

GLOBAL TENDER ENQUIRY DOCUMENT

**FOR PROCUREMENT OF
MEDICAL GAS PIPELINE SYSTEM
FOR HOSPITALS GETTING UPGRADED TO SUPERSPECIALTIES**

**Under PMSSY Phase-III
FOR**

GOVT OF INDIA

MINISTRY OF HEALTH & FAMILY WELFARE

HITES/PCD/PMSSY-III/02/MGPS/16-17



(Subsidiary of HLL Lifecare Ltd., a Govt. of India Enterprise)

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SECTION I**NOTICE INVITING TENDERS (NIT)****Tender Enquiry No.: HITES/PCD/PMSSY-III/02/MGPS/16-17****Dated: 25.03.2017**

Procurement & Consultancy Services Division of HLL Infra Tech Services Limited, for and on behalf of Govt. of India, Ministry of Health & Family Welfare, invites sealed tenders, from eligible and qualified tenderers for supply, installation, commission and trial running of Medical Gas Pipeline System (MGPS) for the following medical colleges/ institutions getting upgraded to super-specialties under PMSSY Phase-III:

| Medical Gas Pipeline System | | | | | |
|--|--|----------------|-----------------------|-------------|------------------|
| Event Number (Rfx) - 3000001913 | | | | | |
| Sch No. | Consignee Name | States | Consignee Code | Qty. | EMD (Rs.) |
| 1 | Government Medical College - Anantapur | Andhra Pradesh | GMCA | 1 | 9,00,000 |
| 2 | Sidhartha Medical College - Vijayawada | Andhra Pradesh | SMCV | 1 | 9,00,000 |
| 3 | Vijaynagar Institute of medical Science | Karnataka | VIMS | 1 | 9,00,000 |
| 4 | Gajra Medical college | Madhya Pradesh | GMCM | 1 | 9,00,000 |
| 5 | GMC - Rewa | Madhya Pradesh | GMCR | 1 | 9,00,000 |
| 6 | Netaji Subhash Ch. Bose Medical College - Jabalpur | Madhya Pradesh | NSBMC | 1 | 9,00,000 |
| 7 | GMC - Aurangabad | Maharashtra | GMCAR | 1 | 9,00,000 |
| 8 | MKCGMC - Berhampur | Odisha | MKCGMC | 1 | 9,00,000 |
| 9 | RNTMC - Udaipur | Rajasthan | RNTMC | 1 | 9,00,000 |
| 10 | SPMC - Bikaner | Rajasthan | SPMC | 1 | 9,00,000 |
| 11 | GMC - Kota | Rajasthan | GMCKT | 1 | 9,00,000 |
| 12 | GMC - Tanjavur | Tamil Nadu | GMCT | 1 | 9,00,000 |
| 13 | GMC - Tirunalveli | Tamil Nadu | GMCTR | 1 | 9,00,000 |
| 14 | GMC - Warangal | Telangana | GMCW | 1 | 9,00,000 |
| 15 | RGIMS - Adilabad | Telangana | RGIMS | 1 | 9,00,000 |
| 16 | MLNMC - Allahabd | Uttar Pradesh | MLNMC | 1 | 9,00,000 |
| 17 | GMC - Jhansi | Uttar Pradesh | GMCJ | 1 | 9,00,000 |
| 18 | NBMC - Siliguri | West Bengal | NBMC | 1 | 9,00,000 |

Note:

- EMD is kept same for all the sites as it will be the prerogative of the purchaser to allocate site to the responsive bidders on the basis of best benefit to the exchequer/ least cost method mechanism (explained later). Bidders are requested to submit EMD as per their eligibility, however price need to be quoted on the basis of site wise BOQ as per the list of requirement.

- The EMD as indicated in e-tendering portal is the sum of EMDs for all above schedules. The bidder shall furnish the EMD only for the number of schedules offered and as applicable.

(3) Tender No.: HITES/PCD/PMSSY-III/02/MGPS-I/16-17

| Sl. No. | Description | Schedule |
|---------|---|---|
| i. | End Date of download of tender enquiry document | 27.04.2017, 1800 Hrs IST |
| ii. | Tender Processing Fee | Rs. 52,500/- |
| iii. | Pre Tender Meeting Date & Time | 07.04.2017, 1100 Hrs IST |
| iv. | Pre Tender Meeting Venue | HLL Infra Tech Services Limited, Procurement & Consultancy Services Division, B-14 A, Sector-62, Noida-201307 |
| v. | Due date & time for submission of tender in e-Portal | 27.04.2017, 1800 Hrs IST |
| vi. | Closing date & time for submission of Tender Processing Fee and EMD in physical form | 28.04.2017, 1400 Hrs IST |
| vii. | Date and Time of opening of Techno - Commercial tenders | 28.04.2017, 1430 Hrs IST |
| viii. | Venue for opening of Tenders | Same as 2 (iv) |

Note:

- If EMD is submitted in the form of BG, then the validity of the BG should be at least 165 days from the date of tender opening.

SPECIFIC Instructions for e-Tender Participation:-

- Bidders should have valid Class 3-B Digital Signature Certificate with encryption.
- Bidders are requested to read the bidders help document on e-tender web site link before proceeding for bidding.
- The prospective bidders have to register with the E-procurement system of HLL at <https://etender.lifecarehll.com/irj/portal>. On completion of the registration process, the bidders will be provided user ID and password within 48 hours (excluding non-working days). In order to submit the bids electronically, bidders are required to have a valid Class 3-B Digital Signature Certificate (signing and encryption/ decryption certificates).
- Post receipt of User ID & Password, Bidders can log on for downloading & uploading tender document.
- The tenderers shall submit tender fee and EMD in physical form at the scheduled time and venue.
- Tenderer may download the tender enquiry documents from the web site www.hllhites.com or www.lifecarehll.com or www.eprocure.gov.in/cppp or <https://etender.lifecarehll.com/irj/portal>.
- The submission of tender online can only be done through <https://etender.lifecarehll.com/irj/portal>.
10. All prospective tenderers may attend the Pre Tender meeting. The venue, date and time indicated above.

11. Tenderers shall ensure that their tenders, complete in all respects, are submitted **online through HLL's e-portal (as described above) ONLY. No DEVIATION is acceptable.**

IMPORTANT NOTE:-

Tender Processing Fee (Rs.52,500/-) and EMD (as applicable) should be deposited within the scheduled date & time in the Tender Box located at:

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

**Chief Executive Officer
HLL Infra Tech Services Limited**

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

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A. PREAMBLE

1. Definitions and Abbreviations

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

1.2. Definitions:

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

1.3 Abbreviations:

- (i) "TE Document" means Tender Enquiry Document
- (ii) "NIT" means Notice Inviting Tenders.
- (iii) "GIT" means General Instructions to Tenderers
- (iv) "SIT" means Special Instructions to Tenderers
- (v) "GCC" means General Conditions of Contract
- (vi) "SCC" means Special Conditions of Contract
- (vii) "DGS&D" means Directorate General of Supplies and Disposals

- (viii) “NSIC” means National Small Industries Corporation
- (ix) “PSU” means Public Sector Undertaking
- (x) “CPSU” means Central Public Sector Undertaking
- (xi) “LSI” means Large Scale Industry
- (xii) “SSI” means Small Scale Industry
- (xiii) “LC” means Letter of Credit
- (xiv) “DP” means Delivery Period
- (xv) “BG” means Bank Guarantee
- (xvi) “ED” means Excise Duty
- (xvii) “CD” means Custom Duty
- (xviii) “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 port of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
- (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) ”MOH&FW” means Ministry of Health & Family Welfare, Government of India
- (xxxi) “Dte. GHS” means Directorate General and Health Services, MOH&FW.
- (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.
- 2.2 This section (Section II - “General Instruction Tenderers”) provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the purchaser for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.
- 2.3 The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.
- 2.4 Before formulating the tender and submitting the same to the purchaser, the tenderer should read and examine all the terms, conditions, instructions, checklist etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

3. Availability of Funds

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

4. Language of Tender

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

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

5. Eligible Tenderers

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

6. Eligible Goods and Services

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

7. Tendering Expense

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

B. TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

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

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

- Section XIV – Manufacturer’s Authorisation Form
- Section XV – Bank Guarantee Form for Performance Security/CMC Security
- Section XVI – Contract Forms A & B
- Section XVII – Proforma of Consignee Receipt Certificate
- Section XVIII – Proforma of Final Acceptance Certificate by the consignee
- Section XIX – Check List for the Tenderers
- Section XX – Consignee List

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

9. Amendments to TE documents

- 9.1 At any time prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it.
- 9.2 Such an amendment will be notified in writing by registered/speed post or by fax/telex/e-mail, to all prospective tenderers, who have received the TE documents and will be binding on them.
- 9.3 In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

10. Clarification of TE documents

- 10.1 A tenderer requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser in writing in their letter head duly signed and scanned through email to pcd@hllhites.com and bmenoida@hllhites.com. The purchaser will respond to such request provided the same is received by the purchaser **ON OR BEFORE THE PRE-BID MEETING**. Any queries/representations received after the pre-bid meeting shall not be taken into cognizance.

C. PREPARATION OF TENDERS

11. Documents comprising the e-Tender

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

Note:

- (i) The tender Processing fee and EMD has to be submitted in physical form as per Section – I, Notice Inviting Tender of this tender enquiry.

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

A) Details of Technical Tender (Un priced Tender)

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

- i) Earnest money furnished in accordance with GIT clause 19.1 alternatively, documentary evidence as per GIT clause 19.2 for claiming exemption from payment of earnest money.
- ii) Tender Form as per Section X (without indicating any prices).
- iii) Documentary evidence, as necessary in terms of clauses 5 and 17 establishing that the tenderer is eligible to submit the tender and, also, qualified to perform the contract if its tender is accepted.
- iv) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form.
- v) Power of Attorney in favour of signatory of TE documents and signatory of Manufacturer's Authorisation Form.
- vi) Documents and relevant details to establish in accordance with GIT clause 18 that the goods and the allied services to be supplied by the tenderer conform to the requirement of the TE documents.
- vii) Performance Statement as per section IX along with relevant copies of orders and end users' satisfaction certificate.
- 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.
- x) Checklist.
- xi) Cost of tender document should be payable by DD/pay order. Cheque will not be accepted.
- xii) Self-Attested copies of VAT registration certificate and PAN Card.
- xiii) Non conviction /no pending conviction certification issued by Notary on judicial stamp paper for preceding three years.
- xiv) Self-Attested copies of quality certificates i.e US FDA /CE Certificate issued by competent authority, if applicable.
- xv) Documentary evidence stating the status of bidder.
- xvi) List of procurement agencies of repute to which the tendered product have been supplied during last 12 months.
- xvii) Self-attested copies of annual report, audited balance sheet and profit & loss account for preceding five years from the date of tender opening.
- xviii) Notarized affidavit that tenderer does not have any relation with the person authorized to evaluate technically or involve in finalizing the tender or will decide the use of tendered items.
- xix) A self-declaration on Rs. 10/- non-judicial Stamp Paper that the rates quoted in the tender are the lowest and not quoted less than this to any Government Institution (State/Central/ other Institute in India).
- xx) **Product catalogues / original Data Sheet must be enclosed of all quoted items.**

B) Price Tender:

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

Note:

- (i) **The bidder has to be diligent while filling up the Techo-Commercial Bid and Price Bid provided in excel formats and must not tamper the contents of the sheets.**
- (ii) It is the responsibility of bidder to go through the TE document to ensure furnishing all required documents in addition to above, if any.
- (iii) The bidders have to follow the steps listed in *Bidding Manual – Attachment Mode* available in the *Bidder Help Documents* of e-tender portal login screen for uploading the Price Bid.

11.2 A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrant that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.

11.3 A tender, which does not fulfill any of the above requirements and/or give evasive information/reply against any such requirement, shall be liable to be ignored.

11.4 Tender sent by fax/telex/cable/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 currency may not be accepted and are liable to be ignored.

13 Tender Prices

13.1 The Tenderer shall indicate on the Price Schedule provided under Section XI all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price schedule should be filled up as required. If any column does not apply to a tenderer, same should be clarified as “NA” by the tenderer, if nothing is mentioned it would be presumed as included.

- 13.2 **It is mandatory to quote for all the schedules. However, the purchaser will have the right to award the work to any number schedule as per the eligibility and to the best benefit of the exchequer.** All sundry equipment, fittings, units assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections, and all other items which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specifically mentioned in the tender documents or not.
- 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. Detailed breakup of the prices for the main equipment and accessories/optional items must be provided separately, item wise in the same serial order as listed in the technical bid.
- 13.4 While filling up the columns of the Price Schedule, the following aspects should be noted for compliance:
- 13.4.1 For domestic goods or goods of foreign origin located within India, the prices in the corresponding price schedule shall be entered separately in the following manner:
- a) The price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, CST VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc;
 - b) Any sales or other taxes and any duties including excise duty, which will be payable on the 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 ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;
 - d) The price of Incidental Services, as mentioned in List of Requirements and Price Schedule;
 - e) The prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule;
 - f) The rates quoted by the tenderer, shall be firm and fixed and inclusive of all taxes including work contract taxes, custom central duties and levies and all charges for packing forwarding, insurance, freight and delivery, installation, testing commissioning, etc. at site temporary construction of storage, risk, overhead charges general liabilities/obligations and clearance from local authorities. Rates shall be firm for the contractual period of time and for such time for which department shall grant extension of time till completion of work. Octroi duty shall be paid separately but the department on demand can furnish octroi exemption certificate. However the department is not liable to reimburse the octroi duty in case the concerned authorities do not honour exemption certificate; and
 - g) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.
- 13.4.2 For goods offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:
- a) The price of goods quoted FOB/FCA port of shipment, as indicated in the List of Requirements and Price Schedule;
 - b) the price of goods quoted CIP (name port of destination) in India as indicated in the List of Requirements, Price Schedule and Consignee List;

- c) The charges for Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;
- d) The charges for Incidental Services, as in the List of Requirements and Price Schedule;
- e) The prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
- f) The price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule
- g) The running, operation and maintenance charges for initial five years after installation.

13.5 Additional information and instruction on Duties and Taxes:

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

13.5.2 Excise Duty:

- a) If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of excise duty will be entertained after the opening of tenders.
- b) If a Tenderer chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the tenderer must clearly mention the same and also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.
- c) Subject to sub clauses 13.5.2 (a) & (b) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract terms shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the purchaser by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

13.5.3 Sales Tax:

If a tenderer asks for sales tax/ VAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The sales tax/VAT, Service Tax and Works Contract Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax/VAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract. If any refund of Tax is received at a later date, the Supplier must return the amount forth-with to the purchaser.

13.5.4 Octroi Duty and Local Duties & Taxes:

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

However, if a local body still insists upon payment of such local duties and taxes, the same should be paid by the supplier to the local body to avoid delay in supplies and possible demurrage charges and obtain a receipt for the same. The supplier should forward the receipt obtained for such payment to the purchaser to enable the purchaser reimburse the supplier and take other necessary action in the matter.

13.5.5 Customs Duty:

The Purchaser will pay the Customs duty wherever applicable.

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

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

13.8 Unless otherwise specifically indicated in this 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 this clause (viz., GIT clause 13) is for the purpose of comparison of the tenders by the purchaser and will no way restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

14. 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) As per the Compulsory Enlistment Scheme of the Department of Expenditure, Ministry of Finance, it is compulsory for Indian agents, who desire to quote directly on behalf of their foreign principals, to get themselves enlisted with the Central Purchase Organization (eg. DGS&D).
- b) The complete name and address of the Indian Agent and its permanent income tax account number as allotted by the Indian Income Tax authority.
- c) The details of the services to be rendered by the agent for the subject requirement.
- d) Details of Service outlets in India, nearest to the consignee(s), to render services during Warranty and CMC period.
- e) A copy of agreement between the Agent & their principal detailing the terms & conditions as well as services and after sales services as above to be rendered by the agent and the precise relationship between them and their mutual interest in the business as laid out in section VII (Technical specifications).
- f) Principal's/Manufacturer's original Proforma Invoice with the price bid

15. Firm Price:

Unless otherwise specified in the SIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account. Bidders are requested to quote BOQ wise unit price (**uniform unit prices must be quoted for same BOQ items across India**) and total price. Item wise price will remain fixed. However actual payment will be based on final measurement.

16. Alternative Tenders:

16.1 Alternative Tenders are not permitted.

- 16.2 However the Tenderers can quote alternate models meeting the tender specifications of same manufacturer with single EMD.
- 16.3 If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product. In a tender, either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.

17 Documents Establishing Tenderer's Eligibility and Qualifications:

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

- 19.1 Pursuant to GIT clauses 8.1 and 11.1 A (i) the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect

- the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 19.7 below.
- 19.2 The tenderers who are currently registered and, also, will continue to remain registered during the tender validity period with Directorate General of Supplies & Disposals or with National Small Industries Corporation, New Delhi for the specific goods as per tender enquiry specification shall be eligible for exemption from EMD. Vague stipulations in the Registration Certificate such as "to customers' specification", etc. will not be acceptable for exemption from furnishing of earnest money. In case the tenderer falls in these categories, it should furnish copy of its valid registration details (with DGS&D or NSIC, as the case may be).
- 19.3 The earnest money shall be denominated in Indian Rupees or equivalent currencies as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:
- i) Account Payee Demand Draft
 - ii) Banker's cheque and
 - iii) Bank Guarantee
- 19.4 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the tenderer, in favour of the "HLL Infra Tech Services Limited" payable at New Delhi. In case of bank guarantee, the same is to be provided from any commercial bank in India or country of the tenderer as per the format specified under Section XIII in these documents.
- 19.5 The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 20 of GIT is 120 days, the EMD shall be valid for 165 days from Techno – Commercial Tender opening date.
- 19.6 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.
- 19.7 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.
- 19.8 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 and the same should be submitted along with the bid.

