

etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

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

7.3 Packing instructions:

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

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

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

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

8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.

8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser's inspector for conducting the inspections and tests again.

8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.

8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and

complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.

- 8.6 The purchaser's/consignee's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-despatch inspection mentioned above.
- 8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.
- 8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognised/reputed agency like SGS, Lloyd, Bureau Veritas, TUV prior to despatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.
- 8.9 Third Party Inspection to include only Physical & Relevant records Inspection of the Ordered Goods. However, Dispatch Clearance Certificate is issued without prejudice to the Purchaser's right to accept/reject the Ordered Goods after it's arrival at site/destination, if not found in accordance with the Purchase Order during the installation and testing at site and during the performance guarantee period. This dispatch clearance certificate will not absolve manufacturer from his responsibility to ensure that the Ordered Goods supplied are totally in accordance with the Purchase Order/Notification of Award.
- 8.10. The stores (both Indian & Import origin goods) should be dispatched only after the equipment inspected by recognized/reputed agency like SGS, Lloyd, TUV & Bureau Veritas prior to dispatch at the supplier's cost and furnish necessary Certificate from the said agency in support of their claim.

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

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

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

**Medical Superintendent Safdarjung Hospital & VMMC, New Delhi.  
through HSCC (I) Ltd., Noida**

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

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

**9. Terms of Delivery**

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

**10. Transportation of Goods**

10.1 Instructions for transportation of imported goods offered from abroad:

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

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

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

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

**11. Insurance:**

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

- i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from ware house to ware house (consignee site) on all risk basis. The insurance cover shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.
- ii) in case of supply of the imported goods on CIP Named port of Destination Basis, the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 3 months beyond date of delivery for an amount equal to 110% of the overall expenditure to be incurred by the purchaser from ware house to ware house (consignee site) on all risk basis.

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

## **12. Spare parts**

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

## **13. Incidental services**

- 13.1 Subject to the stipulation, if any, in the SCC (Section – V), List of Requirements (Section – VI) and the Technical Specification (Section – VII), the supplier shall be required to perform the following services.
- i) Installation & commissioning, Supervision and Demonstration of the goods
  - ii) Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
  - iii) Training of Consignee's Doctors, Staff, operators etc. for operating and maintaining the goods
  - iv) Supplying required number of operation & maintenance manual for the goods

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

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

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

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

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

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

B) For goods imported from abroad

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

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

## 15. Warranty

- 15.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (*except when the design adopted and / or the material used are as per the Purchaser's/Consignee's specifications*) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.
- 15.2 The **warranty** shall remain valid for **60 months** from the date of installation & commissioning 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.

- a. No conditional warranty will be acceptable.
- b. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work and it will also cover the following:-
  - X-ray and CT tubes and high-tension cables.
  - Helium replacement
  - Any kind of motor.
  - Plastic & Glass Parts against any manufacturing defects.
  - All kind of sensors including oxygen sensors.
  - All kind of coils, probes and transducers
  - All kind of flat panel sensors and cassettes for DR & CR systems and patients handling trolleys etc
  - Printers and imagers including laser and thermal printers with all parts.
  - UPS including the replacement of batteries.
  - Air-conditioners
- c. Replacement and repair will be under taken for the defective goods.
- d. Proper marking has to be made for all spares for identification like printing of installation and repair dates.

- 15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.
- 15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non rectification will be applicable as per tender conditions
- 15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended to a further period of sixty (60) months from the date such rectified / replaced goods starts functioning to the satisfaction of the purchaser.
- 15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.
- 15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 3 months commencing from the date of the installation for preventive maintenance of the goods
- 15.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.
- 15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years from the date of installation and handing over.

15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipments/machines/goods etc. and shall always give the most competitive price for its machines/equipments supplied to the Purchaser/Consignee.

**16. Assignment**

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

**17. Sub Contracts**

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

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

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

**18. Modification of contract**

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

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

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

**19. Prices**

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

**20. Taxes and Duties**

20.1 Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until final acceptance of the contracted goods to the purchaser. However, for goods directly imported shall be guided by the INCOTERM.

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

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

### **21.1 Payment Terms**

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

#### **A) Payment for Domestic Goods Or Foreign Origin Located Within India.**

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

##### **a) On delivery:**

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

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

##### **b) On Acceptance:**

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

#### **B) Payment for Imported Goods:**

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

##### **a) On Shipment:**

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

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Original and four copies of the negotiable clean, on-board Bill of Lading/ Airway bill, marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
- (iii) Four Copies of packing list identifying contents of each package;



- (iv) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
- (v) Manufacturer's/Supplier's warranty certificate;
- (vi) Inspection certificate issued by the nominated inspection agency, if applicable as per contract;
- (vii) Manufacturer's own factory inspection report and
- (viii) Certificate of origin by the chamber of commerce of the concerned country;
- (ix) Inspection Certificate for the despatched equipments issued by recognized/reputed agency like SGS, Lloyd, TUV & Beauru Varitus, prior to despatch.
- (x) Dispatch Clearance Certificate issued by HSCC.

**b) On Acceptance:**

Balance payment of 20% of net CIP price of goods would be made against 'Final Acceptance Certificate' as per Section XVII to be issued by the consignees through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the Foreign Principal in a bank in his country, subject to recoveries, if any. Final acceptance certificate will be released by the consignee on completion of installation, commissioning, training, successful running of equipment (at least 2-3 weeks) and handing over the equipment to the consignee.

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

**C) Payment of Turnkey, if any:**

Turnkey payment will be made to the manufacturer's agent in 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 in the prescribed format given in Section XV valid till 2 months after expiry of entire CMC period.

- 21.2 The supplier shall not claim any interest on payments under the contract.
- 21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.
- 21.4 Irrevocable & non – transferable LC shall be opened by the respective consignees. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser/consignee, the charges thereof shall be borne by the supplier.

- 21.5 The payment shall be made in the currency / currencies authorised in the contract.
- 21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.
- 21.7 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.
- 21.8 While claiming reimbursement of duties, taxes etc. (like sales tax, excise duty, custom duty) from the Purchaser/Consignee, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the supplier) shall refund to the Purchaser/Consignee forthwith.
- 21.9 In case where the supplier is not in a position to submit its bill for the balance payment for want of receipted copies of Inspection Note from the consignee and the consignee has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the paying authority without consignee's receipt certificate after three months from the date of the preceding part payment for the goods in question, subject to the following conditions:
- (a) The supplier will make good any defect or deficiency that the consignee (s) may report within six months from the date of despatch of goods.
  - (b) Delay in supplies, if any, has been regularized.
  - (c) The contract price where it is subject to variation has been finalized.
  - (d) The supplier furnishes the following undertakings:

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

## **22. Delivery/Delay in the supplier's performance**

- 22.1 The supplier shall deliver of the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the contract.
- 22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:
- (i) imposition of liquidated damages,
  - (ii) forfeiture of its performance security and
  - (iii) termination of the contract for default.
- 22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

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

(a) The Purchaser/Consignee shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.

