywhere, it certainly applies in an operating theatre. Both the air and the instruments must always be sterile. The most important cause of wound infections is the uncontrolled exchange of air, resulting in the spread of pathogenic germs. (as per tender technical specifications).	2nos.

## Bill of Qty for Medical Gas Pipe Line System with various services

Sr. No.	Description	Qty																								
47.	<p>Imported Medical Grade Copper Pipes as per BS EN 13348 : 2001 (approx qty) Medical Grade, seamless, fully degreased and half hard (designated to R 250). It should confirm and meets with the latest BS EN13348:2001 standard. Chemical Composition as per CU.DHP to 1190-1 and CW024A to EN 1412. Maximum total carbon content 0.20mg/dm<sup>2</sup>. It should be third party certified from TUV or SGS. (as per tender technical specifications)</p> <table border="0"> <tr> <td>Outer Dia</td> <td>Thickness</td> <td></td> </tr> <tr> <td>12 mm</td> <td>1 mm</td> <td>300mtrs</td> </tr> <tr> <td>15 mm</td> <td>1 mm</td> <td>1400mtrs</td> </tr> <tr> <td>22 mm</td> <td>1 mm</td> <td>800mtrs</td> </tr> <tr> <td>28 mm</td> <td>1 mm</td> <td>250mtrs</td> </tr> <tr> <td>42 mm</td> <td>1.2 mm</td> <td>120mtrs</td> </tr> <tr> <td>54 mm</td> <td>1.2 mm</td> <td>85mtrs</td> </tr> <tr> <td>76.1mm</td> <td>1.5 mm</td> <td>40mtrs</td> </tr> </table>	Outer Dia	Thickness		12 mm	1 mm	300mtrs	15 mm	1 mm	1400mtrs	22 mm	1 mm	800mtrs	28 mm	1 mm	250mtrs	42 mm	1.2 mm	120mtrs	54 mm	1.2 mm	85mtrs	76.1mm	1.5 mm	40mtrs	
Outer Dia	Thickness																									
12 mm	1 mm	300mtrs																								
15 mm	1 mm	1400mtrs																								
22 mm	1 mm	800mtrs																								
28 mm	1 mm	250mtrs																								
42 mm	1.2 mm	120mtrs																								
54 mm	1.2 mm	85mtrs																								
76.1mm	1.5 mm	40mtrs																								
48.	Imported 2x10 size manifold It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set																								
49.	Imported ESM 1x8 size emergency oxygen manifold system It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set																								
50.	Imported 2x4size manifold System for N <sub>2</sub> O It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set																								
51.	Imported 1x2 emergency N <sub>2</sub> O manifold system It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set																								
52.	Imported Medical Vacuum Plant : 4000lpm Medical Vacuum Plant with triplex rotary vane vacuum pumps of 2000l/min each. (two continuous working to produce 4000lpm and one stand by of 2000lpm). It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set																								
53.	Imported Pressure Reducing Station It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set																								

54.	Imported 4 Stage Air Filtration System: It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	3set
55.	Imported Medical Air Plant : 3200lpm of 10bar to provide 4bar and 7bar air from same plant. Medical Air Plant with triplex screw air compressors of 1600l/min each. (two continuous working to produce 3200lpm and one stand by of 1600lpm). It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set
56.	Imported AVSU Module with Single Area Service Valve Unit and Medical Gas Area Alarm Consist of the following Imported Single Service 22mm Area Valve Service Unit AVSU for Oxygen Imported Single Service 22mm Area Valve Service Unit AVSU for N2O Imported Single Service 22mm Area Valve Service Unit AVSU for MA4 Air Imported Single Service 22mm Area Valve Service Unit AVSU for SA7 Air Imported Single Service 22mm Area Valve Service Unit AVSU for Vacuum Imported Medical Gas Area Alarm 4 Gas + 1 Vacuum It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	04nos.
57.	Imported AVSU Module with Single Area Service Valve Unit and Medical Gas Area Alarm Consist of the following Imported Single Service 22mm Area Valve Service Unit AVSU for Oxygen Imported Single Service 22mm Area Valve Service Unit AVSU for N2O Imported Single Service 22mm Area Valve Service Unit AVSU for MA4 Air Imported Single Service 22mm Area Valve Service Unit AVSU for Vacuum Imported Medical Gas Area Alarm 3 Gas + 1 Vacuum It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	03nos.
58.	Imported AVSU Module with Single Area Service Valve Unit and Medical Gas Area Alarm Consist of the following Imported Single Service 22mm Area Valve Service Unit AVSU for Oxygen Imported Single Service 22mm Area Valve Service Unit AVSU for MA4 Air Imported Single Service 22mm Area Valve Service Unit AVSU for Vacuum Imported Medical Gas Area Alarm 2 Gas + 1 Vacuum It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	04nos.
59.	Imported AVSU Module with Single Area Service Valve Unit and Medical Gas Area Alarm Consist of the following Imported Single Service 22mm Area Valve Service Unit AVSU for Oxygen Imported Single Service 22mm Area Valve Service Unit AVSU for Vacuum Imported Medical Gas Area Alarm 1 Gas + 1 Vacuum It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	04nos.
60.	Imported Bed Head Horizontal Panel 1500mm (for triage, 2bedded wards, 4bedded wards ) It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	28nos.
61.	Imported Bed Head Sliding Picture type Panel (for VIP room and single bedded ward rooms ) It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	09nos.
62.	Imported Terminal Units ( Gas Outlets Points) It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications)  Oxygen-66nos. , Vacuum-66nos., N2O-14nos., Médical Air-54nos., SA7-16nos. AGSS-14nos.	250nos.