20. Tender Validity:

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

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

21. Digital Signing of e-Tender

21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11 and any other specific instruction mentioned in the SIT using the digital signature.

D. SUBMISSION OF TENDERS

22. Submission of Tenders:

22.1 The tender shall be submitted online only.

- (i) Pre-qualification and Technical compliance as per following documents (**ONLY Online submissions for all the documents.**)
 - a) Manufacturer's authorization in case bid is submitted by an Indian agent (A declaration must be attached here in case directly quoted by a manufacturer or a document establishing the relation of the Indian office with the manufacturer in case quoted by Indian office of the manufacturer).
 - b) Tender Form as per Section X.
 - c) Compliance of all terms and conditions of TED, like- warranty, CMC, delivery period, delivery terms, payment terms, Liquidated Damages Clause, Arbitration clause, etc.
 - d) Declaration regarding Fall Clause and Deregistration, debarment from any Govt Dept/ Agencies
 - e) Copy of PAN.
 - f) Certificate of Incorporation or a Declaration in case the firm is being a proprietary one.
 - g) Abridged Annual report of last 05 years (Balance sheet and Profit & Loss Account) completed till December 2016, in pdf format.
 - h) Name, address and details of account with respect to bidder and/or beneficiary of L/C.
 - i) Quality Control Requirements as per Section VIII
 - j) Performance statement along with required PO copies and its corresponding end user's satisfactory performance certificate as per section IX.
 - k) Technical Bid along with clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications along with product catalogue and data sheet in the tender enquiry.
 - l) The bidder should submit blank proforma invoice from the foreign manufacturer along with his technical bid, duly mentioning the specifications and code number of the parts quoted.
 - m) The original proforma invoices from the foreign principal will be applicable in case of 100% subsidiary companies incorporated in India also.
 - n) In case the bidder quotes an equipment of a foreign manufacturer and submits the documents as per Clause 22.1 (i) l & m from the subsidiary company of the foreign

Original Equipment Manufacturer in India, the bidder must submit the Power of Attorney given to the subsidiary company by the foreign Original Equipment Manufacturer, authorizing it to do business and perform all obligations for and on behalf of the foreign manufacturer company, in India.

(ii) PRICE BID (ONLY ONLINE):

- a) The tenderers must ensure that they submit the Price Bid in prescribed format uploaded along with the tender enquiry. It is the responsibility of the bidder to ensure that the contents of the format are not tampered.
- b) The tenderers must ensure that they submit the on-line tenders not later than the closing time and date specified for submission of tenders.
- c) Along with price bid recent purchase order copies for the same model and technical configuration issued by institute of National importance and/or reputed central/state government hospitals should be uploaded in pdf form for reasonability of the offered price.
- d) The bidder should submit the copy of original proforma invoice from the foreign manufacturer along with the price bid.
- e) The bidder should not quote in Indian Rupees any foreign products, which are not already imported at the time of submitting the tender.
- f) The supplier shall justify the present quotes based on previous purchase orders for similar project executed either in India or Globally. If they quote any new model or upgraded version of earlier model, they may mention the same in their tender.

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

23. Late Tender:

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

24. Alteration and Withdrawal of Tender

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

E. TENDER OPENING

25. Opening of Tenders:

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

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

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

- 25.3 This being a Two-Tender system, the **Techno-Commercial Tenders** are to be opened in the first instance, at the prescribed time and date as indicated in NIT. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document. During the Techno-Commercial Tender opening, the tender opening official(s) will read the salient features of the tenders like brief description of the goods offered, delivery period, Earnest Money Deposit and any other special features of the tenders, as deemed fit by the tender opening official(s). Thereafter, in the second stage, the Price Tenders of only the Techno-Commercially acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation on a date notified after the evaluation of the Techno-Commercial tender. 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. 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 reservation to critical provisions such as those concerning Performance Security (GCC Clause 5), Warranty (GCC Clause 15), EMD (GIT Clause 19), Taxes & Duties (GCC Clause 20), Force Majeure (GCC Clause 26) and Applicable law (GCC Clause 31) will be deemed to be a material deviation. The Purchaser's determination of a Tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.
- 27.3 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 important requirements, conditions, etc. as prescribed in the TE document. The tenders, which do not meet the basic requirements, are liable to be treated as non-responsive and will be summarily ignored.
- 27.5 The following are some of the important aspects, for which a tender shall be declared non-responsive during the evaluation and will be ignored;
- (i) Tender validity is shorter than the required period.
 - (ii) Required EMD or its exemption documents have not been provided.
 - (iii) Tenderer has not agreed to give the required performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – "Special Conditions of Contract", for due performance of the contract.

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

28. Minor Informality/Irregularity/Non-Conformity

If during the preliminary examination, the purchaser find any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the tenders. Wherever necessary, the purchaser will convey its observation on such 'minor' issues to the tenderer by registered/speed post etc. asking the tenderer to respond by a specified date. If the tenderer does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

29 Discrepancies in Prices

- 29.1 If, in the price structure quoted by a tenderer, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the purchaser feels that the tenderer has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.
- 29.2 If there is an error in a total price, which has been worked out through addition and/or subtraction of subtotals, the subtotals shall prevail and the total corrected; and
- 29.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 29.1 and 29.2 above.
- 29.4 If, as per the judgement of the purchaser, there is any such arithmetical discrepancy in a tender, the same will be suitably conveyed to the tenderer by registered / speed post. If the tenderer does not agree to the observation of the purchaser, the tender is liable to be ignored.

30. Discrepancy between original and copies of Tender

Not applicable being e-Tender.

31. Qualification Criteria

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

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

The Notification is available in the below link:

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

The FAQs are available in the below link:

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

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

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

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

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

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

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

32. Conversion of tender currencies to Indian Rupees

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. Schedule-wise Evaluation

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

34. Comparison of Tenders

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

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

- 35.1 Further to GIT Clause 34 above, the purchaser's evaluation of a tender will include and take into account the following:
- i) In the case of goods manufactured in India or goods of foreign origin already located in India, sales tax & other similar taxes and excise duty & other similar duties, Service Tax, Works Contract Tax, etc. which will be contractually payable (to the tenderer), on the goods if a contract is awarded on the tenderer; and
 - ii) in the case of goods of foreign origin offered from abroad, customs duty and other similar import duties/taxes, which will be contractually payable (to the tenderer) on the goods if the contract is awarded on the tenderer.
- 35.2 The purchaser's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.
- 35.3 The Purchaser reserves the right to give the price preference to small-scale sectors etc. and purchase preference to central public sector undertakings as per the instruction in vogue while evaluating, comparing and ranking the responsive tenders.
- i. In exercise of powers conferred in Section 11 of the Micro, Small and Medium Enterprises Development (MSMED) Act 2006, the Government has notified a new Public Procurement Policy for Micro & Small Enterprises effective from 1st April 2012. The policy mandates that 20% of procurement of annual requirement of goods and services by all Central Ministries/ Public Sector Undertakings will be from the micro and small enterprises. The Government has also earmarked a sub-target of 4% procurement of goods & services from MSEs owned by SC/ST entrepreneurs out of above said 20% quantity.
 - ii. In accordance with the above said notification, the participating Micro and Small Enterprises (MSEs) in a tender, quoting price within the band of L1+15% would also be allowed to supply a portion of the requirement by bringing down their price to the L1 price, in a situation where L1 price is from someone other than an MSE. Such MSEs would be allowed to supply up to 20% of the total tendered value. In case there are more than one such eligible MSE, the 20% supply will be shared equally. Out of 20% of the quantity earmarked for supply from MSEs, 4% quantity is earmarked for procurement from MSEs owned by SC/ST entrepreneurs. However, in the event of failure of such MSEs to participate in the tender process or meet the tender requirements and the L 1 price, the 4% quantity earmarked for MSEs owned by SC/ST entrepreneurs will be met from other participating MSEs.
 - iii. The MSEs fulfilling the prescribed eligibility criteria and participating in the tender shall enclose with their tender a copy of their valid registration certificate with District Industries Centres or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or any other body specified by Ministry of Micro and Small enterprises in support of their being an MSE, failing which their tender will be liable to be ignored.
 - iv. The Purchaser reserves the right to relax the Norms on Prior Experience for Startups and Micro & Small Enterprises in Public Procurement.

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

The Notification is available in the below link:

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

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

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

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

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

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

36. Tenderer's capability to perform the contract

- 36.1 The purchaser, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.
- 36.2 The above-mentioned determination will, 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

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

39. Award Criteria

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 or on the basis of least cost to the purchaser.

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

40.1 At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to twenty five (25) per cent, the quantity of goods and services mentioned in the schedule (s) in the "List of Requirements" (rounded off to next whole number) without any change in the unit price and other terms & conditions quoted by the tenderer.

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

41. Notification of Award

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

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

42. Issue of Contract

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

42.2 Within twenty one days from the date of the contract, the successful tenderer shall return the original copy of the contract, duly signed and dated, to the Purchaser/Consignee by registered / speed post. The successful tenderer should also submit Proforma Invoice from the foreign principal (if applicable as per contractual price) within 21 days from the date of NOA.

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

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

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

44. Return of E M D

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

45. Publication of Tender Result

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

46. Corrupt or Fraudulent Practices

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

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

- (i) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
- (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;

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

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

SECTION – III**SPECIAL INSTRUCTIONS TO TENDERERS
(SIT)**

| Sl. No. | GIT Clause No. | Topic | SIT Provision | Page No. |
|---------|----------------|------------------------------------|---------------|----------|
| A | 1 to 7 | Preamble | No Change | |
| B | 8 to 10 | TE documents | No Change | |
| C | 11 to 21 | Preparation of Tenders | Change | 28 |
| D | 22 to 24 | Submission of Tenders | Change | 28 |
| E | 25 | Tender Opening | No Change | |
| F | 26 to 37 | Scrutiny and Evaluation of Tenders | No Change | |
| G | 38 to 46 | Award of Contract | No Change | |

C. PREPARATION OF TENDERS**13 Tender Prices:**

The bidders have to quote for all the schedules. The purchaser will have the right to award the work to any site as per the eligibility and to the best benefit of the exchequer.

D. SUBMISSION OF TENDERS

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

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

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1. Application

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

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

4. Country of Origin

- 4.1 All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of India has trade relations.
- 4.2 The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.
- 4.3 The country of origin may be specified in the Price Schedule

5. Performance Security

- 5.1 Within thirty (30) days from date of the issue of notification of award by the Purchaser/Consignee, the supplier, shall furnish performance security to the Purchaser/Consignee for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations, initially valid for a period of minimum 66 months from the date of Notification of Award.
- 5.2 The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:

It shall be in any one of the forms namely Account Payee Demand Draft or Fixed Deposit Receipt drawn from any Scheduled bank in India or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in section XV of this document in favour of the Purchaser/Consignee. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to sixty (60) days beyond Warranty Period.

- 5.3 In the event of any failure /default of the supplier with or without any quantifiable loss to the government including furnishing of consignee wise Bank Guarantee for CMC security as per Proforma in Section XV, the amount of the performance security is liable to be forfeited. The Administration Department may do the needful to cover any failure/default of the supplier with or without any quantifiable loss to the Government.
- 5.4 In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.
- 5.5 The supplier shall enter into Annual Comprehensive Maintenance Contract as per the 'Contract Form – B' in Section XVI with respective consignees, 3 (three) months prior to the completion of Warranty Period. The CMC will commence from the date of expiry of the Warranty Period.
- 5.6 Subject to GCC sub-clause 5.3 above, the Purchaser/Consignee will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CMC security in favour of Head of the Hospital/ Institute/ Medical College of the consignee as per the format in Section XV.

6. Technical Specifications and Standards

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

7. Packing and Marking

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

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

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

8. Inspection, Testing and Quality Control

- 8.1 The purchaser and/or its nominated representative(s) will, without any extra cost to the purchaser, inspect and/or test the ordered goods and the related services to confirm their conformity to the

contract specifications and other quality control details incorporated in the contract. The purchaser shall inform the supplier in advance, in writing, the purchaser's programme for such inspection and, also the identity of the officials to be deputed for this purpose. "The cost towards the transportation, boarding and lodging will be borne by the purchaser and/or its nominated representative(s) for the first visit. In case the goods are rejected in the first instance and the supplier requests for re-inspection, and if same is accepted by purchaser/consignee/PSA/PA, all subsequent inspections shall be at the cost of the supplier. The expense will be to and fro Economy Airfare, Local Conveyance, Boarding and Lodging of the inspection team for the inspection period."

- 8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.
- 8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser's inspector for conducting the inspections and tests again.
- 8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.
- 8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.
- 8.6 The purchaser's/consignee's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-despatch inspection mentioned above.
- "On rejection, the supplier shall remove such stores within 14 days of the date of intimation of such rejection from the consignee's premises. If such goods are not removed by the supplier within the period mentioned above, the purchaser/consignee may remove the rejected stores and either return the same to the supplier at his risk and cost by such mode of transport as purchaser/consignee may decide or dispose of such goods at the suppliers risk to recover any expense incurred in connection with such disposals and also the cost of the rejected stores if already paid for."
- 8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.
- 8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognised/ reputed agency like SGS, Lloyd, Bureau Veritas, TUV prior to despatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

8.9 **Followed by delivery of the items, a joint inspection by HLL and respective Medical College/ Institution at site will be carried out to verify the quantity and quality of goods.**

9. Terms of Delivery

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

10. Transportation of Goods

10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments and/or transshipment without the express/prior written consent of the purchaser. The supplier is required under the contract to deliver the goods under CIP (Named port of destination) terms; the shipment shall be made by Indian flag vessel or by vessels belonging to the conference lines in which India is a member country through India's forwarding agents/coordinators. In case the forwarding agent/coordinators are unable to provide timely adequate space in Indian flag vessel or by vessels belonging to the conference lines, the supplier shall arrange shipment through any available vessel to adhere to the delivery schedule given in the contract.

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

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

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

11. Insurance:

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

- i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from ware house to ware house (consignee site) on all risk basis. The insurance cover shall be obtained by the Supplier and should be valid till 6 months after the receipt of goods by the Consignee.
- ii) in case of supply of the imported goods on CIP Named port of Destination Basis, the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 6 months beyond date of delivery for an amount equal to 110% of the overall expenditure to be incurred by the purchaser from ware house to ware house (consignee site) on all risk basis.

If the equipment is not commissioned and handed over to the consignee within 6 months, the insurance will have to be extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actuals will be reimbursed.

12. Spare parts

- 12.1 If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:
- a) The spare parts as selected by the Purchaser/Consignee to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and
 - b) In case the production of the spare parts is discontinued:
 - i) Sufficient advance notice to the Purchaser/Consignee before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and
 - ii) Immediately following such discontinuation, providing the Purchaser/Consignee, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by the Purchaser/Consignee.
- 12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the goods so that the same are supplied to the Purchaser/Consignee promptly on receipt of order from the Purchaser/Consignee.

13. Incidental services

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

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

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

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

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

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

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

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Two copies of packing list identifying contents of each package;
- (iii) Certificate of origin;

- (iv) Insurance Certificate as per GCC Clause 11.
- (v) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

B) For goods imported from abroad

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract). Any delay or demurrage occurred during the customs clearance on account of the non-availability of technical support/ clarifications /documents from the supplier shall be borne by the supplier:

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

15. Warranty:

15.1 The supplier is to assure uninterrupted service without compromising OT/ICU

- 15.2 Complete system including labour & spares should have comprehensive onsite warranty for five years; commencing from the date of issue of installation certificate by the institute. Post guarantee annual comprehensive maintenance contract (CMC) to cover main equipment/civil construction including all accessories supplied with the unit.
- Incremental Cost (if any) for, up gradation, if required, should form part of the contract for the Warranty and Post Warranty period.
 - The Supplier (manufacturer) shall set-up a maintenance base to provide maintenance service, of the entire turnkey system being offered, at short notice during the warranty and post warranty period.
 - If the performance of any individual equipment or system is not satisfactory, the same shall be replaced by the supplier free of cost.
 - If it is found that to meet the performance criteria, any extra equipment is required the same will be provided free of cost by the supplier.
 - All faults appearing and their rectification shall be periodically advised to the hospital, the period being not more than a month.
 - Any lacuna or lacunae noticed in the functioning of the installation as a result of any design feature shall be rectified by the supplier free of cost.
 - The Supplier shall fully associate the engineers and technicians of the Institute during installation, testing and commissioning.
 - The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (except when

the design adopted and/or the material used are as per the Purchaser's/Consignee's specifications) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.

- The warranty shall remain valid for 60 months from the date of installation & commissioning with a regular up gradation of newer technology as and when evolved followed by a CMC for a period of 5 (Five) Years for all the equipments after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the purchaser/consignee in terms of the contract, unless specified otherwise in the SCC.
- No conditional warranty like mishandling, manufacturing defects, etc. will be acceptable.
- Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work and it will also cover the following wherever applicable:-
 - Any kind of motor.
 - Plastic & Glass Parts against any manufacturing defects.
 - All kind of sensors.
 - All kind of coils, probes and transducers.
 - Printers and imagers including laser and thermal printers with all parts.
 - UPS including the replacement of batteries.
 - Air-conditioners
 - All kinds of painting, civil, HVAC and electrical work
- Proper marking has to be made for all spares for identification like printing of installation and repair dates.

15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per GCC clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.

15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non rectification will be applicable as per tender conditions

15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended till the completion of the original warranty period of the main equipment.

15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.

15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods

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

15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years from the date of installation and handing over.

15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its

equipments/machines/goods etc. and shall always give the most competitive price for its machines/equipments supplied to the Purchaser/Consignee.

16. Assignment

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

17. Sub Contracts

17.1 The Supplier shall notify the Purchaser in writing of all sub contracts awarded under the contract if not already specified in its tender. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.

17.2 Sub contract shall be only for bought out items and sub-assemblies.

17.3 Sub contracts shall also comply with the provisions of GCC Clause 4 ("Country of Origin").

18. Modification of contract

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

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

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

19. Prices

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

20. Taxes and Duties

20.1 Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until 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 goods of foreign origin located within India.