(b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground 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 Passing of Property:

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

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

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

### **23. Liquidated damages**

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

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

23.2 In the event of delay in submission of Proforma Invoice beyond 7 working days from the date of notification of award, the delay shall be to the account of supplier & Purchaser shall

deduct Liquidated damages, as per clause 23.1. Proforma Invoice should be strictly as per the terms & conditions mentioned in Notification of Award / Tender Conditions.

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

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

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

#### **25. Termination for insolvency**

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

#### **26. Force Majeure**

- 26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.
- 26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of, the party claiming to be affected by such event and which has caused the non-performance or delay in performance. Such events may include, but are not restricted to, acts of the Purchaser/Consignee either in its sovereign or contractual capacity, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees, lockouts excluding by its management, and freight embargoes.
- 26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

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

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

## **27. Termination for convenience**

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

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

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

## **28. Governing language**

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

## **29. Notices**

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

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

## **30. Resolution of disputes**

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

30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, 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 **Medical Superintendent, Safdarjung Hospital, New Delhi**. 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.

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

- 34.1 Further to GIT Clause 34 above, the purchaser's evaluation of a tender will include and take into account the following:
- i) In the case of goods manufactured in India or goods of foreign origin already located in India, sales tax & other similar taxes and excise duty & other similar duties, Customs Duties, 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.
- 34.2 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.
- 34.3 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.
- i. In accordance with the above said notification, the participating Micro and Small Enterprises (MSEs) in a tender, quoting price within the band of L 1+15% would also be allowed to supply a portion of the requirement by bringing down their price to the L1 price, in a situation where L1 price is from someone other than on 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 L1 price, the 4% quantity earmarked for MSEs owned by SC/ST entrepreneurs will be met from other participating MSEs.
  - ii. 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 on MSE, failing which their tender will be liable to be ignored.

**SECTION - V**

**SPECIAL CONDITIONS OF CONTRACT (SCC)**

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

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



**SECTION - VI**  
**LIST OF REQUIREMENTS**

**Part I**

Sr. No.	Name of Equipment	Qty.	Department	EMD (Rs.)
1.	Holter Monitoring System	2 Nos.	2 Nos. for Cardiology in Super-Specialty Block	40,000.00
2.	Operative Microscope	1 Nos.	1 Nos. for Neurosurgery Department in Super specialty Block	70,000.00
3.	EBUS	1 Nos.	1 no. for Pulmonary Medicine Deptt. of Super-Specialty Block	2,00,000.00
4.	Portable Sleep Lab	1 Nos.	1 no. for Pulmonary Medicine Deptt. of Super-Specialty Block	24,000.00
5.	Digital EEG System 64 Channels	1 Nos.	1 Nos. Digital EEG System 64-Channels with	20,000.00

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

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

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

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

**c)** Installation & commissioning within 15 days of receipt of goods at site except for MRI, CT Scan, DR System, DRF System, DSA, Gamma Knife, Gamma Camera, PET CT, Cath Lab. for which installation & commissioning to be done within 90 days of receipt of goods at site.

Note: 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.

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

**Part III: Scope of Incidental Services:**

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

**Part IV:**

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

**Part V:**

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

**Part VI:**

**Required Terms of Delivery and Destination.**

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

At Consignee Site – Specified in the List of Requirements

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

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

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

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

**NOTE: For goods to be imported from abroad the Tender shall submit Proforma Invoice within 07 working days from the date of Award for establishing Letter of Credit process.**

Consignee/destination details as mentioned in Section-XXI.

### **Turnkey Works:**

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

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

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

For X-Ray and related equipment, bidders who have Type Approval/NOC of AERB/BARC shall only be considered with documentary evidence. It shall be bidder's responsibility to get the equipment installed and commissioned as per AERB / BARC guidelines and installed and commission on "Turn Key basis". Bidders must take into consideration in its bid the costs to be incurred for any additional work viz. Electrical cabling, plugs of suitable ratings from the source, Electrical points of suitable ratings, water connection, water drainage, plumbing, air-conditioning, Radiation protection/shielding, mechanical & allied requirement for the equipment etc. required for successful installation, commissioning and running of the Equipment and the quoted "All inclusive lump sum price" should include all such costs.

**Following details have been provided by our Safderjung Hospital Site Office of Various Makes for Executing Turnkey Activities for Installation, Testing & Commissioning Medical Equipment viz. CT Scan, MRI, DSA, Digital Radiography, Digital Radiofluoroscopy, Cath Lab., PET/CT, Gamma Camera, Gamma Knife, Hemodialysis Machines, RO Plant, any Lab. Equipment or any other Medical Equipment requiring such activities at Safderjung Hospital Project:**

**LIST OF APPROVED MAKES : CIVIL WORKS**

S.No	Material	MANUFACTURERS
1	Doors & Windows fixtures/ Fittings	<i>Dorma, Godrej, Ozone, Austavision</i>
2	Door Closer / Floor spring	<i>Ozone, hettich, Dorma, Godrej,</i>
3	Aluminium Sections.	Hindalco, Jindal, <i>BALCO, Alom</i>
4	Clear Glass/ Clear Float Glass/ Toughened Glass	Saint Gobain(SG), Modi, <i>Asahi, Glaverbel</i>
5	Laminates	Formica, Decolam, Century, Marino, <i>Greenlam</i>
6	Synthetic Enamel Paints	Berger, Asian, ICI , Nerolac, Shalimar
7	Oil Bound Distemper	Berger, Asian, <i>ICI , Nerolac, Shalimar</i>
8	Cement Paint	Snowcem plus, Berger, Nerolac, <i>Asian, ICI</i>
9	Plastic Emulsion Paint	<i>Berger, Asian, ICI , Nerolac, Shalimar</i>
10	Other Paints/Primers	Berger, Asian, ICI , Nerolac, Shalimar
11	MS Pipe/ Sections	Jindal Hisar, Prakash-Surya, BST, Kalinga, Tata
12	Polycarbonate Sheets	<i>GE, Macrolux, Plastic, Vergola, Skyarch, Polytechno</i>
14	Wooden Fire Check Doors	Navair, Pacific Fire Control, Kutty Promat, Sukri
15	Metal Fire Check Doors	Navair, Shakti- Met, Godrej, Sukri, Pacific Fire Control
16	Ceramic Tiles	Johnson, Somany, Kajaria, Nitco, <i>Bell, Hindustan,</i>
17	Pre-Laminated Particle Board	Novopan, Greenlam, Kitlam, Marino, <i>Century, Archid ply</i>
18	Flush Door Shutters	Century, Kitply, Green Ply, <i>Duro</i>
19	Glazed Tiles	Bell, Somany, Johnson, Kajaria, <i>Nitco</i>
20	PVC Water Stops	<i>Prince/Supreme/Finolex//BASF</i>
21	White Cement	Birla White, J.K., <i>Grasim</i>
22	Dash Fasteners./Anchor bolts	Hilti, Fischer, Bosch,
23	Stainless Steel Bolts, Washers and nuts	Kundan , Puja , Atul
24	6mm thick Reflective Glass	Glaverbel, Glavermas, Saint Gobain, <i>Asahi</i>
25	Door Locks	ACME, Godrej, <i>Dorma</i>
26	Door Seal – Woolpile Weather Strip/ <i>Acoustic seal</i>	Anand -Reddiplex, <i>Enviroseal, Viper</i>