63.	Imported Probes for Terminal Units ( Gas Outlets Points) It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), BS 5682, C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications)  Oxygen-66nos. , Vacuum-66nos., N2O-14nos., Médical Air-54nos., SA7-16nos. AGSS-14nos.	250nos.
64.	Imported Ball Valves (Lockable Line Valves) It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications) 12mm 15mm 22mm 28mm 42mm 54mm 76mm	08nos. 24nos. 16nos. 04nos. 02nos. 02nos. 04nos.
65.	Imported O2 Fully Automatic Manifold Control Panel 1500l/min It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1no.
66.	Imported N2O Fully Automatic Manifold Control Panel 500l/min It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1no.
67.	Imported Duplex AGSS System (1300l/min) It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), BS 6834, BS 5682, C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	1set
68.	Imported Master Alarm It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	2nos.
69.	Imported H.P Tube It should fully meets and complies with HTM 2022 (latest Version HTM 02-01), C11, EN 739 standards and should be duly CE marked with CE no. specified on it. (as per tender technical specifications) High Pressure Antistatic Rubber Color Coded Tube Oxygen-White color , Vacuum-Yellow color, N2O-Blue color, Air-Black color	600mtrs
70.	Imported Anodized aluminum body Oxygen flow meter with bubble humidifier bottle It should be duly CE marked with CE no. specified on it. (as per tender technical specifications)	50nos
71.	Imported Ward Vacuum Unit It should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	50nos
72.	Imported Low flow Ward Vacuum Unit It should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	10nos
73.	Imported Theatre Suction Unit. It should be duly CE marked with CE no. specified on it. (as per tender technical specifications).	6nos.
74.	Electric wiring inside the plant room. Hospital will provide one point of 3 phase power supply in gas manifold and plant room. All inside electric wiring, conducting and final connection will be in contractor scope.	1lot
75.	Low Pressure Tubing for vacuum.	200mtrs

All civil, HVAC, sanitary, civil, plumbing and electrical works with man and material and fixtures will be done by the hospital or their approved other contracting agency. Filled D type Jumbo Cylinders will be provided by the Hospital for O2 and N2O. Room for proper storage of the material will be provided by the hospital.

Construction of gas manifold and plant room by the hospital. Construction of 9inch minimum brick walls for operation theater, post & pre operative and other areas will be done by the hospital or their approved civil contractor. Connection to Liquid oxygen tank will be done by the liquid vessel and liquid supplier company. AC ducting and diffusers will be provided by the hospital or HVAC contractor.

Third Party validation of the complete medical gas pipe line system must be mandatory and will be done by the HTM 2022 UK (HTM02-01) approved Pharmacist. Tenderer should submit the complete CV and other details of the third party pharmacist along with tender bid.

Warranty should be for minimum five years from the date of completion of installation of the work. Tenderer should quote separately rates for CMC for 5years after the expiry of warranty period of 5years. The bidder who will be awarded the rates will be responsible for providing after sales and services with spares for minimum 10years.

Tenderer should also quote rates for 10 years operational and running of gas manifold and plant room. The operational and running contract will immediate start from the date of completion of installation work. The bidder who will be awarded the contract will run the gas manifold and plant room for three shifts of 8hours each.