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

a) On delivery:

Seventy (70%) payment of the delivered goods price shall be paid on receipt of goods in good condition and upon the submission of the following documents:

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Consignee Receipt Certificate as per Section 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 as per GCC Clause 11 and documents also to be submitted for payment confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
- (vi) Certificate of origin.
- (vii) Manufacturer's warranty certificate.

b) Twenty (20%) payment of the delivered goods price shall be paid on installation and commissioning upon submission of following document:-

- i) Installation and commissioning certificate in original issued by the consignee.

c) On Acceptance:

Balance Ten (10%) payment of the delivered goods value would be made against 'Final Acceptance Certificate' (FAC) as per Section XVIII of goods to be issued by the consignees subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise. FAC need to be issued by the designated consignee after installation, commissioning, testing and one month of successful trial run of the equipment.

d) **Payment of other services, installation commissioning charges:-** Payment of other services, labour, installation and commissioning charges etc. will be paid only after issuance of final acceptance certificate by the consignee.

B) Payment for Imported Goods:

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

a) On Shipment:

Seventy (70)% of the net CIP price (CIP price less Indian Agency commission) of the goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of documents specified hereunder:

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

b) Twenty (20)% of the net CIP price (CIP price less Indian Agency commission) of the goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of the following document:

- i) Installation and commissioning certificate in original issued by the consignee.

c) On Acceptance:

Balance payment of 10% of net CIP price of goods would be made against 'Final Acceptance Certificate'(FAC) 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. FAC need to be issued by the designated consignee after installation, commissioning, testing and one month of successful trial run of the equipment.

d) Payment of Incidental Costs till consignee site & Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) will be paid in Indian Rupees to the Indian Agent on proof of final installation, commission and acceptance of equipment by the consignee.

e) Payment of Indian Agency Commission:

Indian Agency commission will be paid to the manufacturer's agent in the local currency for an amount in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation/ exchange variation.

C) Payment of Turnkey, if any:

Turnkey payment will be made to the bidder/manufacturer's agent 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.

D) Payment for Annual Comprehensive Maintenance Contract Charges:

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

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

“I/We, _____certify that I/We have not received back the Final Acceptance Certificate duly receipted by the consignee or any communication from the purchaser or the consignee about non-receipt, shortage or defects in the goods supplied. I/We ___agree to make good any defect or deficiency that the consignee may report within three months from the date of receipt of this balance payment.

22. Delivery

- 22.1 The supplier shall deliver the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the contract.
- 22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:
- i) imposition of liquidated damages,
 - ii) forfeiture of its performance security and
 - iii) termination of the contract for default.
- 22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the

Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

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

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

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

22.6.1 Passing of Property:

- (i) The property in the goods shall not pass to the purchaser unless and until the goods have been delivered to the consignee in accordance with the conditions of the contract.
- (ii) Where there is a contract for sale of specific goods and the supplier is bound to do something to the goods for the purpose of putting them into a deliverable state the property does not pass until such thing is done.
- (iii) Unless otherwise agreed, the goods remain at the supplier's risk until the property therein is transferred to the purchaser.

23. Liquidated damages

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

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

24. Termination for default

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

25. Termination for insolvency

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

26. Force Majeure

- 26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.
- 26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of , the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, and freight embargoes.
- 26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.
- 26.5 In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for convenience

- 27.1 The Purchaser/Consignee reserves the right to terminate the contract, in whole or in part for its (Purchaser's/Consignee 's) convenience, by serving written notice on the supplier at any time

during the currency of the contract. The notice shall specify that the termination is for the convenience of the Purchaser/Consignee. The notice shall also indicate interalia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.

- 27.2 The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by the Purchaser/Consignee following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser/Consignee may decide:
- a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
 - b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing language

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

29. Notices

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

30. Resolution of disputes

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

31. Applicable Law

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

32 Withholding and Lien in respect of sums claimed

Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other contract made by the supplier with the purchaser, pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred to above ,by the purchaser, will be kept withheld or retained till the claim arising about of or under the contract is determined by the Arbitrator or by the competent court as the case may be ,and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

33. General/ Miscellaneous Clauses

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

SECTION – V

SPECIAL CONDITIONS OF CONTRACT (SCC)

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

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

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

SECTION - VI
LIST OF REQUIREMENTS

Part I:

| |
|------------------------------------|
| Medical Gas Pipeline System |
| Event Number (Rfx) - |

| Sch No. | Consignee Name | States | Consignee Code | Qty. | Warranty in years | CMC in years |
|---------|--|----------------|----------------|------------|-------------------|--------------|
| 1 | Government Medical College - Anantapur | Andhra Pradesh | GMCA | As per BOQ | 5 | 5 |
| 2 | Sidhartha Medical College - Vijayawada | Andhra Pradesh | SMCV | | 5 | 5 |
| 3 | Vijaynagar Institute of medical Science | Karnataka | VIMS | | 5 | 5 |
| 4 | Gajra Medical college | Madhya Pradesh | GMCM | | 5 | 5 |
| 5 | GMC - Rewa | Madhya Pradesh | GMCR | | 5 | 5 |
| 6 | Netaji Subhash Ch. Bose Medical College - Jabalpur | Madhya Pradesh | NSBMC | | 5 | 5 |
| 7 | GMC - Aurangabad | Maharashtra | GMCAR | | 5 | 5 |
| 8 | MKCGMC - Berhampur | Odisha | MKCGMC | | 5 | 5 |
| 9 | RNTMC - Udaipur | Rajasthan | RNTMC | | 5 | 5 |
| 10 | SPMC - Bikaner | Rajasthan | SPMC | | 5 | 5 |
| 11 | GMC - Kota | Rajasthan | GMCKT | | 5 | 5 |
| 12 | GMC - Tanjavur | Tamil Nadu | GMCT | | 5 | 5 |
| 13 | GMC - Tirunalveli | Tamil Nadu | GMCTR | | 5 | 5 |
| 14 | GMC - Warangal | Telangana | GMCW | | 5 | 5 |
| 15 | RGIMS - Adilabad | Telangana | RGIMS | | 5 | 5 |
| 16 | MLNMC - Allahabd | Uttar Pradesh | MLNMC | | 5 | 5 |
| 17 | GMC - Jhansi | Uttar Pradesh | GMCJ | | 5 | 5 |
| 18 | NBMC - Siliguri | West Bengal | NBMC | | 5 | 5 |

Part II: Required Delivery Schedule:**a) For Indigenous goods or for imported goods if supplied from India:**

Within 180 days from date of Notification of Award to be delivered, installed and commissioned at consignee site subject to availability of clear 90 days from the date of handing over of installation site by the consignee. The date of delivery will be the date of delivery at consignee site. If the bidder gets work order for more than one schedule, simultaneous deliveries need to be ensured by the bidder/awardee.

b) For Imported goods directly from foreign:

180 days from the date of opening of L/C. The date of delivery will be the date on which the consignment reaches the port of destination. 180 days is inclusive of installation and commissioning subject to availability of clear 90 days from the date of handing over of installation site by the consignee. If the bidder gets work order for more than one schedule, simultaneous deliveries need to be ensured by the bidder/awardee.

Note:

- i) Supplier has to submit the clear documents for opening of LC to HITES within 30 days of placement of order. Any delay will be treated as non-performance and Liquidated Damages shall be levied.
- ii) In case of multiple LC are opened in favour of multiple manufacturers, the delivery period for all the items under the contract shall be counted from the date of opening of the first LC only.
- iii) Indigenous goods or imported goods if supplied from India (offered in INR) which are linked with supply of directly imported goods, are to be supplied within the contractual delivery period as stated in para b) above.
- iv) Since the supplier is not responsible for custom clearing and forwarding the goods to consignee site, the time taken for the same shall not be counted for computation of LD. However, time taken by the supplier to rectify the short comings of any document for custom clearing the goods to be counted in the above delivery period.

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

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13. Five (5) persons each from each medical college/ institution needs to be trained for MGPS.

Part IV:

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

Part V:

Warranty period as per details in general technical specification and as specified in Part I above. Warranty period will be 60 months from the date of installation, commissioning and acceptance or 66 months from the date of last shipment/dispatch when received at consignee site, whichever is earlier.

Part VI:

Supplier has to quote for running, operation and maintenance for initial five year period as defined in tender scope of works.

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

Part VII:

Required Terms of Delivery and Destination.

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

At Consignee Site(s)

b) For Imported goods directly from abroad:

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

Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 6 months beyond date of delivery.

Destination/Consignee details are given in Section XX.

Section – VII

Technical Specifications

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

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

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

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

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

Note 4: DISMANTLING AND DEMOLISHING

Providing all tools, tackles, manpower for demolishing /dismantling, alteration/ addition for lime concrete, cement concrete, R.C.C, R.B work, precast concrete or stone slabs in walls, partition walls, stone rubble masonry, dressed stone work, ashlar face stone work, marble work or precast concrete work, dismantling doors, windows and clerestory window (steel or wood) shutter including chowkhats, architrave, holdfasts etc. CI or asbestos rain water pipes of any diameter with fittings and clamps, dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, taking out doors, windows and clerestory window shutters (steel or wood), wood work in frames, trusses, purlins and rafters, dismantling steel work in single sections including dismembering and stacking, dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc., old plaster or skirting raking out joints and cleaning the surface for plaster, dismantling of R.C.C. spun vent shaft including excavating the cement concrete pit completely, taking out the shaft, refiling the excavated gap, stacking the useful materials near the site extra for cutting reinforcement bars, Dismantling aluminium/ Gypsum partitions doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material within 1000 meters lead and any other work as directed by engineer-in-charge.

Disposal of building rubbish/ malba/ similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge.

TECHNICAL SPECIFICATIONS

Technical specifications of Centralized Medical Gas Pipeline System for respective Institute under PMSSY Phase – III Up-Gradation

The system comprises of

1. Secondary Oxygen Manifold and Emergency oxygen manifold with automatic control panels
2. Nitrous Oxide Manifold and Emergency NO₂ Manifold with automatic control panel
3. Medical Air Supply System (4 Bar & 7 Bar) complete.
4. Medical Vacuum (suction) Supply System Complete.
5. Distribution Piping Complete with Accessories.
6. Area Valve Service System.
7. AGSS system Complete
8. Alarm Systems (Master & Area)
9. Gas Outlets with Probes
10. Bed Head Panels
11. Other associated & Optional works

RESPONSIBILITY OF BIDDER

1. Bidder shall be responsible for complete design, supply, installation, testing and commissioning including turnkey works, demolition and construction as applicable. The bidders are required to survey the site before furnishing the quotations.
2. Bidder shall execute all required civil, electrical, plumbing, lighting, fire safety, exhaust systems and other works as maybe required for complete installation and trouble-free functioning as a part of the 'turnkey work'.
3. Hospital will provide one point electrical supply with isolator in the plant. The wiring, peripheral lighting, fans, exhaust etc have to be done by the bidder.
4. Control panel for Vacuum system and Air plant system has to be supplied by the bidder.
5. Bidder will be responsible for trenching or other associated work related to installation and commissioning of complete MGPS system.
6. The MGPS bidder has to terminate/interconnect all the medical gas lines upto/to the OT/MOT.
7. Installation and commissioning of area valve service unit and alarm unit for the operation theatre shall be done by the MGPS bidder.
8. Medical gas pipe line inside the minor operation theatre has to be done by the MGPS bidder. MGPS bidder shall cooperate with the MOT bidder for associated works.
9. The bidder shall be responsible for the complete works including the submission of working drawings, and isometric views, detailed work schedule and materials. Bidder shall be responsible for design, supply, installation, testing and commissioning of medical gas supply system in coordination with respective institute authorities & HLL/HITES.
10. Bidder shall be responsible for free maintenance of all component of Gas pipeline system during warranty period including all filters & consumables.
11. Bidder should provide factory test certificates for the materials used. Bidder should supply complete set of part manuals, service manuals and user manuals for all the systems and subsystems supplied. Final electrical safety test, system test, leakage and calibration should be done by authorized persons using calibrated test equipment as per standards.
12. The Medical Gas Pipe Line System must follow Single Standard any one only from: NFPA 99c/HTM 02-01/ ISO 7396-1/DIN/EN. For AGSS Ventury type is not acceptable.
13. All Gas Outlets in MOT (i.e. O₂, N₂O, MA4, MA7, Vacuum, CO₂(if required), etc.) will come with OT Pendants(Under MOT Tender) Bidder has to provide pipe lines upto all MOTs.

14. Bidder shall co-ordinate with respective Departments Head for their final Gas Outlets requirement per bed in their wards and should incorporate the same in drawing.
15. The final Payment will be made on the actual consumption of the BOQ Items and ranking will be done with tendered BOQ.

Scope and Technical Specification:

1. Oxygen Supply System

1.1 Fully Automatic Oxygen Control Panel (Imported):

Automatic control panel should be constructed in accordance with the requirement of international standards. The fully automatic oxygen control panel should comply with HTM 02-01/NFPA 99C/DIN/EN/ISO-7396-1 standards. It should be European CE Certified or UL listed.

The manifold assembly should provide two stages of pressure regulation. A single stage primary regulator, one for each cylinder bank should be used to initially reduce cylinder pressure and two single stage pressure regulators should be provided in the control cabinet for final delivery pressure regulation. One delivery pressure regulator in service and one should be ready for service in a standby mode. The Manifold control panel should be digital/Analogue, fully automatic type and switches from "Bank in Use" to "Reserve bank " without fluctuation in delivery supply line pressure. Changeover should be performed by electrically/pneumatically operated valves contained in the control cabinet. In the event of an electrical power failure the valves should automatically open to provide an uninterrupted gas flow. It should be 100% automatic and should not require manual adjustment.

Instruction for changing the cylinders should be clearly identified on the front of the control panel.

All functional components should be enclosed in corrosion resistant robust material.

All components inside the Control Panel like Pressure Regulators, piping and control switching equipment should be cleaned for Oxygen Service and installed inside the cabinet to minimize tampering with the regulators or switch settings.

The Control Panel shall include two pressure relief valves, one high pressure approx.200psi and one low pressure approx.75 psi.

The heavy duty control panel should be provided with a flow capacity of 1500 or more LPM at 50 to 60 psi.

The Automatic Control Panel should be installed in such a way to meet the peak flow requirement of the Hospital/Institute (If the requirement is more than flow capacity requirement automatic control panel the bidders has to supply 02 numbers of Automatic Control Panel and design the system in such a way to meet the flow requirement of respective institute)

Control panel should have Alarm reset switch/Mute /acknowledgement switch to control and monitor the alarm indications by the operator.

1.2 Oxygen Manifold Supply System (without Cylinders)

The size of Manifolds should be as mentioned in BOQ of respective Institute and it shall be compatible with Class-D type bulk cylinders.

Manifold shall consist of two high pressure header bar assemblies to facilitate connection of primary and secondary cylinder supplies. Each header bar shall be provided with respective numbers of cylinder pigtail connections to suit cylinder valves as per IS.3224/ BS/ ASME incorporating a check valve at the header connection.

The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections. Each header bar assembly shall be provided with a high pressure shut off valve.Oxygen Manifold should consist of 2 rows of respective numbers of class D-type bulk oxygen cylinders. The manifold should be hydraulically tested to 3500 psig. The manifold should be so designed that it shall suit easy cylinder changing and positioning. The system should have non – return valves for easy changing of cylinders without closing the bank.

The cylinder should be placed with the help of cylinder brackets and fixing chains which should be galvanized

1.3 Emergency Oxygen Manifold (without Cylinders)

The size of Manifolds should be as mentioned in BOQ of respective Institute and it shall be compatible with Class-D type bulk cylinders.

Manifold shall consist of two high pressure header bar assemblies to facilitate connection of respective numbers of primary and secondary cylinder supplies. Each header bar shall be provided with respective numbers of cylinder pigtail connections to suit cylinder valves as per IS.3224/ BS/ ASME incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections. Each header bar assembly shall be provided with a high pressure shut off valve.

Oxygen Manifold should consist of 2 rows of respective numbers of class D-type bulk oxygen cylinders. The manifold should be hydraulically tested to 3500 psig. The manifold should be so designed that it shall suit easy cylinder changing and positioning. The system should have non – return valves for easy changing of cylinders without closing the bank. The cylinder should be placed with the help of cylinder brackets and fixing chains which should be galvanized.

1.4 Oxygen Flow meter with Humidifier Bottle

Back Pressure Compensated flow meter for accurate gas flow measurement with following features:

- A) Control within a range of 0-15 LPM.
- B) It should meet strict precision and durability standard.
- C) The flow meter body should be made of brass chrome plated materials.
- D) The flow tube and shroud components should be made of clear, impact resistant polycarbonate.
- E) Flow tube should have large and expanded 0-15 LPM range for improved readability at low flows.
- F) Inlet filter of stainless steel wire mesh to prevent entry of foreign particles
- G) The humidifier bottle is made of unbreakable & reusable polycarbonate /polysulfone material autoclavable at 121 degree centigrade .
- H) Humidifier Bottle should be covered under warranty & CMC.
- I) should be BIS/CE certified/ UL Listed

2. NITROUS OXIDE SYSTEM

2.1 Fully Automatic Nitrous Oxide Control Panel (Imported)

The fully automatic N2O control panel should comply with HTM 02-01/ NFPA 99 C/ EN /DIN /ISO 7396-1 STANDARD. It should be European CE Certified or UL listed.

The manifold assembly should provide two stages of pressure regulation. A single stage primary regulator, one for each cylinder bank should be used to initially reduce cylinder pressure and two single stage pressure regulators should be provided in the control cabinet for final delivery pressure regulation. One delivery pressure regulator in service and one should be ready for service in a Standby mode. The Manifold control panel should be digital/ Analogue, fully automatic type and switches from “Bank in Use” to “Reserve bank “ without fluctuation in delivery supply line pressure. Changeover should be performed by electrically/pneumatically operated valves contained in the control cabinet. In the event of an electrical power failure the valves should automatically open to provide an uninterrupted gas flow. The manifold should not require any manual resetting or adjustments after the replacements of the depleted cylinders.