HSCC (India) Limited

27	Aluminium Grill	Hindalco, Jindal
28	Vitrified Tiles	Naveen, Bell, Kajaria, Somani, <i>Nitco, Johnson, Euro</i>
29	Aluminium Cladding sheets	Alstrong , Alpolic, Alucobond, Alstone International, Aludecor Lamination
30	Stainless steel D-handles	D-line, Giesse, Dorma, Dorset, ozone
31	Stainless Steel Pipes/Flats	304 Grade (as approved by Engineer)
32	Structural Steel	TATA, SAIL, RINL, JINDAL
33	Epoxy Flooring/ wall coating	Fosrock, Beck, Famaflor, <i>Araldite, STP, Sika, BASF</i>
34	Ply board	Greenply, Kitply, Century, Archid, Marino, <i>Duro</i>
35	PVC Flooring	LG, Tarkett, Responsive , <i>Armstrong, Gerflor</i>
36	SS Railing	<i>Ozone, D-Line, Jindal,</i>
37	Fire rated door closer/Mortice Lock/ Door Co-ordinator	Dorma, Becker F.S. Australian or approved equivalent
38	Gypsum Board System	Gyproc (Saint Gobain), Lafarge, Boral, <i>Hilux, Aerolite</i>
39	Adhesive for Door Work	<i>Fevicol/ Vamicol/ Dunlop/ Pidotite/ Sika/ Thermoshield</i>
40	Epoxy Paint	<i>Nerolac/ Shalimar/ cico/ Fairmate/ sika/ BASF/ Berger/ Asian/ Pidilite</i>
41	Polysulphide sealant	Pidilite/ Fosroc/ Choksey/chematal rai/ cico/ sika, MC Bouchemie, BASF, STP
42	Glass Doors (Motorised)	<i>DORMA/ Hafle/ Ozone</i>
43	Calcium silicate boards	<i>Hilux/ Aerolite, Armstrong</i>
44	Calcium Silicate Tiles	<i>Hilux/ Aerolite, Armstrong</i>
45	Texture Paints	<i>Spectrum/Heritages/ICIDulux/Asian</i>
46	Wall care putti	<i>J.K. White/Birla/Gyproc wall putty</i>
47	Frameless glass partition fixtures	<i>Dorma/Hafle/Ozone</i>
48	U-PVC Windows	<i>Fenesta, Window Magic, Aluplast</i>
49	Toilet Cubicles	<i>Greenlam, Marino or approved equivalent</i>
Note:	<p>If the makes given in the list are not available, other equivalent makes can be considered subject to approval by the Purchaser/HSCC based on credentials of the company and test certificates of the product, subject to price adjustment.</p> <p>Wherever makes have not been specified for certain items, the same shall be as per BIS and as per approval of Purchaser/HSCC.</p>	

**LIST OF APPROVED MAKES: PLUMBING WORKS**

Sl.No	Material	Relevant IS Code	MANUFACTURERS
1	Vitreous China Sanitary ware	2556	Kohler, Roca, American Standard, Toto

HSCC (India) Limited

2	White Glazed Fire Clay Sink	771	Sanfire, Cera, Neycer, Hindware.
3	Stainless Steel Sink		Jayna, <i>Neelkanth</i> , Commander, Nirali
4	Plastic seat cover of W.C	2548	Kohler, Roca, American Standard, Toto
5	Geyser		Racold, Venus, Voltas, Usha Lexus, Jaguar, Havells
6	C.P. Fittings Mixer/Pillar taps Washers, C.P. brass accessories ,CP Angle Valve,Bibcocks,CP waste	1795/4291/4827	Kohler, Roca, American Standard, Toto
7	Centrifugally /Sand cast iron pipes & fittings	3989/1729	Neco, Hepco, <i>SKF</i>
8	G.I. Pipes	1239 Part I	Jindal-Hissar, Tata, Prakash-Surya
9	G.I. Fittings	1239 Part I	Unik, K.S., Zoloto, R
10	Stoneware pipes & Gully Traps	651	IS Marked pipes
11	Mirror		Atul, Modi guard, <i>Asahi</i> , <i>Saint Gobain</i>
12	Hand drier		Kopal, Automat, Euronics, <i>Utech</i>
14	Insulation of Hot water pipes		Vidoflex insulation, Superlon, <i>Thermaflex</i> , <i>Kaiflexkaimenn</i>
15	D.I pipes		Jindal, Tata, Electrosteel., <i>Kesoram</i>
16	PVC/UPVC pipes & fittings		FINolex , Prince,
17	Infrared Sensor operated Faucets/Urinals		Kohler, Roca, American Standard, Toto
18	Gratings, Strainers, Cleanouts etc		Neer Brand (Sage Metals), <i>ACO</i>
19	Decorative bath room fittings		Jaquar (Florentine range), Aquabaths, Kohler
20	HDPE pipes and fittings		Oriplast, So-Soon, Finolex, Gebreti, Nosal,
21	CPVC pipe, fittings and Solvent		Flowguard, Astral, Prince,
22	Copper Pipe		Raj Co., Maxflow, <i>Mehta Tubes</i>
23	Copper Fittings		Viega, IBP, <i>Yorkshire</i> , <i>Mehta Tubes</i> , <i>Rajco</i>
24	Lab drainage		Viega, Duraline, Rex
25	Lab Fittings		Vijay, Viega
26	SS pipe(EN-10312) & press type fitting		Viega, Jindal
27	Oxilyte (Mixed oxident)		Oxybee Solutions, I2M Technologies, Faith Innovations

Note: Wherever makes have not been specified for certain items, the same shall be as per BIS and as per approval of Purchaser/HSCC.