All functional components should be enclosed on fire resistant, robust synthetic polymer/SS.

The Control Panel shall include two pressure relief valves, one high pressure approx.200psi and one low pressure approx.75 psi.

The control panel should also have heaters to prevent ice formation on the regulators at high flow rates.

The Control Panel should be made to provide Heavy Duty and have a flow capacity of 500 LPM or more at 50 to 60 psi.

The Automatic Control Panel should be installed in such a way to meet the peak flow requirement of the Hospital/Institute (If the requirement is more than flow capacity requirement automatic control panel the bidders has to supply 02 numbers of Automatic Control Panel and design the system in such a way to meet the flow requirement of respective institute)

Control panel should have Alarm reset switch/Mute /acknowledgement switch to control and monitor the alarm indications by the operator.

2.2 Nitrous Oxide Manifold (Without Cylinders)

The size of Manifolds should be as mentioned in BOQ of respective Institute and it shall be compatible with Class-D type bulk cylinders.

Manifold shall consist of two high-pressure header bar assemblies to facilitate connection of primary and secondary cylinder supplies. Each header bar shall be provided with respective number of cylinder pigtail connections to suit cylinder valves as per IS.3224/ BS/ ASME incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections. Each header bar assembly shall be provided with a high pressure shut off valve. The manifold should be hydraulically tested to 3500 psig. The manifold should be so designed that it shall suit easy cylinder changing and positioning. The cylinder should be locked with the help of cylinder brackets and fixing chains which should be galvanized.

2.3 Emergency N2O Manifold (Without Cylinders)

The size of Manifolds should be as mentioned in BOQ of respective Institute and it shall be compatible with Class-D type bulk cylinders.

Manifold shall consist of two high-pressure header bar assemblies to facilitate connection of primary and secondary cylinder supplies. Each header bar shall be provided with respective numbers of cylinder pigtail connections to suit cylinder valves as per IS 3224/ BS/ ASME incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections. Each header bar assembly shall be provided with a high pressure shut off valve. Nitrous oxide manifold should consist of 2 rows of respective numbers of cylinders.

The manifold should be hydraulically tested to 3500 psig. The manifold should be so designed that it shall suit easy cylinder changing and positioning. The system should have non – return valves for easy changing of cylinders without closing the bank. The cylinder should be placed with the help of cylinder brackets and fixing chains which should be galvanized.

3. MEDICAL AND SURGICAL AIR SYSTEM (Package Unit - Imported)

Air-cooled **Oil-Less** compressors for continuous duty application with highest output of compressed air, low power consumption and very low vibration resulting in low noise level.

The medical air plant shall fully comply with the requirements of the HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1. It should be European CE/ UL listed. (In-case of NFPA 99c the control panel of plant must be UL Listed and Undertaking from manufacturer for this tender reference must be submitted for using the same control panel in the system offered)

3.1 Air Compressor Modules

It should be **Oil-Less Screw Compressors /Scroll Compressors** to produce the plant output of {**minimum Liters Per Minutes(LPM) Plant capacity** } as mentioned in BOQ of respective institute as primary and same as standby.

Medical quality air shall be delivered at a nominal pressure of 400 kPa (4 bar) and 700kPa(7 bar) gauge for supply of the hospital medical air and surgical air.

Compressor plant should be designed in such a way that compressors will switch on in a sequential manner as per flow demand.

The compressors should be standalone ones with independent power supply. Each Compressor should be suitable for both continuous and frequent start/stop operation at a nominal plant pressure of 10bar or more.

The duty compressors shall be automatically rotated by the plant control system to ensure even wear. Compressors shall be supplied and installed in such a way after cooler with a quiet running fan to maximize cooling and efficiency. Each desiccant dryer shall be provided with a dew point sensing switch that shall provide an alarm on the plant control panel and central hospital alarm system when the water concentration in the delivered air rises above the limit. Duplex desiccant dryer and filtration modules shall be provided with three or more individual stages of filtration as follows:

Stage 1: Coalescing filter upstream of the desiccant dryer for removing liquid water particles down to 1micron.

Stage 2: Particulate filter after the desiccant dryer for dust protection and removing particles down to 1 micron.

Stage 3: Bacteria filter for removing particles down to 0.01 micron.

Purity should be tested as per the **American Pharmacopeia / European Pharmacopeia** standard.

The plant control and power management system shall monitor the safe operation of the plant, providing signal into the alarm system as per the requirements of the standard.

Pressure Reducing Station: for 4 bar and 7 bar should fully comply and meet with the requirements of the standard. Simplex pressure reducing station shall comprise as in-line pressure regulator, with downstream pressure gauge. Isolation valves and pressure release valves should be provided as per the standard. Duplex pressure reducing station to have two branches, 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 - Full bore which operate from fully open to fully closed position with a quarter turn of the handle. Complete pressure reducing station with base plate mounted for ease of installation.

Padlocks available to allow locking of the valves in both open and closed positions and must have easy to read pressure gauges. Base plate mounted and supplied with copper stub pipes for ease of installation using inert jointing procedures.

The compressor system should have-

1. Intake filter Check Valve Delivery pipe
2. Mounting on air tank along with all standard fittings viz. safety valve, pressure gauge, delivery valve, drain valve etc.
3. Bidder shall provide all electric control panels, starters etc required for proper functioning of motor.
4. Desiccant Air Dryer – 2 nos.(Duplex)
5. 2-Stage or more Breathing Air Filters – 2 sets(Duplex)
6. Outlet pressures for drills/equipment and ventilators should be a minimum of 7 bar and 4 bar respectively.
7. Duplex pressure reducing station

The compressor should be heavy duty, reliable with long MTBF. Each compressor cylinder is to be protected by a temperature switch, which will stop the drive motor and provide an alarm signal in the event of abnormal discharge air temperature. Each compressor module should include an inline filter with particle retention of 10 microns, inlet isolation valve, discharge

isolation valve, and pressure relief valve. The capacity should be capable to take care of total load of all the outlets.

3.2 Vertical Air Receiver

Total air receiver capacity shall be at least 50% of the primary plant capacity in 1 minute in terms of free air delivered at normal working pressure. Each air receiver shall be protected by a pressure relief valve, a fusible plug and include a pressure gauge with isolating valve and a drain cock.

The corrosion resistant coated receiver is to be equipped with tested safety pressure relief valve, sight glass pressure gauge, automatic drain, three-valve by-pass and source isolation valve. Should be fabricated as per IS:2825/ASME/BS/

3.3 Air Treatment Module

The air treatment module should include dual dryers, dual filtration system and a dewpoint transmitter with local audible and visual signals and dry contacts for remote monitoring. The components should be mounted on a common base with interconnecting copper/brass piping and upstream and downstream isolation valves. The isolation valves must allow either set of components to be serviced without shutting down the system.

Dryers should be of heatless desiccant design and sized to provide for the peak calculated demand. The desiccant dryers should be equipped with dew point dependent switching feature to minimize the need for purge air.

The dual filtration system should remove liquid and particulate matter, consisting of 0.5micron coalescing filters with differential pressure indicators and automatic drain, airline pressure regulators with gauges, final pressure relief valve, and sampling valve.

Each bank should consist of three stage treatment. Digital dew point monitor is to be supplied with alarm contacts as per requirement of the standard.

3.4 System Controls

The "Continuous on Demand" feature will stop the operation of the motors during periods of low or no demand. The control include individual self-protected combination motor controls with short circuit protection, single phase and thermal overload protection, individual control circuit transformers with fuseless primary and secondary protection, pressure sensors, temperature switches with reset buttons, and an electronic controller to automatically change the operating sequence of the compressors. The cabinet shall have status display to include system pressure, dew point pump operation, accumulated time, maintenance interval, fault conditions, and silence button, lighted Hand-Off-Automatic selector switches and safety disconnect operating handles. All required local alarm functions shall be integrated in to the packaged system.

The system should be designed to function even if the programmable controller fails.

3.5 Accessories

Accessories including for job site installation such as inlet and discharge flexible connectors, vibration mounting pads, and source isolation valve should be supplied.

All the filters should be covered under warranty period and CMC Period.

4. VACUUM SYSTEMS (Package unit – imported)

It should be European CE certified or UL listed. (In-case of NFPA 99c the control panel of Plant must be UL Listed and Undertaking from manufacturer must be submitted for using the same control panel in the system offered)and should comply with HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1

4.1 Vacuum Pump Module

It should be **Oil Sealed Rotary Vane Type** to produces the plant output of {**minimum Liters Per Minutes(LPM) Plant capacity** } as mentioned in **BOQ of respective institute as primary and same as standby**

Designed flow capacity should be minimum of LPM capacity as mentioned in BOQ of respective institute. The vacuum plant shall comprise air-cooled, oil lubricated rotary vane vacuum pumps suitable for both continuous and frequent start/stop operation at inlet vacuum levels between 500mmHg and 660 mmHg.

The control system should normally employ automatic rotation of the lead pump to maximize pump life and ensure even wear. Vacuum pump inlets shall include a wire mesh filter and integral non-return valve to prevent oil suck back and pressure increases in the vacuum system.

Each vacuum pump shall be fitted with anti-vibration pads between the pump foot and mounting frame. The plant shall be fitted with duplex bacteria filter system.

4.2 Vacuum Receiver

The vacuum receiver shall be made of rust free corrosion resistant steel and fabricated as per IS:2825/ASME/BS/ISO for a vacuum pressure of 760mmHg. It should include bypass valves, manual drain valves, vacuum gauge. Vacuum reservoir shall have total volume of at least 100 % of plant output in one minute in terms of free air aspired at normal working pressure.

4.3 System Controls

The control include individual self-protected combination motor controls with short circuit, single phase and thermal overload protection, individual control circuit transformers with fuse less primary and secondary protection, pressure sensors, temperature switches with reset buttons, and an electronic controller to automatically change the operating sequence of the compressors. The system should have a status display to show the system pressure, elapsed time, maintenance interval, fault conditions, and silence button, lighted Hand-Off-Automatic selector switches and safety disconnect operating handles.

All required local alarm functions should be integrated into the packaged system. The circuitry should be designed so that the audible signal can be silenced and the visual indicator will remain until the fault has been cleared and the reset button resets. Local alarm functions should be annunciated for reserve pump in use.

4.4 Bacterial Filters

The filters should be designed for removal of solid, liquid and bacterial contamination from the suction side of vacuum pump systems, preventing damage to the pump and the potential biological infection of the surrounding environment. The dryer should be particulate filter dryer with ability to remove particles as small as 1micron.

Each individual filter shall have the capacity to deliver full design flow such that one set is designated duty and the other will be standby. Bacteria filters shall have efficiency at least 99.999% when tested by the sodium flame method in accordance with BS 3928:1969/as per required standard utilising particles in the 0.02 to 2 micron size range. The pressure drop across each clean filter at 50% of the system design flow should not exceed 25 mm Hg (3 kPa) at a vacuum of 475mm of Hg (63 kPa). Bacteria filters shall be marked with the legend 'Bio-Hazard'.

Each bacteria filter shall be provided with a transparent sterilizable collection jar to collect condensate. The total water capacity of the pressure vessels shall be at least 100% of the design flow rate of the plant in 1 minute in terms of free air aspired.

4.5 Accessories

Accessories included for job site installation are inlet and discharge flexible connectors, vibration mounting pads, and source isolation valve, inlet check valve, oil temperature gauge, thermal malfunction switch and vacuum control switch. Flexible connectors on inlet and exhaust of each pump, exhaust tee with union as well as copper tubing with Shut-off-cock for gauge and vacuum switch etc.

All the filters should be covered under warranty period and CMC Period.

5. Ward Vacuum Units

It must consists of the following:-

1. 1no of Suction Regulator and 1no of 1000 ml polysulfone /polycarbonate collection jar.
2. Suction Regulator: Suction regulator should be supplied with a safety jar, including and antibacterial filter and an anti-overflow safety device. Should have wide membrane continuous suction controller
3. Should have vacuum levels: 0-760 mm of Hg
4. Should have vacuum gauge fitted with a protective bumper device.
5. Should have on/off knob allowing for the quick restoration of a readjusted vacuum level.
6. Must have central adjustment knob with a color coded for 0 to 760 mm of Hg. Should have Polysulfone/polycarbonate 1000cc safety jar, autoclavable at 121^o C at 5mins, unbreakable, fitted with an anti-overflow safety device and equipped with a plastic antibacterial filter. It should be totally transparent, to ensure perfect sucked liquid visibility.

6. Theatre Vacuum unit for OT

It must consist of the following: -

1. 1no. Suction Regulator and 2nos. 1700ml or more polysulfone/ polycarbonate collection jar and both to be mounted on a trolley.
2. Suction Regulator: Suction regulator should be supplied with a safety jar, including an anti-bacterial filter and an anti-overflow safety device. Should have wide membrane continuous suction controller
3. Should have vacuum levels : 0-760 mm of Hg
4. Should have vacuum gauge fitted with a protective bumper device.
5. Should have on/off knob allowing for the quick restoration of a readjusted vacuum level.
6. Must have central adjustment knob with a color coded for 0-760 mm of Hg. Should have polysulfone/polycarbonate safety jar, autoclavable at 121^o C, unbreakable, fitted with an anti-overflow safety device and equipped with a plastic antibacterial filter.
7. Collection jar should be totally transparent, to ensure perfect sucked liquid visibility.

7. AGSS (Anesthetic Gas Scavenging System) Plant (Package Unit - Imported)

Duplex Anesthetic Gas Scavenging System (AGSS) of minimum 1400LPM, should be European CE Certified or UL listed. It shall confirm to HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1.

One pump working and one stand by and vice versa. The package should consist of two rotary vane vacuum pumps, a control panel, and 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.

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 from the highest point of the hospital building, 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 systems. It is

essential that terminal units, remote controls (If required) and pump units work in synchronized manner after connection of workstation to the AGSS System.

Installation should be on roof top/suitable location. Piping, Non-Return-Valves (NRVs), and inlet nozzle should be suitably placed. Connecting hose suitable to fit with anesthesia workstation should be provided.

8. DISTRIBUTION PIPING

8.1 Piping specifications

Copper pipe should be as per standard BS: EN 13348:2008/ ASTM B819 standards, Solid drawn, seamless, deoxidized, non-arsenical, half hard (hard can be accepted only for sizes 54mm or more), tempered and degreased copper pipe conforming to the standard. All copper pipes should be degreased & delivered capped at both ends. The pipes should be accompanied with manufacturers test certificate for the physical properties & chemical composition.

Copper pipe must have reputed third party inspection certificate (Eg. Lloyd's or TUV or SGS).

Fittings should be made of copper and suitable for a working Pressure of up to 17bar and especially made for brazed socket type connections. The isolation valve body shall be made of chromium plated brass with non lubricated ball-type. All valves shall be pneumatically tested for twice the working pressure and factory degreased for medical gas service.

Copper fittings should comply with EN 1254:1 factory degreased and brazing filler metals should comply with EN 1044. Fitting should be degreased, individually packed for medical use.

The minimum thickness of copper pipes of 35mm and above outer diameter, should be 1.2mm and the thickness of copper pipes less than 28mm outer diameter, should be 1mm as mentioned in respective Institute's BOQ.

8.2 Installation & testing

Installation of piping shall be carried out with utmost cleanliness. Only pipes, fittings and valves that have been degreased and fittings shall be used at site. Pipe fixing clamps shall be of nonferrous or non-deteriorating plastic suitable for the diameter of the pipe.

Inert gas welding technique should be used by passing oxygen Free Nitrogen Gas inside the copper pipes during silver brazing, in order to avoid carbon deposition inside the copper pipes. Only copper-to-copper joints are permitted on site except threaded or flanged joints may be made where pipelines are connected to items such as valves and control equipment. No flux shall be used for joining Copper to Copper joints and on for joints made on site. Copper to copper joints shall be brazed using a 5% silver-copper phosphorous brazing alloy CP104. A total of 5 joints shall be cut out for examination to establish the quality of the joints being made on site. The insides shall be clean and free from oxides and particulate matter and the minimum penetration of the brazing alloy at any point shall be three times the wall thickness of the tube. If the joints examined do not conform to these requirements, then adjacent joints shall be cut out and examined until the extent of faulty workmanship has been made good. Copper-to-brass or gunmetal joints shall only be made under controlled conditions off site. The joints are ordinarily used to join short copper pipe tails to brass, gunmetal or bronze fittings to permit their connection into the pipeline. The sub-assemblies shall be degreased and individually sealed in bags or boxes before delivery to site.

Adequate supports should be provided while laying pipelines to ensure that the pipes do not sag. Suitable sleeves shall be provided wherever pipes cross through walls / slabs. All pipe clamps shall be non-reactive to copper.

After erection, the pipes are to be flushed with dry nitrogen gas and then pressure tested with dry nitrogen at a pressure equal to twice the working pressure or 150 psig, whichever is higher for a period of not less than 24 hours.

Length and quantity of individual items (Copper pipes, AVSUs, Alarm panels, Isolation valves, Outlets, pendants etc.) are mentioned. However quantity will be calculated and paid at actuals. Bidder should quote unit price for all the items as detailed

Maximum interval between supports (Horizontal and Vertical)

(12mm Pipe - 1.5m, 15mm pipe - 1.5m, 22mm pipe - 2m, 28mm pipe-2m, 35mm pipe-2.5m, 42mm pipe -2.5m, 54mm pipe - 2.5m, 76mm pipe - 3meter)

8.3 Painting

All the pipes from manifold/plant upto the outlets should be painted with two coats of synthetic enamel paint and colour codification should be as per standards followed and with consultation with competent authorities of the Institute.