**LIST OF APPROVED MAKES : FIRE FIGHTING WORKS**

Sl.No	Material	Relevant ISI Code	MANUFACTURERS
1	G.I./M.S. Heavy class pipe	1239/3589	Jindal-Hissar, Tata, Prakash -Surya,
2	Portable Fire Extinguisher	2171	Minimax, <i>Safex</i> , Ceasefire, Newage,
3	Sprinkler Heads		
4	Pendent type		Tyco, <i>Viking</i> , <i>HD</i> , <i>Grinnel</i>

5	Side wall type		Tyco, Viking, HD, Grinnel
6	Sprinkler Side wall extended through		Tyco, Viking, HD, Grinnel
7	Standby battery lead acid		Exide, Standard, Amco
8	Cables		As per Electrical Works
9	G.I. Fittings	1239 Part I	Unik, K.S., Zoloto, R
10	DI pipes		Jindal, TATA, Electrosteel, Kesoram
11	Pipe coat material (Pipe protection)		<i>Pykote Integrated water proofing co. Madras/coaltek Rustech products (P) Ltd. Syndcate Enclave, Dabri/Makphall</i>
12	Fire Man's Axe		<i>Safeguard/safex/Newage/Gunnebo</i>

Note: Wherever makes have not been specified for certain items, the same shall be as per BIS and as per approval of Purchaser/HSCC.

**LIST OF APPROVED MAKES FOR ELCTRICAL SYSTEM**

Contractor shall use the materials of approved make as indicated below unless specified in BOQ or as approved by the HSCC electrical incharge. The contractor shall ensure the correct selection of the approved make meeting the specifications and application duties. Before placing order for procurement, the sample of approved make shall be got verified for its suitability to the specification and application duty. However, HSCC electrical engineer (approving authority) reserves the right to opt for the best preferred listed make. The contractor shall quote the rate for the material and equipment as per the list of approved makes and equipment as per the list of approved makes. In the event of the contractor wants to use alternate makes other than those stipulated for any reason, the contractor can send a proposal after ensuring that what he proposes at the least meets both the quality and safety standard of the stipulated makes, and the financial benefit that will occur to the client. He shall also stand full guarantee to his alternate proposal. The alternate makes can be used only after an approval accorded by the client/HSCC., whose decision will be final in this matter. Any financial implication incurred related with inspection will be borne by contractor.

S.No.	Item Description	Make list
1	Timers in Distribution board	Legrand/ Hagar/ Siemens/ ABB/ GE
2	MCB distribution Boards	L & T /Hager/ MDS/Legrand/ Siemens, ABB/GE/ Schenieder (MG)
3	MCB	L & T /Hager/ MDS/Legrand/ Siemens, ABB/GE/ Schenieder (MG)
4	Rewirable porcelain wire	CPL, KEW
5	Data and Voice wire	Finolex, Delton, Skyton, Anchor, L&T, AT&T, Avaya
6	RCCB	L & T Hager/ Legrand/ Siemens, GE/Schenieder (Merlin –Gerin)
7	ELCB/ELMCB	Merlin Gerin-multi 9, Legrand, Hager, Siemens
8	11 KV LT XLPE cables	RPG/ Polycab/ NICCO/ UNIVERSAL/Rallison/KEI/Skytone/ Havells

9	Copper Control cable	Finolex/ Polycab/ NICCO/ Universal/ National/ Rallision/RR Cable
10	Cable Joints (Heat Shrinkable)	Raychem/3M/Cabseal
11	Cable Trays	Steelways/ Bharti/ Unitech /Maheshwari/or approved by HSCC
12	Galvanized/PVC Raceways and raceways accessories	Steelways/ Bharti/ Schneider(MG)/Legrand
13	Light fitting	Philips/ GE/ Crompton Greaves
14	fancy LIGHT FITTING	Anchor(Panasonic )/ Twinkle/Decon/Ankur
15	Lamps	Philips/ Osram/ GE/Anchor (Panasonic)/Perlite
16	GI / MS conduit ISI marked	BEC/ AKG/ Steel Kraft
17	PVC conduit	BEC/ AKG
18	Steel conduit accessories (ISI as approved sample)	Sharma sales corporation, super sales corporation or equivalent.
19	Modular Metal box for switch /socket	Havells/ MK/MDS/Anchor Roma/Northwest
20	Copper conductor FRLS PVC insulated wires ISI marked	National/ Finolex / R R cable/Rallison/Skytone/lap/Bonton
21	Modular Switches & sockets Outlets	Havells ( Crabtree)/ MK- Wraparound/Hagger/Wipro Legrand (Myrius/ Anchor- Roma(Tersa,woods,viola)/ Northwest
22	Metal clad Socket outlets With boxes	L & T Hager/ Siemens/ Merlin Gerin/ ABB MDS / BCH /Havells
23	UPS system	PCI LTD/ Siemens/ Etone powerware/Emerson/APC (Schneider)
24	Electronic Ballast	Philips/ Wipro/Osram / Bajaj
25	Ceiling fans	Crompton Greaves/ Bajaj/ Orient/ Alastom/ Usha



26	Main PC with CPU monitor	HP/ Compaq/Del
27	PVC Tape	Steel Grip
28	Batton Holder,Angle holder, Ceiling Rose	Anchor
29	Exhaust Fan with Gravity Louvers	Usha Lexus/Orient/ Crompton/Industriel- Almonard/ GEC
30	TV Cable- Co axial	Finolex, airtech, bhansali
31	Chemical Earthing	Ashlok, Erico, Pioneer, Nimbus,JK Earthing
32	LCD/LED Monitor	Sony, Panasonic, Samsung

LIST OF APPROVED MAKES AND MANUFACTURERS

The subcontractors/makes/brands of equipment listed below are approved for installation.

All items to be used in the works samples, catalogues and specifications are to be submitted by the contractor for approval of the Purchaser/HSCC. Only approved makes shall be used in the works. The approved samples shall be kept in the custody of the Purchaser/HSCC for comparison.