9. GAS OUTLETS (IMPORTED)

Terminal Units (Gas Outlets) with probes/Adaptors for O₂, N₂O, Compressed Air 4, Air 7, AGSS, Vacuum & CO₂ (CO₂ can be optional depending on the requirement)

The Medical gas outlets shall conform to HTM 02-01/ NFPA 99 C/EN/DIN/ ISO 7396-1. Front Loading Type Terminal Outlets should be designed to dispense medical gases (or an inlet for medical vacuum) to the secondary equipment (flow meters, Suction regulators, etc.) at the point of use and is gas specific so that secondary devices cannot be "attached" to the wrong gas. When not in use the gas in a non-flowing state within the Outlet (Terminal unit) sealed by "O" ring. The adapter when inserted pushes the poppet inside and the gas starts flowing and sealing is ensured by the "O" ring or a seat. The Outlets are Quick Connect Type and gas specificity is accomplished by "Pin indexing." The outlets should have following features:

- Push to insert and press-to-release mechanism for probes.
- Allows plugging of probes from front.
- Self-sealing valve on disengaging the probe (Quick disconnect)
- Smooth quite action.
- Non return valve for on line servicing/ repairing
- Indexed to eliminate inter-changeability of gas services
- Color-coded gas specific front plate
- Totally leak proof, safe & easy to operate
- Configurations possible: surface, flush & Bead-head.
- Outlet should be European CE certified or American UL listed
- All outlets should have respective labels (i.e.O₂/N₂O/CO₂/Air4/Air7/Vacuum/AGSS/etc.) displayed accordingly.

10. AREA VALVE SERVICE UNIT

Area valve service units should fully comply and meet with HTM 02-01/NFPA 99C/EN/DIN/ISO7396-1, It should provide a zone isolation facility for use either in an emergency or for maintenance purpose The Area Valve Service Unit should incorporate a ball valve with NIST connectors either side mounted in a lockable box with emergency access. It should be reliable and easy to operate and must have NIST connectors facilitate easy purge, sample & pressure testing and emergency supply system.

Medical gas/vacuum services should be fixed copper, piped to and from their respective area valve service units. A color coded service identity label should be fitted behind the valve handle. The unit should provide a zone isolation facility. Gas Flow direction should be indicated.

The box shall be made from extruded aluminium to prevent corrosion. All wetted parts (except seals and gaskets) should be brass or copper. Each unit assembly should be factory tested for gas tightness. Rubber pipe grommets should be provided to ensure any leaking gas does not escape from the unit into a wall cavity. All visible aluminum surfaces should be powder coated.

11. ALARM SYSTEM

11.1 Master Alarm (Imported)

Should be European CE Certified or UL listed under Medical Devices Directive.
Complies with HTM 02-01 / NFPA 99C/EN/DIN/ ISO 7396-1 Standards.

Each Master Alarm should be modular in design and be fitted with required number of master alarm modules. The master alarms should be capable to monitor minimum 40 Point. Each point represents an alarm condition that the source equipment might have. When an alarm condition exists, a red light flashes and the audible alarm sounds. If several alarm conditions occur simultaneously, the most recent alarm light should flash, while the other alarm lights should remain lit. When an alarm condition is created, an audible alarm should be actuated. A dry contact module should be available to interface with a building management system. The box material should be of gauge steel of requisite thickness and equipped with mounting brackets. The emissions from alarms should conform with EMC standards.

Master alarm management system should be designed to display alarm conditions from the source supply units indicating the broad status of the source equipment and manifolds as well as the master distribution status from the source supplies. Depending on the alarm priority, a visual and audible alarm should be initiated to indicate an alarm condition.

Each panel shall display and/or input up to forty point alarms. Panel should be ready to use with BMS system.

The master alarm must be able to monitor the following source alarm conditions.

- Oxygen Source Empty/Fault
- Oxygen Cylinder Bank Empty/Fault
- Oxygen Emergency Bank Empty/Fault
- Air Compressor Faulty/Operation
- Vacuum Pump Faulty/Operational
- Vacuum Deficiency Vacuum Reservoir
- And Other MGPS Signals & Alarms

Bidder shall be responsible for all cabling from local alarm panels to master alarm panel .

11.2 Medical Gas Area Alarm (Imported)

The medical gas central alarms should be capable of monitoring up to 5 medical gas services(As specified in BOQ of respective institute) by means of pressure sensors which detect deviations from the normal operating limits of either pressure or medical vacuum. The area alarm should have a digital/analogue display of pressures. The medical gas area alarm should fully satisfy the HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1 requirements and should be European CE Certified or UL listed.

An audible warning should sound simultaneously with any failure indication and a mute facility should be provided. "

12. Line Isolation Valves

The Lockable line valves must European CE mark/UL listed and complies with HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1 standard.

13. Supply of O2 Cylinders – Class D Type

Should be as per BIS/IS/ASME Standard

14. Supply of N2O Cylinders – Class D Type

Should be as per BIS/IS/ASME Standard

Horizontal/ Vertical Bed Head Panel

It shall conform to HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1. The design should be approved by the respective institute before installation and it is responsibility of the bidder after getting order they have to discuss with respective institute and finalized the Bed Head Panel (Vertical/Horizontal) as per site condition.

It should have following features:-

Efficient, Safe & Robust design in extruded aluminium section.

Smooth curved surfaces, and choice of base colour and fascia plates.

Unit should have integrated rail system to mount accessories

The headwall system should be constructed of aluminium extrusions joined together to form a carcass to suit the particular application. Unit should be factory assembled for electrical and mechanical components.

Segregation of services i.e. Low voltage supplies, High Voltage supply and Medical gases should be maintained throughout.

Front fascia plate should be removable individually to access for respective service.

Bed space management system with optional equipment rail. With all Equipment Rail mount **Accessories.**

All down drops should be installed at one end preferably & Vertical drop installed at one end should be covered with Aluminium boxing with matching color.

Each bed-head unit shall be supplied with electrical and electrical outlets pre-fitted, wired and certified. (Wired up to the distribution box provided with leakage protection & proper earthing arrangements)

Note: Imported Gas Outlets quantities are already taken in consideration of quantities of respective outlets in BOQ

Facility per unit as under

Oxygen – 2

Vacuum – 2

Medical Air-1

Holder for vacuum collection jar –1

Nurse call switch – 1 (not in the scope of MGPS Vendor only space for same has to provide)

Lamp with flexible LED lighting – 1

Infusion pump mount pole with adapter for mounting at least two infusion pumps

5 /15A combined Electrical outlets – 8 Nos. or more

RJ-45 socket/ Ethernet -01

Two spare spaces

Monitor Bracket

16. High pressure tubes for O2, N2O, Compressed Air,& Vacuum

It should be colour coded for individual services i.e. white for Oxygen, Blue for N2O and Yellow for Vacuum, Black for air. Antistatic rubber tube should be as per ISO standards. It should be CE marked/UL Listed imported. (The 200m Hose- Gas wise requirement should be taken from respective institute before supply total lengths should be 200m inclusive of all type. If institute requires more than payment will be made on actual basis as per finalized BOQ rate)

17. Electrical Wiring with Electrical Panels –

All wiring inside the Manifold Room and Plant room required for MGPS equipment and General electrification. Institute will provide one point supply only. Other are under the scope of bidder. All the work should be as per BIS/CE standard and material used should be reputed make only.

18. CARBON DIOXIDE SYSTEM (Optional Price should be quoted)**Medical CO2 Manifold 2 + 2 Primary & 1+1 Standby with Class-D type Cylinders**

The Modular Manifold supply system shall provide carbon dioxide piped distribution system. The Modular Manifold system should be in such a way that it increases flexibility and allows easy enlargement of the manifold capacity in case of future expansion. Should be complies with HTM 02-01/ NFPA 99 C/EN/DIN/ ISO 7396-1 standard.

Fully Automatic Control panel for CO2 System (Imported)

The Manifold Control System should supply any type of medical gas from both left and right hand manifold banks. Operation and performance criteria should fully satisfy the requirements of HTM 02-01/ NFPA 99 C/EN/DIN/ ISO 7396-1 standard. The fully automatic CO2 control panel should comply with the standard. It should be European CE Certified or UL listed.

The Manifold Control System shall supply on uninterrupted flow of 500 L/min. to a 400 k Pa (4 bar) distribution system. Either the left or right hand manifold bank may be designated "Duty" and should automatically changeover to supply the distribution system from the "Standby" bank when pressure in the "Duty" bank falls to a predetermined level.

19. Interconnection to LMO (Optional Price should be quoted)

Price should be quoted per meter basis for inclusive of all installation, material (Copper Pipes, all Valves, fittings, etc), trenches and labour etc. charges as per site condition. The payment will be made on actual meter consumption for interconnection from LMO tank to Gas Manifold room.

20. Turn Key -

- i. Bidder should be responsible for antistatic rubber flooring in the manifold room and thickness of flooring not less than 1inch.
- ii. Bidder should provide a raised Loading/Unloading Platform of suitable sized adjacent to manifold room, so that cylinder can be loaded & unloaded easily form the lorry/vehicle.
- iii. Bidder should be responsible for foundation of Plant Room (If required) for Medical Air Plant, Vacuum Pant & AGSS Plant.
- iv. Bidder should co-ordinate with respective Institute/Authorities for the availability of Office Room for & Toilet for MGPS Operator into Manifold/Plant Room.

21. Construction of MGPS Operator Room & Toilet (Optional) -

Bidder should be responsible for construction of Operator Room of 10X8Feet and Toilet 6x5Feet full finished with all fixtures & general electrification with Fan & Ventilation and it should be in same building or adjacent. All works should be as per CPWD/PWD Specifications.

| BOQ MGPS SYTEM - GMC ANANTHAPUR-ANDHRA PRADESH | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |

| | | | |
|-----|--|------|-----|
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 230 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 3000LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 4000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 230 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 6 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 100 | m |
| | 54mm OD X 1.2mm thick | 250 | m |
| | 42mm OD X 1.2mm thick | 1000 | m |
| | 35mm OD X 1.2mm thick | 1000 | m |
| | 28mm OD X 1 mm thick | 1100 | m |
| | 22mm OD X 1 mm thick | 1500 | m |
| | 15mm OD X 1 mm thick | 3000 | m |
| | 12mm OD X 1 mm thick | 900 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and | | |

| | | | |
|----|---|-----|-----|
| | AGSS . | | |
| | Oxygen outlet with probe | 240 | Nos |
| | Nitrous Oxide outlet with probe | 14 | Nos |
| | Medical Air 4 outlet with probe | 65 | Nos |
| | Vacuum outlet with probe | 240 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 6 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 9 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 4 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 8 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 7 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 4 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 50 | Nos |
| | 22 mm ball valve | 40 | Nos |
| | 28 mm ball valve | 15 | Nos |
| | 35 mm ball valve | 35 | Nos |
| | 54 mm ball valve | 25 | Nos |
| | 42 mm ball valve | 2 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 40 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |

| | | | |
|----|--|---|-----|
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM- SIDHARTHA MEDICAL COLLEGE VIJAYAWADA (Sch. No. 02) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 208 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 5000 LPM as Primary & 1500 LPM as standby or Total minimum Plant Capacity of 6500LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 208 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 10 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |

| BOQ MGPS SYTEM- SIDHARTHA MEDICAL COLLEGE VIJAYAWADA (Sch. No. 02) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 150 | m |
| | 42mm OD X 1.2mm thick | 650 | m |
| | 35mm OD X 1.2mm thick | 120 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2200 | m |
| | 15mm OD X 1 mm thick | 2800 | m |
| | 12mm OD X 1 mm thick | 1200 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 350 | Nos |
| | Nitrous Oxide outlet with probe | 20 | Nos |
| | Medical Air 4 outlet with probe | 124 | Nos |
| | Vacuum outlet with probe | 350 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 10 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 11 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 12 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 6 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 14 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 8 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 93 | Nos |
| | 22 mm ball valve | 58 | Nos |
| | 28 mm ball valve | 1 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 1 | Nos |
| | 42 mm ball valve | 5 | Nos |
| | 76 mm ball valve | 5 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |

| BOQ MGPS SYTEM- SIDHARTHA MEDICAL COLLEGE VIJAYAWADA (Sch. No. 02) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 105 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ-MGPS SYTEM -VIMS BELLARY-KARNATAKA (Sch. No. 03) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 210 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation, testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 6000 LPM as Primary & 2000 LPM as standby or Total minimum Plant Capacity of 8000LPM and as per specification. | 1 | Nos |

| BOQ-MGPS SYTEM -VIMS BELLARY-KARNATAKA (Sch. No. 03) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 200 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 8 | Nos |
| 7 | Duplex AGSS System: Supply, installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 100 | m |
| | 54mm OD X 1.2mm thick | 60 | m |
| | 42mm OD X 1.2mm thick | 500 | m |
| | 35mm OD X 1.2mm thick | 100 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2000 | m |
| | 15mm OD X 1 mm thick | 4000 | m |
| | 12mm OD X 1 mm thick | 2000 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 350 | Nos |
| | Nitrous Oxide outlet with probe | 16 | Nos |
| | Medical Air 4 outlet with probe | 210 | Nos |
| | Vacuum outlet with probe | 350 | Nos |
| | AGSS outlet with probe | 8 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 13 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 28 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 4 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 4 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 13 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 9 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 1 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , | 1 | Nos |

| BOQ-MGPS SYTEM -VIMS BELLARY-KARNATAKA (Sch. No. 03) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | Vacuum,N2O & SA7) | | |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 100 | Nos |
| | 22 mm ball valve | 40 | Nos |
| | 28 mm ball valve | 10 | Nos |
| | 35 mm ball valve | 1 | Nos |
| | 54 mm ball valve | 6 | Nos |
| | 42 mm ball valve | 6 | Nos |
| | 76 mm ball valve | 2 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 20 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 140 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 200 | Nos |
| 16 | Supply, installation, testing and commissioning of Medical gas hose assemblies as per standard followed | 1 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM -GR MEDICAL COLLEGE GWALIOR MP (Sch. No. 04) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 178 | Nos |

| BOQ MGPS SYTEM -GR MEDICAL COLLEGE GWALIOR MP (Sch. No. 04) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 2000 LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 3000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 178 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 6 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 200 | m |
| | 42mm OD X 1.2mm thick | 850 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2500 | m |
| | 15mm OD X 1 mm thick | 3200 | m |
| | 12mm OD X 1 mm thick | 1500 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 258 | Nos |
| | Nitrous Oxide outlet with probe | 12 | Nos |
| | Medical Air 4 outlet with probe | 61 | Nos |
| | Vacuum outlet with probe | 258 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 6 | Nos |

| BOQ MGPS SYTEM -GR MEDICAL COLLEGE GWALIOR MP (Sch. No. 04) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 6 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 6 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 1 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 7 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 6 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 1 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 86 | Nos |
| | 22 mm ball valve | 64 | Nos |
| | 28 mm ball valve | 3 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 2 | Nos |
| | 42 mm ball valve | 5 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 60 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - NETAJI SUBHASH CH BOSE MEDICAL COLLEGE JABALPUR MP (Sch. No. 05) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 150 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 4000 LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 5000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Suply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 150 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 8 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 100 | m |
| | 42mm OD X 1.2mm thick | 250 | m |
| | 35mm OD X 1.2mm thick | 80 | m |

| BOQ MGPS SYTEM - NETAJI SUBHASH CH BOSE MEDICAL COLLEGE JABALPUR MP (Sch. No. 05) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2000 | m |
| | 15mm OD X 1 mm thick | 2500 | m |
| | 12mm OD X 1 mm thick | 1000 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 255 | Nos |
| | Nitrous Oxide outlet with probe | 16 | Nos |
| | Medical Air 4 outlet with probe | 90 | Nos |
| | Vacuum outlet with probe | 255 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 8 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 7 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 10 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 6 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 5 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 10 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 6 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 74 | Nos |
| | 22 mm ball valve | 46 | Nos |
| | 28 mm ball valve | 1 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 1 | Nos |
| | 42 mm ball valve | 5 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 72 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |

| BOQ MGPS SYTEM - NETAJI SUBHASH CH BOSE MEDICAL COLLEGE JABALPUR MP (Sch. No. 05) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLEGE REWA-MP (Sch. No. 06) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 155 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 3000LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 4000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 2000LPM as primary and 2000 LPM as standby and as per specification | 1 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLEGE REWA-MP (Sch. No. 06) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 5 | Ward Vacuum Unit: Suply, installation, testing and commissiiong of Ward Vacuum Unit as per tender technical specifications. | 155 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply, installation, testing and commissiiong of Theater Vacuum Unit as per tender technical specifications. | 8 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 200 | m |
| | 42mm OD X 1.2mm thick | 750 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2200 | m |
| | 15mm OD X 1 mm thick | 2700 | m |
| | 12mm OD X 1 mm thick | 1200 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 255 | Nos |
| | Nitrous Oxide outlet with probe | 18 | Nos |
| | Medical Air 4 outlet with probe | 82 | Nos |
| | Vacuum outlet with probe | 255 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 8 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 10 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 7 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 7 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 10 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 7 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 7 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLEGE REWA-MP (Sch. No. 06) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 77 | Nos |
| | 22 mm ball valve | 50 | Nos |
| | 28 mm ball valve | 3 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 2 | Nos |
| | 42 mm ball valve | 5 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 62 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ -MGPS SYTEM -GMC AURANGABAD-MAHARASHTRA (Sch. No. 07) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 175 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |

| BOQ -MGPS SYTEM -GMC AURANGABAD-MAHARASHTRA (Sch. No. 07) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 3000LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 4000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a capacity of 3000LPM as primary and 1000 LPM as standby or Total minimum Plant Capacity of 4000LPM as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Suply, installation, testing and commissiong of Ward Vacuum Unit as per tender technical specifications. | 175 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply, installation, testing and commissiong of Theater Vacuum Unit as per tender technical specifications. | 6 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 100 | m |
| | 42mm OD X 1.2mm thick | 750 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2000 | m |
| | 15mm OD X 1 mm thick | 2500 | m |
| | 12mm OD X 1 mm thick | 1200 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 275 | Nos |
| | Nitrous Oxide outlet with probe | 12 | Nos |
| | Medical Air 4 outlet with probe | 90 | Nos |
| | Vacuum outlet with probe | 275 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 6 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 10 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 4 | Nos |