S.No	Material/Item	Approved Makes
1	Precision AC units	Emerson/Blue box/Stulz/Hiross
2	Window/split AC	Carrier /Hitachi/Voltas/Bluestar/Daikin/Ogeneral
3	VRV/VRF	Carrier/Hitachi/Daikin/Ogeneral
	Ducting & Grilles	
4	Factory fabricated duct	Zeco/Ductofab/Rolastar/Technofab
5	G.I. Sheet Metal Duct	Jindal /National/ Tata/Sail
6	Spiral duct	Atco/Seven Star
7	Grilles/Diffusers/Volume Controller	Ravistar/Caryaire/ Mapro/Dynacraft/Airmaster
8	Fire Dampers UL listed	Caryaire/Dynacraft / Ravistar/Ruskin
9	Sound Attenuator	Caryaire/Dynacraft/Ravistar/Trox
10	G.I. Sheets	TATA/SAIL/Jindal/Bhushan Steel
11	Aluminium Sheets	Balco/Nalco/Hindalco
12	Stick Pins	Prima Seal/Air flow
	Pipes	
13	G.I.	ITC/ Jindal Hissar/Tata/SAIL/HSL
14	M.S. upto 150 mm	ITC/ Jindal Hissar/Tata/SAIL/HSL
15	M.S. 200 mm and above dia factory rolled	ITC/ Jindal Hissar/Tata/SAIL/HSL
	Valves	

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16	Butterfly Valves	Advance/Audco
17	Motorised butterfly valve(actuator)	Belimo/Honeywell/Invensys/siemens
18	Non Return Valve	Advance/Kirloskar/Audco
19	Balancing Valves	Advance/Audco/Danfoss/Honeywell
20	Gate/Globe Valves	Leader/Divine/Sant/Bankim Sarkar /Zoloto
21	GM valve upto 40mm	Leader/Divine/Sant/Bankim Sarkar /Zoloto
22	Ball Valve with Y strainer	Rapid Control/Sant/Leader/Zoloto
23	Pressure independent Balancing valve	Danfoss/Flowcon/TA
	Accessories	
24	Y-strainer	Emerald/Sant/Rapid cool
25	Pressure Gauge	Fiebig/Emerald/H Guru/Japsin
26	Thermometer	Fiebig/Emerald/H Guru/Japsin
27	Flow Switch	Rapid Control/Anergy
28	Automatic Air Vent	Rapid Control/Anergy
29	Suction Guide	Anergy/ Rapid Control/Flowcon
30	Filters(pre,fine Hepa)	Thermadyne/Spectrum/Kirloskar /Anfilco/Johnflower/Dynafilter
	Insulation	
31	Expanded Polystyrene	Beardsell Ltd./ BASF/Styrene Packing/ Indian Packaging Industries/ Lloyd
32	Glass Wool	FGP Ltd./UP Twiga/Kimmco / Owens Corning
33	Polyurethane Foam	Malanpur/Superurethane
34	Crossed linked Polyethylene Foam	Trocellene / Aeroflex/Armacell/
35	Closed Cell Elastomeric Insulation	K-flex /Vedoflex/Armacell
36	Non woven fibre material	Mikron/ Du pont
37	Mineral wool	Rockwool India Pvt Ltd,
38	Pre-moulded PUF section for pipe & pipe supports	Malanpur/ Lloyd
39	Fibreglass rigid Board/Pipe section	FGP Ltd./UP Twiga/Kimmco / Owens Corning
40	Aluminium Tape	Johnson/Birla 3M/Garware
41	Thermostats	Honeywell/Johnson controls/Belimo/Danfoss/Siemens/Oventrop
42	Humidistat	Honeywell/Johnson control/ Belimo/Danfoss
	Miscellaneous	
43	V Belt	Dunlop/Fenner
44	Anchor fastners	Fischer/Hilti
45	Dash fastner	Fischer/Hilti
46	Welding rods	Advani/L&T
47	Wire Rope duct supporting arrangement	Gripple
48	Flexible pipe connection	Dunlop/Kanwal/resistoflex
49	Hessian Cloth (fire rated)	Navair/Pyrogaurd

50	Vibration isolator	Resistoflex, Dunlup, Kanwal
51	Copper Refrigerant Piping	Diamond/Star/Rajco

**It is the vendors/suppliers responsibility to do the needful for installation, testing and commissioning of Medical Equipment as per terms and conditions of the Bid Document including Turnkey Works mentioned in the Bid Document.**

**Section – VII**  
**Technical Specifications**

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**Item No. 1**

**HOLTER MONITORING SYSTEM**

Description of Function: Holter System is used to document ECG evidence of arrhythmia

**1. Technical Specifications: Monitor system specifications:**

- i. The system should have simultaneous and continuous acquisition of true 12 channels data for 24 Hrs, with facility to display / print 12 lead ECG at any point of time.
- ii. Should have beat to beat review of complete 12 lead presentations and all arrhythmia and ischemic events. It should also be capable of analyzing 3 lead using the same software.(3Lead recorder optional –price to be quoted separately.
- iii. Should employ multiple analysis such as retrospective, and bi-directional superimposition mode for at least two leads.
- iv. Should have Heart Rate variability, ST analysis and QT analysis including QT dispersion performed on all the 12 leads.
- v. System should have color coded rhythm analysis for various ventricular and supraventricular events including trend graphs for HR, RR intervals, RR variance, 12 leads ST, SVPB, and VPB.
- vi. Should provide automatic atrial fibrillation detection. Pacemaker analysis, atrial and Ventricular, capture failure, over sensing, under sensing.
- vii. Should have facility to re-label /edit templates also merge multiple templates as per users choice.
- viii. System should have an internal storage of full disclosure (Raw Data) of unlimited patients depending on the size of harddisk. It should be possible to copy / transfer the complete full disclosure Holter data to an external media, such as CD/DVD, etc.
- ix. The software should have the capability to create final summary report in PDF format for maintaining electronic patient records and integration with Hospital Information System.
- x. System should have a Report pre-view capability to allow preparation / editing of final report, including comments, full disclosures and ECG strips. Final report should display and print beat labels above each beat.
- xi. Should have split screen for simultaneous viewing of Profile and ECG, with the provision of printing of

**2. ECG strips.**

- i. System should have calipers for measurements of amplitude, time and heart rate. Patient Holter data download/scan time should be less than 90 seconds.
- ii. Should be provided with latest PC with CD Writer, minimum 17" LCD/TFT monitor and should be able to print on ordinary laser printer. It should work on Windows XP / Window 7 operating system.
- iii. Original product catalogs with complete technical specifications to be enclosed for main and allied equipments being offered.

**3. Optional:**

- i. Software package for risk assessment of sudden cardiac death Short term holter recording

**4. Recorder Specifications:**

- i. Compact, Lightweight, should weigh less than 150 grams including battery and recordable media.
- ii. Should have graphic display to preview ECG waveform of multiple leads during patient hookup, lead quality (Impedance) check. Lead fail and Low battery indication. Online display of Time while recording.Should be a digital Holter recorder and acquire true 12 lead (beat to beat) as per user choice for 24 hours of patient ECG.
- iii. Digital recorder should have a sampling rate of 1000 samples/sec/channel for pacemaker spike detection.
- iv. Should work on a single AA/AAA,alkaline/ Lithium battery for complete 48 hours recording

**5. Hardware**

1. Monitor with analyzing software: 2 Nos
2. UPS with battery backup for 30 min for whole system-2 Nos,
3. Recorder including: 8 Nos accessories
4. Memory card for acquisition of data for minimum 24 hours: 8 Nos
5. Compatible card reader: 2 Nos
6. Hotler pouch with shoulder strap: 8 Nos
7. Connecting cable and accessories-Eight (8 Nos)

8. Laser Printer: 2 Nos
9. Good quality computer table(Durian/Godrej etc) for the system-2 Nos.

**6. Environmental factors**

1. Shall meet IEC-60601-1-2:2001(Or Equivalent BIS)General Requirements of Safety for Electromagnetic Compatibility. Or should comply with 89/366/EEC; EMCdirective.
2. The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity
- 3 The unit shall be capable of operating continuously in ambient temperature of 10 -40 deg C and relative humidity of 15-90%

**7. Power Supply:**

1. Power input to be 170-270 V AC, 50Hz fitted with Indian plug. F. Standards, Safety and Training

**8. Term &Conditions :**

1. Should be US FDA approved product
  2. Manufacturer/Supplier should have ISO certification for quality standards. G. Documentation
  3. User/Technical/Maintenance manuals to be supplied in English.
  4. Certificate of calibration and inspection.
  5. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
  6. List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
  7. List of important spare parts and accessories with their part number and costing.
  8. Model should be latest generation. Should have local service facility.
  9. comprehensive warranty for 5 years and CMC for next five years. Availability of spares to be ensured for minimum 10 years period.
  10. Demonstration to be given before approval, if required. And also working demonstration after installation is must.
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**Item No.2**

**Operative Microscope**

**Surgical operation microscope for Neurosurgery**

Should have Motorized zoom magnification system with apochromatic optics, zoom magnification factors to be around the range of 0.4x to 2.4x.

All activation should be by handgrip, Stand mounted LCD control panel and foot control panel, with manual override. Total magnification range 2X- 18X or higher. Internal motorized fine focusing system. All activation should be by handgrip, Stand Mounted LCD control panel and foot control panel, and with manual override. These should be continuously adjustable with working distance from about 200 mm to 500 mm without exchange of objective lens. There should be integrated continuously variable illumination field from 60mm – 15mm or less. Beam Splitter should preferably be integrated in the microscope body, without any external attachment with face to face attachment with rotatable dovetail mount for fatigue free surgeries.

**BINOCULAR TUBE** : 0-180 degree range tiltable binocular tube with focal length =170 mm or higher. Should Graduated knob for continuous adjustment of interpupillary distance from 55 mm to 75 mm

**Auto balance and Auto Drape** – System should be capable of auto-balancing the microscope intraoperatively. Autobalance should be fully computerized and should not involve any manual rotation of knobs (automatic self balancing).

**EYEPIECES** : Pair of high eyepoint widefield push-in eyepieces 10x magnification with magnetic locks, with diopter setting range from -8D to +5D for spectacles wearers. The lenses should have rubberized cuffs for comfort and should preferably have antifogging coating.

Face to face attachment for spinal surgery. Stereo Co Observation attachment with two joints with side changer. Optics and eyepiece similar to main surgeon unit.

**ILLUMINATION SYSTEM:** Coaxial xenon illumination of about 300 w with back up similar rating xenon with quick action lamp changer in case of failure of main lamp should be integrated with in the microscope stand. In case of electronic failure the light should continueto work with manual overdrive for optics adjustment.

Should have automated illumination Brightness control linked to working distance and magnification.

Should have automatic zoom-synchronized illumination field diameter, with manual override and reset feature.

**HANDGRIPS** : Easily maneuverable handgrips with adjustable keys for zoom and focus, Illumination & Magnetic brakes. Programming for magnetic brake for control of stand & Microscope body brakes. Camera controls for video and still images should be programmable on handgrips.

**FLOOR STAND** : Rollable floor stand on base with lockable castors, carrier and swivel arms with large reach of 1.30m or higher, Weight caring capacity at least 18 Kg. Should have free float magnetic system with Multiple magnetic brakes for Microscope body & Stand with, release of magnetic brakes by handgrips with contrives stand.

Touch screen Liquid crystal display (LCD) with user prompts, quick set up of different parameters and their activation at press of a button such as automatic speed adjustment or automatic brightness setting depending on magnification.

System may preferably have overhead LCD display for showing important parameters to operating surgeon. INTEGRATED DIGITAL VIDEO CAMERA SYSTEM : Advanced digital 3CCD HD Video camera should be attached to supply output to the stand mounted colour LCD screen. In addition there should be ports for connection to PC via USB/FireWire ports, 15 pin VGA port for color monitor, HDMI port +/- DVI port and preferably LAN connectivity. Should be capable of doing video speed focus for impendent focusing apart from microscopic focus. All imaging to be DICOM compatible.

**USER PROGRAMMING:** Programming for starting illumination, magnification working distance, Zoom speed & Focus speed for at least 8-9 different users.

**VIDEO/IMAGE DATA MANAGEMENT SYSTEM:** should have attached video recording system & still photo in the microscope stand with internal HDD of at least 1 TB, and high speed DVD writer. Latest generation macintosh based desktop computer system with video editing software for image processing and editing (video handling – atleast 2 GB hardware) and auto duplex

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printing laser multifunction printer to be provided separately. Original display adapters for 15 pin VGA and HDMI output also to be provided with the desktop along with a 1 KVA UPS.

**VIDEO MONITOR:** medical grade 19" Touch screen Colour LCD display should be mounted on Microscope stand. Fluorescence and ICG – system should be upgradeable to Intraoperative Fluorescence as well as ICG. Systems without this upgradability will not be considered.

Image guidance –

Microscope should be fully ready for image guidance system integration

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**Item No.3**

**ENDOBONCHIAL ULTRASOUND SYSTEM (EBUS)**

**System includes:**

- I Ultrasonic Broncho fibervideoscope (for EBUS-TBNA)
- II Ultrasound Processor with Colour Doppler function
- III Video Processor & Light source
- IV High resolution monitor
- V Latest model should be quoted

**Specifications:**

**1. Ultrasonic Broncho fiber videoscope (For EBUS-TBNA)**

- 1.1. Ultrasonic Broncho fiber video scope (for EBUS-TBNA)
- 1.2. Fieldofview**At80°andabove(atleast35°forwardoblique)**
- 1.3. Depth of field: Approximately2-50mm
- 1.4. "Tipdeflection: Upat least120° Down at least90°"
- 1.5. Distalend: Probenotmorethan6.5x7.0mm Opticnotmorethan7.5mm
- 1.6. Insertion tube outer diameter: Notmorethan6.5mm
- 1.7. Instrument channel width: Atleast2mmWorkinglength: Atleast600mm
- 1.8. Total length: Notmorethan900mm
- 1.9. Acoustic frequency: 5-10MHzswitchable
- 1.10. Scan Direction :Longitudinal
- 1.11. Scan System: Convex
- 1.12. ScanAngle**65°ormore**
- 1.13. Should be pure video scope

**2. Elastography function should be included**

**3. Digital Color Video processor**

- 3.1. Single CCD color, high resolution HDTV & narrow board imaging compatibility/ I scan
- 3.2. 300 w or more xenon lamp with spare bulb
- 3.3. Video output – 2 RGBs connectors, 2 Y/Connectors, I composite video connector at least
- 3.4. I printer control connector, 2 external device control connectors
- 3.5. 1 serial connector
- 3.6. Power consumption 230 v
- 3.7. Weight – preferably less than 20 kg.
- 3.8. Should be controlled from the front, keyboard or endoscopy remote switches
- 3.9. Should be capable of while balance & adjustment, have provision for standard color change, adjustment automatic gain control (AGC), image enhancement, selection etc.