| BOQ -MGPS SYTEM -GMC AURANGABAD-MAHARASHTRA (Sch. No. 07) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 10 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 8 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 4 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 61 | Nos |
| | 22 mm ball valve | 41 | Nos |
| | 28 mm ball valve | 3 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 2 | Nos |
| | 42 mm ball valve | 5 | |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 75 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ -MGPS SYTEM- MKCG MEDICAL COLLEGE BEHRAMPUR-ODISHA (Sch. No. 08) | | | |
|---|--|-----------------|-------------|
| SL NO | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. | 1 | Nos |

| BOQ -MGPS SYTEM- MKCG MEDICAL COLLEGE BEHRAMPUR-ODISHA (Sch. No. 08) | | | |
|---|---|-----------------|-------------|
| SL NO | Item Description | Quantity | Unit |
| | As per specification | | |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 194 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 5000 LPM as Primary & 1500 LPM as standby or Total minimum Plant Capacity of 6500LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 194 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 6 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 50 | m |
| | 42mm OD X 1.2mm thick | 200 | m |
| | 35mm OD X 1.2mm thick | 100 | m |
| | 28mm OD X 1 mm thick | 400 | m |
| | 22mm OD X 1 mm thick | 1500 | m |
| | 15mm OD X 1 mm thick | 2800 | m |
| | 12mm OD X 1 mm thick | 1000 | m |

| BOQ -MGPS SYTEM- MKCG MEDICAL COLLEGE BEHRAMPUR-ODISHA (Sch. No. 08) | | | |
|---|--|-----------------|-------------|
| SL NO | Item Description | Quantity | Unit |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 310 | Nos |
| | Nitrous Oxide outlet with probe | 12 | Nos |
| | Medical Air 4 outlet with probe | 105 | Nos |
| | Vacuum outlet with probe | 310 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 6 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 27 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 12 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 1 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 5 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 12 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 1 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 77 | Nos |
| | 22 mm ball valve | 52 | Nos |
| | 28 mm ball valve | 1 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 1 | Nos |
| | 42 mm ball valve | 5 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 92 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |

| BOQ -MGPS SYTEM- MKCG MEDICAL COLLEGE BEHRAMPUR-ODISHA (Sch. No. 08) | | | |
|---|--|-----------------|-------------|
| SL NO | Item Description | Quantity | Unit |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - SP MEDICAL COLLEGE BIKANER RAJASTHAN (Sch. No. 09) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 165 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 4000 LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 5000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Suply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 165 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 6 | Nos |

| BOQ MGPS SYTEM - SP MEDICAL COLLEGE BIKANER RAJASTHAN (Sch. No. 09) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 150 | m |
| | 42mm OD X 1.2mm thick | 250 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2000 | m |
| | 15mm OD X 1 mm thick | 2500 | m |
| | 12mm OD X 1 mm thick | 1500 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 260 | Nos |
| | Nitrous Oxide outlet with probe | 12 | Nos |
| | Medical Air 4 outlet with probe | 81 | Nos |
| | Vacuum outlet with probe | 260 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 6 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 11 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 7 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 4 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 11 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 7 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 4 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 75 | Nos |
| | 22 mm ball valve | 58 | Nos |
| | 28 mm ball valve | 2 | Nos |
| | 35 mm ball valve | 1 | Nos |

| BOQ MGPS SYTEM - SP MEDICAL COLLEGE BIKANER RAJASTHAN (Sch. No. 09) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | 54 mm ball valve | 3 | Nos |
| | 42 mm ball valve | 3 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 62 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLLEGE KOTA RAJASTHAN (Sch. No. 10) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 185 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLLEGE KOTA RAJASTHAN (Sch. No. 10) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 5000 LPM as Primary & 1500 LPM as standby or Total minimum Plant Capacity of 6500LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 185 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 8 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 100 | m |
| | 42mm OD X 1.2mm thick | 200 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 600 | m |
| | 22mm OD X 1 mm thick | 1800 | m |
| | 15mm OD X 1 mm thick | 2600 | m |
| | 12mm OD X 1 mm thick | 1000 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 320 | Nos |
| | Nitrous Oxide outlet with probe | 14 | Nos |
| | Medical Air 4 outlet with probe | 110 | Nos |
| | Vacuum outlet with probe | 320 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 10 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 9 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 10 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLLEGE KOTA RAJASTHAN (Sch. No. 10) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 9 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 68 | Nos |
| | 22 mm ball valve | 47 | Nos |
| | 28 mm ball valve | 3 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 2 | Nos |
| | 42 mm ball valve | 5 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 80 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - RNT MEDICAL COLLEGE UDAIPUR-RAJASTHAN (Sch. No. 11) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |

| BOQ MGPS SYTEM - RNT MEDICAL COLLEGE UDAIPUR-RAJASTHAN (Sch. No. 11) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 195 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 5000 LPM as Primary & 1500 LPM as standby or Total minimum Plant Capacity of 6500LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 195 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 6 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 150 | m |
| | 42mm OD X 1.2mm thick | 650 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2000 | m |
| | 15mm OD X 1 mm thick | 2750 | m |
| | 12mm OD X 1 mm thick | 1200 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 316 | Nos |
| | Nitrous Oxide outlet with probe | 12 | Nos |
| | Medical Air 4 outlet with probe | 113 | Nos |

| BOQ MGPS SYTEM - RNT MEDICAL COLLEGE UDAIPUR-RAJASTHAN (Sch. No. 11) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | Vacuum outlet with probe | 316 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 6 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 13 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 1 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 5 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 13 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 1 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 75 | Nos |
| | 22 mm ball valve | 49 | Nos |
| | 28 mm ball valve | 1 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 1 | Nos |
| | 42 mm ball valve | 5 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 60 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 101 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ-MGPS SYTEM -GMC TANJAVUR-TAMIL NADU (Sch. No. 12) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 230 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 5000 LPM as Primary & 1500 LPM as standby or Total minimum Plant Capacity of 6500LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 230 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 5 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 400 | m |
| | 42mm OD X 1.2mm thick | 100 | m |
| | 35mm OD X 1.2mm thick | 500 | m |
| | 28mm OD X 1 mm thick | 800 | m |

| BOQ-MGPS SYTEM -GMC TANJAVUR-TAMIL NADU (Sch. No. 12) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | 22mm OD X 1 mm thick | 2000 | m |
| | 15mm OD X 1 mm thick | 3600 | m |
| | 12mm OD X 1 mm thick | 1300 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 350 | Nos |
| | Nitrous Oxide outlet with probe | 10 | Nos |
| | Medical Air 4 outlet with probe | 125 | Nos |
| | Vacuum outlet with probe | 2 | Nos |
| | Medical Air 7 outlet with probe | 350 | Nos |
| | AGSS outlet with probe | 5 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 20 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 3 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 8 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 6 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 3 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 130 | Nos |
| | 22 mm ball valve | 86 | Nos |
| | 28 mm ball valve | 2 | Nos |
| | 35 mm ball valve | 7 | Nos |
| | 54 mm ball valve | 6 | Nos |
| | 42 mm ball valve | 9 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 105 | Nos |
| 16 | Supply, installation, testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |

| BOQ-MGPS SYTEM -GMC TANJAVUR-TAMIL NADU (Sch. No. 12) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ-MGPS SYTEM - GMC TIRUNALVELI-TAMIL NADU (Sch. No. 13) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 230 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 3000LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 4000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a capacity of 3000LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Suply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 230 | Nos |

| BOQ-MGPS SYTEM - GMC TIRUNALVELI-TAMIL NADU (Sch. No. 13) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply, installation, testing and commissiiong of Theater Vacuum Unit as per tender technical specifications. | 7 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 20 | m |
| | 54mm OD X 1.2mm thick | 50 | m |
| | 42mm OD X 1.2mm thick | 1200 | m |
| | 35mm OD X 1.2mm thick | 400 | m |
| | 28mm OD X 1 mm thick | 1800 | m |
| | 22mm OD X 1 mm thick | 1600 | m |
| | 15mm OD X 1 mm thick | 2800 | m |
| | 12mm OD X 1 mm thick | 1200 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 300 | Nos |
| | Nitrous Oxide outlet with probe | 16 | Nos |
| | Medical Air 4 outlet with probe | 75 | Nos |
| | Vacuum outlet with probe | 2 | Nos |
| | Medical Air 7 outlet with probe | 300 | Nos |
| | AGSS outlet with probe | 7 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 6 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 8 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 6 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 70 | Nos |

| BOQ-MGPS SYTEM - GMC TIRUNALVELI-TAMIL NADU (Sch. No. 13) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | 22 mm ball valve | 45 | Nos |
| | 28 mm ball valve | 65 | Nos |
| | 35 mm ball valve | 4 | Nos |
| | 54 mm ball valve | 6 | Nos |
| | 42 mm ball valve | 40 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 57 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYSTEM - RGIMS ADILABAD-TELANGANA (Sch. No. 14) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 250 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation, testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |

| BOQ MGPS SYSTEM - RGIMS ADILABAD-TELANGANA (Sch. No. 14) | | | |
|---|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 3000 LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 4000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 250 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 8 | Nos |
| 7 | Duplex AGSS System: Supply, installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | As per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 50 | m |
| | 42mm OD X 1.2mm thick | 200 | m |
| | 35mm OD X 1.2mm thick | 500 | m |
| | 28mm OD X 1 mm thick | 1500 | m |
| | 22mm OD X 1 mm thick | 1500 | m |
| | 15mm OD X 1 mm thick | 3200 | m |
| | 12mm OD X 1 mm thick | 1500 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 245 | Nos |
| | Nitrous Oxide outlet with probe | 16 | Nos |
| | Medical Air 4 outlet with probe | 66 | Nos |
| | Vacuum outlet with probe | 245 | Nos |
| | AGSS outlet with probe | 8 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 9 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 9 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 6 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |

| BOQ MGPS SYSTEM - RGIMS ADILABAD-TELANGANA (Sch. No. 14) | | | |
|---|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 8 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 4 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 6 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 55 | Nos |
| | 22 mm ball valve | 58 | Nos |
| | 28 mm ball valve | 16 | Nos |
| | 35 mm ball valve | 6 | Nos |
| | 42 mm ball valve | 3 | Nos |
| | 54 mm ball valve | 1 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 50 | Nos |
| 16 | Supply, installation, testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - GMC WARANGAL-TELANGANA (Sch. No. 15) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |

| BOQ MGPS SYTEM - GMC WARANGAL-TELANGANA (Sch. No. 15) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 170 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 3000LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 4000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a capacity of 3000LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Suply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 170 | Nos |

| BOQ MGPS SYTEM - GMC WARANGAL-TELANGANA (Sch. No. 15) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply, installation, testing and commissiiong of Theater Vacuum Unit as per tender technical specifications. | 8 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 50 | m |
| | 42mm OD X 1.2mm thick | 550 | m |
| | 35mm OD X 1.2mm thick | 30 | m |
| | 28mm OD X 1 mm thick | 2000 | m |
| | 22mm OD X 1 mm thick | 2500 | m |
| | 15mm OD X 1 mm thick | 3500 | m |
| | 12mm OD X 1 mm thick | 1200 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 250 | Nos |
| | Nitrous Oxide outlet with probe | 16 | Nos |
| | Medical Air 4 outlet with probe | 73 | Nos |
| | Vacuum outlet with probe | 2 | Nos |
| | Medical Air 7 outlet with probe | 250 | Nos |
| | AGSS outlet with probe | 8 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 12 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 3 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 6 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |

| BOQ MGPS SYTEM - GMC WARANGAL-TELANGANA (Sch. No. 15) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 12 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 3 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 6 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 50 | Nos |
| | 22 mm ball valve | 43 | Nos |
| | 28 mm ball valve | 8 | Nos |
| | 35 mm ball valve | 6 | Nos |
| | 54 mm ball valve | 4 | Nos |
| | 42 mm ball valve | 6 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 57 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - MLN MEDICAL COLLEGE ALLAHABAD UP (Sch. No. 16) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 145 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply installation testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning of Rotary Screw/scroll type medical air plant having a capacity of 5000LPM as Primary & 1500 LPM as standby or Total minimum Plant Capacity of 6500LPM and as per specification | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a capacity of 3000LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Suply installation testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 145 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply installation testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 7 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 200 | m |
| | 42mm OD X 1.2mm thick | 850 | m |
| | 35mm OD X 1.2mm thick | 50 | m |

| BOQ MGPS SYTEM - MLN MEDICAL COLLEGE ALLAHABAD UP (Sch. No. 16) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2500 | m |
| | 15mm OD X 1 mm thick | 2600 | m |
| | 12mm OD X 1 mm thick | 1500 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 295 | Nos |
| | Nitrous Oxide outlet with probe | 14 | Nos |
| | Medical Air 4 outlet with probe | 14 | Nos |
| | Vacuum outlet with probe | 295 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 7 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 10 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 8 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 10 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 84 | Nos |
| | 22 mm ball valve | 57 | Nos |
| | 28 mm ball valve | 3 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 42 mm ball valve | 2 | Nos |
| | 54 mm ball valve | 5 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 87 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |

| BOQ MGPS SYTEM - MLN MEDICAL COLLEGE ALLAHABAD UP (Sch. No. 16) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLLEGE JHANSI UP (Sch. No. 17) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 180 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 4000 LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 5000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Supply, installation, testing and commissioning of Ward Vacuum Unit as per tender technical specifications. | 180 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLLEGE JHANSI UP (Sch. No. 17) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 6 | Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissioning of Theater Vacuum Unit as per tender technical specifications. | 7 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 200 | m |
| | 42mm OD X 1.2mm thick | 750 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2000 | m |
| | 15mm OD X 1 mm thick | 2800 | m |
| | 12mm OD X 1 mm thick | 1200 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 276 | Nos |
| | Nitrous Oxide outlet with probe | 14 | Nos |
| | Medical Air 4 outlet with probe | 83 | Nos |
| | Vacuum outlet with probe | 276 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 7 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 11 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 8 | Nos |
| | Valve Box - 4 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 13 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 6 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 81 | Nos |
| | 22 mm ball valve | 62 | Nos |

| BOQ MGPS SYTEM - GOVT MEDICAL COLLEGE JHANSI UP (Sch. No. 17) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | 28 mm ball valve | 3 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 2 | Nos |
| | 42 mm ball valve | 5 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 70 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

| BOQ MGPS SYTEM - NORTH BENGAL MEDICAL COLLEGE DARJEELING-SILGURI WB (Sch. No. 18) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 1.1 | Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System. As per specification | 1 | Nos |
| 1.2 | Oxygen Manifold (2x16) : Supply, Installation, testing and commissioning of (2x16 size) class D cylinder Oxygen Supply System. As per specification | 1 | Nos |
| 1.3 | Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 size) class D cylinder Emergency Oxygen Supply System. As per specification | 1 | Nos |
| 1.4 | Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter with humidifier bottle 0-15Litres. As per specification | 200 | Nos |
| 2.1 | Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide. As per specification | 1 | Nos |
| 2.2 | Nitrous Oxide Manifold System, (2x5 size): Supply, installation, testing and commissioning of (2x5 size) Nitrous Oxide Manifold system .As per specification | 1 | Nos |

| BOQ MGPS SYTEM - NORTH BENGAL MEDICAL COLLEGE DARJEELING-SILGURI WB (Sch. No. 18) | | | |
|--|---|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| 2.3 | Emergency Nitrous Oxide Manifold System, 2x2 size: Supply, installation, testing and commissioning of (2x2 size) cylinder Emergency Nitrous Oxide supply System .As per specification | 1 | Nos |
| 3 | Medical Air Plant (Package Unit) including electrical control panel: Supply, Installation, testing and commissioning medical air plant having a minimum capacity of 4000 LPM as Primary & 1000 LPM as standby or Total minimum Plant Capacity of 5000LPM and as per specification. | 1 | Nos |
| 4 | Medical Vacuum Plant (Package unit): Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum capacity of 3000 LPM as primary and 3000 LPM as standby and as per specification | 1 | Nos |
| 5 | Ward Vacuum Unit: Suply, installation, testing and commissiiong of Ward Vacuum Unit as per tender technical specifications. | 200 | Nos |
| 6 | Theater Vaccum Unit for Operation Theaters: Suply, installation, testing and commissiiong of Theater Vacuum Unit as per tender technical specifications. | 7 | Nos |
| 7 | Duplex AGSS System: Supply installation and commissioning of Duplex AGSS system. As per specification | 1 | Nos |
| 8 | Copper Pipes | | |
| | Solid drawn, seamless, deoxidised, non- arsenical, half hard, tempered and degreased copper pipes as per tender technical specifications | | |
| | 76mm OD X 1.2mm thick | 50 | m |
| | 54mm OD X 1.2mm thick | 200 | m |
| | 42mm OD X 1.2mm thick | 650 | m |
| | 35mm OD X 1.2mm thick | 50 | m |
| | 28mm OD X 1 mm thick | 500 | m |
| | 22mm OD X 1 mm thick | 2200 | m |
| | 15mm OD X 1 mm thick | 2800 | m |
| | 12mm OD X 1 mm thick | 1500 | m |
| 9 | Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Vacuum, CO2 and AGSS . | | |
| | Oxygen outlet with probe | 325 | Nos |
| | Nitrous Oxide outlet with probe | 14 | Nos |
| | Medical Air 4 outlet with probe | 111 | Nos |
| | Vacuum outlet with probe | 325 | Nos |
| | Medical Air 7 outlet with probe | 2 | Nos |
| | AGSS outlet with probe | 7 | Nos |
| 10 | AREA VALVE BOX (WITHOUT VALVES) : Supply,Installation, testing and commissioning of Area Valve Boxes. as per specification | | |
| | Valve Box - 2 Gas Service with NIST Connection | 10 | Nos |
| | Valve Box - 3 Gas Service with NIST Connection | 9 | Nos |

| BOQ MGPS SYTEM - NORTH BENGAL MEDICAL COLLEGE DARJEELING-SILGURI WB (Sch. No. 18) | | | |
|--|--|-----------------|-------------|
| SN. | Item Description | Quantity | Unit |
| | Valve Box - 4 Gas Service with NIST Connection | 5 | Nos |
| | Valve Box - 5 Gas Service with NIST Connection | 2 | Nos |
| 11 | MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel.as per specification | | |
| | Medical Gas Area Alarm for 2 services (Oxygen and MA4 bar) | 10 | Nos |
| | Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum) | 9 | Nos |
| | Medical Gas Area Alarm 4 services (Oxygen, N2O, MA4 bar , N2O,and Vacuum) | 5 | Nos |
| | Medical Gas Area Alarm 5 services (Oxygen, MA4 bar , Vacuum,N2O & SA7) | 2 | Nos |
| | Master Alarm Panel | 1 | Nos |
| 12 | LINE ISOLATION VALVES | | |
| | 15 mm ball valve | 76 | Nos |
| | 22 mm ball valve | 49 | Nos |
| | 28 mm ball valve | 3 | Nos |
| | 35 mm ball valve | 5 | Nos |
| | 54 mm ball valve | 2 | Nos |
| | 42 mm ball valve | 5 | Nos |
| | 76 mm ball valve | 1 | Nos |
| 13 | Supply of O2 cylinders-Class D cylinders | 60 | Nos |
| 14 | Supply of N2O cylinders-Class D cylinders | 20 | Nos |
| 15 | Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification | 95 | Nos |
| 16 | Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed | 200 | m |
| 17 | Electric wiring inside the gas manifold and plant room including electrical panel for plant & Manifold rooms | 1 | Ls |
| 18 | CO2 Manifold with control panel (with cylinder)as per specs (OPTIONAL) | 1 | Nos |
| 19 | Interconnection to LMO as per specification. per meter rate should be quoted (OPTIONAL) | 1 | Nos |
| 20 | Turnkey as per Specification | 1 | Nos |
| 21 | Construction of Operator Room and Toilet (OPTIONAL) | 1 | Nos |