**4. Monitor**

- 4.1. 19”Highresolution LCD or higher(LED) color monitor compatible with processor with full range of colors & inputs including viewing angle as needed for proper functioning
- 4.2. Powerconsumption230V

**5. Digital Ultrasound Scanner/ Colour Doppler**

- 5.1. Compatible with the above EBUS puncture scope & radialprobes
- 5.2. Real time3Dimage
- 5.3. H support-automatically optimizethe B-mode and Doppler image parameters(gain, baseline, PRF etc.)
- 5.4. Pictureinpictureforbothultrasoundandendoscopicimagesimultaneously
- 5.5. High definition dynamic tissue harmonic imaging
- 5.6. High resolution imaging
- 5.7. Ergonomic operation key board
- 5.8. User programmable calculation package
- 5.9. Annotation, arrow mark and point display

**6. Thewholesystemshouldfunctionon50Hz/ 220VAC**

- 6.1. TheEBUSsystemshouldbesuppliedwithautomaticdishwasherforcleansing&disinfection having minimal following specifications:
- 6.2. Automatic washing and cleaning of bronchoscopes
- 6.3. Capacity/Basin
- 6.4. Basins per system: At least one

- 6.5. Scopes per basin: At least one
  - 6.6. Basin size: 47.0cm depthx39.5cm width(50x40) Basin volume: 15L(maximum)12-15L
  - 6.7. Total Cycle Time: 15-20minutepercycle
  - 6.8. Scope Loading: Top loading
  - 6.9. Scope connection required: Yes
  - 6.10. Applicable Scopes: Olympus/ Pentax/ Fujinonetc.
  - 6.11. Filter Media: 0.1to0.2micronfilter
  - 6.12. Minimum effecting concentration(MEC) accessport
  - 6.13. PowerCapableofoperatingon220V50HzAC
- 7. Essential Accessories**
- 7.1. EBUS puncture needles (>50 nos.)
  - 7.2. UPS for backup of the whole system including ultrasound generator
  - 7.3. Mobile trolley to mount the EBUS system and ultrasound
  - 7.4. Quotedratefordisposables,consumablesbefornext7years
  - 7.5. All other essentials/ accessories required to make the machine function optimally
  - 7.6. Recording System for review &publication
- 8. USA, FDA & CE approved**
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**PORTABLE POLYSOMNOGRAPH SYSTEM**

**Total Channels:** Up to 21 with ECG and ExG Yokes

**Standard Channels:**

Pressure Based (w/snore) Thermal Airflow, zRIP Effort Sensor :  
2 Body Position, SpO2 (also Pleth and Pulse Rate), Pressure and Flow from therapy devices.  
ECG Yoke; 3-lead ECG providing 3 measured and 4 derived channels for a total of 7 channels  
ExG Yoke: 4 Neuro Channels (EEG or EOG) and 3 Differential EMG, plus references and ground.

**Input Impedance:**

ECG: 10MOhm per Electrode 20MOhm differential  
EEG: 2MOhm per Electrode 4MOhm differential  
EMG: 2MOhm per Electrode 4MOhm differential

**Bandwidth:**

ECG: 0.318Hz to 81Hz  
EEG: 0.318Hz to 35Hz  
EMG: 9.7Hz to 86Hz

**Input Signal Range:**

ECG: +/- 4mV  
EEG: +/- 500uV  
EEG: +/- 150uV

**Digital Resolution:** Up to 16 bits

**Initial Sample Rate:** Up to 1 KHz

**Max Storage Rate:** 200 Hz for ECG/ExG, 100 Hz for Effort and Thermal Flow, Pressure Flow 200Hz, Snore 500 Hz, Body Pos. 1 Hz  
Data should be stored on external memory card.

Communication Interfaces: Serial Protocol USB PC cable, communication cables for therapy devices

**System physical characteristics:**

**Main Unit:**

Size: 5" L x 3" W x 2" H (12.7 cm x 7.62 cm x 5.08 cm)

Weight: Approximately 8 oz (230 grams), (weight does not include batteries)

**System Power Requirements:** Three AA (1.5V) alkaline batteries, 0.43 watts (typical), Device Should support the use of rechargeable batteries.

Unit should be reputed make and US FDA approved

**Digital EEG-Machine with 64-channels,**

1. 64 Channels Amplifier(64) including 9 active/references and eight additional channels for polysomnography (ECG, EMG, Breath, oral nasal flow, respiratory belt etc) also any two channels can be configured as Bipolar, AC or DC through software wired (Ethernet 100 baseT, IP addressable, DHCP capable)
2. The system should have facility to do proper polysomnography with synchronised CPAP titration.
3. Impedance Measurement: both amplifier and Monitor Screen.
4. Acquires SpO2 and Plethysmography from integrated (module)
5. System should have modules for SpO2, and Heart Rate Monitoring
6. System must be supplied with manufacturer supplied video capturing hardware for high quality video
7. Common mode Input Impedance > 100 MΩ Differential Input Impedance > 40 MΩ
8. Bandwidth 0.048-5333 Hz(maximum)
9. Analog/Digital Converter Resolution:24 bits ADC Resolution Voltage 0.153μV
10. DC Offset of at least ± 1200mV Hz
11. Amended as Sampling Rate:8 KHz and higher
12. Input Noise:< 1.5μvpk-pk @ 0.1 to 100 Hz. CMRR>110 dB
13. Acquisition Sensitivity: 1 μv to 500 μv/mm for individual channel.
14. Low Filter: Adjustable between 0.01 to 10 Hz.
15. High Filter: Adjustable between 15 to 2000 Hz RF Patient Protection is must.
16. Water proof pouch with belts etc for easy carrying & safety to the amplifier.
17. 2 Waterproof cover for system for use during washing hours.