GENERAL TECHNICAL SPECIFICATIONS

GENERAL POINTS:

1. Warranty:

- a) Five years 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 installation, commissioning and Turnkey Work from the date of satisfactory installation, commissioning, trial run & handing over of equipment to Hospital/Institution/Medical College.
- b) 95% up time Warranty of complete equipment with extension of Warranty period by double the downtime period on 24 (hrs) X 7 (days) X 365 (days) basis.
- c) All software updates should be provided free of cost during Warranty period.

2. After Sales Service:

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

3. Training:

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

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

- a) The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual of the manufacturer, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years on yearly basis for complete equipment (including Batteries for UPS, other vacuumatic parts wherever applicable) and Turnkey (if any). The supplier shall visit each consignee site as recommended in the manufacturer's technical/ service /operational manual, but at least once in six months during the CMC period
- b) The cost of CMC may be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- c) Cost of CMC will be added for Ranking/Evaluation purpose. The same will be taken at Net Present Value with a 10% discounting factor each year.
- d) The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by end user on receipt of bank guarantee for 2.5% of the cost of the equipment as per Section XV valid till 2 months after expiry of entire CMC period.
- e) There will be 95% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- f) During CMC period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- g) All software updates should be provided free of cost during CMC.
- h) Failure of the above [4. e) to 4. g)] by the supplier, may lead to the forfeiture of the Bank Guarantee for Annual CMC.
- i) The payment of CMC will be made as stipulated in GCC Clause 21.

Turnkey:

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

The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

Section – VIII

Quality Control Requirements

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

Tender Reference No.

Date of opening

Time

Name and address of the Tenderer:

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

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

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

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

Signature and seal of the Tenderer

Section – IX

Qualification Criteria

1. **Status:** The Bidder should be a Manufacturer or its authorized Agent.
2. **Turnover:** Eligible Bidders should have an average annual turnover in the consecutive past three financial years (2013-14, 2014-15, 2015-16) as mentioned in **Eligibility Table**. The turnover requirement is, calculated considering estimated cost and delivery/completion period. Bidder has to meet turnover requirement depending upon no of schedules/subschedule for which bid is submitted. Turnover criteria has to be met on cumulative basis if bid is submitted for multiple schedules/subschedules.
3. **Minimum Work of Similar Nature: Eligible** bidders should have successfully executed globally in last five years from the date of tender opening, similar turnkey project of value, equivalent to or exceeding 50% of the estimated tender value. Out of total 50% value, at least one single order for similar work of minimum 25% value should have been executed globally. The details of requirement of MWSN (minimum work of similar nature) for different schedules, multiple schedules are mentioned in **Eligibility Table**. The value of the executed works shall be brought to the current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to last date of receipt of tenders.

Example/Clarification: Similar Project means that MGPS meeting major technical parameters (viz. those items required for submission of **Manufacturer's Authorization as per Section XIV-A & XIV-B** as mentioned in the table at para 7 below) of the current BOQ floated in the tender enquiry document.

4. **Average Net Worth:** Eligible bidders should have an Average Net Worth (i.e. Assets minus Liabilities) for the last five years (i.e. from 2011-12 to 2015-16) of not less than 10% of the estimated value of work. If the bid is submitted for multiple schedules/subschedules, the bidder has to meet as per the details given in **Eligibility Table**.
5. **Office in India:- The bidder must have office/offices in India at the time of submitting bid. Proof of having office in India must be submitted along with the bid.** In case the bidder does not have an office in India, at the time of submitting the bid, he should give an undertaking that he will open an office in India within 90 days from the date of award of contract in case the contract is awarded and he should also submit an undertaking in a non-judicial stamp paper duly notarised that they they will continue operation in India during the post installation period of at least 10 years to ensure required standard of service delivery with respect to warranty, CMC obligation of the equipment supplied and installed.
6. **Financial Status:** Eligible Bidders should not have incurred any loss in more than 2 years during the last five years ending 31st March 2016 or 30th June 2016 or 30th September 2016 or 30th December 2016. Audited Profit & Loss account and Balance Sheet (duly notarized copies) for the immediate last five consecutive financial years should be submitted along with the bid.

Whoever meets the qualification requirement need to quote directly. If the Indian subsidiary is meeting all the qualification parameter, they can quote directly or else the foreign principal can quote directly and they may mention in their bid that services will be rendered through their Indian offices in India. However, they will be entirely responsible for execution of the contract as per terms and conditions and scope of services defined in the TED.

7. **Manufacturer Authorization:** Eligible bidders quoting as an Indian Agent (ref. GIT clause 14, Indian Agents) should submit a mandatory letter of authority from the Foreign Principal / Manufacturer, with name of manufacturing company for major products quoted by them as per given format as detailed below.

For the following major items, Manufacturer's Authorization should be submitted as per format at Section XIV-A:

| |
|---|
| 1. Fully Automatic Oxygen Control Panel |
| 2. Fully Automatic Nitrous Oxide Control Panel |
| 3. Fully Automatic Control panel for CO2 System |
| 4. VACUUM SYSTEMS |
| 5. MEDICAL AND SURGICAL AIR SYSTEM |
| 6. ALARM SYSTEM |
| 7. GAS OUTLETS |
| 8. AGSS (Anesthetic Gas Scavenging System) |

For the following items, Manufacturer's Authorization should be submitted as per format at Section XIV-B:

| |
|--|
| 1. Distribution piping (copper piping) |
|--|

Note:

Bidder must clearly spell out in his bid what product and technical configuration he is quoting against the tender requirement. The manufacturer of the quoted product should also be binding legally to perform against the said contract including warranty and CMC terms.

8. **Bid for Complete Schedule/Part Schedule:** Bidder cannot choose to submit bid for part schedule/part sub schedule. If the bid is submitted for part schedule/sub schedule, the same will be termed as non-responsive. A bidder intending to get qualified and considered for award of work for more than one schedule will be required to meet the above qualification criteria on cumulative basis related to experience as well as financials, for such number of schedules.

Eligibility Table:

For MGPS:-

| Sch. No. | Estimated Cost Rs. Cr. | EMD Rs. Cr. | Turnover (Rs. in Cr.) | | Minimum work of similar nature in the last five years globally (Rs. in Cr.) | | 50% of the similar product in last five years globally as quoted in BOQ (Rs. in Cr.) | | Avg. Net Worth of at least 10% of the estimated tender value in last five years (Rs. in Cr.) | |
|----------|------------------------|-------------|-------------------------|------------------------------|---|-------------------------|--|----------------------------|--|---------------------|
| | | | Average Annual Turnover | Cum. Average Annual Turnover | Single order value | Cum. Single order value | Similar project value | Cum. Similar Project value | Avg. Net Worth | Cum. Avg. Net Worth |
| 1 | 4.50 | 0.09 | 1.35 | 1.35 | 1.13 | 1.13 | 2.25 | 2.25 | 0.45 | 0.45 |
| 2 | 4.50 | 0.09 | 1.35 | 2.70 | 1.13 | 2.25 | 2.25 | 4.50 | 0.45 | 0.90 |
| 3 | 4.50 | 0.09 | 1.35 | 4.05 | 1.13 | 3.38 | 2.25 | 6.75 | 0.45 | 1.35 |
| 4 | 4.50 | 0.09 | 1.35 | 5.40 | 1.13 | 4.50 | 2.25 | 9.00 | 0.45 | 1.80 |
| 5 | 4.50 | 0.09 | 1.35 | 6.75 | 1.13 | 5.63 | 2.25 | 11.25 | 0.45 | 2.25 |
| 6 | 4.50 | 0.09 | 1.35 | 8.10 | 1.13 | 6.75 | 2.25 | 13.50 | 0.45 | 2.70 |
| 7 | 4.50 | 0.09 | 1.35 | 9.45 | 1.13 | 7.88 | 2.25 | 15.75 | 0.45 | 3.15 |
| 8 | 4.50 | 0.09 | 1.35 | 10.80 | 1.13 | 9.00 | 2.25 | 18.00 | 0.45 | 3.60 |
| 9 | 4.50 | 0.09 | 1.35 | 12.15 | 1.13 | 10.13 | 2.25 | 20.25 | 0.45 | 4.05 |
| 10 | 4.50 | 0.09 | 1.35 | 13.50 | 1.13 | 11.25 | 2.25 | 22.50 | 0.45 | 4.50 |
| 11 | 4.50 | 0.09 | 1.35 | 14.85 | 1.13 | 12.38 | 2.25 | 24.75 | 0.45 | 4.95 |
| 12 | 4.50 | 0.09 | 1.35 | 16.20 | 1.13 | 13.50 | 2.25 | 27.00 | 0.45 | 5.40 |

| Sch. No. | Estimated Cost Rs. Cr. | EMD Rs. Cr. | Turnover (Rs. in Cr.) | | Minimum work of similar nature in the last five years globally (Rs. in Cr.) | | 50% of the similar product in last five years globally as quoted in BOQ (Rs. in Cr.) | | Avg. Net Worth of at least 10% of the estimated tender value in last five years (Rs. in Cr.) | |
|----------|------------------------|-------------|-------------------------|------------------------------|---|-------------------------|--|----------------------------|--|---------------------|
| | | | Average Annual Turnover | Cum. Average Annual Turnover | Single order value | Cum. Single order value | Similar project value | Cum. Similar Project value | Avg. Net Worth | Cum. Avg. Net Worth |
| 13 | 4.50 | 0.09 | 1.35 | 17.55 | 1.13 | 14.63 | 2.25 | 29.25 | 0.45 | 5.85 |
| 14 | 4.50 | 0.09 | 1.35 | 18.90 | 1.13 | 15.75 | 2.25 | 31.50 | 0.45 | 6.30 |
| 15 | 4.50 | 0.09 | 1.35 | 20.25 | 1.13 | 16.88 | 2.25 | 33.75 | 0.45 | 6.75 |
| 16 | 4.50 | 0.09 | 1.35 | 21.60 | 1.13 | 18.00 | 2.25 | 36.00 | 0.45 | 7.20 |
| 17 | 4.50 | 0.09 | 1.35 | 22.95 | 1.13 | 19.13 | 2.25 | 38.25 | 0.45 | 7.65 |
| 18 | 4.50 | 0.09 | 1.35 | 24.30 | 1.13 | 20.25 | 2.25 | 40.50 | 0.45 | 8.10 |

Note: The bidders have to quote for all the 30 schedules while submitting their bids. The purchaser will have the right to award the work for any schedule(s)/site(s) considering bidders eligibility and considering the best benefit (at the least cost) to the purchaser. In case a Bidder intending to get qualified in more than one schedule they should submit EMD accordingly for such number of schedules on cumulative basis. Thus, the bidder must quote for all Thirty (30) schedule mandatorily, **otherwise their bid will be summarily rejected.**

Least Cost Method: - Least cost method to the purchaser means award of work that has least cost to the purchaser.

Sample Examples

The below examples have taken only six schedules into consideration for the purpose of demonstrating the method. Actual evaluation will be done for Eighteen (18) schedules.

| Example No.1 | | | (I) | (II) | (III) | (IV) | (V) | (VI) |
|---------------------------------------|-------------------------------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Bidders | | | Sch. 01 | Sch. 02 | Sch. 03 | Sch. 04 | Sch. 05 | Sch. 06 |
| | Qualified in No. of schedules | L1 for sites (Nos.) | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr |
| A | 1 | 1 | 14 | 15 | 16 | 19 | 18 | 12 |
| B | 3 | 2 | 12 | 13 | 18 | 18 | 15 | 14 |
| C | 1 | 1 | 16 | 14 | 15 | 16 | 13 | 18 |
| D | 2 | 2 | 18 | 17 | 14 | 15 | 16 | 13 |
| E | 1 | - | 15 | 20 | 17 | 21 | 19 | 16 |
| F | 3 | - | 13 | 14 | 16 | 17 | 14 | 15 |
| L1 bidder and cost Sch. Wise | | | B(12) | B(13) | D(14) | D(15) | C(13) | A(12) |
| Award to Bidder (based on least cost) | | | B(12) | B(13) | D(14) | D(15) | C(13) | A(12) |

In this example, the no(s) of schedules for which each bidder is L1 is equal to or less than the no. of schedules for which it is qualified. Therefore, Bidders will be awarded the work on L1 basis for each schedule as per the above table.

| Example No.2 | | | (I) | (II) | (III) | (IV) | (V) | (VI) |
|---------------------------------------|-------------------------------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Bidders | | | Sch. 01 | Sch. 02 | Sch. 03 | Sch. 04 | Sch. 05 | Sch. 06 |
| | Qualified in No. of schedules | L1 for sites (Nos.) | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr |
| A | 1 | 1 | 14 | 15 | 16.5 | 19 | 18 | 12 |
| B | 3 | 2 | 12 | 13 | 18 | 18 | 15 | 14 |
| C | 1 | 1 | 16 | 14 | 17.5 | 16.5 | 13 | 18 |
| D | 1 | 2 | 18 | 17 | 14 | 15 | 16 | 13 |
| E | 1 | - | 15 | 20 | 17 | 21 | 19 | 16 |
| F | 3 | - | 13 | 14 | 16 | 16 | 14 | 15 |
| L1bidder and cost Sch. Wise | | | B(12) | B(13) | D(14) | D(15) | C(13) | A(12) |
| Award to Bidder (based on least cost) | | | B(12) | B(13) | D(14) | F(16) | C(13) | A(12) |

Bidder D is eligible for only one site. However, D is L1 for two sites, i.e. Sch. 03 and Sch. 04.

Case 1: D(L1) for Sch. 03 and F(L2) for Sch. 04 $= (14+16)=30$.

Case 2: D(L1) for Sch. 04 and F(L2) for Sch. 03 $= (15+16)=31$.

Thus, by least cost method, D will be awarded Sch. 03 and F will be awarded Sch. 04.

| Example No.3 | | | (I) | (II) | (III) | (IV) | (V) | (VI) |
|---------------------------------------|-------------------------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Bidders | | | Sch. 01 | Sch. 02 | Sch. 03 | Sch. 04 | Sch. 05 | Sch. 06 |
| | Qualified in No. of schedules | L1 for sites (Nos) | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr | Rs. Cr |
| A | 1 | 1 | 14 | 15 | 16.5 | 19 | 18 | 12 |
| B | 3 | 2 | 12 | 13 | 18 | 18.5 | 15 | 14 |
| C | 1 | 1 | 16 | 14 | 15 | 15.5 | 13 | 18 |
| D | 1 | 2 | 18 | 17 | 14 | 15 | 16 | 13 |
| E | 1 | - | 15 | 20 | 17 | 21 | 19 | 16 |
| F | 3 | - | 13 | 14 | 16 | 18 | 14 | 15 |
| L1bidder and cost Sch. Wise | | | B(12) | B(13) | D(14) | D(15) | C(13) | A(12) |
| Award to Bidder (based on least cost) | | | B(12) | B(13) | D(14) | C(15.5) | F(14) | A(12) |

Bidder D is eligible for only one site. However, D is L1 for two sites, i.e. Sch. 03 and Sch. 04.

Case 1: D(L1) for Sch. 03, C(L2) for Sch. 04 and F(L2) for Sch. 05 $= (14+15.5+14) = 43.5$.

Case 2: C(L2) for Sch. 03, D(L1) for Sch. 04 and F(L2) for Sch. 05 $= (15+15+14) = 44$.

Case 3: D(L1) for Sch. 03, F(L3) for Sch. 04 and C(L1) for Sch. 05 $= (14+18+13) = 45$.

Case 4: F(L3) for Sch. 03, D(L1) for Sch. 04 and C(L1) for Sch. 05 $= (16+15+13) = 44$.