**Acquisition Software**

18. Individual Channel Control, easy customization of Montages, along with re-montage capabilities through m, toolbar-acceleration buttons.
19. Combine all users defined settings into templates or protocol, for use in different applications and the protocols should be available for user by a menu selection.
20. Arrange montages into sets for different patient groups & should display a graphical view of the current montage during the EEG recording.
21. Define new Sensors should be included as standard viz assign to amplifiers inputs, define traces in montage, define calculated channels ( Average, Source/Laplacian), or define Trends.
22. Facility to click any point to display corresponding traces & Slide Pointer to change displayed duration of
23. Sort able list of all events placed in the recording, both automatically and manually placed such that
24. when event is clicked, it shows corresponding EEG
25. Review and add events to recorded traces in Review Pane while still displaying live traces in Live Pane.
26. Automatic detection of bradycardia and tachycardia based on EKG or Pulse Sensor.
27. Facility to display the current numerical value of selected traces such as vital signs, or to indicate appearances of events like seizures.
28. Amplitude Integrated EEG(aEEG)- both bipareital and cross cerebral method. EEG EEG Amplitude- Trend and Number
29. Spectral Edge Frequency-Trend and Number
30. EEG Power Spectrum
31. Comparison of signals from both hemispheres.
32. Brain Mapping through software.
33. Latest Spike and seizure detection & Polyomnography automatic scoring software to be available with the system.
34. Enhance artifact and noise removal software for artifact.
35. Should be able to give EEG data output in ASCII format.

35. Waveform freeze facility with simultaneously background recording/split screen.
36. Review Software( 1 No for main system, 1 for additional review station which will be install in Neurology
37. Pint Added HV and Photic Stimulator (1nos) HV AND PHV : Automatic time counters and events
38. Photic stimulator : white LED Photic stimulator must be on the adjustable stand for better arrangement
39. Should be able to connect with any system.
40. Point Added Acquisition station computer (01 Nos) ; Wall mountable (Non Space Occupying)
41. The acquisition station computer should strictly be supplied by the manufacturer along with the system after passing the strict in house quality Latest Core i7 or beter available processor
42. 8 GB RAM or better available RAM
43. 1 TB OR better available HDD
44. Preloaded Microsoft genuine windows 8 /(Compatible windows and bit to the software)
45. DVD writer, key board ,optical mouse with standard accessories. 24" colored LED Display monitor
46. Good study mike to pick up sound (not collar wearable) in built speakers for hearing sound (not extra external speakers)
47. The system comes with its standard trolley and on the alter stage if we want it wall mounted it can be
48. Point Added : Review Station Computer (01 Nos. Neurology faculty room):
49. The PC should be branded and not assembled
50. Latest Core i7 or better available processor
51. 8 GB RAM or better available RAM
52. 1 TB OR better available HDD
53. Preloaded Microsoft genuine windows 7 ulimate with latest pack.
54. DVD writer ,key board, optical mouse with standard accessories.
55. 24 Colored LED Display monitor.
56. Easy Customization of montage and remontage to be possible during review on acquirieng system or
57. Facility for viewing several recordings in tiled or cascading windows . Facility to review and run two
58. Facility to review and prune /modify remontage the data recorded from these system on a CD/ DVD
59. To provide the facility of individualized workspaces, such that individual users can select and save their interpretations, pruned portions of files, slideshows with annotations, within originally saved and pruned files. Facility for Prune/ Trim down EEG or video to specified events along with user define time before or after.
60. Facility for Zoom/Magnify EEG Trace, Copy & Paste of EEG or trends to reports and presentations.
61. Facilty to search EEG in a record by time.
62. All Vendors can visit the lab to evaluate the tentative installation site for acquisition and Review
63. given at Printer(1 Nos for Acquisition Station and 01 No. Of Review Station): Colour Laser Printer.
64. UPS ( 01 Nos for Acquisition Station and 01 No of Review Station): UPS of suitable rating with MF Batteries with 1 Hour Back Up time.
65. Environmental Factors:  
The unit shall be capable of being stored continuously in ambient temperature of 0-50 deg C &relative humidity of 15-90%.
66. General Specifications.
  - i. The system should be supplied with mountable trolley of good quality based on specification and design
  - ii. Voltage corrector/stabilizer of appropriate rating meeting ISI Specification (Input 160-260 V & output 220-240 V & 50 Hz.
  - iii. It is mandatory that the system should be certified US FDA approved. Vendor to attach the certificate clearly mentioning the model, address of manufacturer and validity on the certificate
67. Compliance/ Regulatory Standards
  - i. Designed, tested, manufactured and certified to meet the following domestic(USA), Canadian, European and International Standards.

68. Patient Isolation BF
69. UL60601-1 Medical Electrical Safety Standard(USA)
70. CAN/CSA-C22.2 no. 601.1-M90 Medical Electrical Safety Standard(Canada)
71. EN/IEC 60601-1 Medical Electrical Safety of Medical Equipment (International and Europe) IEC 60601-2-26
72. Particular Safety of electroencephalographs equipments EN 60601-1-2 Collateral safety standard for MC European Community( CE Mark) Medical Device Directive(MDD) product certified to comply to EC Directive 93/42/EEC USFDA Approved
73. Consumables:
  - i. Compatible EEG net caps 3 of each small, medium and large size saline applicable(total 09)
  - ii. Gold plated EEG Disc Electrode (length-1.5m)-100 Nos. Ten 20 Paste, 228 Gms Jar-50 Nos.
  - iii. Nu-Prep Gel, 114 Gms tube-50 Nos. DVDs-100 Nos.
  - iv. 2 TB External HDD Archiving of data:
  - v. Price of all accessories and amplifier and screen and software to be provided and freeze for 5 years.
  - vi. Demonstration equipment would be mandatory once technical bids are opened.
  - vii. Comprehensive warranty for 5 years & 5 years CMC after warranty. No extra charges for warranty or
  - viii. CMC for above duration.
74. Documentation
  - i. User/Technical/Maintenance manuals to be supplied in English.
  - ii. Certificate of calibration and inspection.
  - iii. Should have local service facility & service provider should have necessary equipments available for
  - iv. Log book with instructions for daily, weekly, monthly & quarterly maintenance checklists. The job Compliance report to be submitted in a tabulated & point wise manner clearly mentioning the

## **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.

- 1 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
  
- 2 Plant and machinery details
- 03 Manufacturing process details
- 4 Monthly (single shift) production capacity of goods quoted for
  - a. normal
  - b. maximum
  
- 5 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
  
- 7 Test certificate held
  - a . type test
  - b . BIS/ISO certification
  - c . any other
  
- 8 Details of staff
  - a. technical
  - b. b skilled
  - c. c unskilled

Signature and seal of the Tenderer

## **Section – IX**

### **Qualification Criteria**

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

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

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

#### **Note**

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

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

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

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