Thus, by least cost method, D will be awarded Sch. 03, C will be awarded Sch. 04 and F will be awarded Sch. 05.

The above are only sample examples and do not cover all situations. In any and all situations the method and principle of least cost to the purchaser will be followed.

Notes:

In support of 2 (a), the bidder shall furnish Performance statement in the enclosed Proforma 'A'.

The bidder shall furnish Satisfactory Performance Certificate in respect of above (i.e. Section IX, Qualification Criteria of TED) in case not from India, duly translated in English and duly endorsed by country's Embassy present in India, along with the tender.

1. The bidder shall furnish a brief write-up, along 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.
2. 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.
3. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser for technical acceptability as per the tender specifications, before the opening of the Price Tender.

PROFORMA 'A'
PROFORMA FOR PERFORMANCE STATEMENT

(For the period of last five years)

Tender Reference No. : _____

Date of opening : _____

Time : _____

Name and address of the Tenderer : _____

Name and address of the manufacturer : _____

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

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

Signature and seal of the Tenderer

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

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

**** Bidder may submit performance certificate duly linked mentioning order number, date of delivery, installation, commissioning and value by the end user.**

Section – X
TENDER FORM

Date _____

To

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

Ref. Your TE document No. _____ dated _____

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. _____, dated _____ (if any), the receipt of which is hereby confirmed. We now offer to supply and deliver _____ (Description of goods and services) in conformity with your above referred document **for the sum as shown in the price schedules attached herewith and made part of this tender**. If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – “Special Conditions of Contract”, for due performance of the contract.

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

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

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

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

(Signature with date)

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

SECTION – XI
PRICE SCHEDULE

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

SECTION – XII

QUESTIONNAIRE

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

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

SECTION – XIII

BANK GUARANTEE FORM FOR EMD

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

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

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

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

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

.....
Name and designation of the officer

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

To be enclosed with Techno-Commercial Bid

ANNEXURE-A

BIDDER PARTICULARS

1. Name of the Bidder :
2. Address of the Bidder :
3. Name of the Manufacturer (s) :
4. Address(es) of the Manufacturer :
5. Name and address of the person: To whom all references shall be made regarding this tender inquiry.

Telephone:

Telex : Fax

:

E-mail address :

Witness:

Signature

Name Address

Designation

Company Date

Company Seal

To be enclosed with Techno-Commercial Bid

ANNEXURE-B

UNDERTAKING

To,

.....
.....
.....

Sir,

Having examined the Bidding Documents of Tender No. _____ undersigned offers to supply, install, commission, operate maintain _____ and we undertake, if our bid is accepted, to complete delivery of all the items specified in the contract within _____ weeks calculated from the date of receipt of your Notification of Award and to complete the installation, testing & commissioning.

Signature and Seal

(In the capacity of)

Only Authorized to sign bid for and on behalf of

To be enclosed with Techno-Commercial Bid

ANNEXURE-C

BIDDER PROFILE

A. General Information:

- (i) Location of Corporate Headquarters :
- (ii) Date and Country of Incorporation :
- (iii) Manufacturing Facility (S)
Location Size Capacity
- (iv) No. of Service Facility(S) in India
Location
Strength
Area Covered
- (v) Average yearly turnover for last three years:
- (vi) Geographical Distribution of the Supplier :
No. of Offices
Locations
Staff strength
- (vii) Total No. of installations of the system offered.
- (viii) No. of Employees
Total No. Manufacturing R&D (If any)
Hardware Maintenance
Software

B. Reference of Major installation with similar products (attach documents in support, if available)
_____S. No. Customer Name, Address Product Description

Telephone
Fax Number
(No. of Machines installation year wise).

Date.....

Signature and seal of bidder

SECTION – XIV - A

MANUFACTURER’S AUTHORISATION FORM

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

Dear Sir,

Ref: Your TE document No _____ dated _____

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

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

(*please provide reason here*).

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

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

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

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

Yours faithfully,

[*Signature with date, name and designation*]

for and on behalf of Messrs _____

[*Name & address of the manufacturers*]

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

SECTION – XIV - B

MANUFACTURER’S AUTHORISATION FORM

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

Dear Sir,

Ref: Your TE document No _____ dated _____

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

We also state that we are not participating directly in this tender for the following reason(s):
_____ (*please provide reason here*).

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

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

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

Yours faithfully,

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

Note: 1. *This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.*
2. *Original Letter may be sent. Photocopy not acceptable.*

SECTION – XV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/ CMC SECURITY

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

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

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

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

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

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

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

This guarantee shall be valid up to 66 (sixty six) months from the date of Notification of Award i.e. up to ----- (indicate date)

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

.....
Name and designation of the officer

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

To be enclosed with Techno-Commercial

ANNEXURE

PROFORMA OF GUARANTEE FOR SUPPLY OF SPARES DURING POST WARRANTY PERIOD

To,

.....
.....
.....

Sub: Tender No.....

Dear Sir,

In consideration of the (hereinafter referred to as "Purchaser" which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assignees) having awarded to M/s..... with its Registered/Head office at (hereinafter referred to as the "Supplier" which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assignees), a contract by issue of the Purchaser's letter of Award no..... dated entering into a formal contract to that effect with the Purchaser on vide agreement dated..... (hereinafter referred to as the contract).

We the supplier hereby give a guarantee for the supply of all necessary spares demanded for the routine and emergency maintenance of being supplied by us to for a period of not less than 5 years after the warranty period of 5 years and life time spares thereafter in case asked for by the purchaser.

We further clarify that for the first 5 years i.e. warranty period of 5 years, we are covered by the warranty clause as mentioned. For the remaining period of 5 Years and thereafter for the life time, a detailed list of spares will be supplied to the purchaser for the purpose of enabling him to decide spares needed for routine and emergency maintenance.

Dated..... day of.....20.....

Witness : (Name of manufacturers):

Signature and Seal:

(Signature)

Name:

For & on behalf of M/s....

SECTION – XVI**CONTRACT FORM - A****CONTRACT FORM FOR SUPPLY, INSTALLATION, COMMISSIONING, HANDING OVER, TRIAL RUN, TRAINING OF OPERATORS & WARRANTY OF GOODS**

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

Contract No _____ dated _____

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

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

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

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

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

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

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

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

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

- (ii) Delivery schedule

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

- 6. Warranty clause
- 7. Payment terms
- 8. Paying authority

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

Received and accepted this contract

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

For and on behalf of _____

(Name and address of the supplier)

(Seal of the supplier)

Date: _____

Place: _____

CONTRACT FORM – B**CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT**

Annual CM Contract No. _____ **dated** _____
Between

(Address of Head of Hospital)
 And

(Name & Address of the Supplier)

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

In continuation to the above referred contract

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

| 1 | 2 | 3 | 4 | | | | | 5 | 6 |
|--------------|----------------------------|------------------|--|-----------------|-----------------|-----------------|-----------------|---|---|
| Schedule No. | BRIEF DESCRIPTION OF GOODS | QUANTITY. (Nos.) | Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*. | | | | | Total annual comprehensive maintenance contract for 5 years for each unit for 5 years | Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c+4d+4e)] |
| | | | 1 st | 2 nd | 3 rd | 4 th | 5 th | | |
| | | | a | b | c | D | e | | |
| | | | | | | | | 4a+4b+4c+4d+4e | (3*5(4a+4b+4c+4d+4e)) |

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

- b) The CMC commence from the date of expiry of all obligations under Warranty i.e. from _____ (date of expiry of Warranty) and will expire on _____ (date of expiry of CMC)
- c) The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years as contained in the above referred contract on yearly basis for complete equipment (including X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts, _____ & _____) and Turnkey (if any).
- d) There will be 98% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- e) During CMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service/ technical/ operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- f) All software updates should be provided free of cost during CMC.
- g) The bank guarantee valid till _____ [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs. _____ [(fill amount) equivalent to 2.5 % of the cost of the equipment as per contract] shall be furnished in the prescribed format given in Section XV of the TE document, along with the signed copy of Annual CMC within a period of

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

- h) If there is any lapse in the performance of the CMC as per contract, the proceeds Annual CMC bank guarantee for an amount of Rs. _____ (equivalent to 2.5 % of the cost of the equipment as per contract) shall be payable to the Consignee.
- i) **Payment terms:** The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the HOD concerned. The payment will be made in Indian Rupees.
- j) **Paying authority:** _____ (name of the consignee i.e. Hospital authorised official)

(Signature, name and address
of Hospital authorised official)

For and on behalf of _____

Received and accepted this contract

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

For and on behalf of _____

(Name and address of the supplier)

(Seal of the supplier)

Date: _____

Place: _____

SECTION – XVII
CONSIGNEE RECEIPT CERTIFICATE
(To be given by consignee’s authorized representative)

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

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

SECTION – XVIII
Proforma of Final Acceptance Certificate by the Consignee

No _____

Date _____

To

M/s _____

Subject: Certificate of commissioning of equipment/plant.

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

- (a) Contract No _____ dated _____
- (b) Description of the equipment(s)/plants: _____
- (c) Equipment(s)/ plant(s) nos.: _____
- (d) Quantity: _____
- (e) Bill of Loading/Air Way Bill/Railway Receipt/ Goods Consignment Note no _____ dated _____
- (f) Name of the vessel/Transporters: _____
- (g) Name of the Consignee: _____
- (h) Date of commissioning and proving test: _____

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

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

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

The supplier has fulfilled its contractual obligations satisfactorily ## or

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

- a) He has not adhered to the time schedule specified in the contract in dispatching the documents/ drawings pursuant to ‘Technical Specifications’.
- b) He has not supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the

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

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

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

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

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

(Signature)

(Name)

(Designation with stamp)

Explanatory notes for filling up the certificate:

- i) He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specification'.
- ii) He has supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the time specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).
- iii) Training of personnel has been done by the supplier as specified in the contract.
- iv) In the event of documents/drawings having not been supplied or installation and commissioning of the equipment(s)/plant(s) having been delayed on account of the supplier, the extent of delay should always be mentioned in clear terms.

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

| SI No. | Activity | Yes/ No/ NA | Page No. in the TE document | Remarks |
|--------|--|-------------|-----------------------------|---------|
| 1. a. | Have you enclosed EMD of required amount for the quoted schedules? | | | |
| b. | In case EMD is furnished in the form of Bank Guarantee, has it been furnished as per Section XIII? | | | |
| c. | In case Bank Guarantee is furnished, have you kept its validity of 165 days from Techno Commercial Tender Opening date as per clause 19 of GIT? | | | |
| 2. a. | Have you enclosed duly filled Tender Form as per format in Section X? | | | |
| b. | Have you enclosed Power of Attorney in favour of the signatory? | | | |
| 3. | 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? It is requested not to hide prices as the same will be required for establishing price reasonability. Provide latest purchase order copies issued by INI. | | | |
| 6. | Have you submitted manufacturer's authorization as per Section XIV? | | | |
| 7. | Have you submitted prices of goods, turnkey (if any), CMC 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? | | | |

| SI No. | Activity | Yes/ No/ NA | Page No. in the TE document | Remarks |
|--------|--|-------------|-----------------------------|---------|
| 9. a. | In case of Indian Tenderer, have you furnished Income Tax Account No. as allotted by the Income Tax Department of Government of India? | | | |
| b. | In case of Foreign Tenderer, have you furnished Income Tax Account No. of your Indian Agent as allotted by the Income Tax Department of Government of India? | | | |
| 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 authorised sign on behalf of the Tenderer)

For and on behalf of

(Name, address and stamp of the tendering firm)

Section – XX Consignee List

| Sl. No. | Name of Hopsital and Address | Consignee Code | State | Airport | SeaPort/ Dry Port |
|---------|--|---|-------------------|-----------|-------------------|
| 1 | Dr. M. Neeraja The Dean/ The Principal Govt. Medical College Opp. EE Roads & Buildings, Sai Nagar, Anantapur Andhra Pradesh - 515001 Phone : 08554-249115, 274568 EMail : gmc_atp@ap.nic.in; principal.gmcatp@yahoo.in | Government Medical College - Anantapur | Andhra Pradesh | HYDERABAD | VIZAG |
| 2 | The Principal Siddhartha Medical College NH 16 Service Road, Opp. Varun Maruthi Showroom Near Health University, Gunadala, Vijayawada Andhra Pradesh 520008 Phone: 09849903130 Email: principalsmcvja@yahoo.com | Sidhartha Medical College - Vijayawada | Andhra Pradesh | HYDERABAD | VIZAG |
| 3 | The Director Vijayanagar Institute of Medical Sciences Contonment, Bellary - 583104 Karnataka Phone: 08392-235201, 08392-242387 Email: directorvimsbellary@gmail.com | Vijaynagar Institute of medical Science | Karnataka | BANGALORE | BANGALORE |
| 4 | Dr. S. N. Iyengar The Dean Gajra Raja Medical College, Gwalior Veer Savarkar Marg, Gwalior - 474009 Madhya Pradesh Phone: +91 (0751) 2403400 Email: grmc1946@yahoo.co.in | Gajra Medical College | Madhya Pradesh | MUMBAI | MUMBAI |
| 5 | The Dean Govt. Medical College Jail Road, Near Sanjay Gandhi Hospital, Rewa Madhya Pradesh 486001 Phone: 07662-241655 Email: deanmcrewa@rediffmail.com | GMC - Rewa | Madhya Pradesh | MUMBAI | MUMBAI |
| 6 | The Director Netaji Subhash Ch. Bose Medical College, Jabalpur Nagpur Road, Jabalpur, Madhya Pradesh 482003 Phone: 076123 70951 Email: nscbmcjb@gmail.com | Netaji Subhash Ch. Bose Medical College - Jabalpur | Madhya Pradesh | MUMBAI | MUMBAI |
| 7 | The Dean Govt. Medical College, Aurangabad Panchakki Road, Aurangabad - 431001 Maharashtra Ph No. : 0240-2402028 Email: deangmca@gmail.com | GMC - Aurangabad | Maharashtra | MUMBAI | MUMBAI |

HLL Lifecare Limited

| Sl. No. | Name of Hopsital and Address | Consignee Code | State | Airport | SeaPort/ Dry Port |
|---------|---|--------------------------|------------|-----------|-------------------|
| 8 | The Dean and Principal M. K. C. G. Medical College, Berhampur Berhampur, District - Ganjam Odisha. Pin: 760 004 Tel. No. (0680) 2292746 Fax: (0680) 2292809 E-mail : mkcgmc.bam@gmail.com | MKCGMC - Berhampur | Odisha | KOLKATA | KOLKATA |
| 9 | The Principal R. N. T. Medical College, Udaipur Near Collectorate, Hospital Rd, Court Chouraha, Udaipur, Rajasthan 313001 Phone: 0294 241 8258 Email: rnt_mcdur62@rediffmail.com; rntmedicaleducationdept@gmail.com | RNTMC - Udaipur | Rajasthan | JAIPUR | JAIPUR |
| 10 | The Principal S. P. Medical College, Bikaner PBM Hospital, Bikaner, Rajasthan 334001 Phone: 0151 222 6300 Email: principal_spmc@live.com | SPMC - Bikaner | Rajasthan | JAIPUR | JAIPUR |
| 11 | The Principal Govt. Medical College, Kota Near building, LIC Office, Rangbari Rd, Sector - A, Rangbari, Kota, Rajasthan 324010 Phone: 0141 222 7406 Email: principalmck@gmail.com | GMC - Kota | Rajasthan | JAIPUR | JAIPUR |
| 12 | The Dean Thanjavur Medical College, Thanjavur Tamil Nadu - 613 004 Phone: 04362-240851, 04362-240951 Email: thjmc_tn@yahoo.com | GMC - Thanjavur | Tamil Nadu | CHENNAI | CHENNAI |
| 13 | The Dean Tirunelveli Medical College, Tirunelveli Address: Palayamkottai Tamil Nadu 627011 Phone: 0462 257 2733 Email: dean@tvmc.ac.in | GMC - Tirunalveli | Tamil Nadu | CHENNAI | CHENNAI |
| 14 | Dr. Abbagani Vidyasagar The Principal Kakatiya Medical College, Warangal Rangampet Street, Warangal, Telangana 506007 Phone: 0870-2446355, 2446888 Email: pwarangal@gmail.com; kmc_wgl@ap.nic.in | GMC - Warangal | Telangana | HYDERABAD | VIZAG |
| 15 | Dr. K. Ashok The Director Director's Quarters RIMS Campus Rajiv Gandhi Institute of Medical Sciences, Adilabad Vidya Nagar, Adilabad, Telangana 504001 Office: 08732-220521 Email: rimsadilabad@yahoo.com; directorrimsadilabad@yahoo.com | RGIMS - Adilabad | Telangana | HYDERABAD | VIZAG |

HLL Lifecare Limited

| Sl. No. | Name of Hopsital and Address | Consignee Code | State | Airport | SeaPort/ Dry Port |
|---------|--|---------------------|---------------|--------------------|-------------------|
| 16 | The Principal M. L. N. Medical College, Allahabad George Town, Allahabad, Uttar Pradesh 211002 Phone: 2147483647 Email: ansari@gmail.com | MLNMC - Allahabd | Uttar Pradesh | DELHI AIR CARGO | ICD, TKD/ PPG |
| 17 | The Dean Govt. Medical College, Jhansi Public Relation Officer Maharani Laxmi Bai Medical College, Hospital Jhansi Phone:- 0510-2321446 Email: principalmcjhs@gmail.com,clmlmcj@gmail.com | GMC - Jhansi | Uttar Pradesh | DELHI AIR CARGO | ICD, TKD/ PPG |
| 18 | The Principal Prof. Samir Chandra Ghosh Roy North Bengal Medical College, Darjeeling Thiknikata, India, Siliguri, Darjeeling West Bengal 734012 Phone: 098320 17967 Email: sgroy53@gmail.com | NBMC - Siliguri | West Bengal | KOLKATA | KOLKATA |

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